

Half year results for the six months ended 30th September 2023

22nd November 2023

Catalysing the net zero transition to drive sustainable value creation

Continued execution against a challenging economic backdrop

- Good growth in underlying profit at constant FX and adjusting for precious metal prices
- Overall results impacted by lower precious metal market prices as guided
- Transformation progressing at pace to create a more streamlined organisation and stronger platform for growth
- On track to deliver in excess of £150 million annualised savings by end of 2024/25, with associated restructuring charges of £17 million in the period
- Underlying margin up in Clean Air and Catalyst Technologies – plans for further increase
- Three year cumulative capex guidance to 2024/25 reduced by c.10% to c.£1.0bn
- Delivering on strategic milestones, including winning key 'first of a kind' projects in sustainable fuels and low carbon hydrogen

	Reported results			Underlying results (continuing) ¹			
	Half year ended 30 th September 2023		% change	Half year ended 30 th September 2023		% change	% constant FX rates
	£m	£m		£m	£m		
Revenue	£m	6,531	7,328	-11			
Sales excluding precious metals ³	£m			1,967	2,045	-4	-1
Operating profit	£m	136	211	-36	180	222	-19
Profit before tax (continuing)	£m	82	188	-56	139	201	-31
Profit after tax (continuing)	£m	63	150	-58	108	161	-33
Basic earnings per share (continuing)	pence	34.7	82.0	-58	59.1	88.2	-33
Interim dividend per share	pence	22.0	22.0	-			

Underlying performance – continuing operations^{1,2}

- Sales of £2.0 billion, down 1%, with lower average precious metal prices affecting PGM Services, partly offset by strong growth in Hydrogen Technologies and further progress in Catalyst Technologies
- Underlying operating profit of £180 million, down 15%, primarily due to lower average precious metal prices
- Underlying operating profit – adjusting for c.£55 million impact from precious metal prices – was up 10% driven by higher pricing and transformation benefits
- Underlying earnings per share of 59.1p, down 33% due to lower underlying operating profit and higher net finance charges of £41 million
- Strong balance sheet with net debt of £1,044 million; net debt to EBITDA of 1.7 times in line with our target range of 1.5 to 2.0 times

Reported results²

- Revenue down 11%, driven by lower average precious metal prices
- Operating profit of £136 million, down 36%, due to lower average precious metal prices and £42 million impairment and restructuring charges
- Profit before tax of £82 million, compared to £188 million in the prior period, largely reflecting lower operating profit and higher net finance charges
- Reported earnings per share (continuing) of 34.7 pence
- Cash inflow from operating activities of £236 million (1H 2022/23: £145 million)
- Interim dividend of 22.0 pence per share maintained at the same level as the prior year

Operational and strategic highlights

- Clean Air underlying profitability improved: taking actions to drive further margin increase
- Won nine large scale projects in Catalyst Technologies across low carbon hydrogen and sustainable fuels, worth c.£185 million in sales over five years
- Delivered significant margin uplift in Catalyst Technologies, with first half margins up 480 basis points, and on track to achieve margin targets
- Hydrogen Technologies sales up 61%
- Achieved c.£70 million transformation cost savings to date, and on track to deliver in excess of £150 million annualised savings by the end of 2024/25
- Committed to achieving net zero by 2040. Targeting 42% reduction in Scope 1 and Scope 2 greenhouse gas emissions, and 42% reduction in Scope 3 greenhouse gas emissions from purchased goods and services by 2030

Liam Condon, Chief Executive Officer, commented:

We are starting to see the benefits of the new strategy and transformation of Johnson Matthey. Against a backdrop of lower precious metal prices which affected headline profitability, we delivered good growth in underlying performance⁴ despite a challenging macroeconomic environment.

We are executing on our transformation at pace to simplify the business and drive improved performance. In Clean Air and Catalyst Technologies, underlying profitability is improving and there are clear plans in place to deliver further margin improvement. Across the group, we continue to upskill our commercial capabilities and our transformation programme is creating a more streamlined organisation and unlocking significant cost savings.

We have continued to make good progress in delivering against our strategic milestones whilst also driving transformation. In particular, we have secured important 'first of a kind' project wins in Catalyst Technologies which position us as a global leader in sustainable solutions. This is confirmation of the significant value we see in Catalyst Technologies as we help our customers to decarbonise. In Hydrogen Technologies we continue to see strong sales growth in the near term. The global hydrogen value chain is in an early stage of development and continues to evolve. We have a very disciplined and modular approach to investment that will ensure sustainable returns despite market volatility, and we expect a significant opportunity for value creation in the medium and long-term.

Looking forward, we are on track to deliver good growth in underlying performance and I am excited about the opportunities that lie ahead. I am confident we will achieve our 2023/24 milestones and deliver on our strategy, creating sustainable shareholder value and benefits for all our stakeholders.

Outlook for the year ending 31st March 2024

For 2023/24, the outlook for underlying performance has improved and we now expect at least high single digit growth in operating performance at constant precious metal prices and constant currency (previously at least mid single digit). This is underpinned by transformation benefits of c.£55 million in the year.

In Clean Air, we continue to expect strong growth in operating performance and a sequentially stronger second half. Whilst external data suggest limited growth in vehicle production for 2023/24, margin expansion should mainly be driven by efficiency benefits and we expect a double digit operating margin for the full year, with further progress beyond. PGM Services' performance will be largely driven by precious metal prices, with recycling volumes remaining subdued. For Catalyst Technologies, we expect very strong growth in operating performance and a significant uplift in margins, benefiting from pricing and efficiencies. We expect sales to grow strongly in Hydrogen Technologies and we will continue to invest for growth in a very disciplined manner, resulting in an operating loss at a similar level to 2022/23.⁵

Whilst precious metal prices have stabilised recently, it remains difficult to predict how they may develop. To illustrate the impact they may have on our results, assuming prices remain at their current level⁶ for the remainder of 2023/24 there would be an adverse impact of c.£80 million⁷ on full year operating performance compared with the prior year (1H 2023/24: c.£55m adverse impact). We remain focused on mitigating the potential impact on our performance.

At current foreign exchange rates⁸, translational foreign exchange movements for the year ending 31st March 2024 are expected to adversely impact underlying operating profit by c.£15 million (1H 2023/24: £9m adverse impact).

Dividend

The board has approved an interim dividend of 22.0 pence per share, maintained at the same level as the prior year (1H 2022/23: 22.0 pence per share). The interim dividend will be paid on 6th February 2024, with an ex-dividend date of 30th November 2023, to shareholders on the register on 1st December 2023.

Group Leadership Team changes

We have made changes to our Group Leadership Team as we reshape our business to drive improved profitability and position ourselves for long-term growth.

Maurits van Tol, previously Chief Technology Officer, has been appointed Chief Executive, Catalyst Technologies. Maurits succeeds Jane Toogood who successfully positioned Catalyst Technologies as a global leader in sustainable technologies. Jane has decided it is the right time for a new leader to take the business through the next phase of acceleration and has left the group. Liz Rowsell, previously Corporate R&D Director, succeeds Maurits as Chief Technology Officer.

We have combined Strategy with Corporate Development given their strong interdependency. Louise Melikian, previously Head of Corporate Development, is now Chief Strategy and Corporate Development Officer and joins the Group Leadership Team. Christian Gunther, previously Chief Strategy and Transformation Officer, who has served Johnson Matthey very well, has also left the group.

All changes were effective from 1st October 2023.

Enquiries:**Investor Relations**

Martin Dunwoodie	Director of Investor Relations	+44 20 7269 8241
Louise Curran	Senior Investor Relations Manager	+44 20 7269 8235
Carla Fabiano	Senior Investor Relations Manager	+44 20 7269 8004

Media

Barney Wyld	Group Corporate Affairs Director	+44 20 7269 8001
Harry Cameron	Teneo	+44 7799 152148

Notes:

1. Underlying performance 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 49 to 54.
2. 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 1H 2022/23 results converted at 1H 2023/24 average rates. In 1H 2023/24, the translational impact of exchange rates on group sales and underlying operating profit was an impact of £52 million and £9 million respectively.
3. Revenue excluding sales of precious metals to customers and the precious metal content of products sold to customers.
4. At constant FX and adjusting for c.£55 million impact from precious metal prices.
5. Outlook commentary for Clean Air, PGM Services, Catalyst Technologies and Hydrogen Technologies assumes constant precious metal prices and constant currency.
6. Based on average precious metal prices in November 2023 (month to date).
7. A US\$100 per troy ounce change in the average annual platinum, palladium and rhodium metal prices each have an impact of approximately £1 million, £1.5 million and £0.75 million respectively on full year underlying operating profit in PGM Services. This assumes no foreign exchange movement.
8. At average foreign exchange rates for November 2023 month to date (£:US\$ 1.227, £:€ 1.145, £:RMB 8.937) translational foreign exchange movements for the year ending 31st March 2024 are expected to adversely impact underlying operating profit by c.£15 million.

Chief Executive Officer update

Our strategy is purpose-driven to catalyse the net zero transition for our customers. We are focused on technologies and markets where we have leading positions and competitive advantage. At the same time, to support our strategy and maximise value creation we are undergoing a significant transformation to strengthen our capabilities, simplify our operating model and drive improved performance.

In the first half we saw good underlying performance¹, excluding the impact of metal and currency, despite the challenging market backdrop. We have taken actions to transform our business and I am pleased that we are starting to see the benefits. In Clean Air and Catalyst Technologies underlying margins have improved, but there is a lot more to come and we are committed to delivering further material improvements in both businesses. Our reported performance in the half was significantly impacted by lower precious metal prices, mainly in PGM Services. We are working hard to mitigate this going forward, including changes to our business model, although this will take time. In Hydrogen Technologies sales grew strongly. Whilst the global hydrogen value chain is in an early stage of development and continues to evolve, we see good opportunities. We have a very disciplined and modular approach to investment that will ensure sustainable returns despite market volatility, and we expect a significant opportunity for value creation in the medium and long-term. The underlying performance provides evidence that our strategy is delivering, and gives confidence in our ability to capture the growth opportunities ahead of us, drive efficiencies and translate all of that into value creation for our shareholders.

We have made progress with our transformation programme and are on track to deliver in excess of £150 million annualised cost savings by the end of 2024/25. The changes we are making will create a more efficient and streamlined organisation, meaning we are better positioned to deliver on our strategy and capture the growth opportunities ahead.

To date we have delivered benefits of c.£70 million, with c.£25 million achieved in the half against a target of c.£55 million for the full year. Examples of actions we are taking include the consolidation of our Clean Air manufacturing footprint and we are also implementing a Global Business Services (GBS) operating model across HR, finance and procurement. This GBS model will eliminate duplication, deliver standardisation, simplify processes, sharpen accountabilities and reduce costs. We are also driving greater value from procurement and rationalising our real estate globally.

We continue to focus and simplify our portfolio and have made good progress on our disposal programme. Within Value Businesses we aim to have divestments agreed by the end of our fiscal year.

Strategic milestones overview

We are making good progress against the strategic milestones we set out in May 2022. Our growth businesses – Catalyst Technologies and Hydrogen Technologies – continue to develop, positioning us as a global leader in sustainable solutions.

Customers:

- 2 strategic partnerships in Hydrogen Technologies – Plug Power and Hystar
- Winning targeted Euro 7 business, on track to deliver £4 billion+ cash² for Clean Air
- Won 9 additional large scale projects in Catalyst Technologies³ (targeting >10 across Catalyst Technologies and Hydrogen Technologies by end of 2023/24)

Investments:

- PGM Services refining capability expansion in China complete and ramping up
- Construction of Hydrogen Technologies CCM plant in the UK to expand total capacity from 2GW to 5GW is on track
- Targeted capacity expansion (e.g. fuel cells catalyst, formaldehyde catalyst) in progress
- Divesting non-core assets – Piezo Products (part of Medical Device Components) and Diagnostic Services sold

People: targeting an increase in engagement score from 6.9 in 2022/23 to 7.2 in 2024/25

Sustainability:

- Reduced Scope 1+2 CO₂e (carbon dioxide equivalent) emissions by 13% in 2022/23, ahead of targeted c.10% reduction by 2023/24 (from a 2019/20 baseline)
- Helping customers reduce CO₂e emissions through use of our products by >1mt p.a. by 2023/24

Notes:

1. At constant FX and adjusting for c.£55 million impact from precious metal prices.
2. At least £4 billion of cash under our range of scenarios from 1st April 2021 to 31st March 2031. Cash target pre-tax and post restructuring costs.
3. From 1st April 2022 to date.

Summary of underlying operating results from continuing operations

Unless otherwise stated, commentary refers to performance at constant FX rates¹. Percentage changes in the tables are calculated on rounded numbers.

Sales (£ million)	Half year ended 30th September		% change	% change, constant FX rates
	2023	2022		
Clean Air	1,286	1,278	+1	+4
PGM Services	230	282	-18	-16
Catalyst Technologies	282	275	+3	+5
Hydrogen Technologies	37	23	+61	+61
Value Businesses ^{2,3}	190	235	-19	-21
Eliminations	(58)	(48)		
Sales (continuing)	1,967	2,045	-4	-1

Underlying operating profit (£ million)	Half year ended 30th September		% change	% change, constant FX rates
	2023	2022		
Clean Air	124	108	+15	+22
PGM Services	78	125	-38	-37
Catalyst Technologies	35	21	+67	+84
Hydrogen Technologies	(26)	(24)	n/a	n/a
Value Businesses ^{2,4}	14	21	-33	-33
Corporate	(45)	(29)		
Underlying operating profit (continuing)	180	222	-19	-15

Reconciliation of underlying operating profit to operating profit (£ million)	Half year ended 30th September	
	2023	2022
Underlying operating profit (continuing)	180	222
Major impairment and restructuring charges ⁵	(42)	(9)
Amortisation of acquired intangibles	(2)	(2)
Operating profit (continuing)	136	211

Notes:

1. Growth at constant rates excludes the translation impact of foreign exchange movements, with 1H 2022/23 results converted at 1H 2023/24 average rates. In 1H 2023/24, the translational impact of exchange rates on group sales and underlying operating profit was an impact of £52 million and £9 million respectively.
2. Includes Battery Systems, Medical Device Components, Battery Materials, Diagnostic Services and Advanced Glass Technologies.
3. Sales relating to divestments of Advanced Glass Technologies and Diagnostic Services: (1H 2022/23: £41 million, 1H 2023/24: £37 million)
4. Operating profit related to divestments of Advanced Glass Technologies and Diagnostic Services: (1H 2022/23: £2 million, 1H 2023/24: £3 million).
5. For further detail on these items please see pages 18 and 19.

Business reviews

Clean Air

Improved profitability driven by pricing and efficiency benefits

- Sales up 4% supported by increased pricing and slightly higher volumes in light duty diesel and heavy duty diesel
- Underlying operating profit increased 22% and margins expanded 110 basis points to 9.6%. We benefited from increased pricing and volumes as well as cost savings from our transformation programme. This was partly offset by a weaker mix

	Half year ended 30 th September 2023	% change	% change, constant FX rates
	£ million	£ million	
Sales			
Light duty diesel	532	515	+3
Light duty gasoline	280	299	-6
Heavy duty diesel	474	464	+2
Total sales	1,286	1,278	+1
Underlying operating profit	124	108	+15
Underlying operating profit margin	9.6%	8.5%	+22
EBITDA margin	12.5%	11.3%	
Reported operating profit	104	109	

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

Performance commentary

The light duty vehicle market saw an improvement in global production during the first half, supported by the easing of supply chain disruptions. The normalisation of the Chinese market following COVID related lockdowns in the prior year led to a recovery in heavy duty vehicle production. Fleet replacements in Europe and the Americas translated to increased demand in this market.

Sales**Light duty diesel**

Light duty diesel sales were up 7%, outperforming a declining market. This was driven by strong performance in Asia and the Americas. In Asia, we strongly outperformed a growing market which is recovering from COVID related lockdowns in China in the prior year. Our growth was driven by the ramp up of new platforms in China and India. In the Americas we significantly outperformed a declining market which was impacted by faltering domestic demand due to the uncertain economic outlook. Our outperformance in the region was mainly driven by higher revenue per unit from a new platform. In Europe, which represents around 60% of our total light duty diesel sales, sales were broadly flat, in line with the overall market.

Light duty gasoline

Light duty gasoline sales were down 1%, underperforming the global market. In Europe, sales grew in line with a strong underlying market supported by the easing of supply chain disruptions. In the Americas, sales grew slightly behind a growing market due to the end of some platform programmes. Our sales in Asia underperformed a growing market. We saw good growth in China driven by improved mix but this was more than offset by previous platform losses elsewhere in the region.

Heavy duty diesel catalysts

In heavy duty diesel sales were up 5%, underperforming a robust market. We saw very strong performance in Asia partially offset by a decline in Europe. In Asia our sales significantly outperformed a strong market due to increased demand from our customers in China and higher revenue per unit in India as a result of product mix. We underperformed a growing market in Europe due to a weaker mix. In the Americas, our sales were in line with a slightly declining market. The high value Class 8 truck production was higher than anticipated but the worsening macroeconomic outlook in South America impacted production in the region. In the future, our strong presence in heavy duty positions us favourably to capitalise on upcoming advancements, such as internal combustion engines powered by hydrogen.

Underlying operating profit

Underlying operating profit increased 22% to £124 million and margins increased 110 basis points to 9.6%. We benefited from increased pricing and volumes as well as cost savings from our transformation programme. This was partly offset by a weaker product mix.

Business update

In Clean Air, we are focusing on margin improvement and delivery of our cash generation target of at least £4 billion in the decade to 2030/31. This is underpinned by business wins, rigorous cost management and tightening emission control legislation globally.

We continue to develop world leading catalysts to support our customers as more demanding emission regulations come into force across the world. In Europe, the legislative process for Euro 7 emission standards is ongoing. Earlier this month the EU Parliament formalised its position during a plenary vote. While less stringent than the EU Commission's proposal, it seeks to retain some key elements of the initial proposal, especially for light duty vehicle exhaust emissions. It also voted in favour of later introduction timings, meaning we can estimate Euro 7 standards to commence from 2027/28 for light duty and 2028 to 2030 for heavy duty vehicles. We expect final rules to be agreed ahead of EU elections in June next year. Beyond Europe we still expect the regulation roadmap to develop globally with the US already setting tighter standards from 2027 onwards whilst China and India are expected to bring proposals in 2024/25.

We are also strengthening our commercial capabilities, improving pricing whilst winning new business. We continue to win our targeted business across gasoline and diesel platforms.

As we drive efficiencies, we are reducing fixed costs and streamlining SG&A expenses and production overheads. We are also making good progress with the optimisation of our manufacturing footprint and have already completed 3 of the 4 announced site closures targeted by the end of 2023/24.

We remain on track to deliver on our cash generation target of at least £4 billion in the decade to 2030/31, having already delivered £1.4 billion in the first two years of this guidance. We

expect strong cashflow generation this year, albeit more moderate compared to the prior year. Alongside this, we are identifying efficiencies that will deliver further margin improvement and we expect to achieve a double digit operating margin for the full year with further progress beyond.

PGM Services

Performance reflects lower average PGM prices and reduced refinery volumes

- Sales declined 16%, reflecting lower average PGM prices and decreased refinery volumes due to continued lower levels of auto scrap
- Underlying operating profit was down due to lower average PGM prices. Our actions to improve efficiency have offset lower refinery volumes

	Half year ended 30 th September		% change	% change, constant FX rates
	2023 £ million	2022 £ million		
Sales				
PGM Services	230	282	-18	-16
Underlying operating profit	78	125	-38	-37
Underlying operating profit margin	33.9%	44.3%		
EBITDA margin	40.0%	48.9%		
Reported operating profit	77	125		

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 manufactures value added PGM products

Performance commentary

Sales

In PGM Services, sales declined 16% primarily driven by lower average PGM prices, and in particular palladium and rhodium, which declined 35% and 64% respectively compared to the prior period. PGM prices were impacted in the period by lower auto demand and the liquidation of excess rhodium positions. The average price of rhodium over the last three years to November 2023 has been \$14,400 per troy ounce, peaking at \$28,700 in early 2021. Since then, rhodium prices have declined and stabilised in recent months at around \$4,300.

In our refineries, intake volumes continue to be down due to lower auto scrap resulting from a strong used car market. We expect this trend to continue through our second half. We have completed the expansion of our China refinery which is now fully commissioned and taking in feeds. Our metal trading business performed well supported by a volatile precious metal price environment, particularly in China.

Across our PGM products businesses, sales were broadly flat.

Underlying operating profit

Underlying operating profit declined 37% mainly impacted by lower average PGM prices (c.£55 million impact). We have offset the impact of lower auto scrap volumes with cost saving actions.

Business update

In PGM Services we understand the full life cycle of the PGMs in our products and continue to work with our partners to enable greater recycling and refining at the end of their life. Ensuring a full service offering to customers, from metal supply to recycling, allows us to capture value from the entire life cycle of PGMs and is key in enabling our customers to use PGMs effectively in the energy transition.

For example, to support our Hydrogen Technologies customers, we are applying our long-standing recycling expertise to emerging technologies, including fuel cells and electrolyzers to enable circularity in the hydrogen economy. Our new technology for the recycling of hydrogen fuel cell and electrolyser materials has proven at pilot scale that we can recycle two critical components: the platinum group metals in the catalyst layers and the membrane ionomer. This is a key step on our path to provide a circular service to our Hydrogen Technologies customers and support the growth of this sector.

To strengthen our position as the world's leading recycler of PGMs, we are investing in the resilience, efficiency and long-term sustainability of our assets. Our China refinery is now fully operational, strengthening our capability and offering in the region. In addition, we are expanding our fuel cells catalyst capacity within PGM Services to support the growth of our Hydrogen Technologies business.

Catalyst Technologies

Sales growth and driving material margin improvement

- Sales up 5% with growth in both Catalysts and Licensing
- In Catalysts, sales were mainly driven by higher average prices as we strengthened our commercial focus, partly offset by lower catalyst refill volumes
- Won nine large scale projects from April 2022 to date across low carbon hydrogen and sustainable fuels, of which four were won since May 2023
- Underlying operating profit and margin improved materially, largely driven by actions taken to improve performance including higher pricing and efficiencies

	Half year ended 30 th September 2023 £ million	2022 £ million	% change	% change, constant FX rates
Sales				
Catalysts	254	249	+2	+5
Licensing	28	26	+8	+6
Catalyst Technologies	282	275	+3	+5
Underlying operating profit	35	21	+67	+84
Underlying operating profit margin	12.4%	7.6%		
EBITDA margin	16.7%	12.4%		
Reported operating profit	32	17		

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. Our revenue streams are licensing process technology and supplying catalysts.

Performance commentary

Sales

Overall, sales were up 5% in the half with growth in both Catalysts – which represents the majority of sales – and Licensing. In particular, we saw good performance in China reflecting both strength in formaldehyde and licensing of existing core technology.

Catalysts: benefiting from higher average prices despite lower volumes

In Catalysts, sales were up 5%. Through our stronger commercial focus we saw higher average prices across our portfolio, and delivered good growth in formaldehyde following recent project wins. We performed well across key syngas segments including ammonia and hydrogen. Overall catalyst refill volumes were down, largely due to an unplanned shut down at one of our plants.

Licensing: early sales from sustainable solutions portfolio

In Licensing, sales were up 6% supported by growth in our existing core portfolio as well as sustainable solutions. We continue to make good progress as we scale our business and target new opportunities in low carbon hydrogen and sustainable fuels. In the period, we saw early sales from these new opportunities and continued to win projects in these areas.

Across the rest of our licensing business, we saw growth in areas including oxoalcohols and BDO (butanediol) following recent project wins in China. Relating to these offerings (i.e. excluding sustainable solutions), we signed six licences in the half worth around £70 million in sales over five years. (1H 22/23: five licences).

Underlying operating profit

Underlying operating profit was up 84% to £35 million and margins grew significantly, up 480 basis points to 12.4%. This was largely driven by actions taken to improve performance including higher pricing reflecting our stronger commercial focus and efficiency benefits.

Business update

In Catalyst Technologies, we are growing our existing business alongside new opportunities in low carbon hydrogen (or carbon capture and storage – CCS-enabled hydrogen) and sustainable fuels. These sustainable solutions are based on syngas technology, where we have a market leading position and strong track record, and will transform the scale and profitability of our business.

In the near-term, we are focused on improving performance and delivering higher margins through initiatives across pricing, manufacturing efficiency and procurement. These actions are delivering immediate results, and we are on track to achieve our margin targets.

In our sustainable solutions portfolio, we continue to win early 'first of a kind' projects, which demonstrate the strength of our offering. In the period from April 2022 to November 2023, we won nine large scale projects across low carbon hydrogen and sustainable fuels worth c.£185 million in sales over five years, subject to project completion. This includes four projects which were won since we last reported in May 2023:

- Kellas Midstream's H2NorthEast low carbon hydrogen plant in Teesside, UK (October 2023)
- bp's H2Teesside low carbon hydrogen facility in Teesside, UK (October 2023)
- EDL's HyKero sustainable aviation fuel plant in Germany (October 2023)
- ABEL Energy's green methanol project in Australia (November 2023)

The new project wins include two low carbon hydrogen licences in the UK for H2NorthEast (Kellas) and also H2Teesside (bp) which aims to be one of the UK's largest low carbon hydrogen facilities. We also won two sustainable fuels projects including EDL's HyKero plant which would be the first of its kind at commercial scale in Germany, and also ABEL Energy's green hydrogen and methanol project in Australia. Across our sustainable solutions portfolio, we have a pipeline of more than 100 projects, which continues to grow.

In Catalyst Technologies, we are targeting high single digit sales growth in the short-term, accelerating to mid-teens growth over the medium to long-term. With the combination of our value creation programme and mix shift towards licensing we are targeting mid-teens margins by the end of 2024/25 and high teens by the end of 2027/28, with continued accretion beyond.

Hydrogen Technologies

Significant sales growth and continued disciplined investment to scale the business

- Sales up 61% driven by higher volumes for strategic customers in fuel cells, and growth in electrolyzers from the supply of components and samples
- Underlying operating loss reflects continued disciplined investment to scale the business to meet demand, partly offset by higher volumes

	Half year ended 30 th September 2023 £ million	2022 £ million	% change	% change, constant FX rates
Sales				
Hydrogen Technologies	37	23	+61	+61
Underlying operating loss	(26)	(24)	n/a	n/a
Underlying operating profit margin	n/a	n/a		
Reported operating loss	(26)	(24)		

In Hydrogen Technologies, we provide components across the value chain for fuel cells and electrolyzers 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, PEM (proton exchange membrane) and AEM (anion exchange membrane) electrolyzers.

Performance commentary

Sales

In the half, sales in Hydrogen Technologies were up 61% to £37 million driven by growth in both fuel cells and electrolyzers. Fuel cells – which represent the majority of our business today – grew strongly reflecting higher commercial volumes into both automotive and non-road transport applications for our strategic customers. In electrolyzers, we saw higher sales from the supply of components as well as prototypes and samples.

Across our business, we saw higher manufacturing output as we focused on operational performance and continued to improve our processes and drive efficiency. As we further scale and develop long-term relationships, we are focusing our business towards strategic customers.

Underlying operating loss

Underlying operating loss of £26 million reflects increased investment in building capability and product development as we scale the business to meet customer demand, partly offset by higher volumes from strategic customers.

Business update

Since May 2022, we have agreed multi-year strategic partnerships with Plug Power in the US and Hystar in Europe. As we develop the business we are growing the number of strategic customers, and supply chain partnerships are improving security of supply.

In the UK, construction of our 3GW facility in Royston is on track to be complete by the end of 2023/24. In the US, we are planning to co-invest with Plug Power into a new manufacturing plant. This plant will initially have 5GW capacity scaling to 10GW over time. Based on process improvements with our current and planned UK capacity, we now expect increased output and will be able to serve more demand from these facilities. Consequently, together with Plug Power, we are optimising our planned investment in the US including the timing and level of capex required. We seek to maximise appropriate government support where available.

Although the global hydrogen value chain is in an early stage of development and continues to evolve, we continue to target sales of more than £200 million by the end of 2024/25. We anticipate the business to breakeven in 2025/26, with significant growth in sales and profitability thereafter.

Value Businesses

Disposals on track to be agreed by end of 2023/24

- Performance in the half largely reflects lower volumes in Battery Systems following exceptional customer demand in the prior period
- Sale of Diagnostic Services completed on 29th September 2023

	Half year ended 30 th September 2023 £ million	2022 £ million	% change	% change, constant FX rates
Sales				
Value Businesses ¹	190	235	-19	-21
Underlying operating profit²	14	21	-33	-33
Underlying operating profit margin	7.4%	8.9%		
EBITDA margin	10.0%	11.1%		
Reported operating profit	8	15		

Value Businesses is managed to drive shareholder value from activities considered to be non-core to JM, and comprises Battery Systems and Medical Device Components. In the period, we completed the sale of Diagnostic Services.

Overall, sales in Value Businesses were down 21% in the half. On a like for like basis (i.e. excluding Advanced Glass Technologies and Battery Materials), sales were down 15%.

Sales performance was largely driven by a decline in Battery Systems. Volumes normalised following exceptional customer demand in the prior year, as supply chain constraints eased and we satisfied a backlog of orders. This was partly offset by pricing benefits from sales of higher value next generation e-bike products. Excluding the impact from the disposal of Piezo Products, sales in Medical Device Components grew reflecting recent project wins and higher production following investments to upgrade assets and drive efficiency. Diagnostic Services grew well, supported by a higher oil price which drove increased customer activity.

Underlying operating profit

Underlying operating profit was £14 million, a decline of £7 million on the prior period. This largely reflects lower volumes in Battery Systems as demand normalised, following strong growth in the prior year. We also experienced temporary dual running costs in Medical Device Components as we transferred manufacturing to a lower cost location.

Corporate

Corporate costs were £45 million, an increase of £16 million from the prior period, largely reflecting higher costs in relation to the implementation of new IT systems.

Notes:

- Sales relating to divestments of Advanced Glass Technologies and Diagnostic Services: (1H 2022/23: £41 million, 1H 2023/24: £37 million).
- Operating profit related to divestments of Advanced Glass Technologies and Diagnostic Services: (1H 2022/23: £2 million, 1H 2023/24: £3 million).

Financial review – continuing operations

Research and development (R&D)

R&D spend was £104 million in the half. This was broadly in line with the prior period spend of £106 million and represents c.5% of sales excluding precious metals. We are prioritising spend in our growth areas Catalyst Technologies and Hydrogen Technologies, as we continue to commercialise our sustainable solutions, fuel cell and electrolyser offerings.

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 75% of the non-sterling denominated underlying operating profit in the half year ended 30th September 2023, were:

	Share of 1H 2023/24 non-sterling denominated underlying operating profit	Average exchange rate		% change
		Half year ended 30 th September 2023	2022	
US dollar	22%	1.26	1.21	+4
Euro	39%	1.16	1.17	-1
Chinese renminbi	14%	8.99	8.18	+10

For the half, the impact of exchange rates decreased sales by £52 million and underlying operating profit by £9 million.

If average rates for November 2023 month to date (£:US\$ 1.227, £:€ 1.145, £:RMB 8.937) are maintained throughout the year ending 31st March 2024, foreign currency translation will have an adverse impact of c.£15 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

Our group transformation programme which is expected to deliver savings in excess of £150 million by 2024/25 is well underway. Associated costs to deliver the programme are around £100 million, all of which are cash. In the first half, we delivered c.£25 million of savings against our expected savings of c.£55 million for the year.

Items outside underlying operating profit

Non-underlying (charge) / income (£ million)	As at 30 th September 2023	As at 30 th September 2022
Major impairment and restructuring charges	(42)	(9)
Amortisation of acquired intangibles	(2)	(2)
Total	(44)	(11)

There was a £42 million charge relating to major impairment and restructuring charges comprising a net impairment charge of £12 million and restructuring charges of

£30 million. The net impairment charge of £12 million includes further impairment charges to production related assets in Clean Air as the business continues to consolidate its existing capacity into new and more efficient plants. Further impairment charges were also recognised in relation to amounts due from the sale of Battery Materials to EV Metals Group.

Finance charges

Net finance charges in the period amounted to £41 million, up from £21 million in the first half of 2022/23, largely reflecting higher average borrowings and increased interest charges related to our floating rate debt.

Taxation

The tax charge on underlying profit before tax for the half year ended 30th September 2023 was £31 million, an effective underlying tax rate of 22.0%, up from 19.9% in the first half of 2022/23 largely due to phasing differences between the first and second half.

The effective tax rate on reported profit for the half year ended 30th September 2023 was 22.8%. This represents a tax charge of £19 million, compared with £38 million in the prior period, largely due to lower profit before tax in the current period.

We currently expect the effective tax rate on underlying profit for the year ending 31st March 2024 to be around 20%.

Post-employment benefits

IFRS – accounting basis

At 30th September 2023, the group's net post-employment benefit position, was a surplus of £98 million.

The cost of providing post-employment benefits in the period was £11 million, down from £16 million in the same period last year.

Capital expenditure

We are making disciplined investments to drive growth and deliver attractive returns. We have further prioritised our capital expenditure and now expect cumulative spend to decline by c.10% to c.£1 billion over the three year period to 2024/25.

In the half, capital expenditure was £157 million, 1.6 times depreciation and amortisation (excluding amortisation of acquired intangibles). In the period, key projects included:

- Hydrogen Technologies – investing to increase manufacturing capacity in the UK
- PGM Services – investing in the resilience, efficiency and long-term sustainability of our refinery assets

Strong balance sheet

Net debt as at 30th September 2023 was £1,044 million, an increase from £1,023 million at 31st March 2023 and £963 million at 30th September 2022. Net debt is £18 million higher at £1,062 million when post tax pension deficits are included. The group's net debt (including post tax pension deficits) to EBITDA was 1.7 times (30th September 2022: 1.5 times), in line with 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. Precious metal leases amounted to £186 million as at 30th September 2023 (31st March 2023: £138 million, 30th September 2022: £129 million).

Free cash flow and working capital

Free cash flow was £78 million in the half, compared to £133 million in the prior period, largely reflecting lower proceeds from disposals and reduced operating profit, partly offset by a net working capital inflow.

Excluding precious metal, average working capital days to 30th September 2023 increased to 57 days compared to 35 days to 30th September 2022. This largely reflects inventory build ahead of Clean Air site closures as well as higher working capital in Catalyst Technologies and Hydrogen Technologies to support growth.

Going concern

The group maintains a strong balance sheet with around £1.5 billion of available cash and undrawn committed facilities. Cash generation was positive during the period with free cash flow of £78 million. Net debt was in line with 31st March 2023 at £1,044 million.

As set out on page 31, the directors have reviewed the base case scenario forecasts for the group and have reasonable expectation that there are no material uncertainties that cast doubt about the group's ability to continue operating for at least twelve months from the date of approving these half-yearly accounts. In arriving at this view, the base case scenario was stress tested to a severe but plausible downside case which assumes lower demand across our markets to account for further disruptions and recession.

Additionally, the group considered scenarios including the impact from metal price volatility, a slow down in China and increase in the amount of metal that we would have to hold. Under all scenarios, the group has sufficient headroom against committed facilities and key financial covenants are not in breach during the going concern period. The directors have reviewed a range of scenario forecasts for the group and have reasonable expectation that there are no material uncertainties that cast doubt about the group's ability to continue operating for at least twelve months from the date of approving this half year accounts and so determine that it is appropriate to prepare the accounts on a going concern basis.

Risks and uncertainties

JM's principal risk landscape continues to be reviewed and updated to reflect our refreshed strategy and the challenges that come from operating within the current global environment and economic climate. JM is committed to improving its risk management approach and insights used to support various business decisions. The Group's principal risks are listed below.

- 1. Significant change in demand or margin sustainability** – Failure to correctly anticipate market trends driving demand and commoditisation of our products. With shifts being slower or faster than anticipated, we may fail to make the right and timely decisions to respond to these shifts. This risk, combined with a failure to identify other new markets relevant for JM, may adversely impact revenue, cash flow and profitability, including our position as technology and cost leader.
- 2. Significant geopolitical or macroeconomic event** – Due to the nature of JM's global footprint, there is a risk that we may face disruption in operations, supply chain and/or customer markets due to geopolitical risks such as conflicts, trade disputes, sanctions, pandemics, inflation and economic recession in specific countries or regions where we operate or where our supply chains are located.
- 3. Failure to deliver value from capital projects** – 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 might be unable to meet production capacity expectations, breach budgeted costs or lose our competitive position.
- 4. Development of products that do not meet customer needs** – Inability to develop products that are competitive enough to meet our market ambitions and our customer's needs. This includes our ability to identify and understand customer expectations, translate this into effective R&D and develop our nascent technologies into an industrial production scale.
- 5. A significant work related EHS incident** – Failure to operate safely, resulting in injury or breach to applicable laws/regulations, which could lead to negative effects on our people, our reputation and/or the environment. This could also mean the loss of production time as well as attracting negative interest from the media and regulators, leading to significant fines and penalties.
- 6. Disruption to inbound goods or services provided** – Given the nature of the products and services we provide, there are only a few suppliers that are approved to source certain important raw materials. If there was significant disruption in our supply chains this would impact the supply of our products and services.
- 7. A low performing culture undermines our strategy** – A low-performing culture, characterised by an insufficiently engaged and inclusive workforce, lacking commitment to take accountability and drive results could impact the successful execution of our strategy.
- 8. Breach to security or control of platinum group metals in our processes** – There is a risk that we have insufficient metal available for our manufacturing businesses and customer metal commitments. Metal price volatility affects how much our trading business

earns. Our refining business earnings also depend on metal prices; a fall in these prices reduces revenue and operating profit. In addition, a failure of our security management systems may result in a loss of or theft of precious metal, which could lead to financial loss and / or failure to satisfy our customers. This could reduce customer confidence or result in legal action.

9. Failure in one or more of our critical operational assets – A failure in a critical asset at our sites may have a material effect on our supply chain, performance, share value and reputation. Also, more frequent extreme weather events and natural disasters may disrupt our operations and increase our costs

10. Unsuccessful delivery of key business transformation programmes – There are currently various transformation programmes in place across the group to support the delivery of our strategy and a more agile and streamlined organisation. In order to achieve this, JM's acceptance of calculated risk with corresponding need for mitigation has increased to enable several transformation activities to run in parallel. Failure to successfully deliver these programmes may delay the expected benefits, disrupt services to customers or trigger a loss of key talent.

11. Business failure through cyber-attack or other IT incidents – A failure to adapt our Information Technology 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.

Responsibility statement of the Directors in respect of the half yearly report

The half yearly report is the responsibility of the directors. Each of the directors as at the date of this responsibility statement, whose names and functions are set out below, confirms that to the best of their knowledge:

- the condensed consolidated accounts have been prepared in accordance with UK adopted International Accounting Standard (IAS) 34 – *'Interim Financial Reporting'*; and
- the interim management report included in the Half-Yearly Report includes a fair review of the information required by:
 - a) DTR 4.2.7R of the Financial Conduct Authority's Disclosure Guidance and Transparency Rules, being an indication of important events that have occurred during the first six months of the financial year and their impact on the condensed consolidated accounts; and a description of the principal risks and uncertainties for the remaining six months of the financial year; and
 - b) DTR 4.2.8R of the Financial Conduct Authority's Disclosure Guidance and Transparency Rules, being related party transactions that have taken place in the first six months of the current financial year and that have materially affected the financial position or performance of the company during that period; and any changes in the related party transactions described in the last annual report that could do so.

The names and functions of the directors of Johnson Matthey Plc are as follows:

Patrick Thomas	Chair of the Board and of the Nomination Committee
Liam Condon	Chief Executive Officer
Stephen Oxley	Chief Financial Officer
Barbara Jeremiah	Senior Independent Non-Executive Director
Rita Forst	Non-Executive Director
Jane Griffiths	Non-Executive Director and Chair of Societal Value Committee
Xiaozhi Liu	Non-Executive Director
Chris Mottershead	Non-Executive Director
John O'Higgins	Non-Executive Director and Chair of the Remuneration Committee
Doug Webb	Non-Executive Director and Chair of the Audit Committee

The responsibility statement was approved by the Board of Directors on 21st November 2023 and is signed on its behalf by:

Patrick Thomas
Chair

Independent Review Report

to Johnson Matthey Plc

Report on the condensed consolidated accounts**Our conclusion**

We have reviewed Johnson Matthey Plc's condensed consolidated accounts (the "interim financial statements") in the half year results of Johnson Matthey Plc for the 6 month period ended 30th September 2023 (the "period").

Based on our review, nothing has come to our attention that causes us to believe that the interim financial statements are not prepared, in all material respects, in accordance with UK adopted International Accounting Standard 34, 'Interim Financial Reporting' and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

The interim financial statements comprise:

- the Condensed Consolidated Balance Sheet as at 30th September 2023;
- the Condensed Consolidated Income Statement and Condensed Consolidated Statement of Total Comprehensive Income for the period then ended;
- the Condensed Consolidated Cash Flow Statement for the period then ended;
- the Condensed Consolidated Statement of Changes in Equity for the period then ended; and
- the explanatory notes to the interim financial statements.

The interim financial statements included in the half year results of Johnson Matthey Plc have been prepared in accordance with UK adopted International Accounting Standard 34, 'Interim Financial Reporting' and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

Basis for conclusion

We conducted our review in accordance with International Standard on Review Engagements (UK) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Financial Reporting Council for use in the United Kingdom ("ISRE (UK) 2410"). A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures.

A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

We have read the other information contained in the half year results and considered whether it contains any apparent misstatements or material inconsistencies with the information in the interim financial statements.

Conclusions relating to going concern

Based on our review procedures, which are less extensive than those performed in an audit as described in the Basis for conclusion section of this report, nothing has come to our attention to suggest that the directors have inappropriately adopted the going concern basis of accounting or that the directors have identified material uncertainties relating to going concern that are not appropriately disclosed. This conclusion is based on the review procedures performed in accordance with ISRE (UK) 2410. However, future events or conditions may cause the group to cease to continue as a going concern.

Responsibilities for the interim financial statements and the review**Our responsibilities and those of the directors**

The half year results, including the interim financial statements, is the responsibility of, and has been approved by the directors. The directors are responsible for preparing the half year results in accordance with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority. In preparing the half year results, including the interim financial statements, the directors are responsible for assessing the group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or to cease operations, or have no realistic alternative but to do so.

Our responsibility is to express a conclusion on the interim financial statements in the half year results based on our review. Our conclusion, including our Conclusions relating to going concern, is based on procedures that are less extensive than audit procedures, as described in the Basis for conclusion paragraph of this report. This report, including the conclusion, has been prepared for and only for the company for the purpose of complying with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority and for no other purpose. We do not, in giving this conclusion, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

PricewaterhouseCoopers LLP
Chartered Accountants
London
21st November 2023

Condensed Consolidated Income Statementfor the six months ended 30th September 2023

Notes	Six months ended	
	30.9.23 £ million	30.9.22 £ million
Revenue		
Cost of sales	2, 3	6,531 7,328
Gross profit		447 487
Distribution costs		(62) (57)
Administrative expenses		(205) (208)
Amortisation of acquired intangibles	4	(2) (2)
Major impairment and restructuring charges	4	(42) (9)
Operating profit		136 211
Finance costs		(71) (48)
Investment income		30 27
Share of losses of associates		(13) (2)
Profit before tax from continuing operations		82 188
Tax expense	5	(19) (38)
Profit for the period from continuing operations		63 150
Profit after tax from discontinued operations		- 10
Profit for the period		63 160
		pence pence
Earnings per ordinary share		
Basic	6	34.7 87.5
Diluted	6	34.6 87.1
		pence pence
Earnings per ordinary share from continuing operations		
Basic	6	34.7 82.0
Diluted	6	34.6 81.7

Condensed Consolidated Statement of Total Comprehensive Incomefor the six months ended 30th September 2023

Notes	Six months ended	
	30.9.23 £ million	30.9.22 £ million
Profit for the period	63	160
Other comprehensive (expense) / income		
<i>Items that will not be reclassified to the income statement in subsequent years</i>		
Remeasurements of post-employment benefit assets and liabilities	13	(75) (115)
Fair value losses on equity investments		(3) (4)
Tax on items that will not be reclassified to the income statement		19 28
Total items that will not be reclassified to the income statement	(59)	(91)
<i>Items that may be reclassified to the income statement:</i>		
Exchange differences on translation of foreign operations		(16) 187
Exchange differences on translation of discontinued operations		- (32)
Amounts credited / (charged) to hedging reserve		2 (12)
Fair value losses on net investment hedges		(3) (22)
Tax on items that may be reclassified to the income statement		(1) 4
Total items that may be reclassified to the income statement (in subsequent years)	(18)	125
Other comprehensive (expense) / income for the period	(77)	34
Total comprehensive (expense) / income for the period	(14)	194
Total comprehensive income for the period arises from:		
Continuing operations	(14)	216
Discontinued operations	-	(22)
	(14)	194

Condensed Consolidated Statement of Financial Positionas at 30th September 2023

	Notes	30.9.23 £ million	31.3.23 £ million
Assets			
Non-current assets			
Property, plant and equipment	8	1,378	1,332
Right-of-use assets		49	49
Goodwill		363	364
Other intangible assets	9	294	287
Investments in associates		63	75
Investments at fair value through other comprehensive income		45	49
Other receivables		114	113
Interest rate swaps	18	19	20
Other financial assets		52	48
Deferred tax assets		145	121
Post-employment benefit net assets	13	134	203
Total non-current assets		2,656	2,661
Current assets			
Inventories		1,517	1,702
Taxation recoverable		9	12
Trade and other receivables		1,759	1,882
Cash and cash equivalents	18	493	650
Other financial assets		58	47
Assets classified as held for sale	12	17	75
Total current assets		3,853	4,368
Total assets		6,509	7,029
Liabilities			
Current liabilities			
Trade and other payables		(2,263)	(2,497)
Lease liabilities	18	(9)	(9)
Taxation liabilities		(90)	(105)
Cash and cash equivalents – bank overdrafts	18	(31)	(13)
Borrowings and related swaps	18	(71)	(155)
Other financial liabilities		(21)	(27)
Provisions		(71)	(63)
Liabilities classified as held for sale	12	-	(25)
Total current liabilities		(2,556)	(2,894)
Non-current liabilities			
Borrowings and related swaps	18	(1,398)	(1,460)
Lease liabilities	18	(31)	(31)
Deferred tax liabilities		(9)	(19)
Interest rate swaps	18	(16)	(15)
Employee benefit obligations	13	(39)	(41)
Provisions		(23)	(28)
Trade and other payables		(4)	(2)
Total non-current liabilities		(1,520)	(1,596)
Total liabilities		(4,076)	(4,490)
Net assets		2,433	2,539
Equity			
Share capital		215	215
Share premium		148	148
Treasury shares		(19)	(19)
Other reserves		97	118
Retained earnings		1,992	2,077
Total equity		2,433	2,539

Condensed Consolidated Statement of Cash Flowsfor the six months ended 30th September 2023

Notes	Six months ended	
	30.9.23 £ million	30.9.22 £ million
Cash flows from operating activities		
Profit before tax from continuing operations	82	188
Loss before tax from discontinued operations	-	(5)
Adjustments for:		
Share of losses of associates	13	2
Depreciation	72	73
Amortisation	23	16
Share-based payments	7	8
Decrease / (increase) in inventories	169	(169)
Decrease in receivables	113	41
(Decrease) / increase in payables	(217)	26
Increase / (decrease) in provisions	6	(8)
Contributions in excess of employee benefit obligations charge	(5)	(3)
Changes in fair value of financial instruments	(17)	(9)
Net finance costs	41	21
Income tax paid	(51)	(36)
Net cash inflow from operating activities	236	145
Cash flows from investing activities		
Interest received	19	11
Purchases of property, plant and equipment	(125)	(111)
Purchases of intangible assets	(33)	(26)
Government grant income received	1	-
Net proceeds from sale of businesses	39	166
Net cash (outflow) / inflow from investing activities	(99)	40
Cash flows from financing activities		
Purchase of treasury shares	-	(45)
Proceeds from borrowings	2	272
Repayment of borrowings	(151)	(259)
Dividends paid to equity shareholders	7	(101)
Interest paid		(53)
Principal element of lease payments		(6)
Net cash outflow from financing activities	(309)	(176)
Net (decrease) / increase in cash and cash equivalents		
Exchange differences on cash and cash equivalents		(172)
Cash and cash equivalents at beginning of year		(3)
Cash and cash equivalents at end of period	18	462
Cash and deposits		193
Money market funds		300
Bank overdrafts		(31)
Cash and cash equivalents	18	369

Condensed Consolidated Statement of Changes in Equityfor the six months ended 30th September 2023

	Share capital £ million	Share premium £ million	Treasury shares £ million	Other reserves £ million	Retained earnings £ million	Total equity £ million
At 1 st April 2022	218	148	(24)	50	2,049	2,441
Total comprehensive income for the period	-	-	-	121	73	194
Dividends paid (note 7)	-	-	-	-	(100)	(100)
Purchase of treasury shares	(3)	-	-	3	-	-
Share-based payments	-	-	-	-	12	12
Cost of shares transferred to employees	-	-	4	-	(8)	(4)
At 30 th September 2022	215	148	(20)	174	2,026	2,543
Total comprehensive (expense) / income for the period	-	-	-	(56)	91	35
Dividends paid (note 7)	-	-	-	-	(41)	(41)
Purchase of treasury shares	-	-	-	-	(1)	(1)
Share-based payments	-	-	-	-	6	6
Cost of shares transferred to employees	-	-	1	-	(6)	(5)
Tax on share-based payments	-	-	-	-	2	2
At 31 st March 2023	215	148	(19)	118	2,077	2,539
Total comprehensive (expense) / income for the period	-	-	-	(21)	7	(14)
Dividends paid (note 7)	-	-	-	-	(101)	(101)
Share-based payments	-	-	-	-	12	12
Cost of shares transferred to employees	-	-	-	-	(3)	(3)
At 30th September 2023	215	148	(19)	97	1,992	2,433

Notes to the Accounts

for the six months ended 30th September 2023

1 Basis of preparation and statement of compliance

This condensed consolidated interim financial report for the half-year reporting period ended 30th September 2023 has been prepared in accordance with the UK-adopted International Accounting Standard 34, *'Interim Financial Reporting'* and the Disclosure Guidance and Transparency Rules sourcebook of the UK's Financial Conduct Authority. The accounting policies, estimates and judgements applied in this condensed consolidated interim financial report are consistent with the accounting policies, estimates and judgements applied by the group in its consolidated accounts as at, and for the year ended, 31st March 2023, with the exception of the adoption of amended accounting policies and standards as explained below.

These condensed consolidated accounts do not constitute statutory accounts within the meaning of Section 435 of the Companies Act 2006. The interim report does not include all of the notes of the type normally included in an annual financial report. Accordingly, this report is to be read in conjunction with the annual report for the year ended 31st March 2023, which has been prepared in accordance with UK-adopted International Accounting Standards (IAS) and with the requirements of the Companies Act 2006.

Information in respect of the year ended 31st March 2023 is derived from the company's statutory accounts for that year which have been delivered to the Registrar of Companies. The auditor's report on those statutory accounts was unqualified, did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying its report and did not contain any statement under Section 498 (2) or Section 498 (3) of the Companies Act 2006.

The half-yearly accounts are unaudited but have been reviewed by the auditors. They were approved by the board of directors on 21st November 2023.

Going concern

The directors have reviewed the base case scenario, and the severe but plausible downside case scenario and have reasonable expectation that there are no material uncertainties that cast doubt about the group's ability to continue operating for at least twelve months from the date of approving these half-yearly accounts.

As at 30th September 2023, the group maintains a strong balance sheet with around £1.5 billion of available cash and undrawn committed facilities. Cash generation was positive during the period with free cash flow of around £78 million. Net debt was in line with 31st March 2023 at £1,044 million. Net debt (including post tax pension deficits) to EBITDA, was within our target range at 1.7 times.

Despite the significant headwinds faced in the current macroeconomic environment such as continued high levels of inflation and economic and political uncertainties, the group's performance during the period was resilient, both in terms of underlying operating profit and cash flow. For the purposes of assessing going concern, we have revisited our financial projections using the latest forecasts for our base case scenario. The base case scenario was stress tested to a severe but plausible downside case which reflects lower demand across our markets to account for further ongoing disruptions and a deeper recession.

Additionally, the group considered scenarios including the impact from metal price volatility and increases in the amount of metal that we would have to hold, along with a slowdown in operations in China. We have also considered the impact of a refinery shutdown for a prolonged period. Whilst the combined impact would reduce profitability and EBITDA against our latest forecast, our balance sheet would remain strong.

The group has a robust funding position comprising a range of long-term debt and a £1 billion five year committed revolving credit facility maturing in March 2027 which was entirely undrawn at 30th September 2023. There was £300 million of cash held in money market funds. Of the existing loans, around £105 million of term debt matures in the period to December 2024 which has been included in our going concern modelling. As a long time, highly rated issuer in the US private placement market, the group expects to be able to access additional funding in its existing markets should it need to. The group also has a number of additional sources of funding available including uncommitted lease facilities that support precious metal funding. Whilst we would fully expect to be able to utilise the metal lease facilities, they are excluded from our going concern modelling.

Notes to the Accounts

for the six months ended 30th September 2023

1 Basis of preparation and statement of compliance (continued)

Going concern (continued)

Under all scenarios above, the group has sufficient headroom against committed facilities and key financial covenants are not in breach during the going concern period. There remain risks to the group including more extreme economic outcomes. Against these, the group has a range of levers which it could utilise to protect headroom including reducing capital expenditure and future dividend distributions.

The directors are therefore of the opinion that the group has adequate resources to fund its operations for the period of twelve months following the date of this announcement and so determine that it is appropriate to prepare the accounts on a going concern basis.

Non-GAAP measures

The group uses various measures to manage its business which are not defined by generally accepted accounting principles (GAAP). The group's management believes these measures provide valuable additional information to users of the accounts in understanding the group's performance. The group's non-GAAP measures are defined and reconciled to GAAP measures in note 18.

Amended standards adopted by the group

The IASB has issued the following amendments, which have been endorsed by the UK Endorsement Board, for annual periods beginning on or after 1st January 2023:

- Amendments to IFRS 17, *Insurance Contracts*;
- Amendments to IAS 1 and IFRS Practice Statement 2;
- Amendments to IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*; and
- Amendments to IAS 12, *Deferred Tax related to Assets and Liabilities arising from a Single Transaction*

These changes have not had a material impact on the group. The group has not early adopted any standard, interpretation or amendment that was issued but is not yet effective.

On the 19th July 2023, the UK endorsed the amendments to IAS 12 *Income Taxes*, issued by the International Accounting Standards Board on 23rd May 2023, which grants companies a temporary exemption from applying IAS 12 to the International Tax Reform: Pillar Two Model Rules. For the half year report, the group has adopted the amendments to IAS 12, and applied the exception to recognising and disclosing information about deferred tax assets and liabilities related to Pillar Two income taxes. The group has commenced Pillar Two impact analysis but is, as yet, not in a position to provide quantified analysis of the potential future impact.

Notes to the Accounts

for the six months ended 30th September 2023

2 Segmental information

Revenue, sales and underlying operating profit by business

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

PGM Services – enables the energy transition through providing circular solutions as demand for scarce critical materials increases. Provides a strategic service to the group, supporting the other segments with security of metal supply, and manufactures value add PGM products.

Catalyst Technologies – enables the decarbonisation of chemical and fuel value chains.

Hydrogen Technologies – providing catalyst coated membranes that are a critical component for fuel cells and electrolyzers.

Value Businesses – a portfolio of businesses managed to drive shareholder value from activities considered to be non-core to the Group. This includes Battery Systems, Medical Device Components and Diagnostic Services (sold on 29th September 2023 - refer to note 11). Battery Materials UK and Battery Materials Canada were sold on 26th May 2022 and 1st November 2022 respectively and are included within the prior period balances.

The Group Leadership Team (the chief operating decision maker as defined by IFRS 8, *Operating Segments*) monitors the results of these operating businesses to assess performance and make decisions about the allocation of resources. Each operating business is represented by a member of the Group Leadership Team. These operating businesses represent the group's reportable segments and their principal activities are described on pages 14 to 21 of the 2023 Annual Report. The performance of the group's operating businesses is assessed on sales and underlying operating profit (see note 18). Sales between segments are made at market prices, taking into account the volumes involved.

Notes to the Accounts

for the six months ended 30th September 2023

2 Segmental information (continued)

Six months ended 30th September 2023

	Clean Air £ million	PGM Services £ million	Catalyst Technologies £ million	Hydrogen Technologies £ million	Value Businesses £ million	Corporate £ million	Eliminations £ million	Total £ million
Revenue from external customers	2,768	3,169	308	45	241	-	-	6,531
Inter-segment revenue	-	1,364	11	-	-	-	(1,375)	-
Revenue	2,768	4,533	319	45	241	-	(1,375)	6,531
External sales ¹	1,286	182	272	37	190	-	-	1,967
Inter-segment sales	-	48	10	-	-	-	(58)	-
Sales¹	1,286	230	282	37	190	-	(58)	1,967
Underlying operating profit¹	124	78	35	(26)	14	(45)	-	180

Six months ended 30th September 2022

	Clean Air £ million	PGM Services £ million	Catalyst Technologies £ million	Hydrogen Technologies £ million	Value Businesses £ million	Corporate £ million	Eliminations £ million	Total £ million
Revenue from external customers	2,995	3,682	342	27	282	-	-	7,328
Inter-segment revenue	-	1,679	7	-	-	-	(1,686)	-
Revenue	2,995	5,361	349	27	282	-	(1,686)	7,328
External sales ¹	1,278	240	269	23	235	-	-	2,045
Inter-segment sales	-	42	6	-	-	-	(48)	-
Sales¹	1,278	282	275	23	235	-	(48)	2,045
Underlying operating profit¹	108	125	21	(24)	21	(29)	-	222

¹Sales and underlying operating profit are non-GAAP measures (see note 18 for reconciliation to GAAP measures). Sales excludes the sale of precious metals. Underlying operating profit excludes profit or loss on disposal of businesses, gain or loss on significant legal proceedings, together with associated legal costs, amortisation of acquired intangibles and major impairment and restructuring charges.

Notes to the Accounts

for the six months ended 30th September 2023

2 Segmental information (continued)

Net assets by business

At 30th September 2023

	Clean Air £ million	PGM Services £ million	Catalyst Technologies £ million	Hydrogen Technologies £ million	Value Businesses £ million	Corporate £ million	Total £ million
Segmental net assets	1,496	107	723	165	226	547	3,264
Net debt (see note 18)							(1,044)
Post-employment benefit net assets and liabilities							95
Deferred tax net assets							136
Provisions and non-current other payables							(98)
Investments in associates							63
Net assets held for sale (see note 12)							17
Net assets							2,433

At 31st March 2023

	Clean Air £ million	PGM Services £ million	Catalyst Technologies £ million	Hydrogen Technologies £ million	Value Businesses £ million	Corporate £ million	Total £ million
Segmental net assets	1,784	(2)	680	114	175	515	3,266
Net debt (see note 18)							(1,023)
Post-employment benefit net assets and liabilities							162
Deferred tax net assets							102
Provisions and non-current other payables							(93)
Investments in associates							75
Net assets held for sale							50
Net assets							2,539

Notes to the Accounts

for the six months ended 30th September 2023

3 Revenue

Products and services

The group's principal products and services by operating business and sub-business are disclosed in the table below, together with information regarding performance obligations and revenue recognition. Revenue is recognised by the group as contractual performance obligations to customers are completed.

Sub-business	Primary industry	Principal products and services	Performance obligations	Revenue recognition
Clean Air				
Light Duty Catalysts	Automotive	Catalysts for cars and other light duty vehicles	Point in time	On despatch or delivery
Heavy Duty Catalysts	Automotive	Catalysts for trucks, buses and non-road equipment	Point in time	On despatch or delivery
PGM Services				
Platinum Group Metal Services	Various	Platinum Group Metal refining and recycling services	Over time	Based on output
		Platinum Group Metal trading	Point in time	On receipt of payment
		Other precious metal products	Point in time	On despatch or delivery
		Platinum Group Metal chemical, industrial products and catalyst	Point in time	On despatch or delivery
Catalyst Technologies				
Catalyst Technologies	Chemicals / oil and gas	Speciality catalysts and additives	Point in time	On despatch or delivery
		Process technology licences	Over time	Based on costs incurred or straight-line over the licence term ¹
		Engineering design services	Over time	Based on costs incurred
Hydrogen Technologies				
Fuel Cells technologies	Various	Fuel cell catalyst coated membranes	Point in time	On despatch or delivery
Electrolysis Technology	Various	Electrolyser catalyst coated membrane	Point in time	On despatch or delivery
Value Businesses				
Other Markets (excluding Diagnostic Services)	Various	Precious metal pastes and enamels, battery systems and products found in devices used in medical procedures	Point in time	On despatch or delivery
Diagnostic Services	Oil and gas	Detection, diagnostic and measurement solutions	Over time	Based on costs incurred

¹ Revenue recognition depends on whether the licence is distinct in the context of the contract.

Metal revenue: Metal revenue relates to the sales of precious metals to customers, either in pure form or contained within a product. Metal revenue arises in each of the reportable segments in the Group. Metal revenue is affected by fluctuations in the market prices of precious metals and, in many cases, the value of precious metals is passed directly on to customers. Given the high value of these metals this makes up a significant proportion of revenue

Notes to the Accounts

for the six months ended 30th September 2023

3 Revenue (continued)

Revenue from external customers by principal products and services

Six months ended 30th September 2023

	Continuing operations					
	Clean Air £ million	PGM Services £ million	Catalyst Technologies £ million	Hydrogen Technologies £ million	Value Businesses £ million	Total £ million
Metal	1,482	2,987	36	8	51	4,564
Heavy Duty Catalysts	454	-	-	-	-	454
Light Duty Catalysts	812	-	-	-	-	812
Platinum Group Metal Services	-	182	-	-	-	182
Catalyst Technologies	-	-	272	-	-	272
Fuel Cells	-	-	-	37	-	37
Battery Systems	-	-	-	-	106	106
Diagnostic Services	-	-	-	-	37	37
Medical Device Components	-	-	-	-	45	45
Other	20	-	-	-	2	22
Revenue	2,768	3,169	308	45	241	6,531

Six months ended 30th September 2022

	Continuing operations					
	Clean Air £ million	PGM Services £ million	Catalyst Technologies £ million	Hydrogen Technologies £ million	Value Businesses £ million	Total £ million
Metal	1,717	3,442	73	4	47	5,283
Heavy Duty Catalysts	447	-	-	-	-	447
Light Duty Catalysts	814	-	-	-	-	814
Platinum Group Metal Services	-	240	-	-	-	240
Catalyst Technologies	-	-	269	-	-	269
Fuel Cells	-	-	-	23	-	23
Battery Systems	-	-	-	-	135	135
Diagnostic Services	-	-	-	-	34	34
Medical Device Components	-	-	-	-	46	46
Other	17	-	-	-	20	37
Revenue	2,995	3,682	342	27	282	7,328

The contract receivables balance at 30th September 2023 is £46 million (31st March 2023: £70 million).

Notes to the Accounts

for the six months ended 30th September 2023

3 Revenue (continued)

Revenue from external customers by point in time and over time performance obligations

Six months ended 30th September 2023

	Continuing operations					Total £ million
	Clean Air £ million	PGM Services £ million	Catalyst Technologies £ million	Hydrogen Technologies £ million	Value Businesses £ million	
Revenue recognised at a point in time	2,768	3,081	255	45	213	6,362
Revenue recognised over time	-	88	53	-	28	169
Revenue	2,768	3,169	308	45	241	6,531

Six months ended 30th September 2022

	Continuing operations					Total £ million
	Clean Air £ million	PGM Services £ million	Catalyst Technologies £ million	Hydrogen Technologies £ million	Value Businesses £ million	
Revenue recognised at a point in time	2,995	3,541	270	27	264	7,097
Revenue recognised over time	-	141	72	-	18	231
Revenue	2,995	3,682	342	27	282	7,328

Notes to the Accounts

for the six months ended 30th September 2023

4 Operating profit

	Six months ended	
	30.9.23	30.9.22
	£ million	£ million

Operating profit is arrived at after charging / (crediting):

Research and development expenditure charged to the income statement
 Less: External funding received - from governments
Net research and development expenditure charged to the income statement

104	106
(7)	(7)
97	99

Depreciation of:

Property, plant and equipment	66	67
Right-of-use assets	6	6
Depreciation	72	73

Amortisation of:

Acquired intangibles	2	2
Other intangible assets	21	14
Amortisation	23	16

Major impairment and restructuring charges:

Inventories	2	-
Trade and other receivables	10	-
Impairment losses	12	-
Restructuring charges	30	9
Major impairment and restructuring charges	42	9

Profit on disposal of businesses

On 15th June 2023, the group completed the sale of Johnson Matthey Catalysts LCC, and on 29th September 2023, the group completed the sale of its Diagnostic Services business, see note 11.

Major impairment and restructuring charges

Major impairment and restructuring charges are shown separately on the face of the income statement and excluded from underlying operating profit, see note 18.

Major impairments - the group's net impairment charge of £12 million includes further impairment charges to production related assets in Clean Air as the business continues to consolidate its existing capacity into new and more efficient plants. Further impairment charges were also recognised in relation to amounts due from the sale of Battery Materials to EV Metals Group.

Major restructuring - the group's transformation programme was launched in May 2022 and was designed to drive increased competitiveness, improved execution capability and create financial headroom to facilitate further investment in high growth areas. Restructuring charges of £17 million have been recognised of which the majority is redundancy and implementation costs. The remaining £13 million charge is related to Clean Air's ongoing plant consolidation initiatives, of which the majority is redundancy costs.

Notes to the Accounts

for the six months ended 30th September 2023

5 Tax expense

The charge for taxation at the half year ended 30th September 2023 is £19 million (1H 2022/23: £38 million), an effective tax rate of 22.8%. The tax charge on underlying profit before tax was £31 million, an effective tax rate of 22.0%, an increase from 19.9% in the half year ended 30th September 2022. The tax rate on underlying profit for the year ending 31st March 2024 is estimated to be 20% (2022/23: 19%).

6 Earnings per ordinary share

	Six months ended	
	30.9.23	30.9.22
	pence	pence
Basic	34.7	87.5
Diluted	34.6	87.1
Basic from continuing operations	34.7	82.0
Diluted from continuing operations	34.6	81.7

Earnings per ordinary share have been calculated by dividing profit for the period by the weighted average number of shares in issue during the period.

Weighted average number of shares in issue	Six months ended	
	30.9.23	30.9.22
Basic	183,213,834	183,006,485
Dilution for long term incentive plans	907,731	665,316
Diluted	184,121,565	183,671,801

7 Dividends

An interim dividend of 22.00 pence (1H 2022/23: 22.00 pence) per ordinary share has been proposed by the board which will be paid on 6th February 2024 to shareholders on the register at the close of business on 1st December 2023. The estimated amount to be paid is £40 million (1H 2022/23: £42 million) and has not been recognised in these accounts.

	Six months ended	
	30.9.23	30.9.22
	£ million	£ million
2021/22 final ordinary dividend paid — 55.00 pence per share	-	100
2022/23 final ordinary dividend paid — 55.00 pence per share	101	-
Total dividends	101	100

Notes to the Accounts

for the six months ended 30th September 2023

8 Property, plant and equipment

	Freehold land and buildings £ million	Leasehold improvements £ million	Plant and machinery £ million	Assets in the course of construction £ million	Total £ million
Cost					
At 1 st April 2023	599	28	2,151	360	3,138
Additions	-	-	16	111	127
Transfers from assets in the course of construction	9	1	39	(49)	-
Disposals	(1)	-	(8)	-	(9)
Disposals of businesses (note 11)	(1)	-	(4)	-	(5)
Exchange adjustments	(9)	-	(18)	(4)	(31)
At 30 th September 2023	597	29	2,176	418	3,220
Accumulated depreciation and impairment					
At 1 st April 2023	284	15	1,499	8	1,806
Charge for the period	8	-	58	-	66
Disposals	(1)	-	(8)	-	(9)
Disposals of businesses (note 11)	(1)	-	(4)	-	(5)
Exchange adjustments	(4)	-	(12)	-	(16)
At 30 th September 2023	286	15	1,533	8	1,842
Carrying amount at 30th September 2023	311	14	643	410	1,378
Carrying amount at 1 st April 2023	315	13	652	352	1,332

Notes to the Accounts

for the six months ended 30th September 2023

9 Other intangible assets

	Customer contracts and relationships £ million	Computer software £ million	Patents, trademarks and licences £ million	Acquired research and technology £ million	Acquired Development expenditure £ million	Total £ million
Cost						
At 1 st April 2023	116	475	43	37	135	806
Additions	-	29	1	-	-	30
Disposals	-	-	(12)	-	-	(12)
Exchange adjustments	(1)	-	-	(1)	(1)	(3)
At 30 th September 2023	115	504	32	36	134	821

Accumulated amortisation and impairment

At 1 st April 2023	101	209	39	37	133	519
Charge for the period	1	21	1	-	-	23
Disposals	-	-	(12)	-	-	(12)
Exchange adjustments	(1)	-	(1)	(1)	-	(3)
At 30 th September 2023	101	230	27	36	133	527
Carrying amount at 30th September 2023	14	274	5	-	1	294
Carrying amount at 1 st April 2023	15	266	4	-	2	287

10 Investments in associates

As part of the disposal of our Health business in the prior year, we received £75 million in the form of shares which constitutes approximately 30% equity interest in the re-branded business (Veranova). The group determined that it has significant influence and therefore has equity accounted this stake as an investment in associate. The group has also disclosed a contingent liability relating to this associate, see note 17.

	Associates £ million
At 1 st April 2023	75
Group's share of losses for the period	(13)
Exchange adjustments	1
At 30th September 2023	63

Notes to the Accounts

for the six months ended 30th September 2023

11 Disposals

Diagnostic Services

On 29th September 2023, the group completed the sale of its Diagnostic Services business for an enterprise value of £55 million (£47 million on a debt free basis, after working capital adjustments). The business was disclosed as a disposal group held for sale as at 31st March 2023.

	Diagnostic Services £ million
30th September 2023	
Proceeds	
Cash consideration	47
Cash and cash equivalents disposed	(3)
Net cash consideration	44
Disposal costs paid	(2)
Net cash inflow	42
 Assets and liabilities disposed	
Non-current assets	
Property, plant and equipment	19
Current assets	
Inventories	5
Trade and other receivables	32
Cash and cash equivalents	3
Deferred tax	3
Current liabilities	
Trade and other payables	(9)
Non-current liabilities	
Lease liabilities	(11)
Net assets disposed	42
 Cash consideration	47
Deferred consideration	4
Working capital adjustments at time of disposal	4
Less: carrying amount of net assets sold	(42)
Less: disposal costs	(8)
Cumulative currency translation gain recycled from other comprehensive income	(1)
Profit recognised in the income statement	4

Johnson Matthey Catalysts LLC

On 15th June 2023, the group completed the sale of Johnson Matthey Catalysts LLC, its operations in Russia, to Catalysts and Technologies LLC for a cash consideration of £11 million. All assets excluding cash had previously been impaired. The sale resulted in a net loss on sale of £4 million due to a cumulative currency translation loss being recycled from other comprehensive income.

Notes to the Accounts

for the six months ended 30th September 2023

12 Assets and liabilities classified as held for sale

The group strategically drives for efficiency and disciplined capital allocation to enhance returns, as such we continue to actively manage our portfolio. In line with this strategy and to focus on our core businesses, during the period we completed the sale of our Diagnostic Services business (refer to note 11).

Held for sale at 30th September 2023 is the land and buildings of our previous Battery Materials business in Poland. This has been classified as held for sale at fair value.

The major classes of assets and liabilities comprising the businesses classified as held for sale are:

	30.9.23 £ million	31.3.23 £ million
Non-current assets		
Property, plant and equipment	17	27
Right-of-use-assets	-	9
Goodwill	-	1
Other intangible assets	-	3
Current assets		
Inventories	-	5
Trade and other receivables	-	30
Current liabilities		
Trade and other payables	-	(14)
Lease liabilities	-	(1)
Taxation liabilities	-	(1)
Non-current liabilities		
Lease liabilities	-	(9)
Net assets of disposal group	17	50

Notes to the Accounts

for the six months ended 30th September 2023

13 Post-employment benefits

Background

The group operates a number of post-employment benefit plans around the world, the forms and benefits of which vary with conditions and practices in the countries concerned. The major defined benefit plans are pension plans and post-retirement medical plans in the UK and the US.

Financial assumptions

The financial assumptions for the major plans are as follows:

	30.9.23 UK plan %	30.9.23 US plans %	31.3.23 UK plan %	31.3.23 US plans %
First year's rate of increase in salaries	3.50	4.50	4.40	4.50
Ultimate rate of increase in salaries	3.50	4.50	3.40	4.50
Rate of increase in pensions in payment	2.95	-	2.90	-
Discount rate	5.60	5.80	4.80	4.90
Inflation	-	2.50	-	2.50
– UK Retail Prices Index (RPI)	3.20	-	3.10	-
– UK Consumer Prices Index (CPI)	2.75	-	2.65	-
Current medical benefits cost trend rate	12.50	-	12.50	-
Ultimate medical benefits cost trend rate	5.40	-	5.40	-

The financial assumptions for the other plans are reviewed and updated annually.

Financial information

Movements in the net post-employment benefit assets and liabilities, including reimbursement rights, were:

	UK pension - legacy section £ million	UK pension - cash balance section £ million	UK post- retirement medical benefits £ million	US pensions £ million	US post- retirement medical benefits £ million	Other £ million	Total £ million
At 1 st April 2023	169	27	(7)	6	(10)	(20)	165
Current service cost - in operating profit	(1)	(7)	-	(1)	-	-	(9)
Administrative expenses - in operating profit	(2)	-	-	-	-	-	(2)
Interest	3	1	-	-	-	-	4
Remeasurements	(70)	(3)	-	(3)	1	-	(75)
Company contributions	2	11	-	2	-	1	16
Benefits paid	-	-	-	-	-	-	-
Exchange	-	-	-	(1)	(1)	1	(1)
At 30th September 2023	101	29	(7)	3	(10)	(18)	98

Notes to the Accounts

for the six months ended 30th September 2023

13 Post-employment benefits (continued)

Financial information (continued)

The post-employment benefit assets and liabilities are included in the balance sheet as follows:

	30.9.23 Post- employment benefit net assets £ million	30.9.23 Employee benefit net obligations £ million	31.3.23 Post- employment benefit net assets £ million	31.3.23 Employee benefit net obligations £ million
UK pension - legacy section	101	-	169	-
UK pension - cash balance section	29	-	27	-
UK post-retirement medical benefits	-	(7)	-	(7)
US pensions	3	-	6	-
US post-retirement medical benefits	-	(10)	-	(10)
Other	1	(19)	1	(21)
Total post-employment plans	134	(36)	203	(38)
Other long-term employee benefits		(3)		(3)
Total long-term employee benefit obligations		(39)		(41)

14 Fair values

Fair value hierarchy

Fair values are measured using a hierarchy where the inputs are:

- Level 1 – quoted prices in active markets for identical assets or liabilities.
- Level 2 – not level 1 but are observable for that asset or liability either directly or indirectly.
- Level 3 – not based on observable market data (unobservable).

Fair value of financial instruments

Certain of the group's financial instruments are held at fair value. The fair value of a financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the balance sheet date.

The fair value of forward foreign exchange contracts, interest rate swaps, forward precious metal price contracts and currency swaps is estimated by discounting the future contractual cash flows using forward exchange rates, interest rates and prices at the balance sheet date.

The fair value of trade and other receivables measured at fair value is the face value of the receivable less the estimated costs of converting the receivable into cash.

The fair value of money market funds is calculated by multiplying the net asset value per share by the investment held at the balance sheet date.

There were no transfers of any financial instrument between the levels of the fair value hierarchy during the current or prior periods.

Notes to the Accounts

for the six months ended 30th September 2023

14 Fair values (continued)

	30.9.23 £ million	31.3.23 £ million	Fair value hierarchy level
Financial instruments measured at fair value			
Non-current			
Investments at fair value through other comprehensive income ¹	45	49	1
Interest rate swaps - assets	19	20	2
Other financial assets ²	52	48	2
Interest rate swaps - liabilities	(16)	(15)	2
Borrowings and related swaps	(5)	(5)	2
Other payables	(2)	-	2
Current			
Trade receivables ³	281	329	2
Other receivables ⁴	12	21	2
Cash and cash equivalents - money market funds	300	521	2
Other financial assets ²	58	47	2
Other financial liabilities ²	(21)	(27)	2
Financial instruments not measured at fair value			
Non-current			
Borrowings and related swaps	(1,393)	(1,455)	-
Lease liabilities	(31)	(31)	-
Other receivables	63	57	-
Other payables	(2)	(2)	-
Current			
Amounts receivable under precious metal sale and repurchase agreements	320	222	-
Amounts payable under precious metal sale and repurchase agreements	(812)	(838)	-
Cash and cash equivalents - cash and deposits	193	129	-
Cash and cash equivalents - bank overdrafts	(31)	(13)	-
Borrowings and related swaps	(71)	(155)	-
Lease liabilities	(9)	(9)	-
Trade and other receivables	914	1,075	-
Trade and other payables	(1,230)	(1,478)	-

¹ Investments at fair value through other comprehensive income are quoted bonds purchased to fund pension deficit (£35 million) and an investment held at fair value through other comprehensive income (£10 million).

² Other financial assets includes forward foreign exchange contracts (£4 million), forward precious metal price contracts (£91 million) and currency swaps (£15 million). Other financial liabilities includes forward foreign exchange contracts (£16 million) and currency swaps (£5 million).

³ Trade receivables held in a part of the group with a business model to hold trade receivables for collection or sale. The remainder of the group operates a hold to collect business model and receives the face value, plus relevant interest, of its trade receivables from the counterparty without otherwise exchanging or disposing of such instruments.

⁴ Other receivables with cash flows that do not represent solely the payment of principal and interest.

Notes to the Accounts

for the six months ended 30th September 2023

14 Fair values (continued)

The fair value of financial instruments, excluding accrued interest, is approximately equal to book value except for:

	30.9.23		31.3.23	
	Carrying amount £ million	Fair value £ million	Carrying amount £ million	Fair value £ million
US Dollar Bonds 2025, 2027, 2028, 2029 and 2030	(521)	(481)	(648)	(618)
Euro Bonds 2025, 2028, 2030 and 2032	(349)	(312)	(368)	(340)
Sterling Bonds 2024, 2025 and 2029	(145)	(134)	(145)	(137)
KfW US Dollar Loan 2024	(41)	(39)	(40)	(39)

The fair values are calculated using level 2 inputs by discounting future cash flows to net present values using appropriate market interest rates prevailing at the period end.

15 Precious metal leases

The group leases precious metals to fund temporary peaks in metal requirements provided market conditions allow. These leases are from banks for specified periods (less than 12 months) and the group pays a fee which is expensed on a straight-line basis over the lease term in finance costs. The group holds sufficient precious metal inventories to meet all the obligations under these lease arrangements as they fall due. At 30th September 2023, precious metal leases were £186 million at closing prices (31st March 2023: £138 million). Precious metal leases do not fall under the scope of IFRS 16.

16 Transactions with related parties

There have been no material changes in related party relationships in the six months ended 30th September 2023. During the half year ended 30th September 2023, the group had sales with associates totalling £11 million (1H 2022/23: £5 million). No other related party transactions have occurred which have materially affected the financial position or performance of the group during the period.

Notes to the Accounts

for the six months ended 30th September 2023

17 Contingent liabilities

The group is involved in various disputes and claims which arise from time to time in the course of its business including, for example, in relation to commercial matters, product quality or liability, employee matters and tax audits. The group is also involved from time to time in the course of its business in legal proceedings and actions, engagement with regulatory authorities and in dispute resolution processes. These are reviewed on a regular basis and, where possible, an estimate is made of the potential financial impact on the group. In appropriate cases a provision is recognised based on advice, best estimates and management judgement. Where it is too early to determine the likely outcome of these matters, no provision is made. Whilst the group cannot predict the outcome of any current or future such matters with any certainty, it currently believes the likelihood of any material liabilities to be low, and that such liabilities, if any, will not have a material adverse effect on its consolidated income, financial position or cash flows.

Following the sale of its Health business in May 2022, the purchaser of the Health business, Veranova Bidco LP, has issued a claim against the group in connection with: i) certain alleged representations said to have been made during the course of the negotiation of the sale and purchase agreement dated 16th December 2021 ("SPA"); and, ii) certain warranties given in the SPA at the time of signing. Having reviewed the claim with its advisers, the group is of the opinion that it has a defensible position in respect of these allegations and is vigorously defending its position. The outcome of the legal proceedings relating to this matter is not certain, since the issues of liability and quantum will be for determination by the court at trial. Accordingly, the group is unable to make a reliable estimate of the possible financial impact at this stage, if any.

18 Non-GAAP measures

The group uses various measures to manage its business which are not defined by generally accepted accounting principles (GAAP). The group's management believes these measures provide valuable additional information to users of the accounts in understanding the group's performance. Certain of these measures are financial Key Performance Indicators which measure progress against our strategy.

All non-GAAP measures are on a continuing operations basis.

Notes to the Accounts

for the six months ended 30th September 2023

18 Non-GAAP measures (continued)

Definitions

Measure	Definition	Purpose
Sales ¹	Revenue excluding sales of precious metals to customers and the precious metal content of products sold to customers.	Provides a better measure of the growth of the group as revenue can be heavily distorted by year on year fluctuations in the market prices of precious metals and, in many cases, the value of precious metals is passed directly on to customers.
Underlying operating profit ²	Operating profit excluding non-underlying items.	Provides a measure of operating profitability that is comparable over time.
Underlying operating profit margin ^{1,2}	Underlying operating profit divided by sales.	Provides a measure of how we convert our sales into underlying operating profit and the efficiency of our business.
Underlying profit before tax ²	Profit before tax excluding non-underlying items.	Provides a measure of profitability that is comparable over time.
Underlying profit for the year ²	Profit for the year excluding non-underlying items and related tax effects.	Provides a measure of profitability that is comparable over time.
Underlying earnings per share ^{1,2}	Underlying profit for the year divided by the weighted average number of shares in issue.	Our principal measure used to assess the overall profitability of the group.
Average working capital days (excluding precious metals) ¹	Monthly average of non-precious metal related inventories, trade and other receivables and trade and other payables (including any classified as held for sale) divided by sales for the last three months multiplied by 90 days.	Provides a measure of efficiency in the business with lower days driving higher returns and a healthier liquidity position for the group.
Free cash flow	Net cash flow from operating activities after net interest paid, net purchases of non-current assets and investments, proceeds from disposal of businesses, dividends received from joint ventures and associates and the principal element of lease payments.	Provides a measure of the cash the group generates through its operations, less capital expenditure.
Net debt (including post tax pension deficits) to underlying EBITDA	Net debt, including post tax pension deficits and quoted bonds purchased to fund the UK pension (excluded when the UK pension plan is in surplus) divided by underlying EBITDA for the same period.	Provides a measure of the group's ability to repay its debt. The group has a long-term target of net debt (including post tax pension deficits) to underlying EBITDA of between 1.5 and 2.0 times, although in any given year it may fall outside this range depending on future plans.

¹ Key Performance Indicator

² Underlying profit measures are before profit or loss on disposal of businesses, gain or loss on significant legal proceedings, together with associated legal costs, amortisation of acquired intangibles, major impairment and restructuring charges, share of profits or losses from non-strategic equity investments and, where relevant, related tax effects. These items have been excluded by management as they are not deemed to be relevant to an understanding of the underlying performance of the business.

As noted in our 2023 annual report, our strategy involves making substantial investment in the coming years to support the growth and transformation of the group. Our businesses have different investment and return profiles and therefore we no longer use a group measure of Return on Invested Capital as a key performance indicator.

Notes to the Accounts

for the six months ended 30th September 2023

18 Non-GAAP measures (continued)

Reconciliations to GAAP measures

Sales

See note 2.

Underlying profit measures

Six months ended 30th September 2023

Underlying	180	139	(31)	108
Amortisation of acquired intangibles	(2)	(2)	-	(2)
Profit on disposal of businesses	-	-	(3)	(3)
Major impairment and restructuring charges ¹	(42)	(42)	13	(29)
Share of losses of associates	-	(13)	2	(11)
Reported	136	82	(19)	63

¹ For further detail please see note 4.

	Operating profit £ million	Profit before tax £ million	Tax expense £ million	Profit for the period £ million
Underlying	180	139	(31)	108
Amortisation of acquired intangibles	(2)	(2)	-	(2)
Profit on disposal of businesses	-	-	(3)	(3)
Major impairment and restructuring charges ¹	(42)	(42)	13	(29)
Share of losses of associates	-	(13)	2	(11)
Reported	136	82	(19)	63

Six months ended 30th September 2022

Underlying	222	201	(40)	161
Amortisation of acquired intangibles	(2)	(2)	-	(2)
Major impairment and restructuring charges	(9)	(9)	2	(7)
Share of losses of associates	-	(2)	-	(2)
Reported	211	188	(38)	150

Underlying earnings per share

	Six months ended	
	30.9.23	30.9.22
Underlying profit for the period (£ million)	108	161
Weighted average number of shares in issue (million)	183.2	183.0
Underlying earnings per share (pence)	59.1	88.2

Notes to the Accounts

for the six months ended 30th September 2023

18 Non-GAAP measures (continued)

Average working capital days (excluding precious metals)

	Six months ended 30.9.23 £ million	Year ended 31.3.23 £ million	Six months ended 30.9.22 £ million
Inventories	1,517	1,702	1,781
Trade and other receivables	1,759	1,882	1,881
Trade and other payables	(2,263)	(2,497)	(2,567)
	1,013	1,087	1,095
Working capital balances classified as held for sale	-	22	10
Total working capital	1,013	1,109	1,105
Less: Precious metal working capital	(371)	(622)	(502)
Working capital (excluding precious metals)	642	487	603
Average working capital days (excluding precious metals)	57	42	35

Free cash flow from continuing operations

	Six months ended 30.9.23 £ million	30.9.22 £ million
Net cash inflow from operating activities	236	145
Interest received	19	11
Interest paid	(53)	(38)
Purchases of property, plant and equipment	(125)	(111)
Purchases of intangible assets	(33)	(26)
Government grant income	1	-
Proceeds from sale of businesses	39	166
Principal element of lease payments	(6)	(6)
Less: Net cash inflow from discontinued operations	-	(8)
Free cash flow	78	133

Notes to the Accounts

for the six months ended 30th September 2023

18 Non-GAAP measures (continued)

Net debt (including post tax pension deficits) to underlying EBITDA

	30.9.23 £ million	31.3.23 £ million	30.9.22 £ million
Cash and deposits	193	129	161
Money market funds	300	521	253
Bank overdrafts	(31)	(13)	(45)
Cash and cash equivalents	462	637	369
Interest rate swaps - non-current assets	19	20	31
Interest rate swaps - non-current liabilities	(16)	(15)	(14)
Borrowings and related swaps - current	(71)	(155)	(183)
Borrowings and related swaps - non-current	(1,398)	(1,460)	(1,113)
Lease liabilities - current	(9)	(9)	(12)
Lease liabilities - non-current	(31)	(31)	(41)
Lease liabilities - current - transferred to liabilities classified as held for sale	-	(1)	-
Lease liabilities - non-current - transferred to liabilities classified as held for sale	-	(9)	-
Net debt	(1,044)	(1,023)	(963)
(Decrease) / Increase in cash and cash equivalents	(172)	287	9
Less: Increase in cash and cash equivalents from discontinued operations	-	(8)	(8)
Less: Decrease / (increase) in borrowings	149	(391)	(13)
Less: Principal element of lease payments	6	14	6
Increase in net debt resulting from cash flows	(17)	(98)	(6)
New leases, remeasurements and modifications	(7)	(13)	(6)
Less: New leases, remeasurements and modifications from discontinued operations	-	-	6
Disposal of businesses	10	-	-
Exchange differences on net debt	2	(53)	(117)
Other non-cash movements	(9)	(3)	16
Movement in net debt	(21)	(167)	(107)
Net debt at beginning of year	(1,023)	(856)	(856)
Net debt at end of year	(1,044)	(1,023)	(963)
Net debt	(1,044)	(1,023)	(963)
Add: Pension deficits	(21)	(21)	(39)
Add: Related deferred tax	3	2	7
Net debt (including post tax pension deficits)	(1,062)	(1,042)	(995)
Underlying EBITDA for this period	273	309	
Underlying EBITDA for prior year	647	724	
Less: Underlying EBITDA for prior half year	(309)	(382)	
Annualised underlying EBITDA	611	647	651
Net debt (including post tax pension deficits) to underlying EBITDA	1.7	1.6	1.5

Notes to the Accounts

for the six months ended 30th September 2023

18 Non-GAAP measures (continued)

	30.9.23 £ million	31.3.23 £ million	30.9.22 £ million
Underlying EBITDA	273	647	309
Depreciation and amortisation	(95)	(187)	(89)
Profit on disposal of businesses	-	12	-
Gains and losses on significant legal proceedings	-	(25)	-
Major impairment and restructuring charges	(42)	(41)	(9)
Finance costs	(71)	(110)	(48)
Finance income	30	49	27
Share of losses of associates	(13)	(1)	(2)
Income tax expense	(19)	(80)	(38)
Profit for the period from continuing operations	63	264	150

2023**22nd November**

Announcement of results for the half year ending 30th September 2023

30th November

Ex dividend date

1st December

Interim dividend record date

2024**6th February**

Payment of interim dividend

23rd May

Announcement of results for the year ending 31st March 2024

18th July

133rd Annual General Meeting (AGM)

Cautionary Statement

This announcement contains forward looking statements that are subject to risk factors associated with, amongst other things, the economic and business circumstances occurring from time to time in the countries and businesses in which the group operates. It is believed that the expectations reflected in this announcement are reasonable but they may be affected by a wide range of variables which could cause actual results to differ materially from those currently anticipated.

Johnson Matthey Plc

Registered Office: 5th Floor, 25 Farringdon Street, London EC4A 4AB

Telephone: +44 (0) 20 7269 8400

Fax: +44 (0) 20 7269 8433

Internet address: www.matthey.com

E-mail: jmpr@matthey.com

Registered in England — Number 33774

LEI code: 2138001AVBSD1HSC6Z10

Registrars

Equiniti, Aspect House, Spencer Road, Lancing, West Sussex BN99 6DA

Telephone: 0371 384 2344 (in the UK) *

+44 (0) 121 415 7047 (outside the UK)

Internet address: www.shareview.co.uk

* Lines are open 8.30am to 5.30pm Monday to Friday excluding public holidays in England and Wales.