Purpose led, performance driven

2023/24 highlights

Clean Air

£274m

underlying profit
up 26% on previous year*

Pioneering clean air technology for 50 years and beyond

Transformation

£75m

savings in 2023/24

Safety

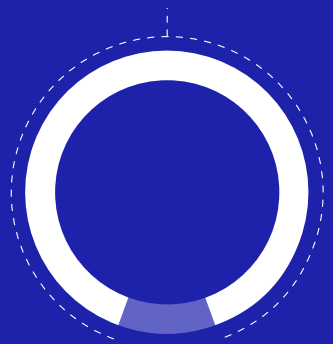
23%

improvement in safety (total recordable injury and illness rate) from 2023

Sustainability

89%

sales from products contributing to priority UN SDGs



Catalyst Technologies

+56%

underlying operating profit (£75m)*

Delivering decarbonisation at scale with low carbon hydrogen

A circular solution: JM's HyRefine™ technology

Revenue

£12.84bn

Underlying profit

+11%

at constant FX and adjusting for precious metal prices

CDP

A-

Climate change rating 2023

GHG emissions avoided

1.1 million tonnes CO_2e

through customer use of technologies enabled by JM products

* At constant exchange rates.

JM at a glance

Our businesses

→ Read more on pages 18-25

Clean Air

Designs and manufactures **emission control catalysts** to reduce harmful pollutants, e.g. NO_x, from vehicle exhausts and a range of stationary sources.

Platinum Group Metal (PGM) Services

Supports customers with short and long-term metal planning and supply management; refines and recycles both used and mined PGMs; and processes metal into more complex, value-added products for a vast array of uses.

Catalyst Technologies

Designs and licenses process technology, and designs and manufactures catalysts for a wide range of processes used in the energy and chemicals industries to create products used in transportation fuels, fertilisers, wood products, paints, coatings and polymers.

Hydrogen Technologies

Designs and manufactures the key performance-defining components (catalyst-coated membranes) used at the heart of fuel cells and electrolysers for the creation of electrolytic (green) hydrogen.

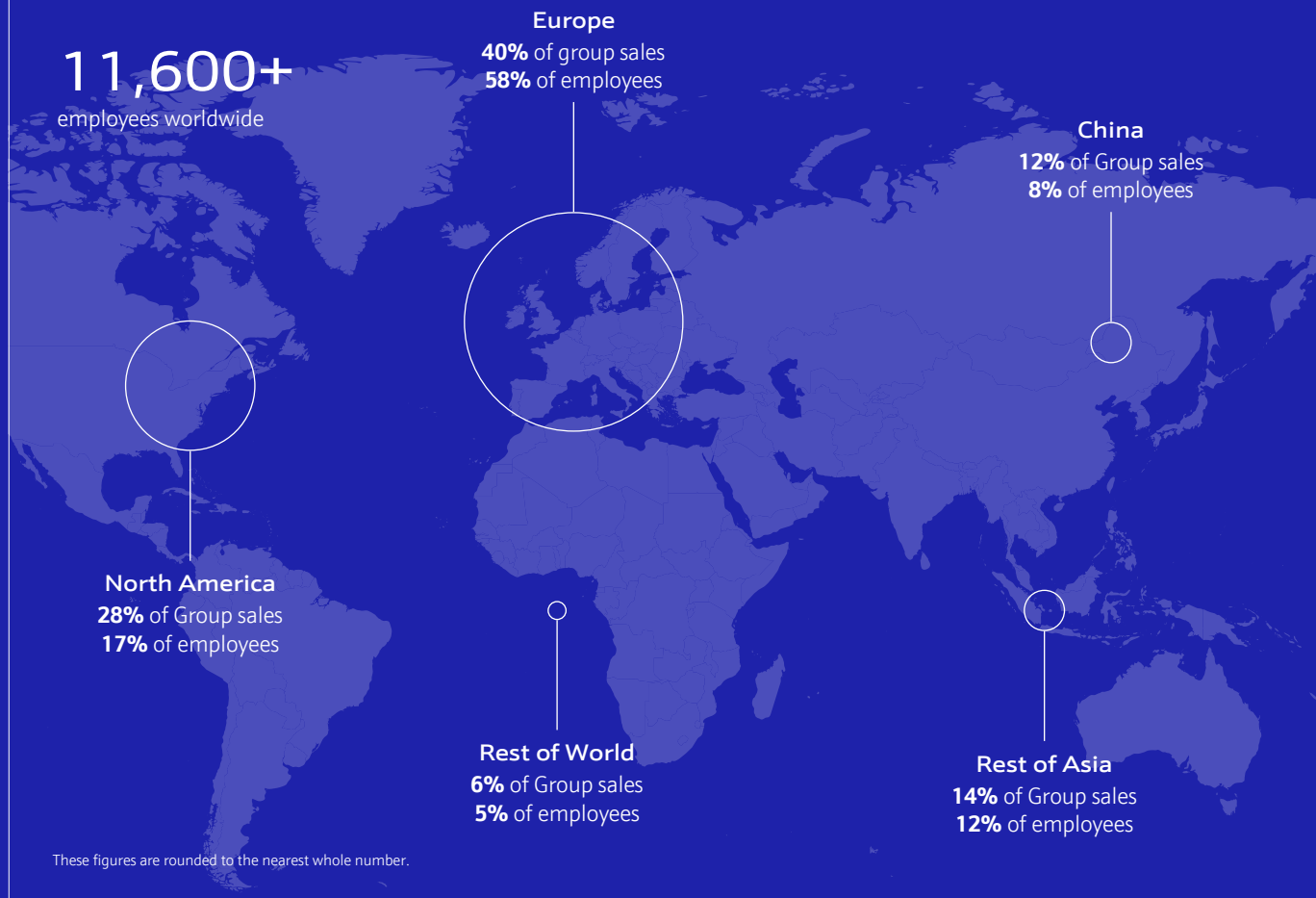
Revenue split (%)

Clean Air · Platinum Group Metal Services · Catalyst Technologies · Hydrogen Technologies[1] · Value Businesses

These figures are rounded to the nearest whole number.
In 2022/23, Hydrogen Technologies represented less than 1% of total sales.

A global footprint

11,600+
employees worldwide



These figures are rounded to the nearest whole number.

Supported by our values

We are a truly purpose-driven organisation – and our values provide the foundation for everything we do.

Protecting people and the planet · **Acting with integrity** · **Innovating and improving** · **Working together** · **Owning what we do**

Transforming Johnson Matthey **for growth**

Liam Condon
Chief Executive Officer

By reshaping our business, we are positioning Johnson Matthey for long-term growth at the heart of the energy transition.

When I joined the company two years ago, it was primarily known as a tier-two automotive catalyst supplier with a history of innovation. But the leadership team and I recognised that JM is well-positioned to be so much more than that. It is a hub of scientific expertise, ambition and experience in delivering solutions that create sustainable value and contribute to a cleaner, healthier world.

We announced an ambitious change programme to enable us to meet the challenges now faced by our customers. We are executing on our transformation at pace across the business, creating a more streamlined, efficient and commercially focused organisation. We are strengthening our capabilities, simplifying our operating model and driving improved performance.

You can see more detail on pages 14-15, but you can also read on the following pages how our dynamic leadership team members are driving these changes. Our Business Chief Executives reflect on the transformation in their businesses on pages 18-25.

Stephen Oxley
Chief Financial Officer

As CFO I'm most proud of the progress that we're making to centralise and standardise our core processes into JM Global Solutions.

JM is moving away from a series of decentralised, disparate ways of working to drive greater efficiency and effectiveness in our processes, working with our outsource partners and our new Vilnius Hub. Our teams are doing a tremendous job to enable this to happen, including when their own positions are uncertain. We are already seeing the benefits of this transformation in our results.

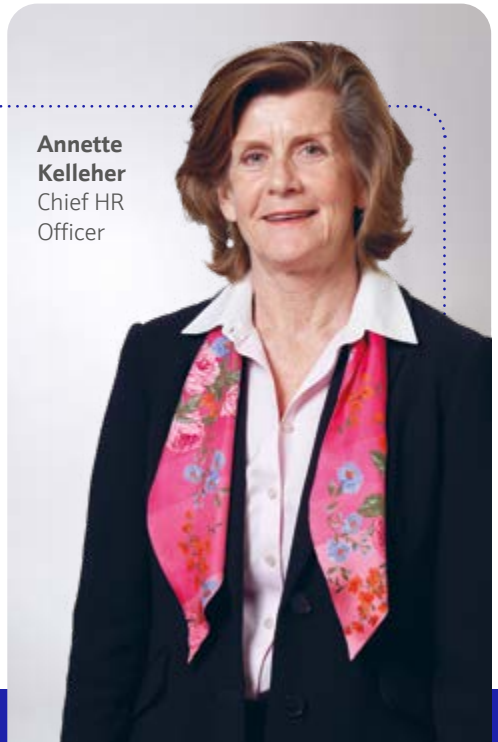
Liz Rowsell
Chief Technology Officer

We continue to drive a cultural change in R&D.

Not only are our teams laser focused on driving impact aligned to JM strategy, but we have also asked people to change the way they behave. A much more digital mindset is allowing us to implement knowledge sharing platforms that accelerate innovation. And our customers have already noticed; the new apps we use internally for product characterisation and pricing analyses are now providing valuable insight to customers on product performance.

We have seen a real step-up in leadership across our organisation, providing direction and clear feedback, as well as empowering teams to do their best work.

One of my proudest achievements is the 'Play to Win' engagement approach that we shaped with our business teams. There is now a much better understanding throughout JM of our strategy and what is required of each of us to implement this. We are delighted to see improvements in motivation and engagement, especially as we know this is rewarding for our employees and leads to an overall better customer experience.



Annette Kelleher
Chief HR Officer

In China we have successfully demonstrated double-digit growth post transformation while significantly improving employee engagement.

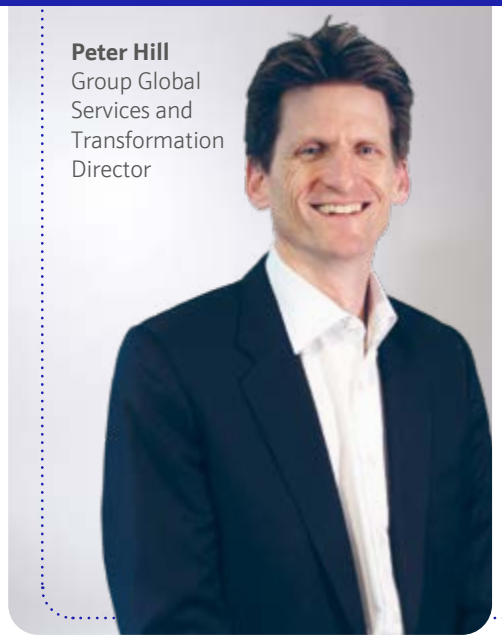
At times we have had to make difficult decisions, but as a result we are leaner, fitter, more agile, more efficient, and more productive. We have transformed and performed in these challenging times in China, and customers tell us that it is now easier to do business with JM!

Mark Su
President, China

Anne Chassagnette
Chief Sustainability Officer

Sustainability has always been a strong motivator for our people, and in the last two years we have put it at the heart of our new corporate strategy.

In the same way that we are committed to a 'just transition' to net zero, we are also trying to ensure a just transformation of the company. The sustainability and communications teams are instrumental, supporting our employees and using the various tools at our disposal to evolve towards a 'Play to Win' culture and the right operating environment.



Peter Hill
Group Global Services and Transformation Director

I am excited to see how the new 'Play to Win' culture has caught the imagination of people across the company.

Teams in every business and function are driving significant improvements in performance and efficiency. The Transformation Office helps shape and direct this effort so that we can capture the benefits as quickly as possible. JM Global Solutions is a powerful new capability that will drive Johnson Matthey forward. By standardising and automating common business processes, we can free up our commercial, technical and operations teams to focus on customers.

Louise Melikian
Chief Strategy and Corporate Development Officer

I see more and more colleagues challenging the status quo – seeing opportunity instead of challenge – through a growth mindset lens.

Our teams are seeing transformation benefits in terms of cost but also easier processes. It's a reinforcing loop: the determination and ambition to perform better, in turn pushing us to continue to outperform.

Leading through change has unlocked a new way of working.

Being really sharp on what it is each of us does and doesn't do – and where the accountabilities, handovers and touchpoints are between the businesses and the functions – has been a gamechanger. It has led to clarity and simplification, and empowered all of us with a clear understanding of what we each need to do to deliver JM's strategy and be successful. The tide has turned!

Further details on all members of the Group Leadership Team (GLT) are available at matthey.com/about-us/our-leadership/group-leadership-team.

Simon Price
General Counsel and Company Secretary

Patrick Thomas
Chair

"Just as we continue to innovate the latest generation of clean air solutions, so we are harnessing the transformative power of platinum group metals to enable new solutions, from fuel cell electric vehicles to the production of sustainable aviation fuel."

Chair's statement

An inflection point for PGM technology

Exactly 50 years ago, the first commercially produced catalytic converters rolled off the production line at Johnson Matthey's facilities in Royston, UK and Devon, Pennsylvania.

As it had already been doing for over 150 years, JM had used its deep knowledge of precious metals to create technology that would help solve one of the world's problems – this time to tackle appalling air pollution. JM had then persuaded regulators around the world of the technology's effectiveness.

Since then, several billion catalytic converters have been produced, many of them by JM, with countless lives saved or significantly enhanced by their removal of pollutants.

I believe we are now seeing another inflection point for our unique technological and metals know-how. Just as we continue to innovate the latest generation of clean air solutions, so we are harnessing the transformative power of platinum group metals (PGMs) to enable new solutions, from fuel cell electric vehicles to the production of sustainable aviation fuel.

PGMs will be key enablers of the clean energy transition, and offer several benefits over other metals that will also play major roles (such as copper, nickel and lithium). For example PGMs have a mature, global supply chain which won't require massive expansion to meet the needs of the energy transition and they offer a sustainable, circular solution since they are already recycled with very high efficiency.

Our strategy is purpose-driven: to catalyse the net zero transition for our customers. The energy transition will not be a linear journey and is dependent on many factors coming together including regulation and incentives, infrastructure and supply chains. In a complex world striving towards net zero, where politics and practicality interplay, JM is well placed to succeed by understanding the markets, taking opportunities, and being flexible enough to allocate capital accordingly. Given the strength of our portfolio, we are well positioned to create significant value for both shareholders and society.

Chair's statement continued

A resilient portfolio

The divestment of our remaining non-core businesses this year has brought welcome clarity in our portfolio, in our uses of cash, and in the many areas we can continue to reduce costs and economise.

We have leading technology to enable decarbonisation at scale, whilst also benefiting from a strong core current business that generates significant cash. It is becoming clear that internal combustion engines will continue to be produced for many years to come. Our ever-evolving catalytic converter technology continues to be world-leading at removing pollutants direct from the engine, and we are now even more optimistic about the Clean Air business' cash generation opportunities for at least the next decade, and likely longer.

We have also had good business wins in Catalyst Technologies, with groundbreaking achievements. In Hydrogen Technologies we are reducing investment and managing our cost base to align with the pace of market development.

The energy transition is to a large extent driven by political vision and policy support, and over the coming months we will pay close attention to key elections coming up in our markets – including the EU, UK and the US.

We have developed strong links with key politicians, policy makers, regulators and others to explain the benefits of PGMs and hydrogen, and continue to secure government grants for future developments in R&D and the green technology jobs of the future.

The divestment of our remaining non-core businesses has brought welcome clarity in our portfolio, in our uses of cash, and in the many areas we can continue to reduce costs and economise.

In the last six months I have met shareholders representing around 40% of the ownership of JM, and all can see the value of our combination of mature business and future opportunities.

We have also streamlined the operations of the board, which I believe has made us more agile and efficient. We have reduced the number of board and committee meetings and focused our committee membership.

Chris Mottershead retired in January 2024: I am hugely grateful for his expertise, enthusiasm and wisdom over the last nine years. Having served for almost four years as Senior Independent Director, John O'Higgins took over the role of Chair of the Remuneration Committee. As ever I am grateful to John for his professionalism and commitment to the board.

Barbara Jeremiah was appointed as Senior Independent Director in July 2023, bringing strong experience of metals as well as North American markets.

I would like to thank our employees for their hard work and dedication, our customers on whom our day-to-day energies are focused, and our shareholders for their continued support. We are well positioned to successfully navigate the journey to net zero and create significant value for both shareholders and society.

Patrick Thomas
Chair

Detailed results commentary online

Our purpose is to catalyse the net zero transition for our customers, and our strategy is derived from this purpose.

As a global society we face big challenges. Many of the world's leading energy, chemicals and automotive companies depend on Johnson Matthey's technology and expertise to decarbonise, reduce harmful emissions and improve their sustainability.

Themes that are changing our world

Parts of the world continue to be rocked by conflict, geopolitical turbulence, inflation and cost of living crises. Societies and governments are facing many, sometimes conflicting, pressures. The energy transition needs to be a fair one—but the very evident impact of climate change means it is still both essential and urgent.

$4 trillion
Of global investment needed in clean energy to reach net zero by 2050[1]

20 million
Tonnes of low-carbon hydrogen set to be produced in 2030 compared to under one million tonnes in 2022[1]

1. Source: International Energy Agency

Decarbonising modern life

There is wide recognition among governments, businesses and communities of the need to tackle climate change by reducing greenhouse gas emissions. To achieve these targets we have to make existing industrial processes more efficient, and move to alternative feedstocks that are more sustainable.

Sustainable energy and fuels

Outlook

Many countries have targets to phase out internal combustion engines, increase zero-emission vehicles, and tackle emissions in other forms of hard-to-abate transport such as aviation and shipping.

Opportunities and challenges

The demand for sustainable fuels is expected to grow significantly over the next 20 years. A wide range of technologies are needed to meet this increasing demand, including significant investment in clean hydrogen technologies, production and infrastructure. A number of mandates around sustainable aviation fuel are also being introduced, such as the US SAF Grand challenge equivalent to 10% by 2030, and the EU mandate for 6% SAF by 2030.

What we are doing

We have a range of solutions that are already providing value to customers around the world. Our LCH™ technology enables the highest process efficiency commercially available today for low-carbon hydrogen production, and this year was selected by bp and Kellas Midstream, amongst others. FT CANS™, HyCOgen™ and BioForming® S2A technologies are core components of the next generation of sustainable fuel facilities. Our technologies continue to enable the production of methanol and ammonia, which amongst other uses will help decarbonise shipping emissions.

Sustainable chemicals

Outlook

Carbon emissions from the chemical sector are a common focus for regulation because they are easy to find and measure. The sector emitted nearly 1Gt of direct CO_2 emissions in 2022. Customers are increasingly demanding sustainable products to meet consumer expectations. Businesses across the industry are looking to combine alternative, sustainable feedstocks with catalyst technologies to make products and processes less carbon-intensive.

Opportunities and challenges

The key levers to decarbonise the chemicals industry include feedstock efficiency, alternative feedstocks, use of sustainable process energy supply, and application of carbon capture and storage.

What we are doing

We have leading catalysts and process technologies that can help the chemical industry produce sustainable chemicals, with leading positions in syngas and other process technologies. Our CLEANPACE™ technology solutions can be retrofitted to hydrogen and methanol assets to reduce carbon emissions by up to 95%. We are also one of the participants in the Flue2Chem project, spearheaded by Unilever and the Society of Chemical Industry (SCI) and supported by Innovate UK. Flue2Chem aims to take waste gas from foundation industries such as metal, glass, paper and chemicals, and generate an alternative source of carbon for UK consumer products.

Themes that are changing our world continued

Creating a circular economy

Global decarbonisation requires much greater efficiency in recycling and reusing key materials.

Outlook

There is a growing focus on circularity and recycling across industries as companies set stronger targets around both Scope 3 emissions and waste, and respond to stronger regulations around recycled content.

Opportunities and challenges

Embedding circularity into how materials are sourced and used is a crucial part of the energy transition, particularly with scarce resources such as platinum group metals (PGMs). Customers are increasingly demanding full life cycle offerings from purchase to end-of-life recycling. PGMs recycling can also be expanded into new areas such as emerging technologies in electrolytic hydrogen.

What we are doing

We are already the world's largest PGM recycler by volume, leading in final PGM recycling to 99.95% purity. We can offer PGMs with low carbon intensity up to 98% lower carbon footprint for recycled PGM compared to primary (mined) PGM. This year our products used 69% recycled metal, and we are constantly innovating to design our new products with end-of-life recycling in mind from the beginning. We are applying our longstanding recycling expertise to current and emerging technologies, including fuel cell and electrolyser stacks, as demonstrated by our HyRefine™ technology.

Cleaner air, healthier people

As more people live in cities, air pollution must be tackled effectively.

Outlook

Air pollution kills millions of people every year. With increasing urbanisation and a rise in the frequency and intensity of heatwaves, which exacerbate pollution, significant action is needed to reduce harmful emissions.

Opportunities and challenges

The past 12 months have seen lots of progress made in the energy transition but also many challenges associated with it – showing just how complex the task of transitioning the world's energy systems is proving to be. While alternative fuel sources such as batteries, biofuels and hydrogen grow, it is becoming clearer that automotive catalysts for internal combustion engines will likely be needed for years to come, including for emerging economies that cannot yet afford high-cost low-carbon solutions.

What we are doing

Today, one in three cars carries JM's emission control technology. And we continue to invest and innovate to ensure that our technologies help customers meet new legislation. We have a strong global manufacturing presence and world-class labs and test centres that continue to enhance autocatalyst performance while innovating the use of our core technologies for emissions controls in future applications.

An evolving regulatory landscape

Governments continue to recognise their role in promoting investments into sustainable technology.

Outlook

We are seeing a growing body of national legislation and other incentives aimed at tackling climate change, resource scarcity and energy insecurity. The Inflation Reduction Act in the USA, the EU Green Deal Industrial Plan and the UK's formal commitment to reaching net zero by 2050 all look to incentivise the increased use of sustainable technology.

Opportunities and challenges

Despite short-term uncertainty around the exact structure of some incoming regulations, the market is moving strongly in our direction. Across the energy, chemicals and transport sectors, the transition will likely involve a mosaic of different technologies and processes – many of which we provide solutions for.

What we are doing

We work with our partners and peers to create the industry voice to help shape policy in a way that supports an ambitious and just energy transition. We engage with stakeholders across the regulatory landscape and highlight how our products, technologies and services can be best deployed to help the world through the energy system transformation.

Geopolitical and economic volatility

Businesses and communities are navigating an external landscape defined by uncertainty.

Outlook

2023/24 saw an increase in geopolitical volatility caused by the war in Ukraine, ongoing tension between the US, EU and China over issues of economic and national security, the conflict in Israel/Gaza, and a rise in the popularity of nationalistic politics. Weak economies, global inflation, tight monetary policy and restrictive financial conditions have all impacted growth. Although inflation is expected to decline in the major Western economies, the global economic outlook will remain uncertain for some time.

Opportunities and challenges

As governments in all our markets seek to drive economic growth, whether by stimulating domestic spending or funding the energy transition, new opportunities are created for our products and process technologies. Our challenge is to identify the markets and customers which represent the greatest opportunities for growth.

What we are doing

As well as strengthening our commercial muscle, our ongoing transformation is increasing JM's resilience and positioning us to take full advantage of the opportunities created by the energy transition. We are reducing our costs, optimising our capital investments and focusing on the markets with the greatest potential for growth.

Our business model: synergies in metals chemistry

We deliver through our four businesses...

By leveraging synergies and competitive advantages...

Expertise in metal chemistry

Everything we do across our four businesses is underpinned by our leadership in complex metal chemistry, catalysis and process engineering.

Mutual customers and partners

As our customers transition to net zero, we provide a fully integrated and comprehensive offering through collaboration across our business units.

Shared technology and capabilities

We have more than 2,400 colleagues in R&D and engineers across all our businesses – with around 4,000 patents granted and around 2,000 applications pending.

Foundational PGM ecosystem

We have deep insights into PGM markets through our Precious Metal Management team and our refining operations. Around 80% of the PGMs we use are sourced internally from our refineries. This shared resource creates a resilient supply, lower exposure to price risk and efficient working capital.

Security of supply

Our customers count on us for a reliable supply of PGMs and recycling services – we supply over 40% of the PGMs sent to our Clean Air customers. This is because we are a metal hub for PGMs, underpinned by our status as the leading recycler of PGMs.

A comprehensive sustainability offering

Every part of our business is committed to helping our customers adapt processes and products to reach the sustainability goals our society and planet are depending on.

Our business model continued

Addressing three markets...

Energy

Designing technologies for a range of sustainable energy sources, including hydrogen, sustainable aviation fuel, methanol and ammonia.

Chemicals

Process and catalyst technologies that enable the production of chemicals, helping customers lower their carbon and environmental footprint.

Automotive

Emission control systems that reduce NO_x and other particulates that harm people and the environment.

To catalyse the net zero transition...

JM helps store and transport renewable energy by enabling the production of renewable (green) hydrogen. Our solutions also help produce low-carbon methanol and ammonia, which can transport hydrogen efficiently and will play a role in decarbonising the shipping industry. We also provide processes and catalysts to produce sustainable aviation fuels, helping the industry reach its net zero target.

We develop catalysts that increase the efficiency of chemical reactions, thus lowering energy requirements and carbon emissions. We also provide solutions to accelerate the chemical industry's transition to a more sustainable future: by lowering the emissions of existing industrial assets, and by providing solutions for the manufacture of sustainable chemicals and fuels, and the clean hydrogen feedstock for these products.

As the transition to decarbonised transportation will be gradual, we ensure non-CO_2 emissions from internal combustion engines, including zero carbon hydrogen engines, are minimised through our leading autocatalyst solutions. We also have solutions that enable zero emission mobility through our fuel cells technology.

And create value for our stakeholders

Customers and strategic partners

Our customer satisfaction score has increased to 43 from 37. Our customers highlight the quality of our products, our collaborative approach and our technical expertise.

43
Net Promoter Score (NPS)

Society

Our catalytic converters have been helping to improve air quality since 1974.138,613 additional tonnes of NO_x were removed from tailpipes in 2023/24.

1,150
Premature deaths prevented in 2023/24

Investors

Our performance-driven culture and 'Play to Win' strategy create sustainable value for investors looking to support the net zero transition.

77.0p
Dividend maintained at the same level

Employees

Our employee engagement score improved from 6.9 in March 2023 to

7.2
in January 2024

Communities

We work with a range of partners on charitable giving and employee volunteering schemes.

2,246
volunteering days in 2023/24

Suppliers

We partner with our suppliers to embed the highest standards to deliver for our customers.

39%
supplier spend (excl PGMs) has EcoVadis medal for good ESG performance

Liam Condon
Chief Executive Officer

"We are becoming much more commercially-minded, and continue to drive significant efficiencies as we 'right-size' the organisation."

Chief Executive Officer's statement

A year of progress at pace

At JM our strategy is clear: we are a sustainable technology company that plays to win with leading positions in key markets that depend on innovation. Our innovation allows our customers in the automotive, chemical and energy industries to decarbonise at pace and helps ensure cleaner air for all.

To achieve our purpose of catalysing the net zero transition at scale, JM itself needs to transform, become even more efficient and build a stronger foundation for growth. This year we have made significant progress towards achieving this.

Winning in our markets

Our performance for the year has been in line with expectations, with good growth in underlying operating profit when allowing for exchange rates and metal prices. Overall results continue to be impacted by lower platinum group metal (PGM) prices.

The slowdown in global battery electric vehicle (BEV) penetration means Clean Air will be 'stronger for longer' – driving more than £4.5 billion of cash by 2030/31 and significant further cash flow beyond that. Our cash generative ability has already delivered £2 billion in Clean Air since 2021/22, which has been used for investment in growth and shareholder returns.

In Catalyst Technologies, we are seeing significant end market demand across our new growth areas including sustainable aviation fuel and low carbon hydrogen. This year we have seen important 'first of a kind' project wins, including two large-scale low carbon (blue) hydrogen projects. We also have a portfolio of innovative technologies for creating sustainable fuels, and during 2023/24 we secured four sustainable fuels projects across our Fischer Tropsch (FT) CANS™ technology and sustainable methanol.

In Hydrogen Technologies, it is very clear that green hydrogen will be essential in tackling climate change and helping the world to decarbonise. The global green hydrogen value chain is still at an early stage of development as the industry navigates the challenge around scale up, and is not yet growing at the pace we expected. We have a disciplined approach to investment and plan to grow our Hydrogen Technologies business in line with the pace of market development.

Platinum Group Metal (PGM) Services is our foundational business and forms the backbone of everything we do. Circularity is an essential part of the energy transition and our PGM expertise strengthens our position in key markets through our ability to offer a full-service business model. We can deliver circular solutions for customers ensuring a reliable supply of lower carbon footprint PGMs.

Transforming for growth

The table on the right demonstrates the progress we have made against our strategic milestones. Across the group, the transformation is well underway to build a stronger and more efficient platform for growth.

We have simplified our portfolio into four core businesses and by the end of 2023/24 we agreed the divestment of all the other non-core businesses. The Battery Systems sale completed in April 2024, and Medical Device Components is due to complete later in the year. These divestments will deliver net proceeds of more than £500 million, significantly exceeding our target of more than £300 million.

We are becoming a much more commercially-minded organisation, with a highly disciplined approach to capital projects. We continue to drive significant efficiencies as we 'right-size' the organisation including management streamlining and efficiencies in both our enabling functions and businesses. These have delivered total cost savings to date of approximately £120 million, with targeted savings of £200 million by the end of 2024/25. We are making good progress in implementing our new outsourced business process organisation JM Global Solutions (JMGS) to simplify and increase efficiency, with new service hubs in Lithuania and India.

We have now developed new ambitious strategic milestones, outlined on page 15, focused on customers, capability and transformation.

We have seen several changes to our Group Leadership Team (GLT). Jane Toogood and Christian Gunther left JM in the autumn of 2023, and Nick Cooper at the end of March 2024. I am very grateful to Jane, Christian and Nick for their hard work and support to JM.

Maurits van Tol, our former CTO, has succeeded Jane as Chief Executive of Catalyst Technologies last autumn. Liz Rowsell has become our new CTO and Louise Melikian has become our new Chief Strategy and Corporate Development Officer. In addition Simon Price was appointed as General Counsel and Company Secretary and Peter Hill has taken over as Group Global Services and Transformation Director. The fact that all of the appointments were internal placements speaks for the significant step-up in the quality and diversity of succession planning at JM.

The company continues to experience a lot of external change and internal transformation, and the GLT and I are acutely aware of the importance of employee engagement in order for us to be successful in volatile times. It is testament both to our people's resilience and their capabilities that both our safety record and employee engagement scores have improved considerably this year. I am extremely grateful to all our employees for their hard work, commitment and unwavering dedication to implement our strategy and to look after our customers and each other at all times.

Liam Condon
Chief Executive Officer

Strategic milestones

Two years ago we published a set of milestones for the end of 2023/24 that would indicate whether we are delivering against our strategy.

See page 15 for our new commitments up to 2027.

Strategic milestones	Status
Customers	
Hydrogen Technologies: win at least two large scale strategic partnerships	✓
Clean Air: win targeted Euro 7 business and deliver £4bn+ cash trajectory	→
Win >10 further large scale projects in Catalyst Technologies and Hydrogen Technologies	✓
Investments	
Expand PGM Services refining capability in China	✓
Hydrogen Technologies: complete construction of new CCM plant in UK[1]	→
Targeted capacity expansion (fuel cells catalyst, formaldehyde catalyst)	→
Complete divestment of Value Businesses	✓
People	
Increase employee engagement score from 6.9 in 2022/23 to 7.2 in 2024/25	→
Sustainability	
Achieve c. 10% reduction in Scope 1 and 2 emissions	✓
Help reduce customers' CO_2e emissions by >1mt p.a. through use of our products	✓

1. To expand total capacity from 2GW to 5GW.

✓ Achieved → On track → In progress

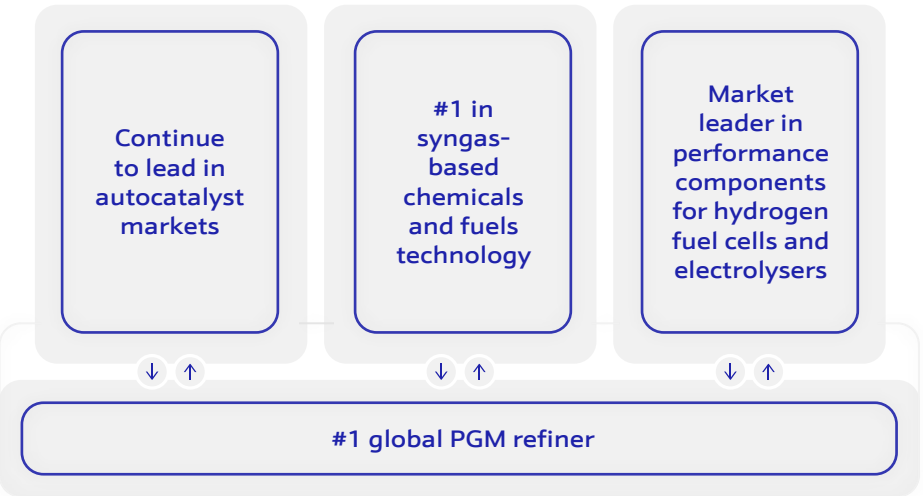
Our strategy

We are playing to win in exciting growth markets where our core competencies and technology portfolio can have maximum impact

Focus

Our expertise in PGM chemistry, catalysis and process technology is the beating heart of JM, and we are maximising synergies across our four business units to achieve a top three position in all our markets.

Our strategic priorities



We agreed the divestment of all our Value Businesses this year, in line with the strategic milestone set in 2022. We completed the sale of our Diagnostic Services business in September 2023, and confirmed the sale of our Medical Device Components and Battery Systems businesses in March 2024.

Over the three year period to 2026/27, we expect cumulative capital expenditure of up to £900 million. This will be focused on supporting the core competencies essential for driving our long-term growth and value creation. We are maintaining a strong balance sheet and investing for growth and attractive returns, ensuring a reliable dividend and returning excess cash to shareholders.

Simplify

Our transformation programme is enhancing simplification and execution across the entire business. We are becoming a simpler, more agile and more cost-effective organisation with leaner processes, less duplication and clear lines of accountability.

Across the year, we realised approximately £75 million of new savings, resulting in £120 million in transformation savings relative to the actual financial year 2021/22 cost base.

Some notable achievements include:

- Launch of Johnson Matthey Global Solutions (JMGS), delivering a new way of supporting core business services to support HR, Finance and Procurement teams through our new JM service hub in Lithuania and a dedicated centre in India. JMGS rolled out to the US in February 2024.
- Roll-out of the Johnson Matthey Production System (JMPS), delivering structured improvement in our manufacturing operations.
- Closure of four Clean Air manufacturing facilities as we continue to consolidate in fewer, more efficient and flexible sites.
- Resizing of our managerial structure to reflect the new size of the company, partly driven by divestments and closure of underused assets.
- Accelerated progress of our procurement transformation, with a new operating model and closer supplier relationships signified by our first global JM supplier convention; and margin improvement savings of £34.4 million in 2023/24.
- Strengthening of our Engineering and Capital Project (ECP) delivery, including a new ECP operating model that has streamlined the number of suppliers, allowing a clearer focus on value.

Our priority actions for the year ahead include:

- Continued roll-out of the JMGS programme, launching in the UK in May 2024.
- Redesign of the IT Operating Model to support the future growth of JM.
- Fully deploy the new global Procurement organisation, co-ordinated with the JMGS implementation, and supported by a new procurement digital platform.
- Right-sizing and upgrading of JM's real estate footprint for future business needs, including the expected sale of unused land in the US and the consolidation of existing London offices into our new London Hub.
- Consolidate to a single global payroll provider.
- Deploy a common ERP landscape for PGM Services, replacing 13 legacy systems.

Execute

Our strategy is underpinned by a rigorous performance culture. By combining science and purpose with a more commercial mindset, we are driving stronger execution, unlocking near-term cost opportunities and positioning ourselves for long-term growth.

Following the successful delivery of our previous strategic milestones (page 13), we have refreshed our targets for the next two years. Focusing on customers, capability and transformation, our new milestones build on the results we have achieved over the last two years to make sure JM remains well placed to deliver on our short and longer-term priorities.

Group Commercial Council

We continue to strengthen our commercial muscle through our Commercial Council. This year we further embedded the voice of customer in our business, improving our overall customer satisfaction (Net Promoter Score (NPS)) to 43, compared to 37 in 2022/23. All four businesses improved their NPS scores, with customers highlighting the strengths in our technical expertise, product performance, collaboration and supportive service. Our commercial teams are being upskilled, with the successful roll-out of sales incentive plans and skills training delivering strong wins across the businesses. We are further harnessing the power of a oneJM approach to our customers, maximising our current partnerships through targeted cross-selling and building new profitable business. Looking forward, we will increase our level of ambition around new business wins through our oneJM approach and enhanced customer-centricity across the company.

New strategic milestones

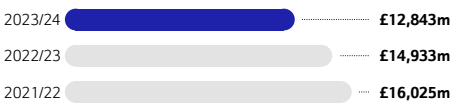
	End of 2024/25	End of 2025/26	Long term
Customers			
Deliver at least £4.5 billion of cash in the decade to 2030/31[1] from Clean Air			●
Win additional 20 large scale projects in Catalyst Technologies' sustainable technologies portfolio		●	
Secure 4 new Hydrogen Technologies partnerships with leading companies		●	
Capability			
Start commissioning of new world class PGM refinery		●	
Expand engineering capacity by 30% to serve licensing growth in Catalyst Technologies[2]		●	
Transformation			
Achieve ICCA (International Council of Chemical Associations) process safety event severity rate (PSESR) of 0.80[3]	●		
Increase employee engagement score to at least 7.4[4]		●	
Deliver £200 million transformation cost savings	●		
Implement JM Global Solutions for cost effective business processes	●		
Deliver 32% reduction in scope 1 and 2 CO_2e emissions[5]		●	

1. Cash target from 1st April 2021 to 31st March 2031, pre tax and post restructuring costs.
2. Baseline – 31st March 2024.
3. Baseline – 2023/24 – PSESR of 0.88.
4. Baseline – 2023/24 employee engagement score of 7.2.
5. Baseline – 2019/20.

Key performance indicators

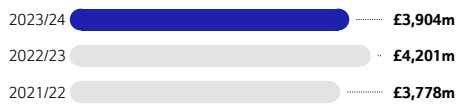
Financial performance

Revenue
£12,843m



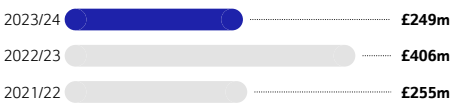
Revenue down, driven by lower precious metal prices.

Sales[1] (excluding precious metals)
£3,904m



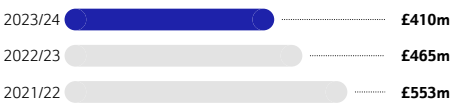
Sales down 4% at constant currency driven by lower precious metal prices and reduced volumes in Value Businesses. Growth at constant currency and metal prices in Clean Air, Catalyst Technologies and Hydrogen Technologies, supported by broadly stable PGM Services.

Operating profit
£249m



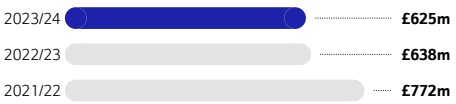
Operating profit declined 39%, impacted by a number of one off items including £148 million of major impairment and restructuring charges.

Underlying operating profit[1] Ⓡ
£410m



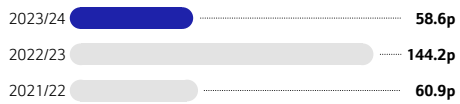
Good underlying performance despite the challenging market backdrop, with 11% growth excluding the impact of metal price (£85 million) and foreign exchange (£21 million).

Clean Air cash flow
£625m



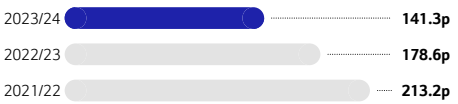
Strong cash flow generation, with £2 billion operating cash flow, pre-tax and post restructuring costs, generated over the last three years.

Earnings per share
58.6p



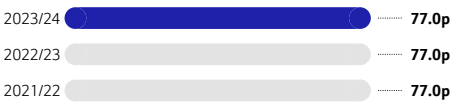
Reported earnings per share declined, driven by lower operating profit and higher interest charges.

Underlying earnings per share[1] Ⓡ
141.3p



Underlying earnings per share declined by 21% as although underlying performance at constant metal prices and FX was good, the lower metal prices impacted profit.

Ordinary dividend per share Ⓡ
77.0p



Dividend per share maintained at the same level as prior year despite lower operating profit.

1. Non-GAAP measures are defined and reconciled in note 34 of the financial statements, refer to pages 197-199.

Ⓡ KPI linked to remuneration policy

Key performance indicators are from continuing operations.

Key performance indicators continued

Sustainability performance

Sales contributing to our four priority UN Sustainable Development Goals (SDGs)

89%

2023/24	89%
2022/23	82%
2021/22	84%

Through the year we made a detailed analysis of our alignment to our four priority UN SDGs. This has led to an increase in aligned revenue.

R&D spend contributing to our four priority SDGs

92%

2023/24	92%
2022/23	90%
2021/22	88%

We saw an increase in R&D spend against our priority UN SDGs as we continue to focus on UN SDGs aligned innovation, both in-house and through partnerships.

Total Scope 1 and 2 Greenhouse gas (GHG) emissions (market-based)[1] Ⓡ

282,403 tCO_2e

2023/24	282,403
2022/23	344,910
2021/22	395,251

Our total Scope 1 and 2 GHG emissions has reduced this year, primarily due to reductions in Scope 2 through significant increase in renewable energy purchases.

Total Scope 3 (Category 1) purchased goods and services GHG emissions[1]

2,531,576 tCO_2e

2023/24	2,531,576
2022/23	2,450,529
2021/22	2,978,197

Scope 3 purchased goods and services GHG emissions has increased compared to the previous year. This year's increase reflects changes in business demands.

GHG emissions avoided from using JM technologies (compared to conventional offerings)[1] Ⓡ

1,110,057 tCO_2e

2023/24	1,110,057
2022/23	841,721
2021/22	475,995

This financial year we achieved a significant milestone: over 1 million tonnes of GHG emissions were avoided in customer products aided by JM technologies or services. See page 37 for more details.

Recycled PGM content in JM's manufactured products

69%

2023/24	69%
2022/23	69%
2021/22	70%

As existing secondary routes decline e.g. automotive market, and new technologies have yet to establish these routes, we may see declines in recyclable material rates until routes for the new products, e.g. hydrogen fuel cells, are developed. See page 42 for more details.

Total recordable injury and illness rate (employees and contractors)

0.36

2023/24	0.36
2022/23	0.47
2021/22	0.59

A reduction in our total recordable injury and illness rate (TRIIR) for employees and contractors at the end of 2023/24. This is a demonstration of the effectiveness of employee engagement through the Take 5 programme and our Global Safety Day, supported by local campaigns to focus on site-specific safety issues. See page 45 for more details.

Female representation across all management levels Ⓡ

30%

2023/24	30%
2022/23	28%
2021/22	27%

Our female representation at all management levels is 30%, an improvement on last year, and another step towards our target of 40% by 2030. See page 47 for more details.

Ⓡ KPI linked to remuneration policy

For more information on our ESG ratings please see our website

→ For more information on our sustainability targets please see page 35

1. Prior year rebaselined to remove divested businesses, please see page 210 for more information.

Clean Air

Leading emission reduction technology, for today and tomorrow

"We are fully focused on delivering our cash generation target, further strengthening our commercial capabilities, winning our targeted business and driving efficiencies."

Anish Taneja, Chief Executive, Clean Air

This year marks the 50th anniversary of our emissions control technologies, which have saved many thousands of lives so far and will continue to protect the health of many millions more into the future. 2023/24 saw us continue to execute on our strategy and play to win by delivering on our financial targets, reducing our costs and supporting a high-performance culture. As we continue to strengthen our business for the long term, we are also actively leveraging our technology to win growth opportunities around and beyond automotive catalysts.

In parallel, we have adapted to our dynamic market through continuously strengthening our commercially-focused approach.

We are seeing a slight cooling of the battery electrification market, which has led in turn to an increase in near-term volume forecasts for our products in some key markets. This change, coupled with the agreed later introduction date of Euro 7 legislation, has begun to influence future bids and contract acquisitions.

Due to bid outcomes from previous years, we are prepared for a reduction in volumes in 2024/25. This will be fully mitigated by our costs transformation and the cooling of the electrification market. Against this backdrop we continue to win with customers, with several large-scale business wins expanding our presence in key markets.

Transforming at pace

During 2023/24, we implemented positive change across all levels of the business. This is delivering more value for customers today and positioning the company to capitalise on new future growth areas.

Pricing

We are offsetting commercial headwinds by optimising pricing and reducing value leakage through the contract life cycle.

Manufacturing footprint

We completed the targeted closure of four facilities as part of our ongoing work to consolidate our manufacturing base in fewer, more efficient and flexible sites, with plans for further consolidation under consideration. We worked with employees, customers, suppliers and communities to ensure a smooth and safe transition.

Efficiencies

We are driving cost efficiencies throughout the business, from procurement to production. In product management we are designing to value, optimising our manufacturing processes to reduce input requirements while improving performance. The transformation of our procurement function is allowing us to implement significant savings in both direct and indirect purchases. And we continue to improve our manufacturing excellence, with the standardised JM Production System (JMPS) that was piloted by Clean Air in 2020 now being rolled out across the group.

High-performance culture

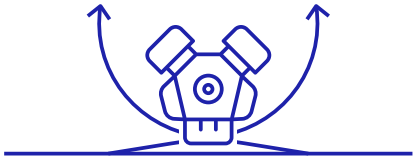
Through clear strategy, embedded leadership behaviours and a culture of open and honest two-way feedback, our employees can excel and innovate continuously to achieve our shared goals.

Clean Air continued

Clean Air is playing to win with, around and beyond automotive catalysts

Leading
in the durable global HD vehicle market

Increasing win rate
in the LDG vehicle market



Applying expertise
to growth areas around and beyond ICE (internal combustion engine)

Our performance in 2023/24

Clean Air is well on track to reach its original target of generating at least £4 billion of cash by 2030/31, with £2 billion already delivered in the three years to date. As a result we have upgraded our target to at least £4.5 billion of cash by 2030/31.

As well as continuing to deliver key business wins, our performance this year was underpinned by the ongoing execution of our strategy to improve cost efficiencies, consolidate our footprint, and strengthen our commercial capabilities.

We are delivering against our strategic milestones by winning profitable business across a range of industries and markets. Throughout the year, we won targeted Euro 7 business and added several large-scale business wins to those won in 2022/23, growing our future share of market. Our localised approach in China is helping us tap into growing market appetite across the region. Strategically focused R&D activities helped strengthen our performance by creating efficiencies and improving customer experience.

All of this is reflected in an increase in customer satisfaction, with our net promoter score (NPS) increasing by seven points to 24. Customers praised our collaborative approach and technical excellence, while also highlighting the need to be more consistently responsive across our customer base.

We maintained a good safety record, achieving top-quartile status for safety performance when benchmarked against peers in the chemical sector.

The successful closure of four factories shows our commitment to operational excellence and ensuring a zero-harm environment for our employees, customers and the wider community without disrupting our customers' operations.

Seizing the growth opportunities of the energy transition

Our leading technology and expert teams have a significant role to play in the move to a low-carbon economy. Our strategy is about more than delivering today—we are also strengthening Clean Air for decades of future growth around and beyond automotive catalysts. We are applying our expertise in new and developing growth areas, such as emission controls for hydrogen-fuelled combustion engines, and solid oxide fuel cells.

Looking forward

We are focusing on delivering our cash generation target, further strengthening our commercial capabilities, winning our targeted business and driving efficiencies. Our development of world-leading catalysts will continue to be supported by tightening global emissions controls. In Europe, a provisional agreement has been reached on Euro 7 emissions standards. We estimate the new standards will come into effect from 2027 for light duty and 2028 for heavy duty vehicles. Beyond Europe, we expect more developments globally, with the US already setting tighter standards from 2027 onwards and China and India expected to bring proposals in 2024/25.

With the continual improvement of our core business, the external signals of a slowdown in the battery electric vehicle (BEV) market, and the growth opportunities around and beyond automotive catalysts, we believe the Clean Air business continues to have a bright future.

Winning with Cummins

This year we were awarded both the North American and the Global Direct Sourcing Supplier of the Year Award from Cummins. These prestigious awards not only recognise JM's outstanding customer-centric approach and technical solutions, but also signify our continued close collaboration with a key partner in the energy transition.

Watch our video: Pioneering clean air technology for 50 years and beyond

Platinum Group Metal Services

Harnessing PGMs to enable the energy transition

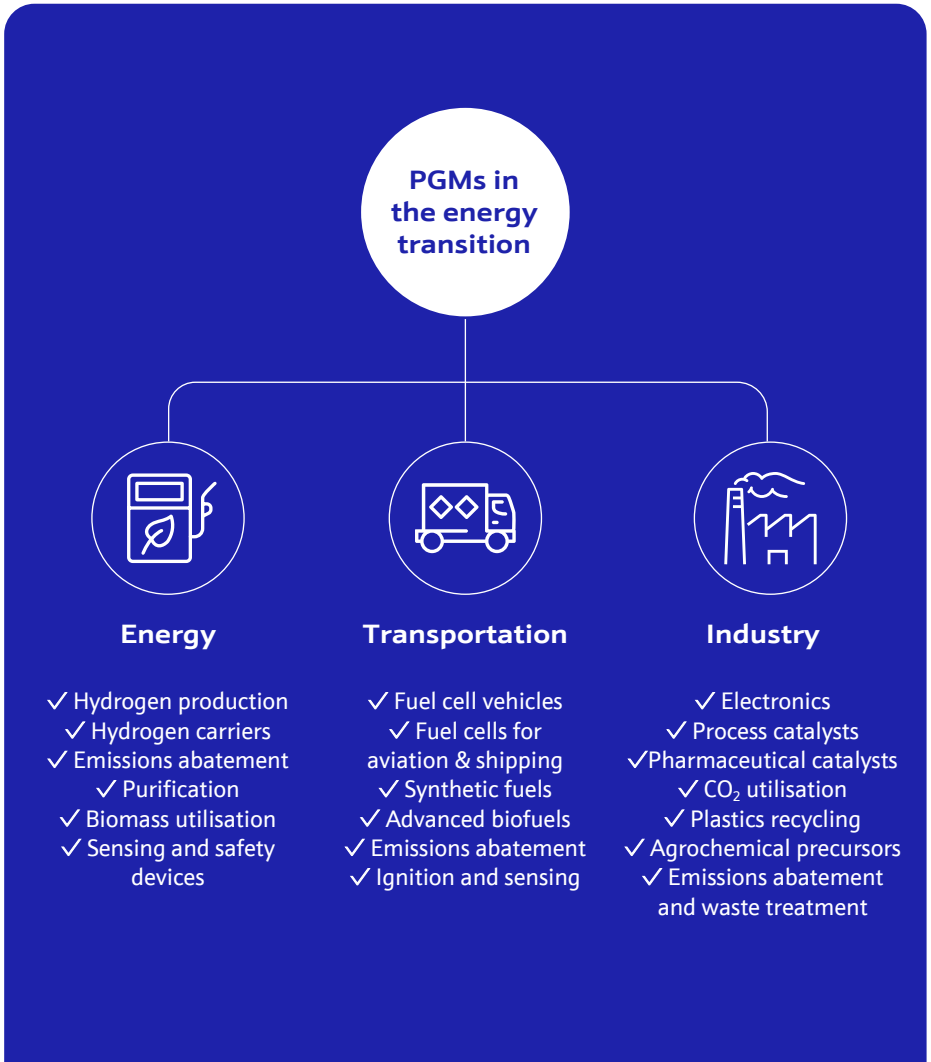
"This year saw us develop our product pipeline, deliver operational efficiencies, invest in our assets and pioneer a new circularity solution for the hydrogen economy."

Alastair Judge, Chief Executive, Platinum Group Metal (PGM) Services

Our deep knowledge and experience in platinum group metals (PGMs)and their chemistry is critical in the transition to net zero. We harness the unique properties of these metals to tackle complex technology challenges for our customers across the wide range of markets that we serve. In addition to existing uses, the energy transition is driving future demand for PGMs in many new applications.

PGMs from the majority of these applications can be recycled and reused in new products indefinitely. As a world-leading recycler of PGMs, at twice the size of our nearest competitor (by volume), we currently refine circa 20% of all PGMs globally from primary and secondary sources. This circular business model puts JM right at the heart of the shift to a more sustainable world.

We are transforming our PGM Services business so that we can create more long-term value for customers in existing and new markets. 2023/24 saw us develop our product pipeline and pioneer a new circularity solution for the hydrogen economy, while investing in our assets and delivering increased operational efficiencies. We're already seeing the benefits of these improvements in our customer satisfaction, with our net promoter score (NPS) increasing from 35-43.

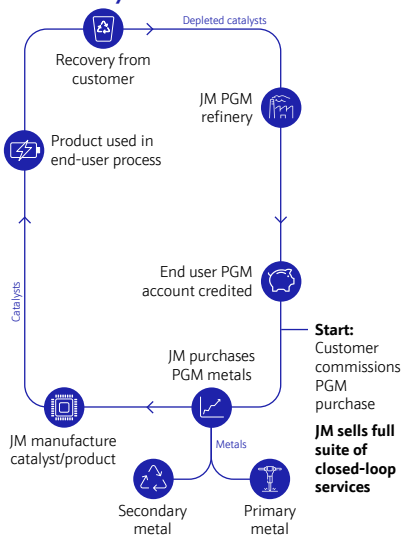


Platinum Group Metal Services continued

Leading in circularity

This year we made significant progress on delivering innovative circular solutions for customers across a wide range of sectors. One key development was our HyRefine™ technology, which recycles both the membrane and the PGMs in the performance-defining components of hydrogen fuel cells and electrolysers. This enables both of these valuable materials to be reused, while reducing waste and emissions in the refining process. We continue to demonstrate how PGMs can play a central role in promoting circularity and addressing availability gaps within the global energy ecosystem.

JM's fully circular PGM offer



Our performance in 2023/24

During 2023/24 the market environment was challenging as rhodium and palladium prices continued to decline. These developments adversely impacted the entire PGM ecosystem, as demonstrated by restructuring announcements from several major mining businesses. As a result, sales declined by 17% to £462 million and underlying operating profit was down by 35% to £164 million. Additionally, levels of autocatalyst scrap remained low.

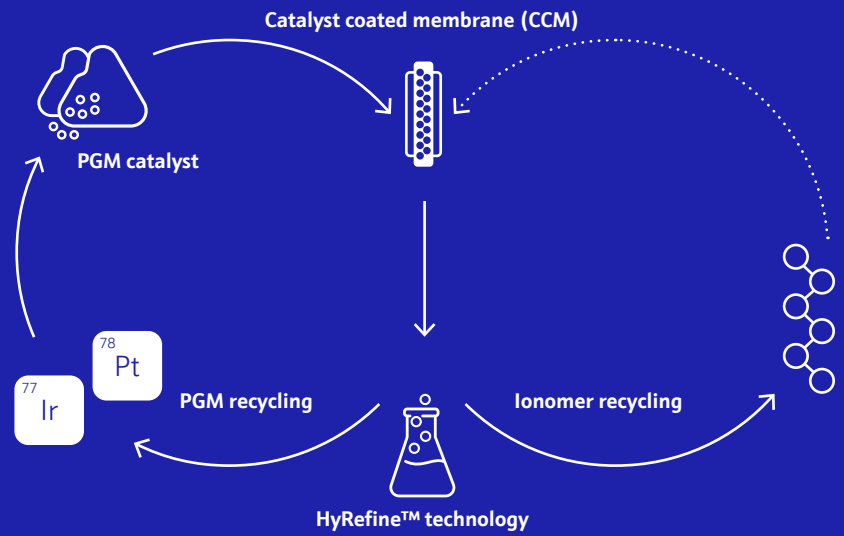
In response to these headwinds we focused on developing our products business, which is largely independent of metal prices, while also driving cost savings and operational efficiencies. The PGM Services product business has doubled since 2019 as we grow our product base beyond auto catalysts and develop new PGM applications – including in the hydrogen economy, pharmaceutical and agrochemical markets. After allowing for metal prices and exchange rates, PGM Services underlying operating profit was broadly flat in the year.

Other R&D initiatives in 2023/24 concentrated on safely extracting PGMs from complex new feeds and reducing the environmental footprint of our refining process.

To drive operational efficiencies we are automating and optimising processes within our plants. We opened new refining capabilities in China, and we can now provide a full refining offer to our customers across the region. We continue to progress our new refinery investment in the UK which is now in the final execution stage and is on schedule to be completed in 2026.

Looking ahead

We have an important role to play in the global shift to more sustainable energy systems, by leveraging our expert knowledge of PGMs and the increasing demand they are facing across industries including aviation and life sciences as well as the hydrogen economy. We will continue to evolve our product portfolio by developing innovative and circular offerings, creating fully circular models that enable our customers to meet increasingly stringent environmental targets. Improving our own operational efficiency remains a cornerstone of our strategy: we are investing in our refining assets and upgrading them where necessary to ensure they give us sustainable competitive advantage.



Pioneering circularity for the hydrogen economy with HyRefine™ technology

2023 saw PGM Services break new ground in the hydrogen economy with the successful lab-scale demonstration of our HyRefine technology. As the number of hydrogen projects worldwide continues to grow, there is a need to embed circularity into the process from the start. With HyRefine we now have a way of recycling the two most critical components of hydrogen fuel cells and electrolysers: the PGMs in the catalyst layer, and the membrane ionomer. These can be recycled into new catalyst-coated membranes, a core component of hydrogen fuel cells and electrolysers.

HyRefine uses a purely chemical process and provides significant cost, efficiency and sustainability benefits. When compared to traditional PGM refining its carbon footprint is up to 80% lower, with:

- 83% less waste produced
- 79% less energy used
- 67% less water used

Following successful five-litre lab-scale demonstrations in November we are now scaling up HyRefine for 50-litre pilot trials at our facility in Brimsdown, UK.

Watch our video: A circular solution: JM's HyRefine™ technology

Catalyst Technologies

A growth-focused solutions provider in the chemicals and energy space

"As the world is also looking to convert alternative feedstocks for energy and fuels, we are operating in markets with enormous growth potential."

Maurits van Tol,
Chief Executive,
Catalyst Technologies

Catalyst Technologies is a core growth driver for JM. Through our expertise in process technology and catalysis, we enable the efficient creation of chemicals and fuels that benefit millions of people every day. As the world is also looking to convert alternative feedstocks for energy and fuels, we are operating in markets with enormous growth potential. Our technologies are largely feedstock-agnostic, so we can serve organisations that need a trusted, experienced technology partner, whether for the efficient conversion of fossil feedstock or new alternative feedstocks such as biomass, municipal solid waste and captured carbon dioxide.

Winning business in sustainable solutions

Low-carbon (blue) hydrogen

JM offers both autothermal reforming (ATR) and gas heated reforming (GHR) technologies for the low-carbon (blue) hydrogen and ammonia market. We have a very long history in the deployment of ATR with reference plants around the world.

The combination of our ATR technology with a gas heated reformer brings further advantages: it enables higher process efficiency and lower feedstock usage compared to conventional ATR technology, and we are delivering projects that will capture over 98% of CO_2 produced.

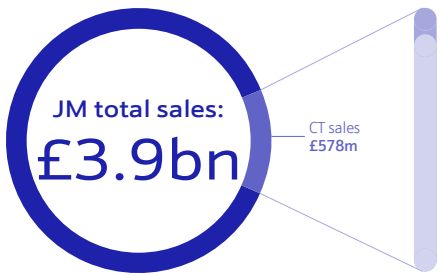
In 2023/24, we won two large-scale low carbon (blue) hydrogen projects in the UK – H_2 NorthEast with Kellas Midstream and bp's H_2Teesside. We have a strong pipeline for further ATR-only and ATR-GHR projects.

Sustainable fuels

JM has a portfolio of innovative technologies for creating sustainable fuels. Our award-winning Fischer Tropsch (FT) CANS™ technology developed with bp converts syngas into sustainable fuels, and when paired with our HyCOgen™ technology, can convert captured CO_2 and electrolytic (green) hydrogen made from renewable energy into e-fuels.

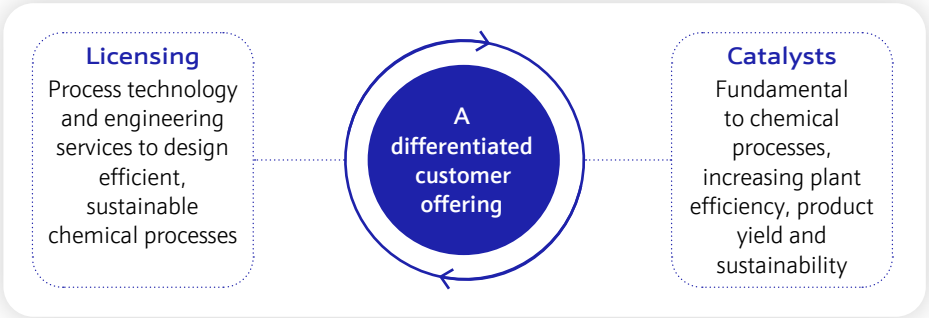
We also provide sustainable methanol technologies including our proprietary eMERALD™ CO_2 to methanol process, building on our leading position and deep expertise in conventional methanol licensing. In addition we license the BioForming® process originally invented by Virent and co-developed by JM and Virent, which helped to power Virgin Atlantic's demonstration of the first transatlantic 100% sustainable aviation fuel flight by a commercial airliner in November 2023. In 2023/24, we secured four sustainable fuels projects across FT and sustainable methanol. In March 2024 we won the largest sustainable aviation fuel project in the world using the FT route, with DG Fuels.

2023/24 sales



Licensing	10%
Catalysts	90%

Catalyst Technologies continued



Our performance in 2023/24

We performed strongly across 2023/24. We executed on our strategic milestone to secure 10 additional large-scale project wins across 2022/23 and 2023/24, demonstrating our commercial and technical strength in blue hydrogen and sustainable fuels. Sales were up 6% with strong growth in Licensing, up 20%. In Catalysts, we saw higher average prices across our portfolio and delivered strong performances in formaldehyde and key syngas segments. In Licensing, we made progress in scaling our business and targeting new opportunities. Big wins in low-carbon hydrogen and sustainable fuels alongside other areas like oxo alcohols and butanediol demonstrate the strength of our offering. We are a trusted partner to our customers all the way from initial project design through to commissioning and ongoing technical support. The value we provide is reflected in our industry-leading customer satisfaction NPS score of 54 this year. As a result, our underlying operating profit was up 56% to £75 million, and our underlying operating profit margin grew 390 basis points to 13.0%.

Transforming for future growth

This year we significantly simplified the business by evolving the previous CT structure into two business units, Catalysts and Licensing, to drive faster decision-making. Currently most of our business comes from supplying catalysts rather than licensing. As we win more business in the blue hydrogen, sustainable fuels and chemicals markets, we expect 40% of our business to come from licensing by 2030. We implemented a value creation programme focused on value-based pricing, manufacturing excellence and procurement efficiencies. This is putting us on track to meet our longer-term margin targets and creating more value for our customers.

To capture the opportunities we see in the market we expanded our commercial capability in the US and are opening a new office in the Middle East. We increased the number of engineers in our teams by 20% over 12 months to support our Licensing business.

Looking ahead

Our first priority is always the safety of our people. CT has made great progress this year on our commitment to not harming anyone as a result of our processes and activities, lowering our process incident severity rate by 76% and total recordable injury and illness incident rate by 27%.

Our second priority is to deliver on our near-term financial commitments through continued efficiency and productivity measures.

Our third priority is to grow for the future by winning more projects in sustainable technologies on top of a very solid base in our existing licensing business.

Deploying our leading LCH™ technology in H_2Teesside

This year we signed a licensing and engineering agreement for our LCH technology at bp's proposed flagship low-carbon (blue) hydrogen facility in Teesside. This aims to be one of the UK's largest low-carbon hydrogen facilities, targeting 1.2GW of hydrogen production by 2030 – which would represent over 10% of the UK Government's hydrogen target of 10GW by 2030.

Industry in the Tees Valley accounts for 64% of total local CO_2 emissions, compared to 24% nationally. H_2Teesside will help power and decarbonise existing local industry, as well as new businesses attracted to this low-carbon hydrogen produced at scale.

Watch our video: Delivering decarbonisation at scale with low-carbon hydrogen

Hydrogen Technologies

Adapting to a dynamic market, delivering growth and driving efficiencies

"Collaboration along the whole of the hydrogen value chain is essential for the energy transition to be successful. Recent market developments accentuate the need for partnerships."

Mark Wilson, Chief Executive, Hydrogen Technologies

The long-term importance of hydrogen is becoming increasingly clear. It is essential for tackling the generational challenges of climate change and global decarbonisation — particularly in sectors where driving down emissions poses a significant challenge. We believe we are uniquely positioned to be a leader in this vital market.

In Hydrogen Technologies we provide critical components for the growing hydrogen economy, underpinned by decades of experience in fuel cells and a deep understanding of PGMs.

Whilst we still believe in the long-term future of hydrogen, there has been a slowdown in growth throughout the year. Continued uncertainty about the exact nature of the financial incentives for hydrogen investment in the US and Europe has resulted in delayed investment decisions and slowed progress on existing projects. We are adapting to the changing demand profiles of our customers as they navigate this short-term uncertainty. Throughout 2023/24 our priorities were diversifying our customer base and strategic partnerships, scaling the business and delivering sales growth.

Delivering efficiencies in manufacturing

Over the past year, we have focused on improving our operational performance and have made good progress rolling out manufacturing efficiency initiatives. In particular we have increased the line speeds and improved the overall effectiveness of our equipment, driving greater output from our plant in Swindon, the UK. The success of these initiatives has allowed us to optimise our planned investment.

Transforming for our customers

We are working to maximise synergies across the JM group and deliver an enhanced and collaborative value proposition to our customers. The successful demonstration of JM's HyRefine™ technology this year generated lots of interest and represents a significant enhancement of JM's end-to-end suite of hydrogen offerings.

In a new and evolving market, organisations need strategic partners with experience, capability and market-leading technology. Building on a unique position, we expanded a long standing partnership with a leading provider of fuel cells. While the relationship has previously centred on direct methanol fuel cell systems, it will now transition to the development of proton exchange membrane (PEM) components for hydrogen fuel cells, an ultra-low carbon intensity alternative to those powered by fossil fuels. Higher customer satisfaction scores in 2023/24, demonstrated by an increase in Net Promoter Score, show that our approach is working and that customers across the portfolio see the value that JM provides.

Our performance in 2023/24

Sales for the year were up 31% to £71 million, driven by demand from our strategic customers. Our underlying operating loss of £50 million reflects our considered investment in building capacity and product development in line with market growth. Despite the challenging external environment, we progressed deals with new customers, expanded existing strategic partnerships, and continued to work with new customers on both our specialised catalyst-coated membranes (CCMs) and membrane electrode assemblies (MEAs).

Hydrogen Technologies continued

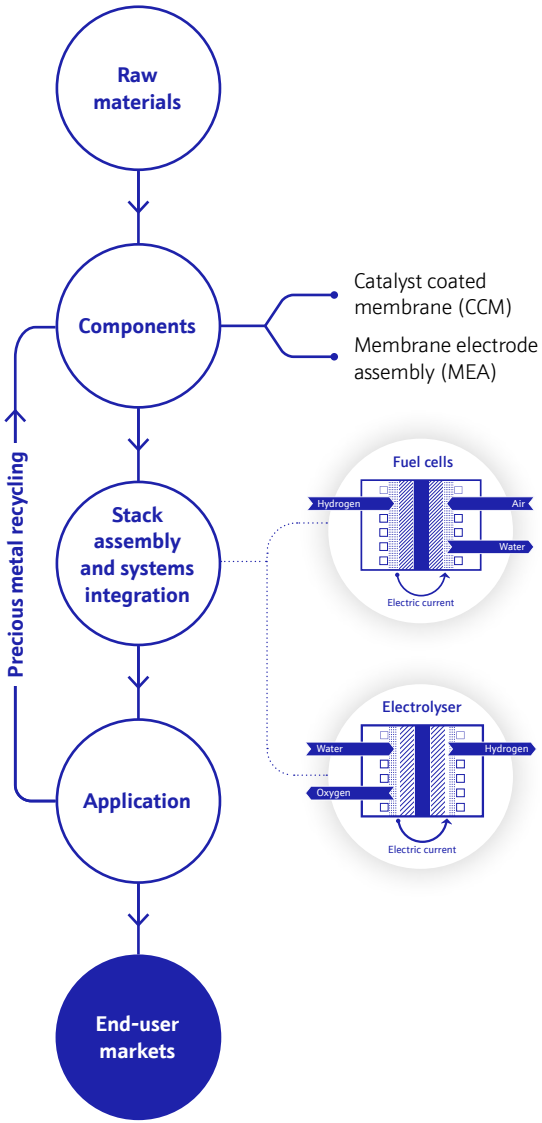
Looking ahead

We have positioned ourselves well in our core markets in North America, Europe and China. In the US, our planned investment remains on hold whilst we evaluate future market evolution and supply plans with our customers. In the UK, whilst construction of our new plant in Royston is substantially complete, we are re-aligning the start of production with market development. In China, we are continuing to progress customer relationships, especially in fuel cells, and continue developing partnerships whilst remaining disciplined in our approach to scale up in this fast-growing market.

We are playing to win in the hydrogen market. Despite a market slowdown, hydrogen is still an essential part of the net zero transition. It is critical that we continue to develop our leading-edge technology to better meet our customers' evolving needs. In the immediate term we are reducing our investment and operating costs to manage the business in an agile way, ensuring we are ready to scale in line with market growth.

Heading into 2024/25 we are focusing on taking the steps needed to establish a leadership position in our market, whilst ensuring that our business is more agile, efficient, and capable of leveraging the full expertise of JM. As the short-term market demand continues to change and develop, we are diversifying our customer base and continuing to drive increased efficiencies in manufacturing – and we are expecting to break-even by the end of 2025/26. These strategies underscore our commitment to creating a hydrogen-powered future.

Focused on delivering performance-defining components for the hydrogen economy



Introducing major technical advancements in fuel cells

Our ongoing R&D activities are improving our process technologies and driving improvements in the next generation of products. A key way we do that is through optimisation of PGM content in our products to drive real value for commercial applications. Iridium can be deployed in fuel cell anodes as an effective key ingredient to improve durability and has properties that can handle fluctuations in the hydrogen supply. In 2023, we developed a new low iridium anode for fuel cells that required 90% less iridium than previous technologies. Not only does it translate to less iridium required for the product, but it also delivers three times the improvement in mitigating hydrogen supply instability. We continue to work closely with our customers to drive product efficiencies as we strive for even more significant improvements in PGM loading and durability in the next generation of products.

Chief Financial Officer's statement

Stephen Oxley
Chief Financial Officer

"As we execute on our strategy we are focused on driving sustainable value creation, targeting high single digit growth in underlying operating profit over the medium-term and strong long term growth"

We have performed well this year, delivering 11% growth in underlying operating performance, when adjusted for metal prices and exchange rates. However, significantly lower platinum group metals (PGM) prices have again impacted our overall results, with revenue down 14% to £12.8 billion. Sales were down 4% at £3.9 billion at constant exchange rates. During the year we managed to partly mitigate this through better pricing and transformation benefits across the group.

As we execute on our strategy we are focused on driving sustainable value creation, targeting high single digit growth in underlying operating profit over the medium-term and strong long term growth.

Transformation on track

Our transformation is well underway to drive efficiency and build a stronger platform for growth. During 2023/24 we delivered cost savings of £75 million, bringing total cost savings to date to £120 million. As a result we have increased our targeted savings to £200 million by the end of 2024/25, up from our previous target of in excess of £150 million.

As we drive efficiencies across the group, this year we closed four out of 16 Clean Air manufacturing sites as we continue to rationalise our footprint into fewer, larger, more efficient locations. By the end of 2025/26 we plan to have closed at least 20 out of 27 of our leased office buildings.

Last year we announced we would be moving to a new global business services model to simplify how we provide internal services. We have made good progress with JM Global Solutions up and running delivering from our new service hubs in Lithuania and India. We are now transferring significant parts of our Finance, HR and Procurement services to this new model, which we are confident will provide a better experience for our colleagues as well as delivering significant efficiencies.

Inevitably, the pace and ambition of our transformation has incurred some one-off costs. This year we incurred £78 million of one-time restructuring charges linked to the transformation programme and site rationalisation.

During 2023/24 we agreed the divestments of our remaining non-core businesses, with the sale of Battery Systems completing in April 2024, and Medical Device Components expected to be finally divested by the autumn of 2024. We now have a more focused portfolio, and this has enabled us to drive further efficiencies and reduce costs.

Although the disposal of Battery Systems resulted in a £45 million non-cash impairment (recognised at 31st March 2024 to reduce the business to its disposal value), the divestment programme as a whole will have delivered net proceeds in excess of £500 million, significantly exceeding our target of more than £300 million. Once the divestment proceeds have been received, we intend to return £250 million to shareholders via a share buyback. The remainder will be used to pay down debt, and for other general corporate uses.

Individual business performance

Clean Air has been focused on winning new business, driving efficiency and delivering cash. The business has been working on improving margins through pricing, cost reduction and operating excellence, as well as the ongoing site rationalisation programme, setting a roadmap to achieve an operating margin target of mid-teens by 2025/26. The slowdown in battery electric vehicle penetration means we now expect Clean Air will be 'stronger for longer', and we now expect the business to deliver over £4.5 billion cash in the decade to 2030/31 (previously at least £4 billion) and significant further cash flow in the years following.

PGM Services is a key enabler for the group, but its results have been materially impacted by lower precious metal prices. In the short-term, we have mitigated some of the impact through continued focus on efficiencies across areas including operations and manufacturing. Over the long-term, the business is expected to see sustained demand for recycled PGMs due to growing demand for low carbon metals. The business is also looking at evolving its business model to reduce the impact of metal price on earnings and growing value-added products businesses.

Catalyst Technologies has undergone a change in management and reorganisation to drive improved performance and ensure it fulfils its growth potential. In the year, the business has seen continued improvement in short-term performance and is winning new projects in sustainable technologies. The business continues to focus on improving margins and saw further improvement in the second half. We have also been winning exciting new business across our sustainable solutions portfolio, with a rich pipeline of further opportunities. Catalyst Technologies has set growth targets of high single-digit increases in sales in the short term, accelerating to mid-teens sales growth over the medium to long term. We expect mid-teens operating margin by the end of 2024/25, high teens by the end of 2027/28, and continued accretion beyond as the business benefits from increases in technology licensing.

In Hydrogen Technologies we have scaled back our investment in line with the slower pace of hydrogen and fuel cell market development. The global hydrogen value chain is in an early stage of development and continues to evolve with customers reducing near-term demand expectations. As a result, whilst construction of our new plant in Royston is substantially complete, we are delaying the start of production in line with market development. We continue to de-risk our Hydrogen Technologies investment through reducing operational expenditure, seeking appropriate Government incentives and co-investment opportunities. Hydrogen Technologies sales increased by 31% this year and, although we expect slower growth in sales in the coming years, we are expecting the business to break even by the end of 2025/26.

A platform for future growth

PGM prices have reduced very significantly in recent years. We expect prices overall to be more stable in the future, thereby having a smaller impact on our results and cash flow. With further benefits of transformation, we expect at least mid single digit growth in operating performance at constant precious metal prices and constant currency this year.

Our balance sheet remains strong, with net debt slightly down year-on-year. Our aim is to maintain a strong balance sheet and closed the year at the lower end of our target level of net debt to EBITDA of 1.5-2.0 times. We remain highly disciplined in our capital allocation: we will invest for growth and attractive returns, with a focus on core activities where we believe we can win. Beyond this our priority is to ensure a reliable dividend, targeting a 40% pay-out ratio over the medium term. We may consider acquisitions but will be highly selective, with a focus on bolt-on deals to acquire technology or accelerate growth in our core growth businesses. And finally, we would look to return excess capital to shareholders, as we plan to with the disposal proceeds.

Stephen Oxley
Chief Financial Officer

Financial performance review

		Reported results (continuing) Year ended 31st March			Underlying results (continuing)[1,2] Year ended 31st March			
		2024	2023	% change	**2024**	2023	% change	% change, constant FX rates
Revenue	£m	**12,843**	14,933	-14				
Sales excl. precious metals[3]	£m				**3,904**	4,201	-7	-4
Operating profit	£m	**249**	406	-39	**410**	465	-12	-8
Profit before tax	£m	**164**	344	-52	**328**	404	-19	
Profit after tax	£m	**108**	264	-59	**260**	326	-20	
Basic EPS	pence	**58.6**	144.2	-59	**141.3**	178.6	-21	
Ordinary dividend per share	pence	**77.0**	77.0	–				
Free cash flow	£m				**189**	74		
Cash from operating activities	£m	**592**	291					
Net debt	£m	**951**	1,023					

Notes:

1. Unless otherwise stated, sales and operating profit commentary refers to performance at constant exchange rates. Growth at constant rates excludes the translation impact of foreign exchange movements, with 2022/23 results converted at 2023/24 average rates. In 2023/24, the translational impact of exchange rates on group sales and underlying operating profit was an adverse impact of £120 million and £21 million respectively.
2. Underlying is before profit or loss on disposal of businesses, gain or loss on significant legal proceedings together with associated legal costs, amortisation of acquired intangibles, share of profits or losses from non-strategic equity investments, major impairment and restructuring charges and, where relevant, related tax effects. For definitions and reconciliations of other non-GAAP measures, see pages 197 to 199.
3. Revenue excluding sales of precious metals to customers and the precious metal content of products sold to customers.

Financial performance review continued

Summary of underlying operating results from continuing operations

Unless otherwise stated, commentary refers to performance at constant FX rates[1]. Percentage changes in the tables are calculated on rounded numbers

Sales (£ million)	Year ended 31st March 2024	2023	% change	% change, constant FX rates
Clean Air	**2,581**	2,644	-2	+2
PGM Services	**462**	570	-19	-17
Catalyst Technologies	**578**	560	+3	+6
Hydrogen Technologies	**71**	55	+29	+31
Value Businesses[2]	**326**	470	-31	-32
Eliminations	**(114)**	(98)		
Sales (continuing)	**3,904**	4,201	-7	-4

Underlying operating profit (£ million)	Year ended 31st March 2024	2023	% change	% change, constant FX rates
Clean Air	**274**	230	+19	+26
PGM Services	**164**	257	-36	-35
Catalyst Technologies	**75**	51	+47	+56
Hydrogen Technologies	**(50)**	(45)	n/a	n/a
Value Businesses[2]	**29**	40	-28	-28
Corporate	**(82)**	(68)		
Underlying operating profit (continuing)	**410**	465	-12	-8

Reconciliation of underlying operating profit to operating profit (£ million)	Year ended 31st March 2024	2023
Underlying operating profit (continuing)	**410**	465
Major impairment and restructuring charges[3]	**(148)**	(41)
(Loss) / profit on disposal of businesses[3]	**(9)**	12
Amortisation of acquired intangibles	**(4)**	(5)
Gains and losses on significant legal proceedings[3]	**–**	(25)
Operating profit (continuing)	**249**	406

Notes:

1. Growth at constant rates excludes the translation impact of foreign exchange movements, with 2022/23 results converted at 2023/24 average rates. In 2023/24, the translational impact of exchange rates on group sales and underlying operating profit was an adverse impact of £120 million and £21 million respectively.
2. Includes Battery Materials, Battery Systems, Diagnostic Services and Medical Device Components.
3. For further detail on these items please see pages 163 to 164.

Full year operating results by business

Clean Air

Improved profitability driven by efficiency benefits

- Sales up 2% reflecting higher volumes partly offset by lower pricing
- Underlying operating profit increased 26% and margin expanded 190 basis points to 10.6%, with a significant improvement half on half (1H: 9.6% and 2H: 11.6%). This mainly reflected efficiency benefits and higher volumes, partly offset by lower pricing
- Delivered £2.0 billion[1] of cash from Clean Air in the three years since 2020/21, of which around one quarter relates to precious metal prices. Upgraded cash target and now expecting to deliver at least £4.5 billion of cash in the decade to 2030/31[2] (previously at least £4 billion)

	Year ended 31st March 2024 £ million	2023 £ million	% change	% change, constant FX rates
Sales				
Light duty diesel	**1,094**	1,075	+2	+5
Light duty gasoline	**533**	599	-11	-6
Heavy duty diesel	**954**	970	-2	+2
Total sales	**2,581**	2,644	-2	+2
Underlying operating profit	**274**	230	+19	+26
Underlying operating profit margin	**10.6%**	8.7%		
EBITDA margin	**13.5%**	11.6%		
Reported operating profit	**237**	191		

Clean Air provides catalysts for emission control after-treatment systems used in light and heavy duty vehicles powered by internal combustion engines.

Overall, sales in Clean Air were up 2% with growth in our light duty and heavy duty diesel businesses partly offset by light duty gasoline. We benefited from higher volumes – particularly in light duty diesel driven by market share gains in China and North America. Despite benefits from commercial excellence initiatives including inflation recovery and further claims for non-inflation related activity, pricing was lower overall.

Sales

Light duty diesel

In light duty diesel, sales grew 5% outperforming the market which saw a modest decline overall. This largely reflected our strong performance in Asia – particularly China – and also in the Americas against a backdrop of weaker market production. In Europe, our performance was slightly behind the market.

In Asia, we significantly outperformed the market which saw mixed performance across the region. We saw good performance in China driven by market share gains following recent wins and the ramp up of platforms. In India, we also saw good performance reflecting the ramp up of new platforms.

In the Americas, we outperformed the market which was impacted by economic uncertainty. Our performance was driven by market share gains and platform ramp ups.

Light duty gasoline

Light duty gasoline sales were down 6%, underperforming the global market which grew well.

Our performance was mainly driven by Asia where we were impacted by the loss of platforms in previous years as well as mix effects. In Europe, whilst we benefited from a robust market and saw modest share gains, this was partly offset by lower pricing. In the Americas we underperformed the market reflecting the loss of platforms from previous years. We expect this to be the last year where we experience the effect of these historic platform losses.

Heavy duty diesel

In heavy duty diesel, sales were up 2% although behind the market. By region, we saw strong growth in Asia which was partly offset by lower sales in Europe and the Americas.

In Asia, growth was led by China and India. In China, we benefited from a market recovery following a weaker prior year with demand impacted by COVID lockdowns. In India, we saw good performance partly reflecting higher sales for off-road applications. In the Americas, our sales were broadly in line with a slightly weaker market. This year, Class 8 truck production was higher than anticipated reflecting a robust economy and strong order backlogs but the macroeconomic outlook in South America impacted production in the region. In Europe, we underperformed a growing market due to lower demand from our customers. Looking forward, our strong presence in heavy duty positions us well for upcoming advancements, such as internal combustion engines powered by hydrogen.

Underlying operating profit

Underlying operating profit increased 26% and margin expanded 190 basis points to 10.6%, with a significant improvement half on half (1H: 9.6% and 2H: 11.6%). This mainly reflected efficiency benefits and higher volumes. Despite benefits from commercial excellence initiatives, we were impacted by lower pricing partly related to historical contract commitments.

Cash generation

We delivered another year of strong cash, generating around £600 million[1]. In the three years since 2021/22, we have delivered a cumulative £2.0 billion[1] cash, of which around one quarter relates to precious metal prices.

PGM Services

Performance reflects lower average PGM prices

- Sales declined 17% primarily due to lower average PGM prices
- Refinery volumes were lower due to continued softness in auto scrap recycling. This was partially mitigated by higher industrial and mining intakes
- Underlying operating profit declined 35% driven by lower average PGM prices and reduced volumes, partly offset by a continued focus on efficiencies and metal recoveries from asset renewals

	Year ended 31st March			
	2024 £ million	2023 £ million	% change	% change, constant FX rates
Sales				
PGM Services	**462**	570	-19	-17
Underlying operating profit	**164**	257	-36	-35
Underlying operating profit margin	**35.5%**	45.1%		
EBITDA margin	**42.0%**	49.6%		
Reported operating profit	**149**	257		

PGM Services is the world's largest recycler of platinum group metals (PGMs). This business has an important role in enabling the energy transition through providing circular solutions as demand for scarce critical materials increases. PGM Services provides a strategic service to the group, supporting Clean Air, Catalyst Technologies and Hydrogen Technologies with security of metal supply in a volatile market, and the manufacture of value-add PGM products.

Sales

In the year, sales declined 17%. This was primarily driven by lower average PGM prices, particularly palladium and rhodium which declined 38% and 64% respectively compared to 2022/23. As the year progressed, average PGM prices stabilised with second half pricing below the levels of the first half.

In our refineries, intake volumes were lower as previously guided due to less auto scrap. However this was partially mitigated by increased industrial and mining intakes where we applied our PGM refining expertise to handle highly complex feeds. Sales were lower in our metal trading business due to reduced PGM prices and volatility. Across our PGM products business, sales were broadly flat with higher demand for pharma products driven by business wins which offset cyclical declines in agrochemicals.

Underlying operating profit

Underlying operating profit declined 35% mainly impacted by lower average PGM prices (£85 million impact) as well as reduced volumes. This was partly mitigated by a continued focus on efficiencies, as well as metal recoveries from asset renewals.

1. At actual precious metal prices.
2. 1st April 2021 to 31st March 2031, pre-tax and post restructuring cost.

Catalyst Technologies

Material margin improvement and strong growth in licensing

- Sales up 6% driven by good growth in catalysts, where higher pricing and better mix offset lower volumes, and strong growth in licensing
- Won ten large scale projects from April 2022 to March 2024 in our sustainable technologies portfolio, delivering on our strategic milestone. Won an additional three projects since 1st April 2024 which contribute to our new strategic milestone
- Underlying operating profit up 56% and margin up 390 basis points, driven by higher pricing reflecting our stronger commercial focus, better mix and efficiency benefits

	Year ended 31st March			
	2024 £ million	2023 £ million	% change	% change, constant FX rates
Sales				
Catalysts	**518**	509	+2	+4
Licensing	**60**	51	+18	+20
Total sales	**578**	560	+3	+6
Underlying operating profit	**75**	51	+47	+56
Underlying operating profit margin	**13.0%**	9.1%		
EBITDA margin	**17.3%**	13.9%		
Reported operating profit	**70**	43		

Catalyst Technologies is a key pillar of our strategy as we target high growth, high return opportunities in the decarbonisation of fuels and chemical value chains. We have leading positions in syngas – methanol, ammonia, hydrogen and formaldehyde – and a strong sustainable technologies portfolio. Our revenue streams are licensing process technology and supplying catalysts.

Sales

Sales were up 6%. We saw good growth in Catalysts – which represents the majority of sales – and strong growth in Licensing, up 20%. In Catalysts we benefited from higher pricing as we strengthened our commercial focus. Alongside better mix this more than offset lower volumes.

Catalysts: higher pricing and better mix offsetting lower volumes

Catalysts sales were up 4%. Growth was largely driven by formaldehyde following increased demand for biodegradable plastics in China. We also saw higher pricing across the portfolio, particularly in ammonia and hydrogen, and a better mix in additives. These benefits more than offset lower volumes, which were mainly driven by short-term cyclical weakness – primarily in methanol – and an unplanned shutdown at one of our plants. We expect the plant to be back in operation in summer 2024.

Licensing: early sales from our sustainable solutions portfolio

Licensing sales were up 20%. We saw strong growth in areas including oxoalcohols and methanol, following recent project wins in China. In our existing core portfolio, we signed eight licences in the period, worth around £110 million in sales over five years (2022/23: six licences). In our sustainable technologies portfolio, we recognised early sales from low carbon hydrogen and sustainable fuels. These sales doubled in the period albeit off a low base.

Underlying operating profit

Underlying operating profit was up 56% to £75 million and the margin grew 390 basis points to 13.0%. This was largely driven by higher pricing reflecting our strong commercial focus, better mix and efficiency benefits.

Hydrogen Technologies

Strong sales growth and disciplined investment to scale the business

- Sales up 31% driven by higher volumes for strategic customers in fuel cells
- Underlying operating loss reflects investment to scale the business
- Reducing investment and managing cost base with the pace of market development

	Year ended 31st March			
	2024 £ million	2023 £ million	% change	% change, constant FX rates
Sales				
Hydrogen Technologies	**71**	55	+29	+31
Underlying operating loss	**(50)**	(45)	n/a	n/a
Underlying operating loss margin	**n/a**	n/a		
Reported operating loss	**(60)**	(46)		

In Hydrogen Technologies, we provide components across the value chain for fuel cells and electrolysers including catalyst coated membranes (CCMs) and membrane electrode assemblies (MEAs). Our ambition is to be the market leader in CCMs, which are the critical performance defining components at the centre of fuel cells, focusing on PEM (proton exchange membrane) and AEM (anion exchange membrane) electrolysers.

Sales

In the year, sales in Hydrogen Technologies were up 31% to £71 million driven by demand from our strategic customers. However, sales growth in the second half slowed as the market began to soften and our customers started to reduce inventories. This largely reflects a lack of clarity around regulation and incentives, slowing the development of supply chains and infrastructure.

Our continued focus on operational improvement and manufacturing efficiency drove significantly higher output from our UK plant in Swindon, enabling the vast majority of customer demand to be satisfied from this facility. As the market develops, our ability to continue making operational improvements will be vital in ensuring we have the agility to scale in line with market demand.

Underlying operating loss

Underlying operating loss of £50 million reflects investment into building capability and product development. Towards the end of the year, we took actions to reduce our cost base as we adapted to the softening market.

Corporate

Corporate costs were £82 million, an increase of £14 million from the prior year, largely reflecting higher costs in relation to the implementation of new IT systems.

Research and development (R&D)

R&D spend was £204 million in the year. This was down from £213 million in the prior year and represents c.5% of sales excluding precious metals. We are prioritising spend in our growth areas and are pursuing a very focused innovation strategy for Catalyst Technologies and Hydrogen Technologies. We are also investing in our digital capabilities to accelerate innovation and provide greater insights to our customers.

Foreign exchange

The calculation of growth at constant rates excludes the impact of foreign exchange movements arising from the translation of overseas subsidiaries' profit into sterling. The group does not hedge the impact of translation effects on the income statement. The principal overseas currencies, which represented 78% of the non-sterling denominated underlying operating profit in the year ended 31st March 2024, were:

	Share of 2023/24 non-sterling denominated underlying operating profit	Average exchange rate Year ended 31st March		
		2024	2023	% change
US dollar	25%	**1.26**	1.20	+5
Euro	41%	**1.16**	1.16	–
Chinese renminbi	12%	**9.01**	8.26	+9

For the year, the impact of exchange rates decreased sales by £120 million and underlying operating profit by £21 million.

If average exchange rates for May month to date (£:US$ 1.26, £:€ 1.17, £:RMB 9.10) are maintained throughout the year ending 31st March 2025, foreign currency translation will have an adverse impact of £4 million on underlying operating profit. A one cent change in the average US dollar and a ten fen change in the average rate of the Chinese renminbi have an impact of approximately £1 million on operating profit whilst a one cent change in the average rate of the Euro has approximately a £2 million impact on full year underlying operating profit.

Efficiency savings

In the year, we delivered c.£75 million of savings through our group transformation programme and incurred cash costs of c.£55 million. Cumulative benefits from the programme to date are c.£120 million. Reflecting our good progress, we have upgraded our cost savings target to £200 million by the end of 2024/25 (previously in excess of £150 million). 2024/25 will be the final year of the programme, after which we will focus on continuous improvement. Total associated costs to deliver the programme are around £130 million (previously around £100 million), all of which are cash.

£ million	Savings delivered to 31st March 2024	Associated costs incurred to 31st March 2024
Transformation programme	120	75

Items outside underlying operating profit

Non-underlying (charge) / income (£ million)	**As at 31st March 2024**	As at 31st March 2023
Major impairment and restructuring charges	**(148)**	(41)
(Loss) / profit on disposal of businesses	**(9)**	12
Amortisation of acquired intangibles	**(4)**	(5)
Gains and losses on significant legal proceedings	**–**	(25)
Total	**(161)**	(59)

There was a net charge of £148 million relating to major impairment and restructuring charges, comprising £78 million of restructuring costs and a net impairment charge of £70 million. The restructuring costs were recognised in relation to both our transformation programme and the consolidation of our Clean Air manufacturing footprint. The net impairment charge includes an impairment of our Battery Systems business to its fair value ahead of its disposal, as well as impairment charges relating to the recent slowdown in growth within the hydrogen and fuel cell market which required us to adapt to the changing demand profiles of our customers as they navigate this short-term uncertainty.

The £9 million loss on disposal of businesses largely comprises transactional costs in the year relating to the disposal of our Value Businesses.

Finance charges

Net finance charges in the period amounted to £82 million, up from the prior year charge of £61 million largely reflecting higher average borrowings and a higher interest rate environment.

Taxation

The tax charge on underlying profit before tax for the year ended 31st March 2024 was £68 million, an effective underlying tax rate of 20.8%, up from 19.3% in 2022/23. This largely reflects the mix of profit across geographies.

The effective tax rate on reported profit for the year ended 31st March 2024 was 34.4%. This represents a tax charge of £56 million, compared with £80 million in the prior period.

We expect modest upward pressure to the effective tax rate on underlying profit for the year ending 31st March 2025 as territories in which we operate increase their domestic Corporate Tax rate in response to the OECD Pillar 2 rules.

Post-employment benefits

IFRS – accounting basis

At 31st March 2024, the group's net post-employment benefit position, was a surplus of £117 million.

The cost of providing post-employment benefits in the year was £53 million, up from £40 million last year.

Capital expenditure

Capital expenditure was £390 million in the year, 2.0 times depreciation and amortisation (excluding amortisation of acquired intangibles). In the period, key projects included:

- **PGM Services** – investing in the resilience, efficiency and safety of our refinery assets
- **Hydrogen Technologies** – investing in our manufacturing facility in Royston, UK, although delaying the start of production to align with market development.

Strong balance sheet

Net debt as at 31st March 2024 was £951 million, a decrease from £1,023 million at 31st March 2023 and £1,044 million at 30th September 2023. Net debt is £19 million higher when post tax pension deficits are included. The group's net debt (including post tax pension deficits) to EBITDA was 1.6 times (31st March 2023: 1.6 times, 30th September 2023: 1.7 times), which was at the lower end of our target range of 1.5 to 2.0 times.

We use short-term metal leases as part of our mix of funding for working capital, which are outside the scope of IFRS 16 as they qualify as short-term leases. Precious metal leases amounted to £197 million as at 31st March 2024 (31st March 2023: £138 million, 30th September 2023: £186 million).

Free cash flow and working capital

Free cash flow was £189 million in the year, compared to £74 million in the prior year, largely reflecting lower precious metal working capital partly offset by lower net proceeds from disposals.

Excluding precious metal, average working capital days to 31st March 2024 increased to 60 days compared to 42 days to 31st March 2023. This largely reflected lower average sales through the period as well as lower VAT payables and higher working capital to support our growth businesses.

Outlook for the year ending 31st March 2025

For 2024/25, on a continuing basis excluding Value Businesses, we expect at least mid single digit growth in underlying operating performance at constant precious metal prices and constant currency.

In Clean Air we expect modest growth in operating performance, with continued margin expansion driven by efficiency benefits. Beyond this, with the impact of historical platform losses behind us, we expect further growth in operating performance and margin expansion. PGM Services' operating performance is expected to be broadly stable, with limited impact from precious metal prices. In Catalyst Technologies we expect further strong growth in operating performance, with mid-teens margins. In Hydrogen Technologies we now expect modest sales growth, with a significantly lower operating loss as we manage our investment with the pace of market development[1].

If precious metal prices and foreign exchange rates remain at their current levels[2] for the remainder of 2024/25, we expect an adverse impact of c.£5 million to full year operating performance compared with the prior year.[3, 4]

Dividend

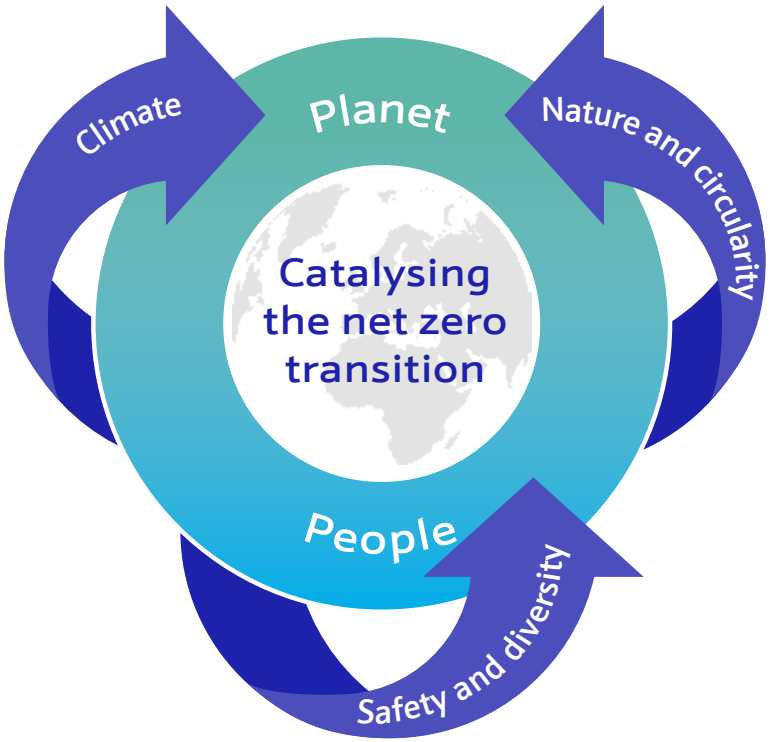
The board will propose a final ordinary dividend for the year of 55.0 pence per share at the Annual General Meeting (AGM) on 18th July 2024. Together with the interim dividend of 22.0 pence per share, this gives a total ordinary dividend of 77.0 pence per share, maintained at the same level as the prior year. Subject to approval by shareholders, the final dividend will be paid on 6th August 2024, with an ex-dividend date of 6th June 2024.

1. Outlook commentary for Clean Air, PGM Services, Catalyst Technologies and Hydrogen Technologies refers to underlying operating performance, and assumes constant precious metal prices and constant currency.
2. Average precious metal prices and average foreign exchange rates in May 2024 (month to date).
3. If precious metal prices remain at their current level for the remainder of 2024/25 there would be a benefit of £1 million on full year operating performance compared with the prior year. A US$100 per troy ounce change in the average annual platinum, palladium and rhodium metal prices each have an impact of approximately £0.5 million, £1 million and £0.5 million respectively on full year 2024/25 underlying operating profit in PGM Services. This assumes no foreign exchange movement.
4. At average foreign exchange rates for May 2024 month to date (£:US$ 1.26, £:€ 1.17, £:RMB 9.10) translational foreign exchange movements for the year ending 31st March 2025 are expected to adversely impact underlying operating profit by £4 million.

Sustainability

We are a global leader in sustainable technologies. Through inspiring science and continued innovation, we aspire to enhance life for everyone. That is why we have firmly embedded our sustainability priorities of climate, nature and circularity, safety and diversity throughout our business and value chain.

Our approach to sustainability



Our core material topics

In 2022 we partnered with a third party to refresh our materiality assessment. They reviewed public domain opinions of our investors, customers and social media users, as well as interviewing leaders inside JM. Our material topics were identified as:

- Climate change
- Air emissions
- Water and wastewater
- Waste management
- Circularity and product innovation
- Health and safety
- Human rights
- Diversity and inclusion
- Community impact
- Responsible sourcing
- Governance and risk management

Our sustainability targets for 2030

For over 200 years our expertise in metal chemistry has helped to solve some of the world's most complex challenges such as air pollution, and now our technologies are accelerating the transition to net zero[1].

Our sustainability targets for 2030 are ambitious, but they build off the incredible impact our products and services already have. Our technologies are now helping the global chemical industry reduce its GHG emissions and move to sustainable feedstocks, and our business model is underpinned by our circular PGM economy that helps reduce waste and make the most of scarce resources.

Our GHG reduction targets for 2030 have been approved by the Science Based Targets initiative (SBTi) thereby putting us on the SBTi's 1.5°C trajectory and placing us among the leading group of global businesses aiming for a rise of no more than 1.5°C.

Goals	Key performance indicators (KPIs)	Baseline Value	2030 target, 2030 value	2023/24 performance	2022/23 performance[2]
Planet: Protecting the climate					
Our goal: Drive lower global greenhouse gas (GHG) emissions	1. GHG emissions avoided per year using technologies enabled by JM's products and solutions, compared to conventional offerings	223,946 tCO_2e	50,000,000 tCO_2e	**1,110,057 tCO_2e**	841,721 tCO_2e[3]
Our goal: Achieve net zero by 2040	2. Reduction in Scope 1 and Scope 2 GHG emissions	405,770 tCO_2e	44% on baseline, 227,231 tCO_2e	**30% on baseline, 282,403 tCO_2e**	15% on baseline, 344,910 tCO_2e
	3. Reduction in Scope 3 GHG emissions from purchased goods and services	3,433,660 tCO_2e	42% on baseline, 1,991,523 tCO_2e	**26% on baseline, 2,531,576 tCO_2e**	29% on baseline, 2,450,529 tCO_2e
Planet: Protecting nature and advancing the circular economy					
Our goal: Conserve scarce resources	4. Recycled PGM content in JM's manufactured products	70%	75%	**69%**	69%
Our goal: Minimise our environmental footprint	5. Reduction in total hazardous waste	42,480 tonnes	50% on baseline, 21,240 tonnes	**0.4% on baseline, 42,300 tonnes**	1% on baseline, 41,854 tonnes
	6. Reduction in net water usage	1,932,000 m^3	25% on baseline, 1,449,000 m^3	**9% on baseline, 1,755,000 m^3**	5% on baseline, 1,826,000 m^3
People: Promoting a safe, diverse and equitable society					
Our goal: Keep people safe	7. Total recordable injury and illness rate (TRIIR) for employees and contractors	0.79	0.25	**0.36**	0.47
	8. ICCA process safety event severity rate (PSESR)	1.18	0.40	**0.88**	1.02
Our goal: Create a diverse, inclusive and engaged company	9. Employee engagement score	6.9	8.0	**7.2**	6.9
	10. Female representation across all management levels[4]	30%	40%	**30%**	28%

1. Net zero is the reduction of absolute GHG emissions by 90% or more, with any remaining emissions neutralised through carbon offsets.
2. Rebaselined to remove divested businesses, please see page 210 for more information.
3. Restated due to calculation refinement.
4. All employees whether they are a people manager or not, at a minimum compensation grade.

For more data see our Sustainability Performance Databook, matthey.com/sustainability-databook

Our products and services are aligned with four of the UN SDGs where we believe we can make the biggest positive contributions.

3 GOOD HEALTH AND WELL-BEING

- **Emission control technologies** that reduce harmful oxides of nitrogen (NO_x) and particulates from vehicle tailpipes and stationary engines, enabled by PGMs
- **Purification technologies** that reduce harmful contaminants, such as mercury, from industrial processes
- **Refinery additives** to mitigate NO_x and oxides of sulphur (SO_x) emissions
- **Catalysts** used to make pharmaceutical ingredients

7 AFFORDABLE AND CLEAN ENERGY

- **Renewable (green) hydrogen technologies** that will support the drive to zero carbon hydrogen production using renewable energy and electrolysis, enabled by PGMs
- **Low-carbon (blue) hydrogen technologies** that are available today to help make low-carbon hydrogen at scale

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

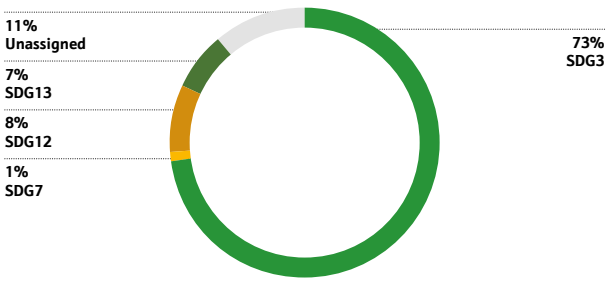
- **PGM recycling** to recover and reuse scarce resources
- **Chloride guards** to prevent corrosion
- **PURACARE™ services** to reduce maintenance lifetime and end-of-life recovery
- **CAT-AID™ products** to extend catalyst life

13 CLIMATE ACTION

- **Technologies** that turn high sources of carbon, such as household waste, into sustainable aviation fuels
- **Fuel cell components** for low-carbon transportation and distributed power unit

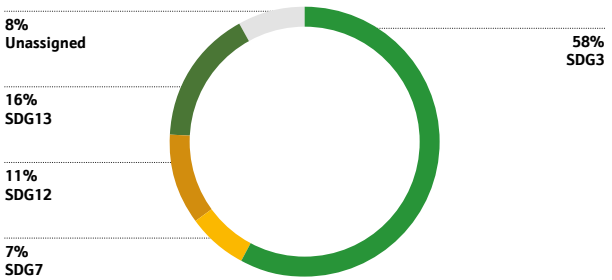
Sales from products contributing to priority UN SDGs

89%



R&D spend contributing to priority UN SDGs

92%



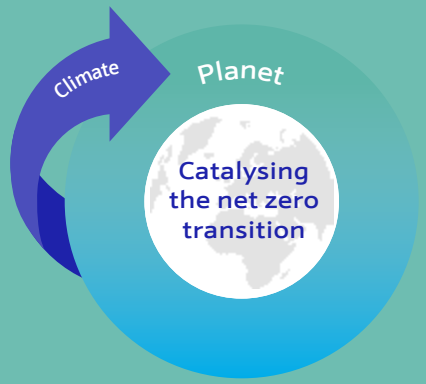
Product life cycle assessment

This year, Johnson Matthey continued to grow its Life Cycle Assessment (LCA) capability through recruitment and training, forming a community of practitioners across the business.

The number of LCAs for JM's products and services is increasing year on year. One example of new LCA data now available is in Catalyst Technologies, where a cradle-to-gate LCA study was conducted to measure and compare the environmental impact of JM's methanol technologies, which are licensed to customers for methanol production.

Visit the IPA website for more information: ipa-news.de

See matthey.com/sustainability for more details



Planet: Protecting the climate

Our company purpose is to catalyse the net zero transition because we believe this represents the biggest benefit we can bring to society. Sales of our products and services, when used by our customers, will bring about millions of tonnes of GHG avoided. We are also committed to net zero by 2040 for our operations.

→ You can read more about how climate change is bringing opportunity and risks to our business in our Task Force on Climate-related Financial Disclosures (TCFD) report on pages 53-61

Our goal: Drive lower global greenhouse gas (GHG) emissions

To drive our positive contribution to climate protection, we set ourselves the target that JM technologies will contribute towards avoiding 50 million tonnes[1,2] of GHGs entering the atmosphere per year by 2030, compared to conventional technologies in 2020. This is equivalent to avoiding the emissions from half of UK transport[3]. Over the past year, we have signed significant licences and partnerships in key technology areas contributing to this goal, such as licences for production of low-carbon (blue) hydrogen, and for the production of sustainable aviation fuel. This financial year we achieved a significant milestone in avoiding over 1 million tonnes of GHG emissions. The target is largely reliant on our growth businesses of Hydrogen Technologies and Catalyst Technologies.

Sustainability Accounting Standards Board (SASB) Resource efficiency indicator: We have identified our revenues that align with the SASB Chemicals Sustainability Accounting Standard's definition of products that, when used, improve energy efficiency, eliminate or reduce GHG emissions, reduce raw materials consumption, lower water consumption and/or increase product life. In 2023/24, those sales were £0.84 billion (with sales excluding precious metals as £3.90 billion) compared with £0.97 billion[4] in 2022/23. This reduction is mainly due to reduced demand in the secondary PGMs market see pages 20-21 for more details.

For our full SASB Index response see matthey.com/sasb-index

50 million tonnes

of GHG emissions avoided[1,2] per year by our customers using our products by 2030

Energy

Sustainable fuels for aviation and marine use

Low-carbon (blue) hydrogen technology

Renewable (green) hydrogen technology (electrolysers)

Fuel cell components for distributed power generation

Chemicals

Solutions to **decarbonise chemical products**, like ammonia, methanol or formaldehyde

Solutions to **decarbonise chemical and industrial processes**

Automotive

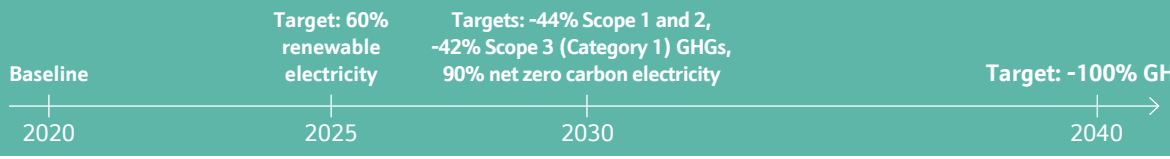
Fuel cell components for hydrogen powered vehicles

1. Using technologies enabled by JM products and solutions: avoided emissions compared to conventional technologies in 2020.
2. For more information on our calculation methodology please see our Basis of reporting on pages 210-215.
3. https://www.gov.uk/government/statistics/provisional-uk-greenhouse-gas-emissions-national-statistics-2021.
4. Rebaselined to remove divested businesses, please see page 210 for more information.

Our goal: Achieve net zero by 2040

This year our long-term target of net zero by 2040 was approved by the Science Based Targets initiative (SBTi) under their net zero standard. Having confirmed our precise roadmaps to 2030, we are working to identify and develop the full range of solutions we will implement to achieve net zero by 2040, indicated on our refreshed net zero roadmap below.

Net zero[1] roadmap



Scope 1 and 2 GHG reduction 9% of footprint

- Energy and process efficiency
- Renewable electricity
- Replace fossil fuels
- N_2O abatement
- Carbon capture, usage and storage

Scope 1 and 2: Initial focus on energy efficiency, purchase of renewable electricity, further electrification of our operations and use of low-carbon fuels. For the longer term, we have started to scope harder-to-abate process emissions.

Scope 3 GHG reduction 91% of footprint

- Sourcing decisions
- Supply chain opportunities
- Raw material efficiency and waste reduction in operations
- Low-carbon transportation and travel
- Net zero building standard for capital projects

Scope 3: Reduction in Category 1 purchased goods and services through local and secondary sourcing, optimisation of supply chain packaging and transport, and operational efficiency. Our near-term target is on our most material category but we report on, and seek ways to reduce, all Scope 3 categories.

Sustainable business growth

- Engineering sustainability principles applied to all capital investments (including internal carbon pricing)
- Alternative chemistry and technology development

Business growth: JM's capital investments are designed with net zero front of mind, based on agreed engineering sustainability principles. Our R&D organisation is applying its expertise to our manufacturing processes looking for opportunities to eliminate GHGs at the source.

Carbon offsets 0-10%

- Carbon offsets (<10%)

Offsetting: We aim to significantly reduce our carbon footprint, and work with our suppliers to reduce theirs, without relying heavily on offsetting to reach our net zero targets. We continue to monitor the voluntary carbon market for opportunities to invest in high integrity projects in the future.

JM believes in a just energy transition, ensuring no one is left behind. See next page for how we approach this

1. Net zero is the reduction of absolute GHG emissions by 90% or more, with any remaining emissions neutralised through carbon offsets.

Ensuring a just transition to net zero

JM believes that we should decarbonise the economy whilst ensuring that no one is left or pushed behind. Being as fair and inclusive as possible to everyone affected will increase the chances of long-term success and sustainability of the energy transition.

We consider fully the risks and opportunities of all aspects of our plans and the impact on our various stakeholders. For example, through strategic supplier relationships, operating with a strict code of conduct and due diligence, we are increasingly creating opportunities for collaboration. We will continue to disclose risks identified in our supply chain and the action plans we develop. And we have strong connections with our local communities, ensuring both the company and our employees contribute actively to local initiatives.

→ See page 51 for more information on how we are engaging with our communities

In order to meet the opportunities created by the global energy transition, we have to transform JM (see pages 8-9). Whilst this transformation will bring many new employment and career opportunities for current and future employees, inevitably some roles will change significantly or indeed cease to exist.

For example, during 2023/24 we completed the full closure of two of our Clean Air plants to optimise our manufacturing footprint: Clean Air Royston in the UK and Germiston in South Africa, impacting around 800 employees in total. In addition to these two closures we also consolidated our production sites in Shanghai, China from two to one, and sold our plant in Krasnoyarsk, Russia. We supported the affected employees with help in finding alternative employment, either in JM or elsewhere. This included CV clinics, retirement workshops, counselling assistance, financial advice, and support in finding alternative employment. In Royston, out of 400 colleagues, we were able to find alternative roles for 90. Over 100 colleagues found employment elsewhere during the process. Over a third of our Germiston employees had secured alternative employment at the time of the plant closure.

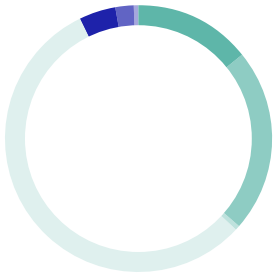
Our progress in 2023/24

We continue to deliver on our roadmap to net zero[1] by 2040. This year saw an 18% reduction in our Scope 1 and 2 greenhouse gas (GHG) emissions from last year, which represents a 30% reduction since our baseline year of 2019/20. This significant reduction was achieved mainly through increasing our purchase of renewable energy, in line with our energy strategy, and we have also improved the underlying energy efficiency of a number of processes.

Our GHG emissions from Scope 3 purchased goods and services in 2023/24 were 2,531,576 tCO_2e, which is a 26% reduction from baseline year. This is an increase from 2,450,529 tCO_2e[2] in 2022/23, which reflects changes in business demands, see pages 18-25 for more information. We continue to work with partners to identify GHG hot spots and potential reduction actions.

→ For more information on our calculation methodology please see our Basis of reporting on pages 210-215

Energy mix



Non-renewable, grid-supplied electricity	**14.4%**
Certified renewable electricity from the grid	**22.2%**
Renewable electricity generated locally	**0.6%**
Natural gas used on site	**55.8%**
Other fossil fuels used on site	**4.4%**
Non-renewable steam procured	**2.3%**
Fuel used on public roads by JM vehicles on company business	**0.3%**

Total: 1,211,683 MWh

Total greenhouse gas emissions

Total Scope 1	**6.5%**
Total Scope 2 (market-based)	**2.0%**
Scope 3 – Purchased goods and services	**76.5%**
Scope 3 – All other categories	**15.0%**

Total: 3.3 million tonnes CO_2e

1. Net zero is the reduction of absolute GHG emissions by 90% or more, with any remaining emissions neutralised through carbon offsets.
2. Rebaselined to remove divested businesses, please see page 210 for more information.

Planet: Protecting the climate

Energy efficiency and security

A focus on energy conservation and energy efficiency continues to underpin our net zero strategy. We continue to implement ISO 50001 across our most energy-intensive manufacturing sites, using the energy management framework developed and introduced to our site teams last year. Examples of energy efficiency projects completed this year include:

- Further adoption of waste heat recirculation, with savings achieved at Clean Air sites in Poland, India and China
- Improved control has enabled expansion of the low temperature hot water network to provide heating for laboratories at one of our UK sites
- Reducing the idle time of one of our electric induction furnaces

For our engineering and capital projects we have developed sustainable engineering principles and applied a rigorous assessment process for all capital project investments, such as asset renewal and growth projects. For example, replacing steam boilers to best in class burner design at one of our UK sites, has resulted in lower energy use (and lower NO_x emissions).

Three of our largest manufacturing sites also make electricity using combined heat and power plants (CHPs) to optimise our energy efficiency. Although these run off natural gas, our CHPs generated 36,313 MWh of our total electricity this year, reducing our energy demand.

This year our Winter Energy Taskforce became a cross-functional Energy Risk Steering Committee, to manage the long-term energy strategy for JM, which is to increase our proportion of net zero carbon energy procured through opportunities which drive cost stability, energy security and resilience.

Renewable energy

This year 57% of our electricity consumption came from certified renewable sources, compared to 41% in 2022/23. This significant increase was due to renewable energy purchases in the regions of North Macedonia, India and China. We are therefore on track to achieve our ambition of purchasing 60% of our electricity from certified renewable sources by 2025.

This year we created a JM Renewable Energy Standard to provide clarity on our position and strategy for renewable energy sourcing, and a hierarchy of preferred solutions to inform decision-making for our operations and procurement teams. We use green tariffs to ensure renewable electricity consumption in Europe and the US, and recognised Energy Attribute Certificates in regions such as India and China. Longer term we will focus on Power Purchase Agreements in regions where this procurement option is available. We continue to benefit from some on-site generation as part of the current energy portfolio in a number of sites, and further investment in our Taloja, India site this year has added 44,198 kWh capacity of self-generated solar energy.

To increase our ambition we agreed a new target aiming for 90% of our electricity from certified net zero carbon sources by 2030.

Strengthening partnerships throughout the value chain

TOGETHER FOR SUSTAINABILITY

JM became a member of Together for Sustainability (TfS), a flagship initiative launched by companies in the chemical industry that helps drive sustainability in our supply chain through collaboration.

CDP

We continue our collaboration with the Carbon Disclosure Project (CDP) Supply Chain. In the past year we engaged with our biggest suppliers representing 85% of our annual spend to better understand their carbon footprint and net zero plans.

Scope 1 and 2 greenhouse gas (GHG) footprint and energy efficiency

	2023/24			2022/23[1]			
	Global	**UK only**	**Global (excl UK)**	Global	UK only	Global (excl UK)	% change (global)
Total Scope 1 GHG emissions (tonnes CO_2e)	**215,429**	**103,022**	**112,407**	215,368	102,084	113,284	0%
Total Scope 2 GHG emissions (market-based) (tonnes CO_2e)	**66,974**	**634**	**66,340**	129,542	1,024	128,518	-48%
Total Scope 2 GHG emissions (location-based) (tonnes CO_2e)	**196,812**	**21,677**	**175,135**	204,018	21,710	182,308	-4%
Total Scope 1 and 2 GHG emissions (market-based) (tonnes CO_2e)	**282,403**	**103,656**	**178,747**	344,910	103,108	241,802	-18%
Total Scope 1 and 2 GHG emissions (location-based) (tonnes CO_2e)	**412,241**	**124,699**	**287,542**	419,386	123,795	295,591	-2%
Total Scope 1 and 2 carbon intensity (market-based) (tonnes CO_2e/tonne sales)	**2.6**	**21.6**	**1.1**	3.2	22.7	2.3	-18%

	2023/24			2022/23[1]			
	Global	**UK only**	**Global (excl UK)**	Global	UK only	Global (excl UK)	% change (global)
Total energy consumption (MWh)[2]	**1,211,683**	**348,473**	**863.210**	1,208,836	337,748	871,088	0.2%
Total energy efficiency (MWh/tonne)[3]	**11.2**	**72.6**	**8.4**	11.2	74.3	8.4	0.4%

Scope 3 GHG emissions by category

(tonnes CO_2e)

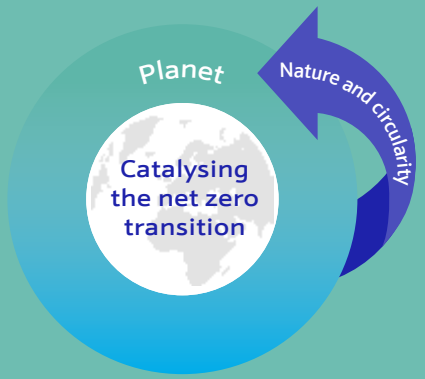
Category	Category number	**2023/24**	2022/23[1]	2021/22[1]	2020/21[1]	2019/20[1]
Purchased goods and services	1	**2,531,576**	2,450,529	2,978,197	2,812,518	3,433,660
Capital goods	2	**170,185**	177,009	162,949	240,810	365,781
Fuel and energy-related activities	3	**38,687**	41,789	44,709	37,589	38,985
Upstream transportation and distribution	4	**81,707**	96,589	120,343	94,348	97,424
Waste generated in operations	5	**3,855**	4,003	5,204	4,545	3,428
Business travel	6	**9,236**	7,671	1,925	439	14,006
Employee commuting	7	**28,991**	13,627	13,517	15,718	25,763
Upstream leased assets	8	**6,441**	6,810	6,368	5,856	5,094
Processing of sold products	10	**11,391**	11,353	10,382	10,974	11,151
End of life treatment of sold products	12	**23,078**	21,003	21,001	23,063	27,334
Investments	15	**121,257**	125,196	118,356	119,005	129,337
Total		**3,026,404**	2,955,579	3,482,951	3,364,865	4,151,963

Five-year performance table

	2023/24	2022/23[1]	2021/22[1]	2020/21[1]	2019/20[1]
Total energy consumption (MWh)[2]	**1,211,683**	1,208,836	1,275,821	1,204,571	1,236,160
Total energy efficiency (MWh/tonne)[3]	**11.2**	11.2	11.7	11.3	10.9
Total Scope 1 and 2 GHG emissions (market-based) (tonnes CO_2e)	**282,403**	344,910	395,251	396,885	405,770
Total Scope 1 and 2 carbon intensity (market-based) (tonnes CO_2e/tonne sales)	**2.6**	3.2	3.6	3.7	3.6
Total Scope 3 GHG emissions (tonnes CO_2e)	**3,026,404**	2,955,579	3,482,951	3,364,865	4,151,963

1. Rebaselined to remove divested businesses, please see page 210 for more information.
2. Energy consumption is reported here in MWh, which is equal to 1,000kWh. Total global energy consumption for 2023/24 is 1,211,682,598 kWh.
3. This is the total energy used by the business divided by amount of materials sold to customers.

For more data see our Sustainability Performance Databook, matthey.com/sustainability-databook



Planet: Protecting nature and advancing the circular economy

In 2023/24 we developed and ratified a new Nature strategy. We commit to promoting nature protection, restoration and sustainable use of natural resources. Our corporate commitments are described in our new Nature statement, found at matthey.com

Circularity is an essential part of the net zero transition, and as the world's largest secondary PGM refiner we will play a crucial role in securing the metal needed to supply existing and future demand.

matthey.com/nature-statement

Our goal: Conserve scarce resources

We helped create one of the world's first circular economies in platinum group metals and our increasing use of secondary, or recycled, Platinum Group Metals (PGMs) is helping to significantly reduce the emissions and environmental impact associated with mining these vital materials, see pages 20 and 21 for more details on secondary PGMs.

We are also applying our longstanding recycling expertise to sustainable technologies that utilise PGMs, such as fuel cells and electrolyser stacks. We are upgrading our infrastructure to allow us to recover and refine the PGMs used in these technologies to a very high purity in the same way we do today with production scrap. This will allow us to create a continuous loop of PGM availability for the hydrogen product economy.

Our performance in 2023/24

We set a 2030 target of 75% recycled PGM content in our products, and in 2023/24 this number was 69%. As existing secondary routes decline, e.g. automotive market, and new technologies have yet to establish these routes, we may see declines in recyclable material rates, until routes for the new products, e.g. hydrogen fuel cells, are developed.

Closing the PGMs loop to meet our customers' evolving sustainability demands remains our driver, and will play an important role in the transition to net zero. In 2023/24 we achieved several milestones which will further enable this ambition.

- Our methodology for specific customers across JM to purchase 100% recycled PGM content has been reviewed and accepted by the Carbon Trust as being in line with industry recommendations. In our PGM refinery process we mix secondary and primary metal feeds, so there is no way to physically distinguish the origin of the metal in the output. Now we can offer 100% recycled metal to specific customers through our mass balance approach.
- We have applied our recycling expertise, and upgraded our infrastructure, to allow us to recover and refine the PGMs used in emerging technologies, such as fuel cells and electrolyser stacks. Our new HyRefine™ technology integrates both the PGM catalyst and catalyst coated membrane (CCM) manufacturing processes. We believe this is the first demonstration of circularity for the PGM and the ionomer together. This enables us to provide our customers with a full service offering. Please see page 21 for more details.

In 2023/24 we set up a voluntary employee network of Sustainability Champions. They are employees engaged and passionate about sustainability. Supported by the central sustainability team our champions are already working locally on initiatives, and going forward we want to maintain a balance of corporate involvement with a bottom-up approach to sustainability. Impact on nature is by definition a local issue, and this network provides that grass-roots view of where the risks and opportunities are.

Our goal: Minimise our environmental footprint

We are committed to protecting the ecosystems around our sites and minimising all our potentially harmful interactions.

Our global environmental, health and safety (EHS) policies, processes and management system help us to maintain a high level of environmental performance. All our sites are assessed against these standards by our centralised EHS audit team at least once every three years. 93% of our manufacturing sites use environmental management systems that are certified as meeting ISO 14001 standard, as at 31st March 2024.

Minimising waste: reduce, reuse, recycle

We are committed to minimising waste generation and recycling as much as possible. Our operations create waste, which is always treated in line with local regulations. But beyond that we are committed to disposing of it responsibly and in a safe manner, working with specialist treatment companies.

The ongoing investment planned in our new PGM refinery in the UK will be a significant project towards meeting our 2030 target on hazardous waste reduction. We are always looking for ways to reduce waste at all of our sites. For example, last year at our site in Smithfield, the US we upgraded our NO_x abatement system. This year the new system has demonstrated not only a reduction in our emissions, but it also made a significant reduction in hazardous waste on site, expecting to reduce hazardous waste in JM by 2% and reduce JM's waste to landfill by 19%.

Total waste sent off site has increased this year by 4% compared with last year mainly due to decommissioning of manufacturing facilities.

We continue to work with third-party waste providers, looking for opportunities to divert our waste away from disposal.

We have established processes to recover PGMs from our production waste and subsequently recycle in our own refineries.

Using water responsibly

This year our Oberhausen site in Germany managed to reduce their water consumption, which will result in a 50% reduction in their annual water consumption going forward, through collaboration with the downstream effluent treatment system operator.

To understand where we need to act most quickly for most benefit, we use the World Resource Institute's (WRI) Water Risk Atlas tool to analyse usage at our sites. This year the tool identified 12 manufacturing facilities which are located in regions with a high or extremely high baseline water stress level. This means that they are at higher risk of declining water availability or increased cost in the future due to drought or groundwater table decline. The 12 manufacturing facilities accounted for 402,254 m^3 (23%) of our net freshwater consumption in 2023/24.

We discharged 1.2 million m^3 wastewater during the year, 96% to municipal treatment plants and the remainder back to its original freshwater source after treatment. We treated 0.9 million m^3 of wastewater on site, of which we recycled 33% back into our manufacturing processes instead of discharging.

We seek to minimise the chemical burden in our wastewater discharged.

Reducing emissions to air

Some of our operations produce other air emissions as by-products of chemical reactions, including nitrogen oxides (NO_x), sulphur oxides (SO_x) and volatile organic compounds (VOCs).

All our permitted sites monitor these emissions to ensure they comply with local regulations.

This year we saw a further decrease in our year-on-year NO_x emissions due to the enhanced NO_x abatement system at our Smithfield site, US, delivering improved NO_x removal efficiency. Capital investment to replace steam boilers to best in class burner design, at one of our UK sites, has also resulted in a reduction in NO_x emissions.

We don't produce ozone-depleting substances (ODS) through our operations, however, any small leaks of refrigerant gases are reported in our Scope 1 GHG emissions.

Types of waste produced and sent off site for treatment by a third party

Type of waste (tonnes)	2023/24	2022/23[1]	2021/22[1]	2020/21[1]	2019/20[1]
Liquid hazardous waste	**39,342**	38,518	45,151	41,020	40,011
Solid hazardous waste	**2,958**	3,336	2,639	2,620	2,469
Liquid non-hazardous waste	**10,626**	7,056	8,559	7,014	7,772
Solid non-hazardous waste	**12,299**	13,896	15,230	11,482	13,530
Total hazardous waste sent off site for treatment	**42,300**	41,854	47,790	43,640	42,480
Total waste sent off site	**65,225**	62,806	71,579	62,136	63,782

Methods of waste treatment applied by our third-party providers

Type of treatment (tonnes)	2023/24	2022/23[1]	2021/22[1]	2020/21[1]	2019/20[1]
Off site reuse	**532**	1,038	1,002	1,031	718
Off site recycling	**37,078**	36,853	38,270	23,366	19,437
Off site incineration with energy recovery	**1,213**	1,071	2,041	1,000	1,663
Incineration or other off site treatment	**23,064**	19,529	26,158	33,570	38,973
Total waste disposed off site to landfill	**3,338**	4,315	4,107	3,169	2,990
Total waste sent off site	**65,225**	62,806	71,578	62,136	63,781

Water consumption

	2023/24	2022/23[1]	2021/22[1]	2020/21[1]	2019/20[1]
Net freshwater consumption (000's m^3)	**1,755**	1,826	1,929	1,837	1,932
Total wastewater discharged (000's m^3)	**1,205**	1,349	1,391	1,493	1,381
Average direct Chemical Oxygen Demand of wastewater (COD) (mg/L)	**264**	242	220	112	104

Emissions to air

Type of emissions (tonnes)	2023/24	2022/23[1,2]	2021/22[1,2]	2020/21[1,2]	2019/20[1,2]
Nitrogen oxides (NO_x) emissions to air	**318**	337	358	338	320
Sulphur oxides (SO_x) emissions to air	**36**	31	73	42	16
Volatile organic chemicals (VOCs) emissions to air	**45**	42	50	39	47
Coverage for NO_x reporting	**88%**	86%	85%	85%	82%
Coverage for SO_x reporting	**68%**	36%	34%	36%	32%
Coverage for VOCs reporting	**80%**	57%	56%	54%	53%

1. Rebaselined to remove divested businesses, see page 210 for more information.
2. Restated due to improvement in methodology, see page 210 for more information.

Planet: Protecting nature and advancing the circular economy

Product stewardship throughout the value chain

The nature of the complex chemistry in our products and manufacturing processes means that we sometimes have to use chemicals that are potentially hazardous.

JM's product stewardship processes, and our commitment to Responsible Care®, a global initiative of the chemical industry, are central to ensuring our products should not pose any risk to humans or the environment when used responsibly and as intended, and that we comply with all relevant laws and regulations. We require the same of our suppliers, see our Supplier Code of Conduct, supporting them when we identify deficiencies in e.g. hazard classifications or regulatory compliance. Our customers can access support on how to handle and dispose of our products safely, beyond what we provide in our safety data sheets, via published guides and direct engagement with product specialists. In the event of an incident with a JM product, a 24-hour global emergency response telephone service is in place to provide safety information in the local language. This year, we received no reports of significant health effects from the use of our products, and we continue to comply with all applicable health and safety, labelling and marketing regulations, and voluntary codes.

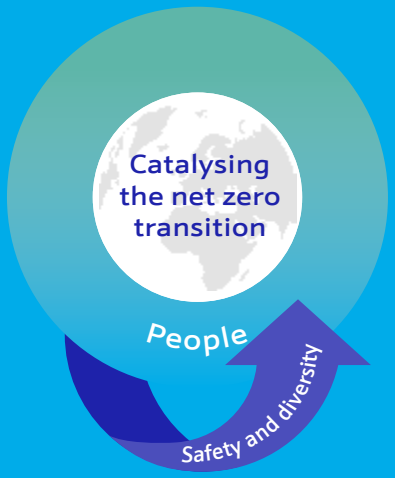
Per- and polyfluoroalkyl substances (PFAS)

We are aware of the increasing levels of concern over potential risks posed by a subset of PFAS entering the environment and are committed to reducing our uses, developing alternatives, better understanding and limiting impacts on human health and the environment from PFAS in our operations and products. An exciting demonstration of this is our new HyRefine™ technology that delivers circularity for the PGMs as well as the valuable ionomer components in fuel cell and water electrolysers, at end-of-life. We continued to work directly with suppliers, customers, trade bodies, NGOs and regulators to ensure responsible use and proportionate regulations of PFAS. In 2023 JM actively contributed, individually and as part of various trade bodies, to the EU consultation on the PFAS restriction proposal; UK PFAS policy options; and to the US proposals under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Biotechnology in JM

We continue to invest in growing our biocatalyst product-offering and manufacturing capabilities, within our Life Sciences Technology business. Biocatalysts deliver sustainability and safety benefits to traditional catalysts, such as requiring less energy intensive reaction conditions and reduced need for organic solvents. Our biocatalysts are manufactured using genetically engineered microorganisms. None of our biocatalyst products contain live organisms at the point of supply to our customers, and they currently represent just 0.02% of our sales.

See matthey.com/sustainability for more information



People: Promoting a safe, diverse and equitable society

We rely on our 11,600+ talented and passionate employees to drive our purpose. Ensuring that they are fulfilled in their careers, work safely and return home well to their families each day is our number one priority.

See our EHS policy, which applies to everyone who works for us, at matthey.com/ehs-policy

Our goal: Keep people safe

The nature of our business means we have complex chemical processes that often involve heavy machinery and hazardous chemicals. Our ability to catalyse the net zero transition depends on the mitigation of potential risks and the safe operation of our manufacturing sites.

Take 5 is one of our key global environmental, health and safety (EHS) programmes and continues to drive global improvements in health and safety performance. During 2023 we ran a campaign that focused on our key risk areas such as hand cuts, sprains and strains. We also created a Centre of Expertise in Industrial Hygiene by centralising industrial hygiene resources so that these can be deployed more effectively to where the risks are across the group.

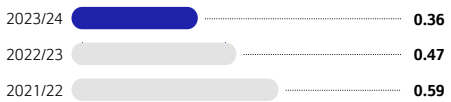
In terms of regional EHS performance we have initiated a project to review and improve safety at our facilities in the North America region. A local team comprising operations and EHS managers has developed an improvement plan that addresses common safety issues at our US facilities, including ergonomics, job risk analysis and competency. The project leaders report progress to the Group Operations Leadership Team on a quarterly basis.

Three of our businesses have introduced site-specific improvement plans for the small number of sites that drive their lagging indicator performance. These plans are currently ongoing and are reviewed by the business unit leadership team.

Our occupational health and safety performance

Lost time injury and illness rate (LTIIR) reduced from 0.24 last year to 0.17. In our total recordable injury and illness rate (TRIIR), for employees and contractors, we went from 0.47 to 0.36 this year which is a 23% improvement. This is a demonstration of the effectiveness of our Take 5 programme and the impact of our annual Global Safety Day, as well as additional local campaigns at site level which have focused on site-specific safety issues. We have had no fatalities since 2015.

TRIIR (employees and contractors)



For more data see our Sustainability Performance Databook, matthey.com/sustainability-databook

Our process safety performance

Our International Council of Chemicals Association (ICCA) process safety event severity rate (PSESR) has decreased from 1.02 last year to 0.88 PSESR per 200,000 hours worked. There were three Tier 1[1] process safety events this year, compared to nine the previous year. We have improved the governance process for our high risk process safety scenarios and there has been great progress in reducing the number of open scenarios. With the creation of new engineering teams at group level and in the businesses, we now have a joint EHS and Engineering working group to understand better ways of working to effectively address implementation of process safety requirements at site level such as asset integrity and installation of modern automated control systems.

We continue to embed process safety training across JM. In the last five years process safety training has been completed by over 3,000 operations-based staff, plus in-depth training for over 700 managers and senior executives. We have also completed individual process safety competency assessments for 305 managers and engineers in process safety-critical roles at facilities rated as 'high hazard' with an ongoing programme of assessments for new starters.

All of our high hazard facilities have now been subject to a formal corporate EHS audit within the last three years and a process safety audit within the last five years.

Global Safety Day 2023

This year's event focused on Taking 5 Together, with the theme 'It's In Our Hands' designed to encourage employees to feel empowered to take responsibility for their own safety and that of their colleagues.

JM teams, globally, dedicated a day to safety, attended workshops, made personal safety pledges and celebrated successes. Our employees across all sites and offices took part in safety-related activities that really brought to life the importance of us all being accountable for safety.

Helping people to feel healthy, secure, supported and connected

We have a wellbeing strategy in place to support all employees and help them focus on four wellbeing pillars: physical, financial, social and mental health. Employees are provided with Elements, a personalised web platform and app to access wellbeing resources and support. This includes an employee assistance programme (Assist) which provides confidential counselling for mental health and work-life services. See page 48 for more details.

1. A Tier 1 Process Safety Event (T-1 PSE) is a loss of primary containment (LOPC) with the greatest consequence as defined by American Petroleum Institute recommended practice (RP) 754.

People: Promoting a safe, diverse and equitable society

Our goal: Create a diverse, inclusive and engaged company

A high-performance culture is critical to the execution of our strategy. We are making good progress in creating a more market-focused, agile and less bureaucratic company, where our people can be truly customer-centric and thrive in their roles.

Building an engaged, high-performance culture

At our launch of the 'Play to Win' strategy in 2022, we identified three aspects of our culture that we needed to enhance:

- Take accountability
- Keep it simple
- Drive results

It is critical that our leaders – at all levels – in JM take the lead in accelerating this throughout the organisation. This year we established a series of 'Play to Win Through People' workshops for managers across the entire organisation to give them the tools to bring the strategy to life with their teams, to clarify expectations on them as managers, and to build their skills and confidence to drive performance, employee engagement and change.

Secondly, we updated our performance management approach during the year with a focus on delivering ongoing dialogue around expectations, forward-focused feedback and development. We now require all our managers to hold regular feedback and performance discussions with their team members. The new approach has been well adopted, and employees report they are having better ongoing dialogue, with improved quality of feedback, recognition and development conversations.

We have also built on our digital recognition platform, Say Thanks, where colleagues can send appreciation through an eCard or nominate significant contributions for awards.

Supporting our people's professional and personal growth remains at the core of our commitment as an employer. During 2023/24 we took several initiatives to support this, including strengthening our succession planning into critical leadership roles, ongoing investment in the future pipeline of leaders through our graduate programmes, various talent accelerator programmes, and broad development initiatives such as customer-centricity training, business skills programmes, and the implementation of a new global digital learning platform, Percipio.

To support and reinforce all these initiatives we are now supplementing our revamped annual employee survey with quarterly all-company pulse survey check-ins, ensuring that all our managers are proactively leading their teams through change whilst providing ongoing feedback, recognition and development.

For more information see our Sustainability Performance Databook, matthey.com/sustainability-databook

Engagement score improved from 6.9 in March 2023 to
7.2
in January 2024 (on a scale from 1-10)

"Taking action from last survey" score improved
+0.8
(on a scale from 1-10) from March 2023 to January 2024

Say Thanks:
84%
of all employees in JM have accessed the portal and employees have received three recognition moments on average through the year

People: Promoting a safe, diverse and equitable society

Advancing diversity, inclusion and belonging

Performance and innovation require diversity of thought, background and representation as well as a culture of inclusion and belonging. This year we have taken strategic and practical steps to ensure our diversity, inclusion and belonging (DI&B) journey is meaningful and has long-lasting impact. We have continued to drive activities in line with our DI&B roadmap to progress towards achieving our sustainability goal, targets and commitments.

See our Diversity, Equity, Inclusion and Belonging Policy, matthey.com/DIEB

Developing and attracting talent

Our female representation at all management levels[2] is 30%, an improvement on last year's 28%, and a step forward towards our target of 40% by 2030, with a milestone of 31% in 2025.

Our Talent Acquisition team and DI&B team have continued to build partnerships with organisations such as the Society of Women in Engineering, Women in Chemicals and Association for Black and ethnic minority engineers to ensure we can source and attract the best talent from a range of diverse backgrounds in the market.

In 2023/24 we formed a partnership with STEM Returners, a leading organisation in the UK in returner programmes, to help STEM professionals return to work after a career break. To date, we have six returners in the business in engineering, legal and procurement with all returners now being offered either extended contracts or made permanent employees.

Once we have recruited talented people into the business, providing the right environment for all to progress through the organisation and reach their full potential is critical. In September we launched our 'Elevating women in leadership' pilot programme, and to support the development of our Black, Asian and ethnic minority employees, we continued to participate in the Black British Business Awards talent acceleration programme in the UK and the McKinsey connected leadership development programme in the US.

Earlier this year, we ran a diversity data campaign across our senior leadership to better understand the ethnic representation of this population.

In line with the Parker Review recommendations, we have set targets to improve senior representation for minority ethnic individuals, targeting

15%

representation in our senior management by 2027, based on our current representation of 9%.

Included in this 2027 target is a separate target for Black representation of

3%

We continued to create awareness around our DI&B agenda and build confidence in speaking about difference, with our nine employee resource groups remaining at the core of this work. We also implemented a new DI&B events structure to better engage our employees. This resulted in widely attended local events and webinars with external and internal speakers for International Women's Day, LGBTQIA Pride Month, Hispanic Heritage Month, Black History Month, and International Day of Persons with Disabilities, along with the creation of our first Global Inclusion Day.

Disability inclusion

Last year, we conducted a site accessibility audit which resulted in a recommendation to provide all customer-facing staff with disability equality and awareness training, specifically including deaf awareness. Our DI&B and Learning and Development teams engaged an external partner to design some disability inclusion training, which we piloted with our Royston, UK reception staff. We then worked on a train the trainer model to allow us to roll out the training across JM for all employees in a customer-facing role.

Gender diversity statistics (as at 31st March 2024)

	% Female	Female	Male	Total
Board	44%	4	5	9
Group Leadership Team (GLT)	31%	4	9	13
Subsidiary directors	24%	23	74	97
Senior managers[1]	38%	30	48	78
All management levels[2]	30%	507	1,190	1,697
New recruits	38%	765	1,232	1,997
All employees	31%	3,577	8,108	11,685

For more information regarding gender, age and ethnicity of our people see our Sustainability Performance Databook, matthey.com/sustainability-databook

1. Within JM our senior managers are defined as direct reports of the GLT. The UK Corporate Governance Code 2018 requires companies to disclose the gender balance of senior management, which is defined in the Code as a company's executive committee and the Company Secretary; the statistics for this are included in the GLT row above. Some individuals are included in more than one category.
2. All employees whether they are a people manager or not, at a minimum compensation grade.

People: Promoting a safe, diverse and equitable society

Freedom of association

We respect and uphold the freedom of association and the effective recognition of the right to collective bargaining. In 2023/24 a quarter of our people globally were covered by collective bargaining agreements and/or represented by works councils or trade unions.

Regular engagement is undertaken directly with our employee representative groups on a range of topics including freedom of association and collective bargaining. These groups include recognised trade unions, or elected employee representative groups where trade unions are not present.

The engagement is conducted on a regular and routine basis to ensure employee representative groups are well informed across a range of business and people-related topics. Several of our transformation initiatives have been guided and subject to thorough collaboration and consultation with employee representatives to ensure all relevant aspects are covered and managed.

Union representation, % of global headcount

	31st March 2024
UK	20%
Rest of Europe	25%
North America	20%
Asia	30%
Rest of the world	45%
Workforce globally	**25%**

For more information see our Sustainability Performance Databook, matthey.com/sustainability-databook

Fair pay

We operate a 'total reward' approach at JM, and we aim to provide a total reward offering that is flexible, market competitive in each country in which we operate and affordable for JM. For this, we are committed to providing fair reward that is consistent with our goal of being an inclusive and sustainable company.

We understand that there is pressure on our people's finances because of the current economic environment and for the second year in a row, we have given a larger portion of the global salary budget to non-management roles, recognising that cost-of-living pressures are felt more acutely here.

We are developing our approach to global pay transparency in line with EU legislation and have already disclosed our UK gender pay gap report in accordance with UK law. In 2023/24 our UK gender pay gap was 7.6% which puts us ahead of the national average of 14.3%.

In addition to our employees' pay, we have provided support through an employee assistance programme (Assist), which provides JM employees and dependants with confidential, external professional advice on a variety of financial wellbeing topics such as debt management, mortgages, and loans, in addition to broader mental, physical and social wellbeing topics. Our temporary employees received the same benefits as our permanent employees.

View our gender pay gap report: matthey.com/gender-pay-gap

Parental leave

We recognise the significance to our employees of starting and supporting a growing family. To support employees, we maintain a Global Parental Leave Standard. This standard provides a global minimum standard of 16 weeks fully paid leave for new parents (including adoptive parents) who are regarded as the primary caregiver.

Please see our Global Employee Leave Policy for more information, matthey.com/global-employee-leave

For more details see our Sustainability Performance Databook, matthey.com/sustainability-databook

Accreditation as Living Wage Employer UK and exploring opportunity to apply living wage policy globally

7.6%
Gender pay gap in UK

Upholding human rights and high ethical standards

We support the principles of the Universal Declaration of Human Rights and the International Labour Organisation (ILO) Core Conventions. We are aligned with key frameworks that define human rights principles for businesses, including UN Guiding Principles on Business and Human Rights and the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises.

Our approach to human rights considers our entire value chain, including our own operations, suppliers, partners and customers. We have set ourselves a commitment to assess all of our value chain partners for human rights risks by 2030.

matthey.com/human-rights-policy

Our operations

Our Human Rights policy sets out our commitments and provides for regular processes to identify and mitigate risks in our operations. Where we have operating sites in high-risk countries we work with local teams to implement remedial actions where required.

Our suppliers and customers

We initiated a human rights risk assessment for suppliers accounting for 85% of our annual procurement spend (excluding PGMs). Utilising the EcoVadis IQ Module, we rated 529 suppliers, with 5% identified as (very) high risk. We are working with these suppliers to address these risks effectively.

Where required, mitigations and remedial actions have been put in place and continued monitoring has been implemented.

We actively engage and support our suppliers on their sustainability journey. Last year we reported the case of a supplier in a higher risk region that we were working with to improve their EcoVadis assessment, following a human rights assessment. As a result the supplier has this year achieved a silver medal for their commitment to sustainable and responsible business practices.

For Ecovadis KPIs of our suppliers see our Sustainability Performance Databook, matthey.com/sustainability-databook

This year we included detailed human rights expectations into our updated Supplier Code of Conduct as well as our standard Terms and Conditions of Purchase and template purchasing agreements. These require our suppliers to not only comply with all applicable human rights laws, but also to put robust internal procedures in place to mitigate and remediate human rights risks. These obligations apply both to our direct suppliers, existing and new, as well as their supply chain and subcontractors.

See our refreshed Supplier Code of Conduct, matthey.com/supplier-code

We also work closely and collaboratively with our customers to provide open and transparent disclosure. We see our customers as valued partners and we contribute to their sustainability goals by actively engaging and providing data and information about climate-related, human rights, diversity and governance topics. Our commitment extends to informing them about our sustainable practices in both our products and operations, ensuring transparency in all sustainability developments concerning JM. Moving forward, our dedication remains unwavering as we strive to enhance our engagement with customers, empowering them to make informed choices that play a crucial role in shaping a more sustainable and resilient future.

Modern Slavery Statement

We are committed to ensuring no modern slavery exists in our business and to identify, mitigate and remediate any issues we find in our value chain. We publish our Modern Slavery Statement annually to demonstrate our progress.

matthey.com/modern-slavery

Doing the right thing underpins everything we do

Our new, refreshed and simplified digital Code of Ethics, called 'Doing the Right Thing. Together.' is a practical guide for us all to use. It provides guidance around four key areas applicable to everyone:

1. What doing the right thing means and our Code commitments
2. Making good, ethical decisions
3. Asking for help when you are unsure what to do; and
4. How to speak up with serious concerns

Included within is a new decision-making tool, which assists anyone facing an ethical dilemma or difficult decision. Our global network of ethics ambassadors is called out as an on-site resource should employees have ethical queries or concerns. And we have included a people manager section, highlighting the role and responsibilities line managers have in promoting an ethical culture within their teams across JM.

To complement our refreshed Code of Ethics we rolled out a new programme of ethics training globally. We also run bespoke training courses for specific groups, for example on competition law and anti-bribery and corruption for externally facing employees. This year we also rolled out a human rights training course to targeted groups.

See our full set of policies on our website

For details of training courses see our Sustainability Performance Databook, matthey.com/sustainability-databook

Our Speak Up culture

Our independent Speak Up helpline is available for anyone wishing to raise a concern.

We analyse Speak Up metrics quarterly to identify key themes and significant trends and share these with the Societal Value Committee and relevant senior leaders.

→ See page 89 for more information about our Societal Value Committee

During the year there were 138 Speak Ups, of which two related to bribery and corruption. JM has a zero-tolerance approach to bribery and corruption, and our Ethics & Compliance team thoroughly investigated to determine whether the allegations could be proven or whether any recommendations should be made, as it does with all categories of Speak Ups. Even where allegations of bribery and corruption are not proven, an assessment is made to ensure the risk of bribery and corruption taking place in the future is properly mitigated. During the year no legal cases regarding bribery and corruption were brought against JM or its employees.

See our Speak Up Policy, matthey.com/speak-up-policy

For details of the Speak Up reports see our Sustainability Performance Databook, matthey.com/sustainability-databook

People: Promoting a safe, diverse and equitable society

Responsible sourcing

Our global multi-tiered supply chain encompasses a wide range of suppliers providing raw materials, goods and services. We foster a responsible and sustainable supply chain by collaborating closely with our suppliers. In 2023/24 our supplier spend was £3 billion (excluding precious group metals).

In 2023/24 we developed responsible sourcing principles. Led by our commitment to creating a positive impact through our operations, the responsible sourcing principles embody our dedication to ethical and environmentally-conscious practices across our value chain. All new suppliers receive and acknowledge the refreshed Supplier Code of Conduct which includes an environmental section.

We also conducted a review of our Scope 3 emissions from purchased goods and services, to map existing decarbonisation commitments from suppliers and identify additional levers to reach our 2030 target. This work will help us prioritise our engagement with suppliers, and guide our work with initiatives such as Together for Sustainability, to ensure we maximise the positive impact we can have on our supply chain.

We continue our partnership with Tealbook and Minority Supplier Development UK (MSDUK). In the next year we aim to use MSDUK to help us set a long-term supplier diversity strategy and target. We have estimated that 3% of our spend with suppliers is allocated to diverse or small businesses, and we identified several opportunities to improve our sourcing practices to be more inclusive as well as enhance our internal training and adoption of the programme. We are also embedding the Tealbook services into our conversations with customers and suppliers and update them on the diversity spend.

For more information see our Sustainability Performance Databook, matthey.com/sustainability-databook

Conflict minerals and cobalt

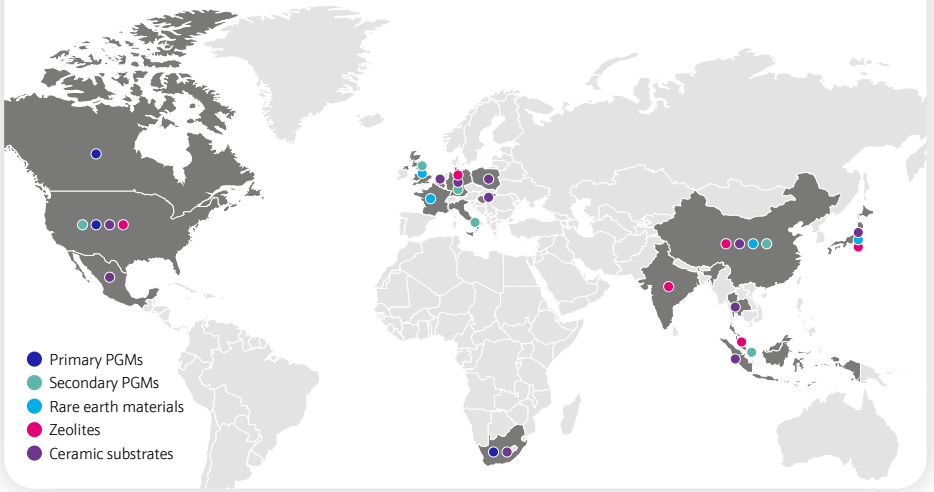
In alignment with both our Conflict Minerals & Cobalt Policy and the OECD's Due Diligence Guidance for Responsible Supply Chains or Minerals from Conflict-Affected and High-Risk Areas, we engage with suppliers to get information on 3TGs (tin, tantalum, tungsten and gold) and cobalt in our products.

Of the 3TGs, tungsten is used in our autocatalyst products, though we recognise we may have small amounts of the others in finished goods and refining intakes. We have identified 85 suppliers providing 3TGs and cobalt going into our products. These suppliers have each provided due diligence industry standard reporting templates, of which four did not fully meet our requirements due to low supply chain coverage (less than 75%). We are working with these suppliers on remediation plans.

Responsible sourcing principles

1. Reduce GHG emissions
2. Maximise resource efficiency and promote circularity
3. Protect nature
4. Promote ethical behaviours, uphold human rights, source minerals responsibly
5. Provide and create a safe workplace and safety culture
6. Live diversity and inclusivity across our value chain

Where we source strategic raw materials



Platinum group metals (PGMs)

We collaborate with industry associations such as the International Platinum Group Metals Association (IPA) to ensure ethical sourcing of PGMs. Supporting the adoption of the Initiative for Responsible Mining Assurance (IRMA) standard, we recognise the challenges and continue assisting our suppliers on this journey. Our UK and US refineries adhere to the London Platinum and Palladium Market's 'Good Delivery' lists and Responsible Platinum and Palladium Guidance, annually confirmed through third-party audits by RCS Global.

More on the IRMA responsible mining standard: matthey.com/IRMA

Annual LPPM compliance: matthey.com/lppm-compliance

See our Supplier Code of Conduct: matthey.com/supplier-code

Forestry products

We ensure palm oil is being purchased from sustainable sources, as set out in our Supplier Code of Conduct which can be found on our website. As a certified member of the Roundtable on Sustainable Palm Oil (RSPO) we successfully completed an audit by TÜV NORD Integra according to the RSPO Supply Chain Certification Standard in August 2023.

Doing business in higher-risk jurisdictions

In 2023/24 we completed the disposal of our production facility in Krasnoyarsk in Russia, which we previously put into dormant status during 2022/23, and have now exited Russia completely.

Several raw materials to our products, including PGMs, rare earth metals and zeolites, are sourced from China. No major concerns have been identified, however, we continue the process of reviewing the detailed due diligence templates and will implement mitigations or put remedial actions in place, as required.

People: Promoting a safe, diverse and equitable society

Investing in our communities

Being a responsible neighbour continues to be core to our community investment approach. Through our activities we aim to strengthen the communities surrounding our sites by contributing to their long-term resilience and sustainability, and in particular by removing barriers to STEM education.

Our performance in 2023/24

Our colleagues volunteer throughout the year, however, much of this activity centres around our two campaigns, #JMvolunteers, coinciding with International Volunteer Day, and Earth Month, which we ran for the first time this year, and that encourages volunteering with an environmental focus.

2,246
volunteering days during 2023/24, a 9% increase from last year despite a decrease in employees

£1,013,000
Expenditure in community investment

Tackling STEM inequality

We remain committed to working with local partners and schools to tackle STEM inequality and break down barriers young people often face in accessing quality STEM education and opportunities.

Our global community impact programme, Science and Me, enables us to make progress in this area by contributing to projects with funding, expertise and time. Science and Me has been fostering curiosity and stimulating an interest in STEM since launching three years ago.

In 2023, Science and Me awarded grants for new projects in the US, UK and North Macedonia. North Macedonia 2025, for example, aims to enhance access to quality STEM education for 15 primary schools across North Macedonia by delivering hands-on learning experiences that will inspire around 1,500 students and 25 science teachers. Since its inception, our Science and Me programme has awarded a total of 30 grants to help tackle STEM inequality.

11 Science and Me grants
were awarded in 2023, to five non-profits and six schools, engaging nine JM sites in three countries.

Community investment summary

£'000	2023/24	2022/23	% change
Direct expenditure	**440**	594	-26%
Indirect expenditure	**573**	479	20%
Total	**1,013**	1,073	-6%

For more information see our Sustainability Performance Databook, matthey.com/sustainability-databook

Examples of initiatives

People: Promoting a safe, diverse and equitable society

How we engage with our external stakeholders

As a global company with a leading role in the net zero transition, we engage actively with non-profit organisations, policy makers, business associations and global alliances. This helps ensure we maximise our positive impact on society, by playing our role in developing sustainable solutions, and setting the right sustainability objectives.

Throughout the year, we attended flagship events and debates to keep up to date with the latest sector trends and rapidly evolving regulatory landscapes. For instance, we were present at COP28 to follow the climate negotiations and to enable better understanding of the role that our solutions, such as sustainable aviation fuels and clean hydrogen, can play in the journey to net zero. We attended several conferences to share insights on our key markets, such as the World Hydrogen Leaders conference, ADIPEC and the London Platinum Week.

Business associations and non-profits

We actively engaged with business associations last year. For instance, we worked with the Association for Emissions Control by Catalyst (AECC) on the introduction of Euro 7 standards in the EU and on other regulations promoting clean air and sustainable mobility solutions. We also engaged with Hydrogen Europe and the Hydrogen Council to provide expert insight on hydrogen technologies, as well as on the PGM markets, to inform policy and support the critical role of PGMs in the energy transition.

We also joined the Industry Council of the US Department of Energy's Energy Innovation Hub. We will help inform the Critical Materials Innovation Hub's five-year programme on PGMs, using our unique and longstanding depth of knowledge across the entire PGM ecosystem.

In addition, we engaged with several non-profit organisations and think tanks on sustainability topics, including our Nature strategy, JM Renewable Energy Standard, and how to best embed sustainability in our capital investments.

We provided insights to the British Society of Chemical Industry (SCI) on the business case for an industrial science and innovation strategy in the UK, underpinned by sustainability, which was used in their Manifesto released in August.

Global alliances

JM is a member of global alliances which can help drive business outcomes and shape the low-carbon markets we play in. For instance, we are actively involved in the World Economic Forum's Securing Minerals for the Energy Transition initiative, where we provide expert insights on the supply and demand of the PGM market, including the key role of the secondary market and their contributions to sustainable technologies.

Examples of business associations and global alliances which were a key focus of engagement on sustainability in 2023/24

Hydrogen Council
Hydrogen Europe
EUROMETAUX
AECC
IPA
CLGs
CIA
cefic
WORLD ECONOMIC FORUM
UN GLOBAL COMPACT
SCI where science meets business

Task Force on Climate-related Financial Disclosures

In this section

Introduction

Climate change is one of the most pressing threats facing our planet today. We recognise that what we do at Johnson Matthey has impacts – both positive and negative. Our solutions help our customers to reduce greenhouse gas (GHG) emissions and the new technologies we are designing will help further accelerate the transition to a low-carbon future. But our operations have their own environmental impact, creating GHG emissions, using water and producing waste.

Our business strategy is shaped around the opportunities and the risks that our changing climate presents. We have set ourselves the target of achieving net zero by 2040; our Scope 1, 2 and 3 long-term target ambition has been recognised as aligned with the SBTi's 1.5°C mitigation pathways.

The disclosures in this report are consistent with the TCFD recommendations.

Governance

Given the nature of our business, and how closely aligned our strategy is to a warming world, climate-related risks and opportunities have been on the board's agenda for many years.

Role of the board and its committees

The board is responsible for setting and overseeing the implementation of the group's strategy, including the annual budget and detailed business plans. In doing so, it considers climate-related issues, including when approving requests for capital expenditure or new initiatives.

The responsibilities of the board and its committees in relation to climate-related issues and the broader sustainability agenda are set out in our Matters Reserved for the Board and in our Audit Committee and Societal Value Committee (SVC) Terms of Reference.

See the Matters Reserved for the Board and Terms of Reference for our committees within the Corporate Governance Framework document on our website: matthey.com/governance

The SVC focuses more closely on the governance of sustainability matters, including our response to climate change. The SVC meets three times a year, see pages 89 to 91 for composition and more information about its work in 2023/24.

Together with the Nomination Committee, the board ensures that, among the directors, it has the necessary sustainability and climate-related expertise.

→ For more details of our non-executive directors' skills and experience, see pages 77-79

The Audit Committee monitors and assesses the level of assurance over TCFD and climate-related issues and performance metrics. The committee is also responsible for reviewing the effectiveness of internal control and risk management, which includes climate-related risk.

The Remuneration Committee set three ESG targets within the group's Long-term Performance Share Plan (PSP): two climate related targets and a DI&B target. Our senior leaders and directors participate in this PSP. This clearly reflects our intent to contribute to an acceleration of the transition to a net zero world and creating a diverse, inclusive and engaged company. Details of the PSP targets set for 2024 can be found on page 127.

Role of management

The board delegates responsibility for running the business to the Chief Executive Officer (CEO); this includes overall responsibility for climate-related issues. The CEO is supported by the Chief Sustainability Officer (CSO) and the Sustainability Managers who together develop our sustainability vision, goals and targets.

The CSO is responsible for prioritising our sustainability agenda and threading all elements into our business, providing updates to the Group Leadership Team (GLT) on the steps taken to develop or implement our sustainability strategy, including key metrics, risks, opportunities and our roadmaps to net zero by 2040.

At a business level, there are work streams for advancing specific aspects of sustainability.

→ For more information on our governance structure see page 80

Task Force on Climate-related Financial Disclosures continued

Governance structure for climate-related issues

Level	Committee/forum	Attendees	Frequency	Objectives	
Board	Societal Value Committee	• Committee members • CSO • External experts as required	three times a year	• Formal board governance committee on sustainability • Gives direction and oversight of ESG strategy, goals, performance	Representation for sustainability topics in parallel board committees – e.g. Audit, Nomination and Remuneration
GLT	GLT	• CSO – responsible overall for climate-related issues • Other GLT members	Monthly (CSO updates as required)	• Agree and formally approve global sustainability strategy and goals • Monitor roadmaps and ensure resources in place to deliver strategy and targets	
Business	Sustainability work streams	• Sustainability managers • Operations and commercial sustainability leads • Sustainability initiative owners from global functions	Bi-monthly	• Build and agree roadmaps to targets • Ensure delivery of roadmaps • Discuss new and emerging topics • Ensure customer needs on sustainability are proactively met	Sustainability leads by business and function
Other internal stakeholders		• Sustainability champions • OneJM scenarios team	As required	• Encourage grassroots initiatives • Ensure our strategy is based on the latest understanding of climate scenarios	

In addition to the internal stakeholders listed above, we regularly engage with external stakeholders, such as think tanks and non-profits, to ensure our sustainability strategy is built on a concerted approach.

Strategy

Our business strategy is based on our purpose of catalysing the net zero transition for our customers through enabling the necessary transitions in energy, chemicals and automotive, underpinned by circularity. Climate change offers us many business growth opportunities through our products and services, as well as some risks. However, the pace at which the world will adapt to the impacts of climate change is uncertain. So that we properly understand and are resilient to these uncertainties we maintain climate-change scenarios to frame the ambiguities in our long-term business strategy of an increasingly volatile and complex environment.

Climate scenarios for evaluating transition risks and opportunities

Our climate scenarios are used by all our businesses as a common basis for planning, forecasting and stress testing their strategy and assumptions on growth. These scenarios, which project the impact of climate change on our operational and commercial performance, are essential in informing our strategic decisions, such as how we invest in R&D and assets, or which new products to develop. We also use climate scenarios to consider the resilience to changing weather patterns of our own operations, those of our strategic suppliers and our core supply routes.

Our three transition scenarios represent three global temperature rise pathways.

- **Rapid transition scenario** (aligned to 1.5°C) – net zero achieved globally by 2050, in line with the goal of the Paris Agreement to limit the world's temperature rise to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C. This reflects swift and decisive action regarding policy interventions and decarbonisation commitments.
- **Pragmatic evolution scenario** (aligned to 2°C) – net zero achieved globally by 2080, which reflects a step-up in policy interventions and decarbonisation commitments compared with today, but not as decisive as under the rapid transition scenario.
- **Slow transition scenario** (aligned to 3°C) – net zero not achieved by 2100, reflecting a global lack of urgency on climate change with limited policy or legislative interventions.

Task Force on Climate-related Financial Disclosures continued

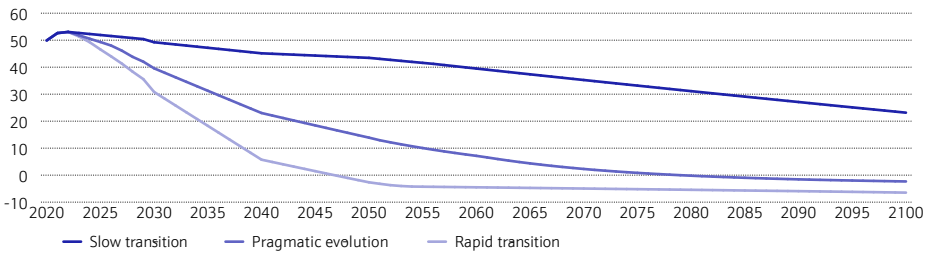
We developed our climate scenarios internally, with support from external experts, and also using the latest available research from the International Energy Agency (IEA). The IEA inputs included three scenarios: the Net Zero Emissions Scenario (supporting our Rapid Transition scenario), the Announced Pledges Scenario (supporting our Pragmatic Evolution scenario), and the Stated Policies Scenario (supporting our Slow Transition scenario). Our methodology breaks down the different energy sources (electricity, hydrogen, gas, coal, oil, renewables, biomass and others) and considers forecasts for each source by demand type: transport, buildings, industry, power and heat. We developed in-house forecasts for specific source / demand combinations close to our areas of expertise in automotive, chemicals, hydrogen and other industries, while ensuring that, at a macro level, we remained within IEA's forecasts. During the last year we have also started to link availability of critical raw materials to our scenarios, since this will likely have a significant impact on the rate of the clean energy transition progresses, and allows us to consider risks associated with both direct access to such materials and potential geopolitical impacts to such access.

We update our scenarios at least annually to reflect changes in external drivers, incorporating the latest from internationally recognised sources alongside our own forecasts. Our updates in the last year point towards an acceleration in demand for clean hydrogen in the medium to long term across scenarios, both for direct use and in producing sustainable fuels for both aviation (SAF) and maritime (clean ammonia and methanol), reflecting policy mandates and targets.

For example, during the past year, the International Maritime Organisation significantly increased its emissions reduction ambitions, from a 50% reduction by 2050 (compared to the 2008 baseline year) to an intention "to reach net-zero by or around, i.e. close to, 2050". We are also seeing increased focus on the potential for hydrogen-powered aviation in the longer term (post 2035), both using hydrogen in internal combustion engines and in fuel cells.

We model scenarios up to 2100, but look at shorter-term horizons, specifically 2030 and 2040, to inform our strategic and operational decisions. In the shorter term we also consider the impact of factors such as higher interest rates and current lack of policy clarity, on the ability of projects to move towards a Final Investment Decision, which can impact near-term energy transition developments. The table below details the main qualitative and quantitative assumptions we used for our 2040 scenarios. We use the Pragmatic evolution scenario as our base case for our strategic planning.

Total anthropogenic emissions ($GtCO_2/yr$)



Climate scenarios for evaluating physical risks

Changing weather patterns as the climate warms may result in physical risks to our assets and supply chains. We have evaluated the exposure of all our assets, with specific deep dives where needed, and those of our strategic suppliers to these risks.

We used the Shared Socio-economic Pathways (SSPs), the latest climate change modelling scenarios from the Intergovernmental Panel on Climate Change (IPCC). The SSPs produce forward-looking climate data by running climate models driven by assumptions about future global GHG emissions, together with plausible future socio-economic development metrics (economic growth / GDP, demographics, land use and urbanisation), and incorporating the likely implementation of adaptation and mitigation measures. The three SSPs we considered, for the locations of all our own operations and those of our strategic suppliers, are shown in the table below. Four time horizons were considered – 2020 (our baseline), 2030, 2040 and 2050 to identify the top hazards and how they are likely to change.

Scenario	Assumed temperature increase (relative to 1850-1900)
SSP 1-2.6	Best estimate of 1.7°C warming by 2041-2060, and 1.8°C by 2081-2100
SSP 2-4.5	Best estimate of 2.0°C warming by 2041-2060, and 2.7°C by 2081-2100
SSP 5-8.5	Best estimate of 2.4°C warming by 2041-2060, and 4.4°C by 2081-2100

SSP 5-8.5 is an extreme scenario that is unlikely to arise, but is useful for stress testing. We use it to test the resilience of our key sites.

Market Sector	Metric (2040)	Unit	Rapid transition	Pragmatic evolution	Slow transition
Global	Total primary energy demand	Exajoules (EJ)	500-550	600-650	650-700
	Renewables supply (excluding use of biomass)	% of total energy supply	c. 40%	c. 26%	c. 17%
Automotive	Global sales of zero-emissions vehicles	% of total automotive sales	c. 90%	c. 75%	c. 50%
	Global sales of fuel cell electric vehicles	% of total automotive sales	c. 10%	c. 7.5%	c. 5%
Hydrogen	Global hydrogen production	Mt p.a.	350-400	300-350	150-200

Task Force on Climate-related Financial Disclosures continued

Our climate-related transition risks and opportunities

Through our scenario work, we identified three distinct potential climate-related impacts, which represent both risks and opportunities for our business.

We use our climate scenarios to evaluate these risks and opportunities in the short (0–3 years), medium (3–10 years) and long term (10+ years), in line with our usual business planning timescales. We believe the Pragmatic evolution climate scenario is most likely to occur, so have used it as the base case for assessing our transition impacts, and the other two scenarios to stress test the sensitivity and resilience of our business plans

Primary driver of impact	Opportunities (with time horizons)	Risks (with time horizons)	Management of impacts[1]	Financial impacts (after management)	KPIs to monitor impacts
1. Changing customer demand for our products due to climate awareness					
Regulation • Tightening emissions standards for vehicles • Government incentives or taxation for energy production or use based on carbon footprint (e.g. IRA and ETS) • Targets and mandates for the increased use of low-carbon alternatives, such as sustainable aviation fuels (SAFs), clean hydrogen, bio-based feedstocks • National Hydrogen Strategies **Markets** • Shifts in customer preferences	Opportunities for new products: **Energy** • Performance-dictating components for electrolytic hydrogen generation (short/medium term and beyond) • Processes, equipment and catalysts for the production of sustainable aviation fuels (short/medium term and beyond) • PGM-based technologies enabling the energy transition, along with recycling solutions enabling circularity **Chemicals** • Low-carbon solutions for the chemicals industry (e.g. CCUS-based hydrogen, processes and catalysts reducing carbon intensity) (short term and beyond) **Automotive** • Performance-dictating components for fuel cells vehicles (medium term and beyond) • Emission control catalysts for hydrogen combustion engines (medium/long term)	Without adaptation of our portfolio, there is a long-term risk that we may not have a financially viable future business model as society transitions to net zero. Main risks include: • Inability to invest and scale up rapidly to manufacture new products for new sustainable markets (short/medium term) • Uncertainty in the rate of market evolution and technology adoption, including the penetration of sustainable fuels and hydrogen technologies, which could affect profitability (short/medium term) • Reduced demand for existing autocatalyst products for internal combustion vehicles (medium/long term)	We focus on managing our existing businesses effectively, with an increasing focus on sustainable chemicals and energy. • We are closely monitoring the changing market environment drivers including evolving government policy on hydrogen, emissions standards, carbon taxation and incentives such as IRA and EU Green Deal Industry Plan • We update our climate scenarios at least once a year to inform our strategic decisions • For our growth businesses we are investing in new production assets, forming long-term upstream and downstream strategic partnerships to enable us to play to our strengths to accelerate growth and maintain capital expenditure in line with market expectations • For our maturing businesses, we have a plan to reduce our cost base to improve efficiency and cash flow • We have divested businesses not core to our growth strategy to simplify and focus • We keep investing in innovation to make sure we have products that differentiate us in all our markets	**Growth** Accelerating profit growth coming from businesses related to sustainable solutions. Clean Air remains on track to deliver our cash generation target of at least £4.5 billion by 2030/31	• Tonnes of GHGs avoided by customers using our products (target set for 2030) • % sales aligned with SDG7 and SDG13 • % R&D spend aligned with SDG7 and SDG13

1. Impact management activities described in this column are all ongoing or have been implemented.

Task Force on Climate-related Financial Disclosures continued

Primary driver of impact	Opportunities (with time horizons)	Risks (with time horizons)	Management of impacts[1]	Financial impacts (after management)	KPIs to monitor impacts
2. Increasing demand for low-carbon manufacturing					
Markets • Shift in customer preferences towards products with a low-carbon footprint **Regulation** • EU REDIII (mandates 42% of all industrial hydrogen used in EU must be green by 2030) • Carbon taxation mechanisms in countries of operation e.g. ETS and Carbon Border Adjustment Mechanism • Rules on recycled content of consumer goods and the need for companies to declare the carbon footprint of their products	• Commercial advantage if we adapt our manufacturing plants to low-carbon operation faster than our competitors (short/ medium term) • Save future carbon taxation costs, which will reduce operating costs and give us price advantage as schemes become more widespread and expensive (medium term) • As the world's largest recycler of secondary PGMs, we could benefit from the increased demand for goods with low-carbon and/or recycled critical raw material content (short/medium term)	Medium-term risk that we cannot transition our operations and supply chain for net zero at the correct pace to meet customer demand for low-carbon products. • Loss of customers and failure to attract new customers due to reputational damage if we do not transition fast enough to cleaner energy solutions in our operations (medium/long term) • Greater capital required to upgrade our assets and site infrastructure to transition to low-carbon manufacturing (medium term) • Inability to engage suppliers to reduce Scope 3 emissions; PGMs market conditions leading to an increased share of primary PGMs used in our products • Inability to access the alternative renewable energy sources needed to reduce natural gas use in our operations (medium/long term) • Loss of competitive advantage due to increased costs to us and our suppliers of goods and logistics due to carbon taxation on raw materials and fossil-fuel derived energy (medium term)	• We have set challenging 2030 GHG reduction targets, in line with a 1.5°C trajectory, and published roadmaps to decarbonise our manufacturing operations • We are actively engaging with our suppliers to reduce our Scope 3 emissions, and have updated our Responsible Sourcing Principles accordingly. See page 50 for more details • We use an internal carbon price for our capital investment decisions and the board consider sustainability reviews of all investment decisions £5 million and above to help us make the right choices for decarbonising our operations for net zero in the long term • We regularly review global carbon pricing trends and ensure our long-term scenarios are consistent with different levels of carbon prices • We monitor trends in customer requests for product carbon footprint, Life Cycle Assessment (LCA) and recycling information	Exposure to direct carbon taxation on our manufacturing operation is not forecast to be material in our three year viability period	• Scope 1, 2 and 3 GHG emissions (target set for 2030) • Number of customer requests for low-carbon and recycled content in products • Current and forecast direct exposure to carbon taxation in 2030 for our operations
3. Increasing stakeholder expectations of corporate climate policy and performance					
Reputation • Increased concerns or negative feedback from stakeholders **Legal** • Exposure to litigation	• Developing and delivering robust climate policy will increase our long-term business resilience, attracting shareholders and employees aligned with our values (short term and beyond) • Delivering our net zero commitment and science-based targets will help us demonstrate sustainability leadership, and increase our profile with new customers and shareholders (medium term and beyond)	• Investors, employees and wider society are scrutinising companies' sustainability commitments ever more closely. Failing to meet their expectations could damage our reputation, losing us customers, making it difficult to attract and retain staff, and ultimately increasing the risk of shareholder action (medium/long term) • Our plans for meeting our sustainability commitments are not deemed sufficiently detailed or credible (short/medium term) • We fail to meet these commitments (medium term)	We continue to monitor and manage the expectations of our stakeholders as follows: • SVC monitors our governance of climate-related issues • Developing and monitoring a net zero roadmap to 2040, with targets set for 2030, supported by detailed roadmaps • Maintaining regular dialogue with investors • Market scanning and benchmarking of targets to ensure our climate-related policies and commitments meet the highest expectations	Reputational risk has not been quantified.	How we score on leading ESG platforms: • CDP climate change score • DJSI, Sustainalytics and MSCI climate scores • Progress towards our 2030 sustainability targets for GHG emissions

1. Impact management activities described in this column are all ongoing or have been implemented.

Task Force on Climate-related Financial Disclosures continued

Our climate-related physical risks and opportunities

Changing weather patterns as the climate warms may result in physical risks to our assets and supply chains. They could damage our sites and disrupt production, leading to loss of sales and increased costs, as well as posing risks to our employees. They could also hamper our access to strategic raw materials through supply chain disruption, either at our suppliers' sites or in transit. These physical risks can be grouped into two categories:

Acute, which are extreme events such as tropical cyclones, thunderstorms, severe flooding events, droughts, heatwaves and wildfires.

Chronic, which are gradual changes like rising sea levels that damage coastal property, or sustained changes to temperature and rainfall.

Primary driver of impact	Opportunities (with time horizons)	Risks (with time horizons)	Management of impacts[1]	Financial impacts (after management)	KPIs to monitor impacts
4. Disruption to our operations resulting in damage to or loss of assets, increased costs and harm to our employees					
Physical risks (acute and chronic) • Increased frequency, severity and variability of extreme weather events and natural disasters	• Competitive advantage by improving our business resilience and controls through diligent climate-related screening of assets, and integration with business continuity plans (medium term)	• Damage to our key sites, equipment or stock from severe weather (wind, rain and drought) if any increased risk is not effectively mitigated, leading to disruption of supply to our customers (medium term) • Insurance of our sites could become inadequate or more expensive if a site is at very high risk of weather-related disruption (medium term) • Increased employee EHS incidents if sites are not adapted to increased risk of heat wave (medium term)	• Our ten most important manufacturing sites identified as being located in areas with increasing risk from high rainfall are undergoing deep-dive assessments of their resilience and implementing mitigation as required. Following last year's pilot we have completed a further four sites this year • There are mitigation action plans to accompany the five physical risk assessments. The risks and associated action plans have been added to our global enterprise Risk Management process, ensuring progress is tracked and reported and the climate risk is integrated into individual site's risk management and risk ownership. • Integration of weather-related risks in business continuity plans and follow-up action plans • Climate change assessment considered as part of due diligence for new investments for growth. • We use the WRI tool to monitor where clean water availability could be at risk in the long-term, see page 43 • We regularly review the type and limit of insurance available for climate risks to our portfolio	• High-level analysis of our ten most critical locations shows that there is no material financial impact from climate change risks on the quantifiable hazards (flood and windstorm in the medium term)	Proportion of physical asset value exposed to a climate change-related high or very high hazard levels by 2030: • Number of sites in water-stressed areas • Amount of water consumed in areas of high or extremely high baseline water stress

1. Impact management activities described in this column are all ongoing or have been implemented.

Task Force on Climate-related Financial Disclosures continued

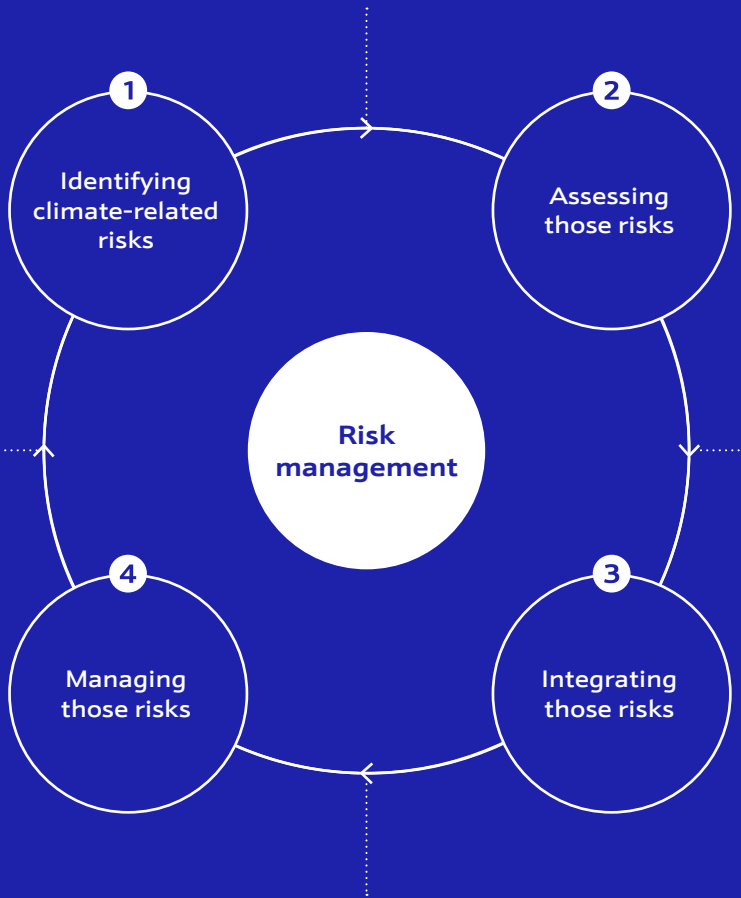
Primary driver of impact	Opportunities (with time horizons)	Risks (with time horizons)	Management of impacts[1]	Financial impacts (after management)	KPIs to monitor impacts
5. Disruption to our supply chain (upstream and downstream) hampering our access to strategic raw materials (including metals) and products, and increasing costs.					
Physical risks (acute and chronic) • Increased frequency, severity and variability of extreme weather events and natural disasters	• Engaging with our suppliers to help them manage climate risks to their sites could enhance our relationships with them and save us money (medium term) • Increase in business resilience through more diligent and frequent screening of our suppliers' assets (e.g. through integration with business continuity plans) (medium term)	• Disruption of supply of key raw materials risks our ability to deliver goods on time to customers, resulting in loss of sales and future business and damage to our reputation (medium term) • Insurance cover of suppliers is inadequate, and uncertainty over the future level of increased risk responsibility that will be assumed by suppliers and/or JM relating to climate risks, or if physical risks should be transferred (medium term, three to ten years)	• Climate risk is integrated into our principal risk management structure and supplier partnering framework (SRM). We undertake quarterly reviews of the risks identified, supplier remediation plans and alignment with company and category strategies • Our approach in case of high risks related to climate emergencies is to work with strategic suppliers to integrate specific climate mitigating actions to improve their resilience or switch to alternative suppliers • We ensure that the type and limit of our suppliers' insurance is in line with our own risks and external obligations (medium term) • We continue to develop a diversified supply portfolio, with emphasis on dual sourcing at supplier and site levels	No issues identified in the last year.	Number of weather-related supply chain disruptions.

1. Impact management activities described in this column are all ongoing or have been implemented.

Task Force on Climate-related Financial Disclosures continued

Risk management

All our climate-related risks are subject to our global enterprise risk management process, which provides a systematic approach of understanding, evaluating and addressing all identified risks (see page 63 for more information).



1 Identifying climate-related risks

We continually review and evaluate our climate-related risks against industry best practice, peer benchmarking and risks identified by business leads and subject matter experts as well as new and emerging risks.

We believe our climate risks are in line with industry and legislative expectations.

2 Assessing those risks

We also use external third parties to evaluate physical climate risks at our locations and those of our suppliers. With the four assessments conducted this year, we now have detailed site resilience assessments for five of our top ten highest risk manufacturing locations. This determines the requirements for areas we need to focus on in the short, medium and long term.

3 Integrating those risks

Through our enterprise risk framework, climate-related risks and opportunities are integrated into our strategic decision-making. Climate change considerations are part of how we operate, and climate is included in our bottom-up operational risk management process, providing a clear view of climate-related risks across the organisation. For instance, Principal Risk 1 is directly related to the first transition risk identified as part of TCFD guidance – see page 64 for more details.

4 Managing those risks

The Societal Value Committee (SVC) oversees our sustainability strategy, including managing our climate-related risks. These risks may have a direct or indirect impact on our Principal and Business risks, and are therefore managed alongside and integrated within the enterprise risk management process.

To drive consistency, each risk in our enterprise risk process, including climate-related risks, has been assigned a risk owner and sponsor. These individuals are senior stakeholders who are accountable for reviewing, monitoring and assessing the magnitude of the risk as well as overseeing the implementation of appropriate mitigations.

All of our principal risks are reviewed formally, twice a year, by the GLT and the Board.

→ For more information on our risk management approach, please see pages 62 to 70

Task Force on Climate-related Financial Disclosures continued

Metrics and targets

The metrics and targets we use to help us manage our climate risks and opportunities effectively are shown below. They were identified in the climate-impact tables on pages 56-59 and their values are summarised here. Our Scope 1, 2 and 3 greenhouse gas (GHG) emissions targets have been verified by the Science Based Targets initiative as consistent with the UN Paris agreement on climate change's 1.5°C pathway, and a full breakdown of performance in all categories over the last five years can be found on page 41.

Metric description	Climate-related risk	Target type	Baseline year	Baseline value	2030 target	2023/24 performance	More on page
GHG emissions avoided per year using technologies enabled by JM products and solutions, compared to conventional offerings (tonnes CO_2e)[1]	1	Absolute	2020/21	223,946[2]	50 million	1,110,057	37
% sales aligned with SDG7 and SDG13	1	Intensity	2020/21	6%	No target	8%	36
% R&D spend aligned with SDG7 and SDG13	1	Intensity	2020/21	22%	No target	23%	36
Total Scope 1 and Scope 2 GHG emissions (market-based) (tonnes CO_2e)[1]	2,3	Absolute	2019/20	405,770[2]	227,231	282,403	41
Scope 3 GHG purchased goods and services (tonnes CO_2e)	2,3	Absolute	2019/20	3,433,660[2]	1,991,523	2,531,576	41
% recycled PGM content in our products	2	Intensity	2021/22	70%	75%	69%	42
Potential exposure to carbon taxation in 2030	2	Intensity	2021/22	Not disclosed	No target	Not disclosed	61
CDP climate change score	3	Absolute	2019/20	B	A	A-	1
% physical asset value exposed to high weather-related hazard by 2030	4	Intensity	2020/21	35%	No target	39%	58
Water consumed in regions of high baseline water stress (m^3)	4	Absolute	2020/21	417,704[2]	No target	402,254	43
Number of supply chain disruptions due to severe weather	5	Absolute	2020/21	Not disclosed	0	0	59

1. Metrics are linked to long-term Performance Share Plan (PSP) for senior directors.
2. Rebaselined to remove divested businesses, please see page 210 for more information.

Internal carbon pricing (ICP)

We use a shadow carbon price in our capital investment business case assessment process. Although the ICP is not a real cost of the investment, it demonstrates what the impact would be of the carbon taxation forecast for 2030 and beyond, and we use it to evaluate and compare potential investments. We expect the ICP to play an increasingly important role in influencing our investment decisions, as carbon impacts come under increasing scrutiny from key internal and external stakeholders.

We are using the ICP for Scope 1 and 2 emissions for the asset when operational, with the intention to extend this to Scope 3 in the future. We chose not to apply ICP to emissions related to the development of the project itself, such as equipment manufacture, or to construction-related emissions, since such emissions are both short term and generally minor in relation to the overall life of the asset. The price applied in 2023/24 was £100/tonnes CO_2e, with sensitivity analysis conducted at £50/tonnes CO_2e and £150/tonnes CO_2e.

Risk report

Risk management is an essential and integral part of JM's planning and decision-making. It is fundamental in helping us achieve our objectives, improve outcomes for our stakeholders, enhance the realisation of opportunities and support the growth afforded by our stated aim of being a market leader in energy transition solutions. During the year, we have refined our principal risks to enhance clarity and reflect our progress.

Managing risks effectively

The ability to effectively manage the risks that we encounter plays a crucial part in strategic delivery and driving accountability. Risk management stands as a cornerstone of our governance and operations throughout the organisation. We continue to invest in awareness initiatives and the training of our employees to stay ahead of various threats. This intends to cover all areas of risk management, including cyber security and financial risks.

Financial risk management forms part of the group-wide risk management framework which adopts a top-down and bottom-up approach, to ensuring current and emerging financial risks are identified, understood and managed in line with our risk appetite. Functional leaders, businesses and site teams are responsible for identifying, assessing and prioritising their financial risks, considering the likelihood of occurrence and their potential impact on JM's objectives. This includes reviewing whether a risk has changed, how effective the controls we use to manage the risks are, and whether mitigating actions are in place.

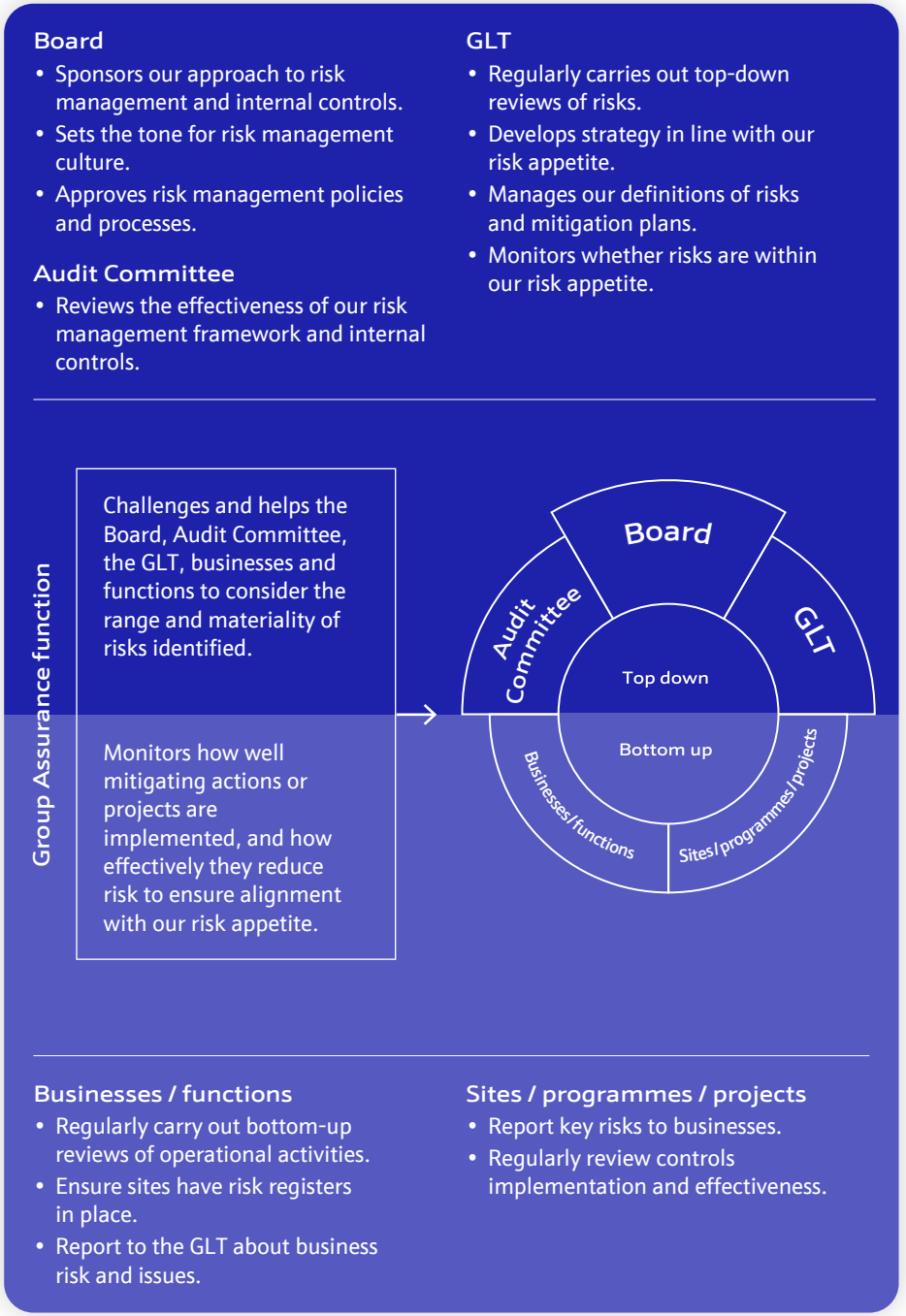
The effectiveness and adequacy of existing controls are assessed regularly with risk sponsors and owners. A subset of the most relevant financial controls is reported at least once a year via the Controls Self-Assessment process and signed off by management as part of half year and year end reporting cycles.

The board is responsible for the fraud risk management processes and ensuring JM's internal control systems are effective in preventing and detecting fraud. The board is also responsible for explaining the steps taken to prevent and detect material fraud. An annual review of fraud risks and the mitigation controls is performed by functional owners as part of the annual risk assessment process facilitated by our risk and compliance platform, JMProtect. A walkthrough within each key function is conducted to identify fraud risks and mitigating controls which are then captured in JMProtect with ownership assigned. Completion of remediating actions, including those identified through the independently run Speak Up process, is monitored regularly by internal governance bodies. Regular updates are provided to the Audit Committee throughout the year.

Climate-related risks and opportunities

Working closely with our sustainability team, we continue to support the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and disclose how effectively we are managing climate-related risks and opportunities. Further details are included on pages 53-61.

Risk governance and oversight



Risk management framework

Our risk management methodology identifies and considers principal risks, including severe yet plausible scenarios. Its purpose is to reassure stakeholders that we have fully considered and understand a broad range of risks and are managing them in line with defined risk appetites.

The board, which is ultimately accountable for risk management and internal controls, evaluates how effective these systems are at mitigating principal and emerging risks at least once every year. The GLT provides support for the board's reviews, which ensures the risks we have identified are relevant to our current aims and strategic goals. The Audit Committee supports the board in assessing the effectiveness of our risk management and internal control systems, processes and policies.

Our risk management methodology takes a top-down approach to identify our principal risks (i.e. from board level down) and a bottom-up approach to identify operational risks (i.e. from day-to-day level up). We are constantly looking to improve how connected and aligned these approaches are as they operate in parallel.

Functions, businesses and site teams are responsible for identifying, assessing and prioritising their risks. They also consider how likely it is that a risk will materialise and what effect that would have on our objectives. This includes reviewing whether a risk has changed, how strong the controls we use to manage the risk are and whether mitigating actions are in place. We use self-assessment and management attestation processes to report, at least once a year, on whether the relevant controls are effective. This is a maturing process with several initiatives in progress to improve our controls environment.

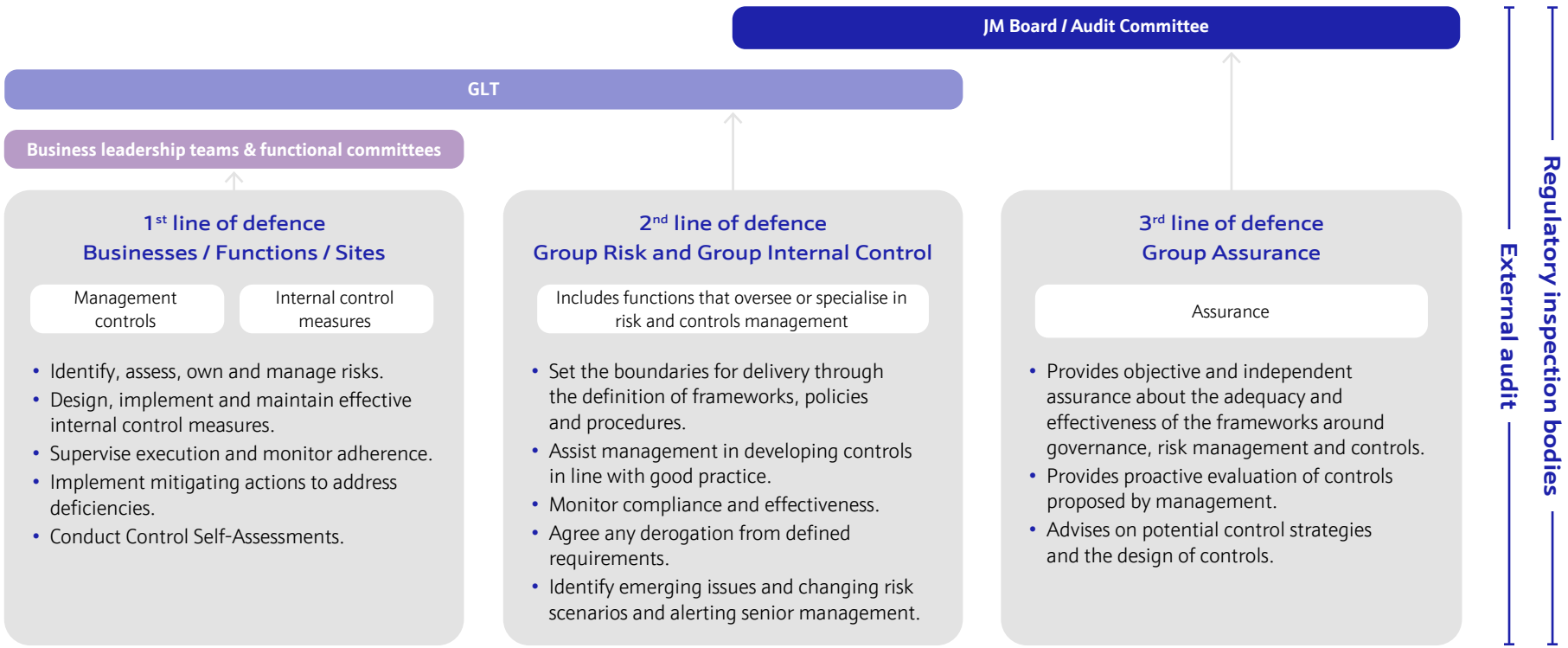
In the past 12 months, we have continued to improve how we address and monitor risks in a number of ways, including:

- Making continued enhancements to our risk and compliance platform, JMProtect, which offers a combined and centralised view of our risk universe and controls framework.
- Developing our Aligned Assurance model that aligns second and third-line assurance activities for easier collaboration and more proportionate risk-based assurance.

Working closely with Group Insurance, JM prioritises insurance cover for the most significant areas of risk across the group, and areas where insurance is a legal or contractual requirement. If insurance is available on commercially reasonable terms, we also utilise it as a risk mitigation tool across our wider business. Where appropriate, we get advice from industry to help us assess risks and develop mitigation plans.

How we manage risk

We apply the three-lines-of-defence model as laid out in the diagram below.



Risk report continued

Principal risks and uncertainties

In the following section, we outline our principal risks, alongside the measures we have taken to reduce them. They are classified as principal risks because they could materially harm our company's operations, either alone or in combination.

We regularly review our risks to best determine key mitigating actions, while also assigning appropriate GLT sponsors to help us overcome our biggest challenges and continue to meet our strategic objectives. Our GLT sponsors work closely with principal risk owners to assess changes to their risks, better understand our exposure and create targeted mitigation strategies. Over the last year, we have continued to review and update our principal risks, clarifying associated opportunities and priority actions.

The principal risks identified below are categorised as strategic or operational principal risks. Strategic principal risks, if handled effectively, carry a significant opportunity to deliver above stakeholder expectations. We recognise that risks present potential exposures that require effective risk management to control and treat the uncertainty. This effectiveness also provides opportunities to the business to have better strategic thinking that can provide financial and operational benefits.

We have added 'Risk movement' icons in the principal risk section. The icons show the risk movement from 2023 as illustrated in the previous year's Annual Report.

Strategic and operational risks

To execute our strategy, we must be mindful of the risks that may undermine us, while ensuring we capture most of the opportunity they present. Our day-to-day operations carry a level of risk that must be managed effectively to ensure that we are able to keep our people safe and meet our strategic goals.

Description	Key mitigations	Updates made to principal risk	Risk movement
S **1. Market factors, customer demand and margin sustainability** **GLT sponsor: Liam Condon, Chief Executive Officer** JM's strategy is focused on developing solutions to support our customers through the energy transition, particularly in sustainable chemicals, fuels and energy. The risk is that we fail to correctly anticipate and/or make the right business decisions to address shifts in demand for our products and services (e.g. driven by regulation, customer needs, societal expectations), or shifts that lead to margin erosion. Such shifts may impact existing and new products, and may create upside opportunity and downside exposure (e.g. from faster or slower energy transition). If we correctly anticipate and respond to shifts, we can enhance value through increased revenues, profits and optimised resource allocation.	Subsequent to a reassessment of the risk exposure due to changing market conditions and the resulting risk movement, we are addressing this in the following ways: • We systematically monitor market conditions, technologies and customer requirements to adapt our plans where needed. • Margin sustainability is underpinned by our on going transformation program, and our continuous improvement mindset across the business. • In addition, we further reinforce and assure margins by diversifying our customer base, improving our offerings through innovation and R&D, establishing strategic partnerships to secure offtake, and focusing on opportunities where we have significant competitive advantage.	Formerly 'Significant shift in demand and/or commoditisation of sustainable technology'.	↑

S Strategic risk O Operational risk

Risk report continued

Description	Key mitigations	Updates made to principal risk	Risk movement
S 2. A significant geopolitical or macroeconomic event impacting JM's operations **GLT sponsor: Louise Melikian, Chief Strategy and Corporate Development Officer** JM has a global business footprint, in terms of operations, customers and supply chains. There is a risk that we face disruption due to geopolitical or macroeconomic events (e.g. from conflict, trade disputes, sanctions, pandemics, macroeconomic events, or financial crises). Mitigating this risk helps avoid adverse impact on our people, sales, profits or investment. In addition, successfully mitigating this risk provides a level of competitive advantage by providing supply security for our customers.	• JM's wide global presence and portfolio hedges our macroeconomic and geopolitical risk to some extent. • Our strategic planning considers macro and geopolitical risk when making investment decisions. • In addition, we continuously monitor JM's exposure across the countries and regions to which we are exposed. • When needed, we set up taskforces to examine and address specific risks.	Louise Melikian has taken over as risk sponsor. Previously, JM saw potential for elevated geopolitical risks in serving and sourcing from China. We have since seen this risk abate somewhat, although we continue to monitor and take this risk into consideration while making decisions.	—
S 3. Failure to deliver business value from strategic capital projects **GLT sponsor: Mark Wilson, Chief Executive, Hydrogen Technologies** The success of our strategy, especially in growth areas, depends on our ability to effectively prioritise and deliver our strategic capital investment pipeline. There is a risk that we will be unable to meet production capacity expectations, breach budgeted costs or lose our competitive position in markets. Robust portfolio planning, management and governance, combined with enhanced competence in capital project delivery, will provide us with the platform we need to meet the growth ambitions of our growing businesses and deliver on our wider strategy. Delivering high-priority projects on time, within budget and to benchmarked costs will enable JM to grow further and faster.	Subsequent to a reassessment of the risk exposure due to changing market conditions and the resulting risk movement, we are addressing this in the following ways: • We continue to strengthen our central engineering and project organisation and address missing functional competency gaps. • Plans are in place to embed project frameworks, with business-wide compliance as a key value driver and a foundation of governance. • Mitigation plan includes transforming roles and confirming accountability of sponsors for project value. • We are bringing a continuous improvement approach to our capital investments by incorporating learnings from previous capital projects, and ensuring historical weak points are addressed in the front end planning of new investments like the refinery investment in the UK. • Integrated owner project teams with all key functions represented are being established. • System performance is continuously being monitored, using key leading indicators and key performance indicators.	Mark Wilson has taken over as risk sponsor. A priority focus has been bringing industry-leading rigour to our front-end planning and evaluation of investment opportunities. We are embedding this through robust evaluation of our business needs and matching those needs with a project solution. As a result, our investment decision making will be improved, ensuring we are maximising the utilisation of our resources and focusing on the right growth opportunities. We are making good progress in strengthening our capital projects execution capacities, especially as they apply to our most material and complex capital projects. We expect this risk to reduce further as gaps are closed and the long-term value of the new approach becomes apparent.	↑

S Strategic risk O Operational risk

Risk report continued

Description	Key mitigations	Updates made to principal risk	Risk movement
S 4. Development of offerings that do not meet the future needs of customers **GLT sponsors: Liz Rowsell, Chief Technology Officer, and Anish Taneja, Chief Executive, Clean Air and Chair of the Group Commercial Council** There is a risk that we are unable to develop offerings that are competitive enough to meet our market ambitions and the needs of customers, particularly in highly dynamic and emerging markets. This includes our ability to identify and understand customer expectations, translating this into effective innovation programmes and developing our technologies at industrial production scale. A strong product portfolio, effectively designed in line with our customers' current and future needs, will enable us to win in our chosen markets for the years to come. Effective development of products and offerings will continue to improve our brand and enable us to win in new markets as they are identified.	Subsequent to a reassessment of the risk exposure due to changing market conditions and the resulting risk movement, we are addressing this in the following ways: • We continue to foster strong connectivity across the value chain, involving customers and suppliers alike in innovation discussions. • We differentiate our innovation portfolio management approaches to support both our mature and growth businesses appropriately. We leverage tools such as New Product Introduction to ensure effective delivery across the portfolio. Examples of such innovation has resulted in new products such as FT CANS™ technology and HyRefine™, our novel process for recycling both the PGMs and valuable ionomers from fuel cells and electrolysers. • We are developing a stronger and more consistent OneJM view of the emerging landscapes in the energy transition, including technology scanning and scouting and proactive management of intellectual property in the new markets.	Formerly 'Development of products that do not meet the future needs of customers'. Liz Rowsell has assumed a role as joint risk sponsor alongside Anish Taneja. We ensure we are resourced to maximise value from our core businesses whilst supporting growth by investing in the front-end strategic marketing, business development, technology development, manufacturing scale-up, and digital skills needed to win in the broader playing field.	↑
O 5. A significant work-related EHS incident **GLT sponsor: Mark Wilson, Chief Executive, Hydrogen Technologies** The focus of this principal risk, related to Environmental, Health and Safety (EHS) performance, is around catastrophic incidents (e.g. fire, explosion or toxic gas release) due to process safety or major compliance failure which would threaten our critical operations, product portfolios or our corporate reputation and therefore our 'licence to operate'. As we operate high hazard installations, our business is controlled by a wide range of challenging health, safety and environmental laws, standards and regulations, which are set by governments and regulatory agencies around the world.	• We have a strong health and safety culture across the group. This is based on clear policies, guidelines and standards, continual training and awareness activities and audits. • A joint EHS and Engineering working group has been established to understand better ways of working to effectively address implementation of process safety requirements. • We regularly review process safety hazards at relevant sites by carrying out deep-dive safety audits. • We thoroughly investigate incidents or accidents to identify their root cause and then develop plans to remediate the problem. • We monitor our environmental risk, report on environmental data associated with our sites and always look for opportunities to improve. • We regularly review our regulatory and reputational risks and put mitigation plans in place where we need to.	Over the past 12 months, we have improved governance on how open high-risk scenarios from process hazard reviews are managed. This is allowing a transparent picture of where each of the high-risk scenarios are so that they are better managed. We have created a JM EHS operations council, which is a cross-business governance body comprised of Operations, EHS and Engineering leaders. It is accountable for EHS performance and for ensuring a strong safety culture is in place. The council plays a key role in assessing whether EHS risks are being managed effectively across the group through regularly reviewing EHS performance. Nevertheless, we continue to review any emerging EHS risks (especially process safety) across all our businesses, which we are fully evaluating and mitigating.	—

S Strategic risk O Operational risk

Risk report continued

Description	Key mitigations	Updates made to principal risk	Risk movement
O 6. Disruption to provision of key goods or services by suppliers **GLT sponsor: Anish Taneja, Chief Executive, Clean Air and Chair of the Group Commercial Council** As a global business, we are dependent on suppliers worldwide to provide key materials and services. Given the speciality nature of our products, there are limited suppliers who supply certain critical raw materials. If there was a significant disruption in their supply we would be unable to manufacture our products to satisfy customer demand. Our new growth areas (e.g. hydrogen, sustainable aviation fuel), are nascent industries, and supply chain infrastructures are immature. Ecosystems of suppliers are still fragile and vulnerable to market shocks and uncertainties.	• We ensure physical safety stock is available and review material lead-times to reduce the impact of any failure modes on our processes. • We utilise market intelligence to drive early warnings and are developing statistical material stock management systems. • We use a global category management approach and have started a process to reduce the number of suppliers in our tail spend areas. • We continually review our supplier base according to our latest business strategies and ensure that our relationships with the key and high impact suppliers are rigorously managed.	Formerly 'Disruption to inbound goods or services provided'. The risk has decreased, reflecting the implementation of our refreshed JM strategy. A Fit to Win supplier base is at the centre of our new procurement vision to co-pilot business to deliver sustainable profitable growth. We have built the first Fit to Win 2030 supplier base strategy with each JM business. Strategic supplier base shaping exercises have been completed with each of the JM businesses, and supplier segmentation and supplier action plans completed with our key suppliers. The global JM supplier convention has enabled us to bring our key relationships to the next level, with closer collaboration to anticipate potential supply chain disruptions and market trends.	↓
S 7. A low-performing culture undermines our strategy **GLT sponsor: Annette Kelleher, Chief HR Officer** A low-performing culture characterised by an insufficiently engaged and inclusive workforce, lacking commitment to taking accountability, keeping it simple and driving results could impact on our ability to attract and retain key talent and therefore successfully execute our strategy. A high-performance culture is essential to executing our strategy, delivering growth and being more efficient. High-quality leaders can build diverse, inclusive and engaged teams in which everyone can deliver better results.	• We are delivering a 'Play to Win Through People' campaign across JM to create a clear understanding of our people manager expectations and their importance in delivering our strategy. • We are building commercial and engineering capabilities to ensure that we have quality leadership with appropriate skills to lead the execution of our strategy. • Our global employee engagement survey is helping us measure the shift to 'Play to Win culture'. Ensuring that everyone in our company can share their views. • Engagement and Diversity, Inclusion & Belonging roadmaps are in place to create a highly engaged and inclusive environment.	The risk remains unchanged. While there are signs of improved engagement from our surveys, we are still working towards simplification. As part of our commitment to a high-performance culture, we have looked at different solutions that will help us improve the way we operate across our functions to make them fit for the future. This has led to the strategic decision to introduce JM Global Solutions (JMGS). The intention is to reduce complicated processes that may slow us down and help impact the customer and employee experience in a positive way.	—

S Strategic risk O Operational risk

Risk report continued

Description	Key mitigations	Updates made to principal risk	Risk movement
O **8. Breach to security or control of platinum group metals in our processes** **GLT sponsor: Alastair Judge, Chief Executive, PGM Services** JM uses significant quantities of high-value precious metals, which are transported, stored and processed across our operations. We do not carry significant exposure to price risk as we hedge our metal transactions centrally, looking at overall group supply and demand. Our PGMS business ensures the group has sufficient metal to meet business demands and manages our metal liquidity levels. There is a risk that we do not have sufficient metal available. Therefore, we operate within tight trading limits and defined liquidity levels to manage the demand volatility. Metal price volatility affects how much our trading business earns. The precious metal industry globally is susceptible to criminal activity resulting in the risk of theft, and we share those challenges. Loss or theft due to a failure of metal controls (operations and finance) and/or security management systems associated with the protection of metal may result in financial loss and/or a failure to satisfy our customers, which could reduce our customers' confidence in JM and lead to potential legal action. Failure to mitigate this risk can have a significant impact on our working capital, financial viability and/or undermine our ability to meet our customer commitments.	• Long-term strategic planning around the metal requirements of the group is undertaken to ensure appropriate positioning for the future. • We run a strong operational control environment within our metal trading business. • We hedge our metal transactions centrally through looking at the overall group supply and demand, minimising our exposure to metal price volatility. • We maintain a robust security management system to protect our metal holdings. • We have appropriate insurance cover in place.	Formerly 'Security of metal and failure to manage metal commitments'. The overall rating of the risk remains high due to the threats around metal theft. We have continued to strengthen physical security and the metal controls environment to ensure we have a proportionate control structure to manage and optimise our metal holdings.	—
O **9. Failure in one or more of JM's critical operational assets** **GLT sponsor: Alastair Judge, Chief Executive, PGM Services** A critical asset failure may have a material effect on our supply chains, performance, share value and reputation. In addition to the failure of aged assets, we are exposed to the effects of climate change. We understand that more frequent extreme weather events and natural disasters may disrupt our operations and increase our costs.	• Our asset failure risk management process is being strengthened to calibrate rigour according to the criticality of assets and risk profile of sites. • All JM manufacturing sites have been categorised as high, medium and low risk sites based on objective review of site hazards and strategic importance to JM. This will help prioritise resource and capital expenditure allocation for critical ageing assets. • In line with the scenario-based risk analysis recommended by the TCFD, climate-related physical risk assessments have been completed at a number of identified sites.	The overall rating for this risk has not changed. We continue to assess this risk based on the level of exposure across our businesses and their reliance on aged critical equipment. The implementation plan for enhanced processes is on track and improvement in risk exposure will be seen with the delivery of ongoing initiatives.	—

S Strategic risk O Operational risk

Risk report continued

Description	Key mitigations	Updates made to principal risk	Risk movement
S 10. Unsuccessful delivery of key business transformation programmes **GLT sponsor: Peter Hill, Group Global Services and Transformation Director** JM's transformation is scoped to implement the strategy of catalysing the net zero transition for our customers in energy, chemicals and automotive. There are currently around 25 programmes, across group functions and the four core businesses, driving business growth, people growth and efficiency. Failure to successfully deliver these programmes may delay the expected benefits, disrupt services to customers or trigger a loss of key talent. Together, the transformation programmes will address capability gaps and poor competitiveness in key markets. Through the transformation, JM will develop and strengthen its capability for ongoing continuous improvement, delivery of complex projects and agility to respond to future external trends.	• We have staffed and resourced all major transformation programmes with capable programme leads and subject matter experts. • We continue to coach and support programme teams to apply the JM Transformation Standard. • Strong change management and communication plans are in place for major cross-JM programmes, such as the recent introduction of JMGS. • We are identifying potential resource conflicts for programmes running concurrently and working with programme leads to resolve them.	Peter Hill has taken over as risk sponsor. Over the past 12 months, we have established stronger programme and change management capability. By applying JM's Transformation Standard, we expect to deliver benefits across the portfolio at or above target and reduce this risk in the coming year.	—
O 11. Business failure through cyber-attack or other IT incidents **GLT sponsor: Stephen Oxley, Chief Financial Officer** A failure to adapt our Information Technology (IT) and Operational Technology (OT) to changing business requirements, the occurrence of significant disruption to our systems or a major cyber security incident may adversely affect our financial position, harm our reputation and could lead to regulatory penalties or non-compliance with laws.	• We are driving investments in our IT and OT infrastructure to improve our resilience and increase operational efficiency. • We deliver a range of employee awareness training to educate on cyber risks and safe working practices. • We are enhancing our Global Cyber Security function and controls with the appointment of business-specific cyber OT risk champions and technical leads.	The overall rating for this risk remains high, reflecting the increasingly complex and heightened external threat landscape. We continue to manage this risk by enhancing cyber security technologies and processes, improving our ability to Identify, Prevent, Detect, Respond and Recover, aligned to our adoption of the NIST Cyber Security Framework.	—

S Strategic risk O Operational risk

Emerging risks and opportunities

We continually monitor our external risk landscape using a mixture of key risk indicators, third-party reports, findings from internal and external assurance providers, and feedback from both customers and suppliers. This information allows us to identify emerging risks and prepare reasonable mitigations.

For any identified emerging risks, considered to be a threat to JM or its value chain, we tailor our response to the size of the risk to ensure our mitigation strategy is proportionate.

In addition to risks continually monitored by businesses, functions and sites, we are paying attention to the following emerging risks:

1. Digital risks

JM is developing strategies to deal with risks and opportunities present in the digital space that require focus. With regards to generative AI, an AI Council has been formed with cross-business representation as well as the creation of an AI Policy to provide employees with high-level direction whilst the landscape evolves. The aim of the Council is to evaluate opportunities from multiple angles including business enablement, commercial risks, personal data concerns as well as JM's ethical approach to the use of AI and the potential impact on resources.

Our businesses continue to assess and plan what is required to move into the next phases of digitisation for JM. There are several legacy systems which will require upgrades and digitisation to aid the speed of our shift to an energy transition company. Group IT Security is closely monitoring the external threat landscape for cyber-attack use cases, varying in sophistication from the use of AI to create more realistic or error free phishing emails to deepfake technologies and polymorphic malware that is created using AI to better evade defences. Equally, our core security vendors are all moving to incorporate AI into their product offerings in order to compete and counterattack vectors.

2. Sustainability risks

JM is committed to complying with regulations concerning sustainability. As part of this we are putting in place mitigation strategies to help deal with our compliance and reporting procedures. Not reporting accordingly against sustainability disclosure rules could result in fines or loss of reputation.

The mitigation strategies include constant horizon scanning, reinforcing the message that ESG disclosure needs to be a priority, education of colleagues about the issues and methodologies for disclosure, underpinned by putting in place a robust reporting system overseen by our sustainability team.

Going concern and viability

Going concern

In adopting the going concern basis for preparing the accounts, the directors have considered the business activities as set out in the Strategic report and Financial review, pages 1 to 74, as well as the group's principal risks and uncertainties, pages 62 to 70. As part of this assessment, we have considered a base case and severe but plausible trading scenario. Both scenarios showed sufficient headroom under our committed facilities and financial covenants. As a final review, given the climate of greater political and economic uncertainty, we have also undertaken a reverse stress test to identify what additional or alternative scenarios and circumstances would threaten our financial covenants or headroom. This shows that we have headroom against either a further decline in profitability of approximately 50% in the financial year to March 2025, well beyond the severe-but-plausible scenario, or a significant increase in borrowings (net debt would need to more than double in the financial year to March 2025), or a significant increase in interest charges (these would need to rise more than 70%). In this unlikely scenario, we still have other mitigating actions available including retaining the full expected proceeds from divestment of Medical Device Components, reducing capital expenditure, renegotiating payment terms or reducing our dividend. The directors therefore believe that the group has adequate resources to fund its operations for the period of 12 months following the date of this report, making it appropriate to prepare the accounts on a going concern basis. Further details on going concern, viability and facilities can be found in note 1 on page 149 of the accounts.

Viability

We have assessed how viable we are as a business over a three-year period, in line with our planning horizon as this represents a timeframe over which the directors believe they can reasonably forecast the group's performance. During the year, the board carried out a robust assessment of the principal and emerging risks affecting our business, particularly those that could threaten our business model. The risks, and the actions taken to mitigate them, are described in the Risk report on pages 62 to 70.

We assess our prospects through our annual strategic and business planning process. This process includes a review of assumptions made including market, vehicle and production outlooks, customer demand, underlying growth, cost assumptions, metal prices, key risks and opportunities as well as an appraisal of our strategy and significant capital investment decisions. The Chief Executive Officer and Chief Financial Officer lead these reviews, along with the Chief Executives of each business.

The board also reviews the strategy for each business throughout the year, looking at our current position and prospects for the coming years. This allows us to reaffirm our overall strategy and reassess the risks that could impact its success.

We do not expect climate change risks to have a material near-term effect on our forward-looking forecasts for going concern or viability. See scenarios opposite for more details of our analysis.

Analysis through five stress scenarios

In making the viability assessment, we have analysed each of the principal risks facing the group – as described in the Risk report on pages 62 to 70 – and identified the items within each principal risk category that might significantly affect cash flow and viability. We have then modelled these in five stress scenarios.

Scenario 1 – Geopolitical and macroeconomic risks impacting JM's operations

This scenario considers the increased risk presented by geopolitical and macroeconomic risks, such as a six-month slowdown in our operations in China. This builds on the severe but plausible trading scenario which considers faster electrification and a reduction in end industry growth across the group.

Scenario 2 – Delivering on key initiatives (transformation programmes and capital projects)

This scenario considers the failure to execute key initiatives and projects effectively. It includes the impact of a six month delay to key capital projects, and delays to delivery of transformation and other cost savings.

Scenario 3 – Failure in one or more of our critical operational assets

This scenario covers a temporary one-month shutdown of a refinery, which leads to higher working capital and lower profits, as well as a temporary shutdown to key sites due to potential external events, such as supply chain or cyber issues.

Scenario 4 – Disruption to the platinum group metals value chain

This scenario considers the failure to secure metal deposits and failure to source sufficient metal to manage and satisfy our internal and external obligations. We modelled an increase in metal prices to highs over the period April 2023 to March 2024 and reduction of customer metal funding.

Scenario 5 – Other risks

This scenario includes the effect of all our other principal risks—outlined in the Risk report on pages 62 to 70—where not already considered in the scenarios above. For each risk, we have estimated a financial effect, which considers the impact and likelihood of the risk. Given the wide range of risks we face, we have then applied an overall probability weighting of 20% which allows us to work out the potential financial impact.

In evaluating our viability under each of these scenarios, we considered our current financing arrangements, see page 149, and assumed we would not refinance any maturing debt – although, in reality, we would expect to refinance our debts well ahead of maturity thereby increasing headroom.

At the end of the viability period (March 2027) we have £1 billion of debt facilities maturing, that will be appropriately replaced well ahead of maturity, and we have a strong track record of refinancing with no concerns and good capacity in the markets where we raise debt.

Conclusion

In all of the scenarios assessed, our stress testing shows that, only when all the risks identified above are overlaid on the severe but plausible trading scenario, there is a breach of headroom under our committed facilities in March 2027. Given refinancing and other mitigations as noted above, the directors have a reasonable expectation that the company and group will be able to continue operating and meet its liabilities as they fall due over the three year period covered in the viability review.

Non-financial and sustainability information statement

Compliance statement

The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 amend sections 414C, 414CA and 414CB of the Companies Act 2006 (2006 Act), placing requirements on the company to incorporate climate disclosures in our Annual Report and Accounts. We believe these have been addressed within this year's climate-related disclosures and as such we have referenced the location of these disclosures in the table below, and within our Task Force on Climate-related Financial Disclosures (TCFD) Compliance Table in the Sustainability Performance Databook available at matthey.com. Our business model is set out on pages 10-11. Our purpose, described on page 7, and our sustainability strategy on pages 34-52 set out how we act as a responsible business. Our non-financial KPIs which support the delivery of our strategic priorities are shown on pages 14-15 and 17. We have policies and standards in place to manage our principal risks, detailed on pages 62-70, which form part of our internal control framework. A description of all matters relating to climate-related risks and opportunities, including the governance arrangements, scenario testing and metrics and targets, are included within the TCFD on pages 53-61.

Reporting requirement	Policies and standards that govern our approach and due diligence[1]	Relevant principal risks[2]	Metrics	Outcomes and additional information
Our group policies governing **Environmental matters** define our key requirements and guiding principles to reduce the risk of harm to the environment, support our commitment to sustainability and help keep our people and the communities we serve safe.	• Environment, Health and Safety (EHS) Policy • Procurement Policy • Supplier Code of Conduct	5 – A significant work-related EHS incident – see page 66 9 – Failure in one or more of JM's critical operational assets – see page 68	• Sales contributing to our four priority UN Sustainable Development Goals (SDGs) – see page 17 • R&D spend contributing to our four priority SDGs – see page 17 • GHG emissions – see page 41 • CDP climate change rating: A- • ChemScore – ChemSec: 4th / 50 • MSCI ESG rating: AAA	Sustainability see pages 34-52 TCFD see pages 53-61 Societal Value Committee report see pages 89-91 Section 414CB (2A) (a)-(h) 2006 Act see pages 53-61
At Johnson Matthey, our people are the backbone of our success. We want our **Employees** to feel safe, promote a culture of inclusion and diversity, feel empowered to make the right decisions, behave in the right way and build long-term fulfilling careers. Our HR, Ethics and Compliance and EHS policies help support this.	• Board Diversity Policy • Code of Ethics • Diversity, Equity, Inclusion and Belonging Policy • EHS Policy • Employee Handbook • Employee Leave Policy • Smart Working Policy • Speak Up Policy • Substance Misuse Policy • Working Together Policy	7 – A low-performing culture undermines our strategy – see page 67	• Total recordable injury and illness rate – see pages 17 and 45 • Diversity – female representation across all management levels – see pages 17 and 47 • Employee engagement score – see page 35 • Gender pay gap results – see page 48 • Equileap: 41st / 4,000	People see pages 45-52 Health and safety see page 45 Employee engagement see page 46 Gender Pay Gap Report see page 48 Diversity, inclusion and belonging see pages 47-48 Speak Up see page 49

1. Some of which are only published internally.
2. More information about our principal risks can be found on pages 62-70.

Non-financial and sustainability information statement continued

Reporting requirement	Policies and standards that govern our approach and due diligence[1]	Relevant principal risks[2]	Metrics	Outcomes and additional information
We consider our entire value chain when looking at **Human Rights**, including our own operations, suppliers and customers.	• Code of Ethics • Conflict Minerals and Cobalt Policy • Data Protection Policy and Employee Privacy Notice • Human Rights Policy • Modern Slavery Statement • Procurement Policy • Speak Up Policy • Supplier Code of Conduct	6 – Disruption to provision of key goods or services by suppliers – see page 67	• EcoVadis rating: Gold • Human rights risk assessment – see page 49 • Code of Ethics training – see page 49	Suppliers see pages 49-50 and 88 Modern Slavery Statement see page 49 and our website, matthey.com/modern-slavery Responsible sourcing see page 50 Ethical standards see pages 49-50 Speak Up see page 49
Doing the Right Thing. Together. We are all responsible for **Social** matters and our Code of Ethics is a guide for how to do business ethically, fairly and responsibly. It ensures we embed sustainability in everything we do. The Code of Ethics is relevant to all our stakeholders (suppliers, customers, partners, agents, investors and the wider community). We ensure that our suppliers are also held to high standards and adhere to our Supplier Code of Conduct.	• Code of Ethics • EHS Policy • Supplier Code of Conduct	–	• Charitable giving – see page 86 • Volunteering days – see page 51 • FTSE4Good: 4.2 / 5	Ethical standards see pages 49-50 Investing in our communities see pages 51-52 Sustainability see pages 34-52 Sustainability Performance Databook – see our website, matthey.com/sustainability-databook
Johnson Matthey has a zero-tolerance approach to bribery and corruption. Our global policies support the group with compliance with various laws relating to **Anti-Bribery and Anti-Corruption**. We strive to act with openness, fairness and honesty and expect our stakeholders to do the same.	• Anti-Bribery and Corruption Policy • Code of Ethics • Conflicts of Interest Policy • Conflict Minerals and Cobalt Policy • Data Protection Policy • Gifts, Hospitality and Charitable Donations Policy • Global Tax Policy • Human Rights Policy • Speak Up Policy • Supplier Code of Conduct	–	• Code of Ethics training – see page 49 • EcoVadis rating: Gold	Suppliers see pages 49-50 and 88 People see pages 45-52 Ethical standards see pages 49-50

1. Some of which are only published internally.
2. More information about our principal risks can be found on pages 63-70.

Section 172 statement

Our Section 172 statement comprises this section and pages 86-88 of the Governance report; it describes how the directors have had regard to stakeholders' interests when discharging their duties under Section 172 of the Companies Act 2006. The mechanisms used to engage with shareholders are described on page 86. You can also read more about how the board considered these matters during the year, as follows:

Section 172(1) considerations

(a) The likely consequences of any decision in the long term

During the year, the directors focused on the execution of our strategy and strategic milestones to ensure we are positioned to create long-term value for shareholders. This recognises the role we play in wider society helping the transition to a greener economy.

- Our purpose – see page 7
- Our business model – see pages 10-11
- Our strategy – see pages 14-15
- Themes that are changing our world – see pages 8-9
- Financial review – see pages 26-33
- Sustainability – see pages 34-52

(b) Interests of employees

The directors recognise the importance of attracting, retaining and motivating high-performing individuals. The directors consider the implications for our people where possible. They also seek to ensure we remain committed to promoting a safe and inclusive working environment for all our people.

- People – see pages 45-52
- Employee engagement – see page 91
- Diversity, equity, inclusion and belonging – see pages 47-48
- Speak Up – see page 49
- Culture – see pages 46 and 90

(c) Fostering the company's business relationships with suppliers, customers and others

Our relationship with customers, suppliers, governments and partners is essential to ensure the success of our strategy and the long-term success of the company. The board receives updates on engagement across the group at meetings.

- Financial review – see pages 26-33
- Modern Slavery Statement – see page 49
- Our business model – see pages 10-11
- Sustainability – see pages 34-52
- Human rights and ethical standards – see pages 49-50
- Culture – see pages 46 and 90

(d) Impact of operations on the community and the environment

Sustainability is at the heart of our strategy, and the impact we have on the community and environment is carefully considered by the board. The board closely monitors decisions relating to our sustainability strategy through the Societal Value Committee.

- Our purpose – see page 7
- Themes that are changing our world – see pages 8-9
- Sustainability – see pages 34-52
- Task Force on Climate-related Financial Disclosures – see pages 53-61
- Societal Value Committee report – see pages 89-91

(e) Maintaining a reputation for high standards of business conduct

Our Code of Ethics, Supplier Code of Conduct and Modern Slavery Statement are reviewed regularly by the board. This ensures the high standards of conduct we expect are upheld by all levels of the business. The board monitors compliance with these through JM's internal control framework.

- Our purpose – see page 7
- Speak Up – see page 49
- Human rights and ethical standards – see pages 49-50
- Internal controls – see page 102
- Modern Slavery Statement – see page 49
- Ethics and compliance – see pages 49-50

(f) The need to act fairly between members of the company

Following careful consideration of all relevant factors including the impact on our stakeholders, the directors assess the course of action that enables the delivery of our strategy and the long-term success of the company.

- Stakeholder engagement – see pages 86-88
- Board outcomes – see pages 82-83
- Annual General Meeting – see page 130

The Strategic report from pages 1-74 was approved by the board on 22nd May 2024 and is signed on its behalf by:

Liam Condon
Chief Executive Officer