

Preliminary results for the year ended 31st March 2022

26th May 2022

Catalysing the net zero transition to drive value creation

Reinvigorated strategy and new Leadership Team driving high performance culture

- Completed in-depth review of the business and strategy, assessing full range of options
- Simplified business portfolio focused on four businesses enabling the automotive, chemical and energy industries transition to net zero
- New transformation programme to deliver £150 million annualised cost savings by 2024/25, enhance decision-making pace and exploit synergy potential between sectors
- New global leadership team to drive high-performance culture and pace of strategic execution
- Focus on sustainable value creation accelerating to high single digit growth¹ over the medium term, and strong long-term growth, supported by a reliable dividend

		Reported results			Underlying results (continuing) ^{2,3}			
		Year ended 31 st March		% change	Year ended 31 st March		% change, constant FX rates	
		2022	2021 ³		2022	2021 ³		
Revenue	£m	16,025	15,435	+4				
Sales excluding precious metals ⁵	£m				3,778	3,685	+3	+5
Operating profit	£m	255	309	-17	553	473	+17	+21
Profit before tax	£m	195	224	-13	493	388	+27	
Profit after tax (continuing)	£m	116	194	-40	407	326	+25	
(Loss) / profit after tax (discontinued)	£m	(217)	11	n/a				
(Loss) / earnings per share	pence	(52.6)	106.5	n/a	213.2	168.9	+26	
Ordinary dividend per share	pence	77.0	70.0	+10				

Underlying performance – continuing operations^{2,3,4}

- Robust underlying results for 2021/22, in line with market expectations⁶
- Sales of £3.8 billion, up 5%, driven by a partial recovery in Clean Air and good performance in Efficient Natural Resources
- Underlying operating profit of £553 million, up 21%, driven by good performance in Clean Air and Efficient Natural Resources, higher average PGM prices and efficiencies
- Underlying earnings per share up 26% due to stronger operational results and lower net finance charges
- Free cash flow of £221 million, moderately down on the prior year
- Strong balance sheet with net debt of £856 million reflecting continued strong management of working capital; net debt to EBITDA of 1.2 times

Reported results³

- Revenue up 4% primarily driven by higher average precious metal prices
- Operating profit declined 17% to £255 million, largely reflecting the one-off impairment and exit costs for Battery Materials
- Profit before tax declined 13% to £195 million, reflecting lower operating profit which was largely impacted by the one-off impairment in Battery Materials
- Loss after tax on discontinued operations of £217 million including Health underlying operating profit of £3 million and an impairment and restructuring charge of £242 million relating to its sale that is expected to complete at the end of May
- Reported loss per share of 52.6 pence
- Cash inflow from operating activities of £605 million (2020/21: £769 million)
- Ordinary dividend of 77.0 pence per share, up 10%
- Share buyback of £200 million now complete

Patrick Thomas, Chair, commented:

This has been a very challenging year for Johnson Matthey and our shareholders. We took important and necessary strategic decisions with the business portfolio, with the exit from Battery Materials and divestment of Health. I know many of our stakeholders were very disappointed, but these were essential actions to enable us to focus on attractive, high growth opportunities that have a vital role to play in the acceleration towards net zero. I, the rest of the board and the executive team are determined that we will restore value to our shareholders.

Looking ahead, Johnson Matthey has a strong foundation from which to build and we have delivered a robust set of underlying results in the year. I am delighted to welcome our new Chief Executive, Liam Condon. Liam is a high calibre, proven business leader with considerable experience who brings a strong commercial focus as we leverage our world-class science and scale our growth opportunities. The board and I are pleased that Liam has settled in quickly and is already executing at pace and driving a more performance-oriented culture. We fully endorse the strategy Liam has proposed and look forward to supporting him in executing this to restore and drive value creation for shareholders.

Liam Condon, Chief Executive, commented:

I am delighted to have joined Johnson Matthey and am very excited about the potential of the group. Since joining in March I have completed an in-depth review of the business and strategy, assessing the full range of strategic options. I am very confident and determined that our reinvigorated strategy and planned cultural transformation will deliver value for all our stakeholders.

As the world decarbonises, Johnson Matthey has a pivotal role to play as a global leader in sustainable technologies. The net zero transition is both disrupting existing markets and, at the same time, creating new and bigger markets which depend on Johnson Matthey's technology. By helping our automotive, chemical and energy industry customers to decarbonise, we will unlock tremendous growth potential for Johnson Matthey.

I am deeply impressed by the depth of talent and expertise within Johnson Matthey, but significant change is required to create a simpler, more focused group capable of better execution. We have already started executing at pace and I have taken steps to strengthen my executive team. We will continue to simplify our portfolio, focusing on our core activities and exploiting our leading-edge technologies, supported by our PGMs backbone. I am very confident we will create significant value with a faster paced, more customer-focused culture to become a high-performance leader in our important existing and exciting growth markets.

Outlook for the year ending 31st March 2023

For 2022/23, we are facing a period of greater political and economic uncertainty with a combination of factors that may affect the year ahead. Our performance for the full year will continue to correlate closely to levels of auto production and precious metal prices.

In Clean Air, although end customer demand remains robust, there continues to be supply chain disruption affecting many of our automotive customers constraining their production volumes, most recently with COVID-19 lockdowns in China and sourcing components from Ukraine. We expect conditions to ease through the year and Clean Air performance to improve with levels of auto production, although visibility remains low. For the year 2022/23 external data currently suggests auto production will be 5% higher than 2021/22. In this scenario, we would anticipate Clean Air operating performance to be broadly in line with 2021/22 with cost inflation being offset by further efficiencies. Clean Air has a flexible cost base, enabling us to manage different levels of activity, with around 75% of costs before mitigation being variable.

PGM Services continues to benefit from relatively high and volatile precious metals prices, albeit current prices are slightly below the prior year. If they were to remain at their current level⁷ for the rest of this year, we would expect the adverse impact on the full year to be around £25 million⁸. We are also expecting slightly lower refinery intake volumes due to lower scrap levels with the semi-conductor chip shortage supporting a buoyant second-hand car market.

Catalyst Technologies end markets remain robust. As reported previously, we have limited operations in Russia representing around only 1% of group sales and a slightly higher proportion of group operating profit, mainly in Catalyst Technologies. The profit impact in Catalyst Technologies in 2022/23 of c.£10 million will be compensated by new business elsewhere thereafter.

In Hydrogen Technologies we are investing to enable us to scale at pace, to capture value from the significant opportunities rapidly growing hydrogen markets present. Consequently, we expect a larger operating loss in 2022/23.

At current foreign exchange rates⁹, translational foreign exchange movements for the year ending 31st March 2023 are expected to benefit underlying operating profit by around £25 million.

As a result, whilst visibility is low and the outcome for the year remains uncertain, we currently expect operating performance to be in the lower half of the consensus range.¹⁰

Longer term, we expect the current geopolitical situation to drive a significant acceleration towards a net zero carbon economy, with corresponding investment to position us strongly for significant growth opportunities from our sustainable technology portfolio.

Dividend and share buyback

The board will propose a final ordinary dividend for the year of 55.0 pence at the Annual General Meeting on 21st July 2022. Together with the interim dividend of 22.0 pence per share, this gives a total ordinary dividend of 77.0 pence representing a 10% increase on the prior year. Subject to approval by shareholders, the final dividend will be paid on 2nd August 2022, with an ex-dividend date of 9th June 2022. Our previously announced £200 million share buyback completed on 13th May 2022.

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Notes:

1. At constant precious metal prices and FX rates (2021/22 average).
2. Underlying is before profit or loss on disposal of businesses, gain or loss on significant legal proceedings together with associated legal costs, amortisation of acquired intangibles, major impairment and restructuring charges and, where relevant, related tax effects. For definitions and reconciliations of other non-GAAP measures, see pages 51 to 54.
3. 2020/21 is restated to reflect the group's updated reporting segments and removal of inter-segment copper zeolite sales in Efficient Natural Resources as well as the classification of Health as a discontinued operation.
4. 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 2020/21 results converted at 2021/22 average rates. In 2021/22, the translational impact of exchange rates on group sales and underlying operating profit was an adverse impact of c.£101 million and c.£17 million respectively.
5. Revenue excluding sales of precious metals to customers and the precious metal content of products sold to customers.
6. Vara consensus for full year group underlying operating profit in 2021/22 was £545 million (range: £532 million to £561 million) as at 25th May 2022. 2020/21 group underlying operating profit was £504 million.
7. Based on average precious metal prices in May 2022 (month to date).
8. A \$100 change in the average annual platinum, palladium and rhodium metal prices each have an impact of approximately £1 million, £1.5 million and £1 million respectively on full year underlying operating profit.
9. Based on foreign exchange rates in May 2022 (month to date).
10. Vara consensus for full year group underlying operating profit in 2022/23 was £562 million (range: £491 million to £641 million) as at 25th May 2022. 2021/22 group underlying operating profit on an adjusted basis was £559 million (adjusted for disposals of Health, Battery Materials and Advanced Glass Technologies).

Strategy update from the Chief Executive

Throughout my career I have only ever worked for companies that combine science with a strong sense of purpose. And what tremendous science and purpose Johnson Matthey (JM) has. Since becoming Chief Executive in March 2022, I have been struck by how passionate JM's people are about using their expertise in metals chemistry, catalysis and process design to create a cleaner, healthier world. However, it is also clear that we have not performed well in recent years and have done a poor job of value creation, which is something that my new team and I are committed to changing.

Reinvigorated strategy to drive value creation

In my conversations with employees and customers, I have heard a consistent message: JM is a great company – with great people and technology. But we need a much clearer strategy that outlines how we will create more value for both shareholders and society as we help the world accelerate progress to net zero, and how we will allocate resources in a more disciplined manner and transform our culture to enable a successful strategic execution.

In the past couple of months, three things have become much clearer to me. The first is that we already have the core talent and technology required to help accelerate progress towards net zero. In fact, as the world looks to decarbonise, key markets for our products will increase significantly, opening up tremendous new growth opportunities for JM. We just need to define where we want to focus our energy and resources.

My second observation is that our complex business structure and lack of commercial focus is getting in the way of our ability to create significant value. That's why we need to simplify and drive a stronger emphasis on accountability and faster decision making.

The third observation is that in new growth ventures, JM needs to focus on where we have a right to win and then we need to play to win. That requires developing a strong performance culture that is disciplined in execution of strategy and delivers consistent results. We have to do better and create significantly more value for shareholders and society, and this is something we are completely committed to. We need to **focus, simplify** and **execute** at pace with a high degree of discipline.

Focusing our portfolio on core strengths

Our expertise in (platinum group metals) PGMs chemistry and catalysis, combined with our process technology skills, is the beating heart of this company. It is that expertise that has helped remove harmful emissions from vehicles for almost 50 years. And it is expertise that is essential for decarbonising our world: we are enabling low and zero carbon technologies in Catalyst Technologies and Hydrogen Technologies with a focus on sustainable fuels, fuel cells and green hydrogen electrolyzers. Our technology has the potential to transform traditionally carbon-intensive sectors, such as chemicals, energy and transportation.

As part of the strategic review I have considered the full range of options and concluded that focusing on our core strengths offers a much clearer path to value creation than simply splitting up the group. JM has tremendous synergies across the group that can drive competitive advantage and create significant additional value. By using our deep understanding of PGM chemistry, catalysis and process design, JM can be a market leader in sustainable technologies across multiple industries. As a company we are shifting gears and moving from playing not to lose, towards playing to win.

We are focusing our business on four areas to create significant value – Clean Air, Catalyst Technologies, Hydrogen Technologies and our enabling business PGM Services. They are areas in which we already have world-class skills and technologies, and they are all areas in which we can, and are committed to play to win.

PGM Services – the backbone of our business

JM is the world's largest recycler of PGMs – around twice the size of our nearest competitor. PGM Services provides the flexible precious metal sourcing and price risk management that are necessary to run the rest of JM, and is key to the trust our customers place in us. For example, our Clean Air and hydrogen fuel cell customers depend on PGM Services for access to a reliable supply of sustainable, scarce precious metals, and recycling services to support a circular economy. We have a competitive advantage that is both very hard to replicate and essential for helping the world reach net zero. Our PGM Services backbone supports our other three focused business divisions – Clean Air, Catalyst Technologies and Hydrogen Technologies, which in turn enable PGM Services to maintain its scale and leadership.

1. Clean Air – continuing to play a leading role in the autocatalyst market

Clean Air will remain a significant business well into the next decade even as the world transitions towards lower and zero-carbon technologies. That transition will take time, and in the meantime governments around the world intend to roll out more stringent air quality regulations, which offer new opportunities for our innovative technology. Clean Air will create significant value and we are highly confident that we will generate at least £4 billion of cash over the decade to 2030/31, with more thereafter.

2. Catalyst Technologies – decarbonising chemicals and creating sustainable fuels

We are already an established, leading provider of process technology and catalysts to the chemicals and energy sectors, especially in synthesis gas (syngas). Our Catalyst Technologies business will strengthen our focus on the syngas value chain, growing our existing business alongside newer opportunities in blue hydrogen, sustainable fuels and low-carbon solutions. Fueled by the net zero transition, we expect these markets to grow rapidly in the medium term as future production needs to decarbonise. We intend to move quickly and strengthen our leading positions across Catalyst Technologies to deliver high single digit growth over the medium term.

3. Hydrogen Technologies – decarbonising transport and energy

Combining our PGM and catalysis expertise with our fuel cell and green hydrogen activities, our Hydrogen Technologies business will help decarbonise the transport and energy sectors and create very significant growth in the medium-longer term. We already have an established hydrogen business, having been active in fuel cells for over 20 years. Importantly, we already have customer contracts and partnerships today with leading hydrogen players including a major German automotive supplier for the supply of next generation catalyst coated membranes into the global automotive market.

We have taken the next step in our strategic partnership with Plug Power, a leading provider of cutting-edge green hydrogen and fuel cell solutions, with JM bringing extensive precious metals and catalysis expertise and potential to develop a closed-loop PGM recycling system. The partnership extends across advanced components for both fuel cells and electrolysis and embodies a commitment to rapidly scale up to meet accelerating market demand, combining the strengths of both businesses to drive the capacity needed to 2030 and beyond. The collaboration is expected to generate significant value.

In addition, we expanded our presence in green hydrogen by investing into Enapter, a pioneer and commercial leader in anion exchange membrane (AEM) electrolysis. Our partnership encompasses joint development of advanced components, supply of specialist catalysts and we are jointly investigating opportunities for recycling.

We aim to become the market leader in high value performance components that are essential to power fuel cells and green hydrogen electrolyzers. We are targeting more than £200 million of sales in Hydrogen Technologies by the end of 2024/25.

Simplifying our business

To successfully deliver our strategy, we need to simplify our business. JM needs to become simpler, more agile, and more cost-effective. Across our entire organisation, we must reduce complexity. This means leaner processes, less duplication and clear lines of accountability. Achieving this will help unlock our potential by increasing speed of decision making, eliminating duplication and reducing costs.

Executing at pace and transforming our culture

Our strategy will be underpinned by a rigorous performance culture. We are launching a transformation programme to drive stronger execution, unlock near-term cost opportunity and position us strategically to more strongly drive growth. We will strengthen our capabilities in two ways:

- 1. Capital project execution** – clear governance, accountability and enhanced capabilities will ensure we are highly disciplined in capital allocation and much stronger in execution
- 2. Commercial skills** – strengthening capabilities and cross-group commercial synergies, with a strong focus on value creation and more strategic partnerships

In respect of the near-term cost opportunity, we will deliver £150 million in annualised cost efficiencies by 2024/25 which reflects simplification of our group functions, procurement and operations including areas such as real estate.

Strengthening our leadership team for a successful future

As part of transforming our culture, we have also strengthened our Group Leadership Team (GLT). We recently appointed Anne Chassagnette as Chief Sustainability Officer, and we are also appointing four new business leads for our four businesses, two of whom are external appointments. Anish Taneja, formerly a €3 billion P&L leader with Michelin will take over as Chief Executive, Clean Air. Anish will also chair the JM cross-group Commercial Council. Alastair Judge, currently interim CEO of Clean Air, will become CEO of our enabling PGM Services business. Jane Toogood, currently CEO of Efficient Natural Resources, will become Chief Executive, Catalyst Technologies. Mark Wilson, formerly of bp amongst others and a highly experienced leader in the energy industry will become the new Chief Executive, Hydrogen Technologies. Christian Günther, an acknowledged leader in transformation, will lead our strategy and transformation work. In addition, the scope of role for our Head of Operations, Ron Gerrard, will be expanded to include all strategic capex, in order to ensure clear accountability for capital projects planning, design and execution. With this mix of new colleagues, and the strong team I inherited, we now have a world-class leadership team capable of driving execution of our strategy at pace and creating significant value.

Disciplined capital allocation to drive success

As we execute our strategy, we will maintain a strong balance sheet and ensure we allocate capital in a very disciplined way. That means: investing for growth and attractive returns and ensuring a reliable dividend, while returning excess capital to shareholders.

For the next three years to 2024/25, we expect cumulative capital expenditure to be around £1 billion. This will be focused on our core activities where we have a right to win and need to invest to drive growth: our PGM refineries, Catalyst Technologies and Hydrogen Technologies. We may also consider acquisitions, but we will be highly selective in our approach, with a focus on bolt-on deals to acquire technology or accelerate growth in our core growth businesses. For our shareholders, we will at least maintain and aim to grow the dividend, targeting a c.40% pay-out ratio over the medium term. Our aim is to maintain a strong balance sheet with our target level of net debt to EBITDA¹ of 1.5-2.0 times.

Embedding sustainability into everything we do

JM already has a strong sustainability framework in place, with targets that focus on current and future technologies that we know will be fundamental to addressing the climate challenge. We track progress by measuring the percentage of our sales that come from products that contribute to our four priority UN Sustainable Development Goals (UN SDGs). Further details on our targets can be found in our annual report and accounts².

Strategic milestones to the end of 2023/24

Our strategic milestones will ensure we track and report progress against our plan:

Customers:

- Win at least 2 large scale strategic partnerships in Hydrogen Technologies
- Win targeted Euro 7 business and deliver on £4 billion+ cash trajectory for Clean Air
- Win >10 additional large scale projects by 2023/24 (across Hydrogen Technologies and Catalyst Technologies)

Investments:

- Expand PGM Services refining capacity in China
- Complete construction of Hydrogen Technologies CCM plant in UK to expand our total capacity from 2GW to 5GW
- Targeted capacity expansion (fuel cells catalyst, formaldehyde catalyst)
- Complete divestment of Value Businesses

People: Increase employee engagement score by 1ppt in 2022/23 and 3ppt by 2023/24

Sustainability:

- Achieve c.10% reduction in scope 1+2 CO₂e (carbon dioxide equivalent) emissions
- Help customers reduce CO₂e emissions by >1mt p.a. through use of our products

Notes:

1. Net debt including post tax pension deficits.
2. SDG 3 (Good Health and Wellbeing), SDG 7 (Affordable and Clean Energy), SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action).

Reporting structure changes

To provide greater transparency and reflect how we manage our businesses, we are changing our reporting structure for 2022/23. Under this basis, we have provided sales and underlying operating profit for 2021/22 and 2020/21 below:

Sales (£ million)	Year ended		% change, constant FX rates
	2022	31 st March 2021 ¹	
Clean Air	2,457	2,412	+5
PGM Services	587	531	+13
Catalyst Technologies	454	443	+5
Hydrogen Technologies	25	41	-39
Value Businesses ¹	280	274	+8
Eliminations	(99)	(113)	
Total sales (adjusted)	3,704	3,588	+6
Adjustments ²	236	334	
Total sales	3,940	3,922	+3

Underlying operating profit (£ million)	Year ended		% change, constant FX rates
	2022	31 st March 2021 ¹	
Clean Air	302	269	+17
PGM Services	308	244	+28
Catalyst Technologies	50	32	+67
Hydrogen Technologies	(33)	1	n/a
Value Businesses ¹	18	5	+260
Corporate	(86)	(73)	
Total operating profit (adjusted)	559	478	+21
Adjustments ³	(3)	26	
Total operating profit	556	504	+14

Notes:

- Includes Battery Systems, Medical Device Components and Diagnostic Services.
- Sales adjustments reflect removal of Health (2021/22: £162m, 2020/21: £237m), Advanced Glass Technologies (2021/22: £62m, 2020/21: £66m), Battery Materials (2021/22: £12m, 2020/21: £14m) and Other – Water and Atmosphere Control Technologies (2021/22: nil, 2020/21: £17m).
- Underlying operating profit adjustments reflect removal of Health (2021/22: £3m, 2020/21: £31m), Advanced Glass Technologies (2021/22: £16m, 2020/21: £17m), Battery Materials (2021/22: -£22m, 2020/21: -£23m) and Other – Water and Atmosphere Control Technologies (2021/22: nil, 2020/21: £1m).

Summary of underlying operating results from continuing operations

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

Sales (£ million)	Year ended 31 st March		% change	% change, constant FX rates
	2022	2021 ¹		
Clean Air	2,457	2,412	+2	+5
Efficient Natural Resources	1,041	974	+7	+9
Other Markets	379	412	-8	-4
Eliminations	(99)	(113)		
Sales (continuing)	3,778	3,685	+3	+5
Health (discontinued)	162	237		-29
Total sales	3,940	3,922	-	+3

Underlying operating profit (£ million)	Year ended 31 st March		% change	% change, constant FX rates
	2022	2021 ¹		
Clean Air	302	269	+12	+17
Efficient Natural Resources	358	276	+30	+33
Other Markets	(21)	1	n/a	n/a
Corporate	(86)	(73)		
Underlying operating profit (continuing)	553	473	+17	+21
Health (discontinued)	3	31		-90
Total underlying operating profit	556	504	+10	+14

Reconciliation of underlying operating profit (continuing) to operating profit (£ million)	Year ended 31 st March	
	2022	2021 ¹
Underlying operating profit (continuing)	553	473
Profit on disposal of businesses	106	-
Gains and losses on significant legal proceedings ²	42	-
Amortisation of acquired intangibles	(6)	(10)
Major impairment and restructuring charges ²	(440)	(154)
Operating profit	255	309

¹ 2020/21 is restated to reflect the group's updated reporting segments and removal of inter-segment copper zeolite sales in Efficient Natural Resources as well as the classification of Health as a discontinued operation.

² For further detail on these items please see page 21.

Second half performance – continuing operations

Sales (£ million)	H2 2021/22	H2 2020/21¹	% change	% change, constant FX rates
Clean Air	1,261	1,409	-11	-9
Efficient Natural Resources	518	563	-8	-8
Other Markets	188	221	-15	-11
Eliminations	(45)	(68)		
Sales (continuing)	1,922	2,125	-10	-8
Health (discontinued)	80	118	-32	-32
Total sales	2,002	2,243	-11	-9

Continuing sales were down 8% in the second half, with declines across all sectors. Clean Air was impacted by the shortage of semi-conductor chips which acted as a constraint on vehicle production, particularly in comparison to a strong second half in the prior year. Efficient Natural Resources saw weaker performance reflecting lower sales in our trading business. Within Other Markets, Hydrogen Technologies and Battery Systems reported lower sales and Advanced Glass Technologies was divested during the year.

Underlying operating profit (£ million)	H2 2021/22	H2 2020/21¹	% change	% change, constant FX rates
Clean Air	152	192	-21	-18
Efficient Natural Resources	161	188	-14	-13
Other Markets	(10)	3	n/a	n/a
Corporate	(47)	(46)		
Underlying operating profit (continuing)	256	336	-24	-21
Health (discontinued)	7	16	-56	-59
Total underlying operating profit	263	352	-25	-23

¹ 2020/21 is restated to reflect the group's updated reporting segments and removal of inter-segment copper zeolite sales in Efficient Natural Resources as well as the classification of Health as a discontinued operation.

Continuing underlying operating profit declined 21% in the second half, with the largest decline in Clean Air which was impacted by the shortage of semi-conductor chips and inflation. Efficient Natural Resources saw weaker performance reflecting lower sales in our trading business. Other Markets was lower due to higher investment in the scale up of Hydrogen Technologies. Corporate was broadly flat year-on-year.

Operating results by sector

Clean Air

Sales up driven by a partial recovery in demand

- Sales were up 5% driven by a partial recovery in demand, although volumes were constrained by supply chain disruption, principally shortages of semi-conductor chips
- Underlying operating profit increased 17%. Margins increased driven by operational leverage and benefits from our transformation programme, but were held back by the impact of chip shortages and inflation
- Strong cash generation of around £800 million in the year¹

	Year ended 31 st March		% change	% change, constant FX rates
	2022	2021		
	£ million	£ million		
Sales				
Light duty diesel	1,005	1,017	-1	+2
Light duty gasoline	574	624	-8	-7
Heavy duty diesel	878	772	+14	+17
Total sales	2,457	2,412	+2	+5
Underlying operating profit	302	269	+12	+17
Underlying margin	12.3%	11.2%		
Reported operating profit	273	165		

A partial recovery in demand, still impacted by supply chain disruption

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

Sales were up 5%, supported by increased activity in autos due to a partial recovery in demand. This was driven by heavy duty diesel and to a lesser extent by light duty diesel, with a decline in light duty gasoline. However, supply chain disruption and semi-conductor shortages continue to act as a constraint on vehicle production and this was more pronounced during the second half. This, in combination with strong demand in the second half of last year resulted in 2H sales being 9% lower year-on-year.

We are making good progress on our Clean Air transformation programme. We are continuing to rebalance production into our most efficient plants (notably from the UK into Poland and Macedonia) and have started manufacturing at our site in India, the last of our new highly efficient plants to be completed.

We remain focused on driving efficiency and cash generation across our Clean Air operations, having generated around £800¹ million of cash this year. We have a plan to deliver at least £4 billion of cash by 2030/31² and remain confident in the significant profitability and cash generation of the business beyond this period. We continued to win the Euro 7 and equivalent

business we have targeted and remain positive on our bidding for further platforms to meet this legislation.

Light duty catalysts – diesel and gasoline

Light duty diesel

In light duty diesel global sales were slightly up, outperforming the overall light duty diesel market. We saw good performance in the Americas and Asia, offset by a weak European market which represents around 65% of our total light duty diesel sales. In both the Americas and Asia, we saw strong sales growth ahead of the market as we won new business. In Europe, sales declined due to the weak market, although we benefited from a favourable platform mix.

Light duty gasoline

Global sales in light duty gasoline were down 7% with declines across all regions, underperforming the overall light duty gasoline market due to the impact of previous platform losses in Europe and the Americas. We have been investing in light duty gasoline to support future platform wins and are confident our technology and commercial offering is now competitive.

Heavy duty diesel catalysts

Heavy duty diesel sales grew 17% during the year, in line with the overall market, with double-digit growth across all regions. In the Americas, we saw strong sales growth in line with market production driven by a cyclical recovery in the US Class 8 truck cycle. In Europe, heavy duty sales growth outperformed market production, benefiting from a favourable platform mix. In Asia, sales grew strongly in a market that declined, supported by market share gains and increased value per vehicle due to tighter legislation in China.

Underlying operating profit

Underlying operating profit increased 17% and margin increased to 12.3%, driven by operational leverage and benefits from our transformation programme, but were held back by the impact of chip shortages and inflation.

Notes:

1. Delivered around £800 million of cash at actual precious metal prices, which equates to just over £600 million at constant prices (March 2021).
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.

Efficient Natural Resources

Good performance driven by PGM Services and recovery in Catalyst Technologies

- Good performance with sales up 9%. PGM Services grew strongly primarily benefiting from higher average precious metal prices. Catalyst Technologies also grew driven by higher refill catalysts across industrial and consumer, principally in methanol
- Underlying operating profit up 33% and margin expanded 6.1 percentage points driven by strong growth in PGM Services

	2022 £ million	Year ended 31 st March 2021 ¹ £ million	% change	% change, constant FX rates
Sales				
PGM Services	587	531	+11	+13
Catalyst Technologies	454	443	+2	+5
Total sales	1,041	974	+7	+9
PGM Services	308	244	+26	+28
Catalyst Technologies	50	32	+56	+67
Underlying operating profit	358	276	+30	+33
Underlying margin	34.4%	28.3%		
Reported operating profit	385	250		

¹ Restated following change to reporting segments and removal of inter-segment Copper Zeolites sales.

PGM Services

PGM Services is the world's largest secondary 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 also provides a strategic service to the group, supporting Clean Air, Catalyst Technologies and Hydrogen Technologies with security of metal supply in a volatile market.

Strong growth, benefiting from good performance in our refining business

Sales grew 13% reflecting good performance in our refining business primarily benefiting from higher average PGM prices. Sales were partly offset by reduced activity in our trading business which had a strong prior year.

Across our other businesses, performance was good. Life Science Technologies, which provides advanced PGM based catalysts to the pharmaceutical and agricultural chemicals markets, performed strongly reflecting new product launches from our customers.

Refining backlogs remain at low levels

Refinery backlogs remain at low levels, which reflects our continued strong operational focus and efficient management of precious metal working capital. This supports the group's balance sheet efficiency.

Catalyst Technologies

Catalyst Technologies is focused on enabling the decarbonisation of chemical value chains and we have leading positions in syngas: methanol, ammonia, hydrogen and formaldehyde. Catalyst Technologies serves three key end markets: industrial and consumer, traditional fuels and the nascent sustainable fuels market. Our revenue streams comprise refill catalysts, first fill catalysts and licensing income. In the year, sales were up 5% primarily driven by higher demand for refill catalysts.

Industrial and consumer: good growth in refills, particularly methanol

Industrial and consumer includes our methanol, ammonia, formaldehyde offerings as well as the majority of our licensing business. Overall, sales in industrial and consumer were up in the period and, within that, refill catalysts grew double digit. This largely reflected higher demand in methanol where we benefited from a pick-up in market demand.

Licensing and first fill sales, which are driven by the start-up of new plants and are lumpy by nature, were lower following particularly strong performance in the prior year in ammonia and oxoalcohols.

Traditional fuels: refills and additives flat

Traditional fuels includes our refining additives, hydrogen and natural gas purification offerings. Refills and additives, which make up the majority of sales in this segment, were flat. First fill sales were down, largely driven by hydrogen where we saw strong performance in the prior year as new plants came on stream.

Sustainable fuels: first sales relating to new sustainable technologies

We are developing new technologies to enable the new, fast-growing sustainable fuels markets which include our blue hydrogen, sustainable fuels and low carbon solutions offerings. Although small in value at this stage, sales were supported by the supply of the first methanol catalyst for the Haru Oni project in Chile, the world's first integrated and commercial large-scale plant to produce climate neutral e-methanol and e-gasoline from wind power. In addition, we also supplied the first catalyst used by our Fischer Tropsch (FT) CANS™ technology to Fulcrum for one of the world's first plants for the production of sustainable fuel from municipal solid waste.

Pipeline of future opportunities – driving growth from sustainable technologies

Licensing activity remains good and we signed four new licences in the period (2020/21: nine licences)¹. We are working with customers on a number of future opportunities focused on our decarbonisation technology, including sustainable aviation fuel, blue hydrogen and low carbon solutions. Across these exciting growth areas, we have a strong and growing pipeline with more than 70 potential projects.

Notes:

1. 2020/21 and 2021/22 numbers exclude low value licences.

Underlying operating profit

Underlying operating profit up 33% and margin expanded 6.1 percentage points, primarily driven by strong growth in PGM Services.

- PGM Services was up 28%, benefiting from higher average PGM prices (c.£45 million), partly offset by reduced activity in our trading business.
- In Catalyst Technologies, profit grew 67%, primarily reflecting a recovery in our refill catalyst business, as well as the absence of one-off impairments recognised in the prior year. Towards the end of the year, we saw an impact from the cessation of our activities in Russia. We expect the loss of business into Russia to have a c.£10 million impact year-on-year on Catalyst Technologies operating profit in 2022/23.

Other Markets

Investing to support growth in Hydrogen Technologies whilst driving value from non-core businesses

- Performance in Hydrogen Technologies reflected increased investment to support growth and manufacturing constraints as we scale up the business and utilised capacity to qualify new customer products
- Completed the sale of Advanced Glass Technologies on 31st January 2022 for a total consideration of £178 million
- Shortly completing our exit from our Battery Materials business

	2022 £ million	Year ended 31 st March 2021 ¹ £ million	% change	% change, constant FX rates
Sales				
New Markets	37	55	-33	-33
Value Businesses	342	357	-4	+1
Total sales	379	412	-8	-4
New Markets	(55)	(22)	n/a	n/a
Value Businesses	34	23	+48	+55
Underlying operating loss	(21)	1	n/a	n/a
Underlying margin	-5.5%	0.2%		
Reported operating loss	(309)	(9)		

¹ Restated following change to reporting segments.

New Markets

In the year, New Markets comprised Hydrogen Technologies (Fuel Cells and Green Hydrogen) and Battery Materials. In Hydrogen Technologies, we provide catalyst coated membranes that are essential for fuel cells and green hydrogen electrolyzers.

New Markets sales decreased 33% in the period. We are experiencing manufacturing constraints in Hydrogen Technologies as we scale up the business and utilise capacity for new customer qualification. Work is ongoing to expand our manufacturing capacity in the UK and China with the first phase expected to commence production in early 2023. In Green Hydrogen, we are commercialising at pace and generated our first sales in April 2022.

We are shortly completing our exit from Battery Materials and have impaired the carrying value of the assets to fair value, and communicated associated exit costs net of anticipated proceeds from asset sales. Together, these resulted in an exceptional item outside underlying operating profit of £363 million.

Value Businesses

Value Businesses is managed to drive shareholder value from activities considered to be non-core to JM, and comprises Battery Systems, Medical Device Components and Diagnostic Services. Advanced Glass Technologies was divested during the year.

Sales were broadly flat¹ in the period. We saw good sales performance in Medical Devices and Diagnostic Services which benefited from actions taken to drive improved business performance as well as improved demand following COVID-19. This was offset by weaker sales in Battery Systems, which was impacted by the global shortage of semi-conductor chips.

Underlying operating loss

Other Markets reported an underlying operating loss of £21 million, reflecting an operating loss of £55 million in New Markets partially offset by an operating profit of £34 million in Value Businesses.

Within New Markets, we accelerated our investment in the scale up of Hydrogen Technologies during the period resulting in loss for that business of £33 million. Battery Materials operating losses were £22 million.

Corporate

Corporate costs were £86 million, an increase of £13 million from the prior period, primarily due to building capability across our group functions and upgrading our core IT systems, as well as an increase in the pension service cost.

Notes:

1. The sale of Advanced Glass Technologies was completed on 31st January 2022. On a continuing basis (excluding Advanced Glass Technologies and other divested businesses in 2020/21 from both 2020/21 and 2021/22), sales in Value Businesses increased 8%.

Discontinued operations: Health

Performance impacted by lower demand and pricing pressure in Generics, US labour shortage and supply chain constraints

- Sale of Health to Altaris Capital Partners agreed on 17th December 2021, with the transaction expected to complete at the end of May
- Performance impacted by lower demand and pricing pressure in opioid analgesics (Generics), labour shortages in the US pharma market and global supply chain constraints

	Year ended 31 st March		% change	% change, constant FX rates
	2022 £ million	2021 £ million		
Sales				
Generics	77	146	-47	-46
Innovators	86	91	-5	-1
Total sales	163	237	-31	-29
Underlying operating profit (discontinued)	3	31	-90	-90
Underlying margin (discontinued)	1.8%	13.1%		
Reported operating (loss) / profit	(239)	14		

Update on sale to Altaris Capital Partners

On 17th December 2021, we announced the sale of Health to Altaris Capital Partners. The transaction is expected to complete at the end of May. As previously announced, we will retain approximately a 30% equity stake in the business. We have recorded a major impairment and restructuring charge of £242 million based on the amount expected to be recovered through the sale.

Sales performance

Overall sales were down 29% in the period, driven by weaker performance in Generics. Within **Generics**, sales of opioid addiction therapies decreased reflecting lower demand and pricing pressure in the US as the market genericises, whilst demand for opioid analgesics was impacted by the postponement of elective medical procedures. In addition, we saw manufacturing delays in some areas due to US labour shortages and supply chain constraints. **Innovators** sales were broadly flat in the year, with sales constrained by labour and raw material shortages in the US which negatively impacted our operations.

Underlying operating profit (discontinued)

Underlying operating profit declined 90%, reflecting weaker sales in Generics and manufacturing challenges in both businesses due to temporary US labour market shortages and supply chain disruption.

Financial review – continuing operations

Research and development (R&D)

R&D spend (excluding Health) was £201 million in the year, including £22 million of capitalised R&D. This was up from £185 million in the prior period and represents c.5% of sales excluding precious metals. The increase was mainly due to investment in Hydrogen Technologies as we commercialise our fuel cell and green hydrogen offerings, as well as continued investment in our Clean Air business ahead of new emissions regulations. Investment in Battery Materials, which was largely capitalised, also drove the increase in spend in the year.

Foreign exchange

The calculation of growth at constant rates excludes the impact of foreign exchange movements arising from the translation of overseas subsidiaries' profit into sterling. The group does not hedge the impact of translation effects on the income statement. The principal overseas currencies, which represented 78% of the non-sterling denominated underlying operating profit in year ended 31st March 2022, were:

	Share of 2021/22 non-sterling denominated underlying operating profit	Average exchange rate Year ended 31 st March		% change
		2022	2021	
US dollar	30%	1.36	1.31	+4
Euro	29%	1.18	1.12	+5
Chinese renminbi	19%	8.75	8.85	-1

For the year, the impact of exchange rates decreased sales by £101 million and underlying operating profit by £17 million.

If current exchange rates (£:\$ 1.23, £:€ 1.18, £:RMB 8.31) are maintained throughout the year ending 31st March 2023, foreign currency translation will have a positive impact of approximately £25 million on underlying operating profit. A one cent change in the average US dollar and euro exchange rates each have an impact of approximately £1 million and £2 million respectively on full year underlying operating profit, and a ten fen change in the average rate of the Chinese renminbi has an impact of approximately £1 million.

Efficiency savings

Our efficiency programme in relation to the consolidation of our Clean Air manufacturing footprint and the implementation of a new group operating model, which targeted savings of £100 million per annum (excluding Health) by 2023/24, is now largely complete.

£ million	Delivered to 2020/21	Delivered in 2021/22 ¹	Annualised benefits by 2023/24 ²
Total active efficiency programmes	37	87	100

Following the strategic review, we have now commenced our new group transformation programme as part of which we expect to deliver further efficiencies of £150 million by 2024/25. Associated costs to deliver the programme – all of which are cash – are around £100 million.

Notes:

1. Savings achieved in 2021/22 exclude £7 million relating to Health.
2. Annualised benefits by 2023/24 exclude £10 million relating to Health.

Items outside underlying operating profit

Non-underlying charge/income (£ million)	As at 31 st March 2022	As at 31 st March 2021
Major impairments and restructuring	(440)	(154)
Battery Materials	(363)	-
Russia – Ukraine conflict	(32)	-
Diagnostic Services	(45)	-
Gains and losses on significant legal proceedings	42	-
Disposal of Advanced Glass Technologies	106	-
Amortisation of acquired intangibles	(6)	(10)
Total	(298)	(164)

Major impairment and restructuring costs

Following the announcement of our intention to exit our Battery Materials business we have impaired the carrying value of the assets to fair value and communicated associated exit costs, which is net of anticipated proceeds from asset sales. Together, these resulted in an exceptional item outside underlying operating profit of £363 million.

As announced on 7th March 2022, we discontinued with immediate effect all new commercial activities in Russia and Belarus in light of the ongoing conflict with Ukraine. Our operations in Russia include a small Clean Air manufacturing plant, and a small Catalyst Technologies office. We have fully impaired the assets associated with both businesses resulting in a charge of £32 million.

As part of our annual impairment testing of goodwill, we updated our long-term market assumptions for the oil and gas industry in which Diagnostic Services serves its customers. The growth rate and discount rate assumptions for Diagnostic Services have also been updated to reflect the faster paced transition to non-carbon intensive industries and the simplification of our portfolio to focus on core markets. This resulted in an impairment to goodwill of £45 million.

Gains and losses on significant legal proceedings

During the period, the group recognised a net gain of £42 million largely reflecting damages and interest from a company found to have unlawfully copied one of JM's technology designs.

Disposal of Advanced Glass Technologies

On 31st January 2022, the group completed the sale of its Advanced Glass Technologies business for a total consideration of £178 million and recognised a non-underlying gain of £106 million.

Discontinued operations – Health

We announced the sale of Health on 17th December 2021 to Altaris Capital Partners. The expected proceeds fair value less costs to sell is £272 million leading to an impairment to Health's net assets of £228 million. The non-underlying impairment has been recognised in 2021/22 upon reclassing Health to 'held for sale' and discontinued operations. Non-underlying transaction and separation costs of c.£14 million have been incurred and expensed in the current year.

Finance charges

Net finance charges in the period amounted to £60 million, down from £85 million last year. Finance costs on metal borrowings have decreased due to lower metal borrowings and the focus across the group on reducing precious metal working capital.

Taxation

The tax charge on underlying profit before tax for the year ended 31st March 2022 was £86 million, an effective underlying tax rate of 17.4%, slightly up from 16.3% in 2020/21.

The effective tax rate on reported loss for the year ended 31st March 2022 was -56.4%, from 13.9% in the prior period. This represents a tax charge of £57 million, compared with £33 million in the prior year. The increased effective rate is due to major impairments and disposals arising in the year where no tax relief is available.

We currently expect the tax rate on underlying profit for the year ending 31st March 2023 to be around 19%, and then increase progressively to around 21% by 2024/25 reflecting rising corporate tax rates.

Post-employment benefits

IFRS – accounting basis

At 31st March 2022, the group's net post-employment benefit position, excluding bond assets held in a special purpose vehicle, was a surplus of around £283 million.

The cost of providing post-employment benefits in the year was £62 million, down from £65 million last year. The prior year charge included a £3 million credit, compared to a £11 million credit this year.

Capital expenditure

Capital expenditure (excluding Health) was £446 million in the year, 2.6 times depreciation and amortisation (excluding amortisation of acquired intangibles). In the period, projects included:

- In Efficient Natural Resources, investing to increase the resilience and capacity of our PGM refining assets
- Development and commercialisation of eLNO, our portfolio of high nickel cathode materials within Battery Materials
- Upgrading our core IT business systems

Strong balance sheet

Net debt (excluding Health) at 31st March 2022 was £856 million, an increase from £770 million from 31st March 2021. Net debt is £25 million higher at £881 million when post tax pension deficits are included. The group's net debt (including post tax pension deficits) to EBITDA was 1.2 times (31st March 2021: 1.3 times), slightly below our target range of 1.5 to 2.0 times.

We use short-term metal leases as part of our mix of funding for working capital, which are outside the scope of IFRS 16 as they qualify as short-term leases. These amounted to £140 million as at 31st March 2022 (31st March 2021: £437 million).

Free cash flow and working capital

Free cash flow was £221 million in the year, compared to £295 million in the prior period, largely reflecting a non-precious metal working capital outflow.

Excluding precious metal, average working capital days to 31st March 2022 decreased to 36 days compared to 45 days to 31st March 2021. The prior period was higher due to the lower average sales volume through the period.

Going concern

As at 31st March 2022, the group maintains a strong balance sheet with around £1.5 billion of available cash and undrawn committed facilities. Cash generation was strong during the period with free cash flow of around £221 million, however net debt increased by £86 million since 31st March 2021 to £856 million (excluding Health) driven by the share buyback and repayment of metal leases. Net debt (including post tax pension deficits) to EBITDA, was below our target range at 1.2 times.

The directors have reviewed the base case scenario forecasts for the Group and are of the opinion that the group has adequate resources to fund its operations for at least 12 months from the date of approving these financial statements, and so it is appropriate to prepare the accounts on a going concern basis. In arriving at this view, the base case scenario was stress tested to a severe but plausible downside case, which assumed a lower demand profile and slower recovery in end user market growth. Additionally, the group considered scenarios including the impact from carbon pricing costs, metal price volatility and increases in the amount of metal that we would have to hold.

Responsible business

Sustainable business

Our products and services are the clearest demonstration of our vision for a cleaner, healthier world. But we want to ensure we make them in ways that minimise our impact on the planet and our local communities.

To reflect our commitment in these areas and support our target to reach net zero by 2040, we organise our sustainability priorities around three pillars: products and services, operations and people. Each pillar is underpinned by a series of 2030 goals, targets and commitments. To strengthen our sustainability governance, this year we set up a new Board-level committee – the Societal Value Committee – and appointed our first Chief Sustainability Officer who reports directly to our Chief Executive.

Products and services

By 2030, we want to see more than 95% of our sales and our R&D spend contributing to four priority United Nations Sustainable Development Goals (UN SDGs). These four represent the areas where we can have the most material impact because they are closely aligned with our purpose and business strategy.

In 2021/22, we reached 83.8% of sales, down from 84.7% in 2020/21. And in R&D, we reached 88.1%, up from 87.3% in 2020/21.

This year, we also set new targets to increase the impact our products have in helping to lower GHG emissions and remove NOx emissions. And we set a target to help conserve scarce resources and support the circular economy.

Operations

In 2021, we joined the UN Global Compact's Business Ambition for 1.5° and had our intermediate targets to reduce Scope 1, 2 and 3 emissions by 2030 validated by the Science Based Targets initiative. The financial year saw a 5% rise in energy use, 4% rise in our Scope 1 and 2 GHG emissions and 3% rise in carbon intensity as our manufacturing output rose at a lower rate. Overall, our Scope 3 emissions were 8% lower than our 2019/20 baseline.

We are making good progress towards our target to purchase 60% of our electricity from certified renewable sources by 2025. In 2021/22, we reached 34% from sources with a renewable energy guarantee of origin (2020/21: 30%). We used 6% more water than the previous year, although this is 4.2% lower than our 2020 baseline. The total amount of waste we produced and sent for treatment by third parties rose to 96,286 tonnes.

People

In 2021/22 we reduced our combined UK gender pay gap to 5.4% from 6.7% in 2020/21. The health and safety of our people remains our highest priority and our employee total recordable injury and illness rate was 0.59 in 2021/22 compared with 0.79 in 2020/21. Our process safety severity rating was 1.37 in 2021/22 compared with 0.81 in 2020/21. To make progress against our 2030 human rights target, we worked with a third-party specialist to identify the human rights risks that we will focus on and developed a tailored risk assessment framework to segment our value chain and prioritise actions.

Risks and uncertainties

The principal risks and uncertainties, together with the group's strategies to manage them, are set out on pages 74 to 79 of the 2022 annual report. Updated risks are:

Strategic growth: Business transition to low-carbon economy – Our strategy is focused on managing our existing businesses effectively, while pivoting away from fossil fuel-based industries to those based on sustainable chemicals and fuels, and clean energy.

Our overall risk is that we may not have a financially viable future business model and/or capability as we transition to a low-carbon economy and are unable to make and/or sell the products and services our customers' demand.

Our new growth platforms include:

- Green hydrogen and fuel cells within Hydrogen Technologies.
- Low-carbon hydrogen, sustainable aviation fuels and low-carbon solutions within Catalyst Technologies.

Maintaining competitive advantage of our products and operations – This risk addresses failing to maintain our competitive advantage in existing markets and so not meet our customers' evolving needs as effectively and profitably as our competitors can. This could reduce the value of our brand.

Customers use our products in a wide range of their own end products, processes and systems. It is crucial then that our products work properly and meet the established quality criteria.

Performance failure or quality defects could harm consumers or leave us open to liability claims. This could lead to loss of future business and our license to operate and to reputational damage

Environment, health and safety (EHS) – Like other high-hazard manufacturing companies, our business is controlled by a wide range of challenging health, safety and environmental laws, standards and regulations, which are set by governments and regulatory agencies around the world.

If we fail to operate safely, we could injure people, incur significant financial loss or breach applicable laws, which could have a negative effect on our reputation, our employees or the environment.

This could also mean we lose production time and attract negative interest from the media and regulators, which could lead to fines and penalties.

Supply failure (excluding platinum group metals – see Managing our metal commitments) – Given the types of products and services we develop, there are only a few suppliers from which we can source certain important raw materials.

If there was a significant breakdown in their supply, we would be unable to manufacture our products and satisfy customer demand.

Our work on the effects of climate change means we understand that more frequent extreme weather events and natural disasters – like droughts, floods, storms, cyclones, heavy rain, sea level rise and heatwaves – may disrupt our supply and value chains, upstream and downstream. Getting raw materials and delivering products would be harder and costs would increase.

People, culture and leadership – A great culture is essential to executing our strategy, delivering growth and being more efficient. High-quality leaders can create inclusive, engaged and diverse teams, and inspire and motivate them.

We will make sure we have the capability to identify new business, capture opportunities and grow.

Managing our metal commitments - Our products contain precious metals sourced from either primary, secondary (recycled) or financial institutions. There is a risk that we have insufficient metal for our manufacturing businesses / metal commitments. Our primary and secondary metal needs are diversified in type and geography, and we have very little exposure to Russian PGM supply.

Our trading business ensures the Group has sufficient metal to meet business demands and manages our liquidity levels. There is a risk that we do not have sufficient metal available. We operate within tight trading limits and defined liquidity levels / policies to manage the volatility of demand. How much our trading business earns depends on metal price volatility.

We hedge all of our metal transactions centrally through looking at the overall group supply / demand. Accordingly, we do not carry significant exposure to price risk. Our refining business earnings also depend on metal price; a fall in price reduces revenue and operating profit. Any metal gains or losses that are generated through the refining process are settled regularly to ensure we are not exposed to short-term price fluctuations. In addition, a failure of our security management systems may result in a loss of theft of precious metal, which could lead to financial loss and / or a failure to satisfy our customers. This could reduce customer confidence or result in legal action.

Intellectual property management – By not adequately managing our own or third-party intellectual property (IP), knowledge and information, we risk losing business advantage. This could happen through:

- Loss of IP
- Failing to protect and exploit our investment in research and development
- Loss of freedom to operate
- Reputational damage associated with litigation

Asset failure – A critical asset failure may have a material effect on our supply chains, performance, share value and reputation.

Our work on the effects of climate change means we understand that more frequent extreme weather events and natural disasters – like droughts, floods, storms, cyclones, heavy rain, sea level rise and heatwaves – may disrupt our operations, increase our costs and have a detrimental effect on our employees' wellbeing.

Ethics and compliance – If we fail to comply with ethical and regulatory standards, we could face reputational damage, and leave the company or individuals open to potential criminal or legal action.

Business transformation – If we fail to manage and deliver business change in a controlled manner, we may not achieve the business benefits we expect.

If we don't effectively implement the efficiencies of a simpler and more streamlined business structure, we may not see the cultural improvements and new ways of working we expect.

Information, technology and cybersecurity – If we fail to adapt our IT systems to changing business requirements or suffer a significant disruption to those systems or a major cybersecurity incident, we could see our financial position and reputation harmed, or face regulatory penalties, or unintentionally break the law.

Customer contract liability – Unfavourable customer contract terms could lead to significant loss or damage and expose us to high or unlimited liability. Quality management needs to be effective across the entire end-to-end process within our business, i.e., from raw material supply through to product delivery to customer expectations. It could also lead to broader negative consequences, such as damage to our reputation or losing customers.

Consolidated Income Statement

for the year ended 31st March 2022

	Notes	2022 £ million	2021* £ million
Revenue		16,025	15,435
Cost of sales	2,3	(14,971)	(14,481)
Gross profit		1,054	954
Distribution costs		(101)	(103)
Administrative expenses		(400)	(377)
Profit / (loss) on disposal of businesses	13	106	(1)
Amortisation of acquired intangibles	4	(6)	(10)
Gains and losses on significant legal proceedings	4	42	-
Major impairment and restructuring charges	5	(440)	(154)
Operating profit		255	309
Finance costs		(101)	(158)
Finance income		41	73
Profit before tax from continuing operations		195	224
Tax expense		(79)	(30)
(Loss) / profit after tax from discontinued operations		(217)	11
(Loss) / profit for the year		(101)	205
		pence	pence
(Loss) / earnings per ordinary share			
Basic	6	(52.6)	106.5
Diluted	6	(52.6)	106.4
Earnings per ordinary share from continuing operations			
Basic	6	60.9	100.9
Diluted	6	60.8	100.8

* Restated to reflect classification of the Health segment as discontinued operations (see note 12).

Consolidated Statement of Total Comprehensive Income

for the year ended 31st March 2022

	Notes	2022 £ million	2021* £ million
(Loss) / profit for the year		(101)	205
Other comprehensive income			
Items that will not be reclassified to the income statement			
Remeasurements of post-employment benefit assets and liabilities	14	177	(141)
Fair value (losses) / gains on equity investments at fair value through other comprehensive income		(5)	5
Tax on items that will not be reclassified to the income statement		(35)	28
Total items that will not be reclassified to the income statement		137	(108)
Items that may be reclassified to the income statement			
Exchange differences on translation of foreign operations		75	(144)
Exchange differences on translation of discontinued foreign operations	12	5	(18)
Amounts (charged) / credited to hedging reserve		(36)	3
Fair value (losses) / gains on net investment hedges		(2)	12
Tax on above items taken directly to or transferred from equity		10	-
Total items that may be reclassified to the income statement		52	(147)
Other comprehensive income / (expense) for the year		189	(255)
Total comprehensive income / (expense) for the year		88	(50)
Total comprehensive income / (expense) for the year arises from:			
Continuing operations		300	(43)
Discontinued operations	12	(212)	(7)
		88	(50)

* Restated to reflect classification of the Health segment as discontinued operations (see note 12).

Consolidated Balance Sheet

as at 31st March 2022

	Notes	2022 £ million	2021 £ million
Assets			
Non-current assets			
Property, plant and equipment	8	1,238	1,424
Right-of-use assets		61	74
Goodwill		366	554
Other intangible assets	9	267	359
Investments in joint ventures and associates		2	2
Investments at fair value through other comprehensive income		45	53
Other receivables	10	42	50
Interest rate swaps		11	20
Deferred tax assets		98	140
Post-employment benefit net assets	14	352	194
Total non-current assets		2,482	2,870
Current assets			
Inventories		1,549	1,814
Current tax assets		18	13
Trade and other receivables	10	1,796	2,422
Cash and cash equivalents		391	581
Interest rate swaps		1	-
Other financial assets		27	44
Assets classified as held for sale	12	402	-
Total current assets		4,184	4,874
Total assets		6,666	7,744
Liabilities			
Current liabilities			
Trade and other payables	11	(2,563)	(3,325)
Lease liabilities		(10)	(11)
Current tax liabilities		(97)	(147)
Cash and cash equivalents – bank overdrafts		(37)	(36)
Borrowings and related swaps		(265)	(26)
Other financial liabilities		(44)	(18)
Provisions		(56)	(35)
Liabilities classified as held for sale	12	(80)	-
Total current liabilities		(3,152)	(3,598)
Non-current liabilities			
Borrowings and related swaps		(899)	(1,252)
Lease liabilities		(40)	(51)
Deferred tax liabilities		(18)	(28)
Interest rate swaps		(2)	-
Employee benefit obligations	14	(72)	(98)
Other financial liabilities		(12)	-
Provisions		(28)	(27)
Other payables	11	(2)	(5)
Total non-current liabilities		(1,073)	(1,461)
Total liabilities		(4,225)	(5,059)
Net assets		2,441	2,685
Equity			
Share capital		218	221
Share premium		148	148
Shares held in employee share ownership trust (ESOT)		(24)	(29)
Other reserves		50	-
Retained earnings		2,049	2,345
Total equity		2,441	2,685

The accounts were approved by the Board of Directors on 26th May 2022 and signed on its behalf by:

L Condon
S Oxley

Directors

Consolidated Cash Flow Statement

for the year ended 31st March 2022

	Notes	2022 £ million*	2021 £ million*
Cash flows from operating activities			
Profit before tax from continuing operations		195	224
(Loss) / profit before tax from discontinued operations	12	(239)	14
Adjustments for:			
(Profit) / loss on disposal of businesses		(106)	1
Depreciation		151	158
Amortisation		39	32
Impairment losses		632	122
Loss on sale of non-current assets		2	4
Share-based payments		8	9
Decrease in inventories		123	19
Decrease / (increase) in receivables		588	(430)
(Decrease) / increase in payables		(783)	607
Increase in provisions		25	41
Contributions in excess of employee benefit obligations charge		(2)	(7)
Changes in fair value of financial instruments		19	(45)
Net finance costs		60	85
Income tax paid		(107)	(65)
Net cash inflow from operating activities		605	769
Cash flows from investing activities			
Interest received		32	66
Purchases of property, plant and equipment		(358)	(304)
Purchases of intangible assets		(95)	(77)
Proceeds from sale of non-current assets		1	5
Net proceeds from sale of businesses	13	160	19
Net cash outflow from investing activities		(260)	(291)
Cash flows from financing activities			
Purchase of treasury shares		(155)	-
Proceeds from borrowings		9	368
Repayment of borrowings		(140)	(298)
Dividends paid to equity shareholders	7	(139)	(99)
Interest paid		(111)	(159)
Principal element of lease payments		(14)	(14)
Net cash outflow from financing activities		(550)	(202)
Change in cash and cash equivalents		(205)	276
Exchange differences on cash and cash equivalents		6	(4)
Cash and cash equivalents at beginning of year		545	273
Cash and cash equivalents at end of year		346	545
Cash and deposits		254	119
Money market funds		137	462
Bank overdrafts		(37)	(36)
Bank overdrafts transferred to liabilities classified as held for sale	12	(8)	-
Cash and cash equivalents		346	545

* For cash flows of discontinued operations see note 12.

Consolidated Statement of Changes in Equity

for the year ended 31st March 2022

	Share capital £ million	Share premium account £ million	Shares held in ESOT £ million	Other reserves £ million	Retained earnings £ million	Total equity £ million
At 1 st April 2020	221	148	(32)	142	2,345	2,824
Total comprehensive (expense) / income	-	-	-	(142)	92	(50)
Dividends paid (note 7)	-	-	-	-	(99)	(99)
Share-based payments	-	-	-	-	16	16
Cost of shares transferred to employees	-	-	3	-	(10)	(7)
Tax on share-based payments	-	-	-	-	1	1
At 31 st March 2021	221	148	(29)	-	2,345	2,685
Total comprehensive income	-	-	-	47	41	88
Dividends paid (note 7)	-	-	-	-	(139)	(139)
Purchase of treasury shares	(3)	-	-	3	(200)	(200)
Share-based payments	-	-	-	-	15	15
Cost of shares transferred to employees	-	-	5	-	(13)	(8)
At 31st March 2022	218	148	(24)	50	2,049	2,441

Notes on the Preliminary Accounts

for the year ended 31st March 2022

1 Preparation

Basis of preparation and statement of compliance

On 31st December 2020, IFRS as adopted by the European Union at that date was brought into UK law and became UK-adopted International Accounting Standards, with future changes being subject to endorsement by the UK Endorsement Board. The group transitioned to UK-adopted International Accounting Standards in its consolidated financial statements on 1st April 2021. This change constitutes a change in accounting framework. However, there is no impact on recognition, measurement or disclosure in the period reported as a result of the change in framework. The financial statements of the group have been prepared on a going concern basis in accordance with UK-adopted International Accounting Standards (IAS) and with the requirements of the Companies Act 2006 as applicable to companies reporting under those standards. Except for the changes noted below, the accounting policies applied are set out in the Annual Report and Accounts for the year ended 31st March 2021.

As at 31st March 2022, the group maintains a strong balance sheet with around £1.5 billion of available cash and undrawn committed facilities. Cash generation was strong during the period with free cash flow of £221 million. Net debt increased by £86 million since 31st March 2021 to £856 million (excluding Health) driven by the share buyback and repayment of metal leases. Net debt (including post tax pension deficits) to EBITDA, was below our target range at 1.2 times and we have made £nil drawings under committed facilities.

The directors have reviewed the base case scenario forecasts for the group and are of the opinion that the group has adequate resources to fund its operations for the period of at least twelve months from the date of signing these financial statements. In forming this view, the base case scenario was stress tested to represent a severe but plausible downside case scenario which modelled a material reduction in trading.

In both scenarios outlined above, we have sufficient headroom against committed facilities and key financial covenants are not in breach during the going concern period. Accordingly, the directors continue to adopt the going concern basis in preparing the financial statements.

Statutory accounts for 2021 have been delivered to the Registrar of Companies and those for 2022 will be delivered following the company's Annual General Meeting. The auditor, PwC, has reported on both sets of accounts. Their reports were unqualified, did not include a reference to any matters to which the auditors drew attention by way of emphasis without qualifying their report and did not contain any statement under sections 498(2) or 498(3) of the Companies Act 2006. The accounts for the year ended 31st March 2022 were approved by the Board of Directors on 26th May 2022.

These financial statements do not include all the information required for full annual statements and should be read in conjunction with the 2022 Annual Report. They are not statutory accounts within the meaning of section 435 of the Companies Act 2006.

Notes on the Preliminary Accounts

for the year ended 31st March 2022

1 Preparation (continued)

Changes in accounting policies

Interest Rate Benchmark Reform Phase 2 - Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16

The IBOR reform, Phase 2 amendments were effective for annual periods beginning on or after the 1st January 2021. The Phase 2 amendments address issues that arise from implementation of the reforms, including the replacement of one benchmark with an alternative one. A practical expedient is provided such that the change to contractual cash flows for financial assets and liabilities (including lease liabilities) is accounted for prospectively by revising the effective interest rate. In addition, hedge accounting will not be discontinued solely because of the IBOR reform. The amendments did not have a material impact on the results or financial position of the group and there has been no change to the group's interest policy.

The group has one IFRS 9 designated hedge relationship: the 3.26% \$150 million Bonds 2022 which have been swapped into floating rate US dollars. This swap references six-month US dollar LIBOR, however the swap matures in 2022, before the amendments are effective for the group. The group does have access to a revolving credit facility which remains undrawn, the contract was amended so that USD and GBP drawings are subject to the new Secured Overnight Financing Rate (SOFR) and Sterling Overnight Index Average (SONIA) respectively from 30th November 2021. The implications on the wider business of IBOR reform have been assessed and there are no other arrangements that are materially impacted.

Other amendments to accounting standards

The IASB ratified the IFRIC update on Configuration and Customisation ('CC') costs in a Cloud Computing Arrangement (IAS 38, *Intangible Assets*) in April 2021. The group reports 'CC' in cloud computing arrangements in compliance with these updates.

The IASB has issued other amendments resulting from improvements to IFRS that the group considers do not have any impact on the accounting policies, financial position or performance of the group. The group has not early adopted any standard, interpretation or amendment that was issued but is not yet effective.

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 19.

Notes on the Preliminary Accounts

for the year ended 31st March 2022

2 Segmental information

Revenue, sales, underlying operating profit and net assets by sector

Year ended 31st March 2022

	Clean Air £ million	Efficient Natural Resources £ million	Other Markets £ million	Corporate £ million	Eliminations £ million	Total £ million
Revenue from external customers	7,085	8,461	479	-	-	16,025
Inter-segment revenue	4	4,555	1	-	(4,560)	-
Revenue	7,089	13,016	480	-	(4,560)	16,025
External sales	2,455	945	378	-	-	3,778
Inter-segment sales	2	96	1	-	(99)	-
Sales¹	2,457	1,041	379	-	(99)	3,778
Underlying operating profit / (loss) from continuing operations¹	302	358	(21)	(86)	-	553
Segmental net assets	2,108	41	220	330	-	2,699
Net debt (note 19)						(856)
Post-employment benefits net assets and liabilities (note 14)						280
Deferred tax net asset						80
Provisions and non-current other payables						(86)
Investments in joint ventures and associates						2
Net assets held for sale (note 12)						322
Net assets						2,441

Year ended 31st March 2021*

	Clean Air (restated) £ million	Efficient Natural Resources (restated) £ million	Health (restated) £ million	Other Markets (restated) £ million	Corporate (restated) £ million	Eliminations (restated) £ million	Total £ million
Revenue from external customers	6,985	7,952	-	498	-	-	15,435
Inter-segment revenue	2	4,877	-	1	-	(4,880)	-
Revenue	6,987	12,829	-	499	-	(4,880)	15,435
External sales	2,412	862	-	411	-	-	3,685
Inter-segment sales	-	112	-	1	-	(113)	-
Sales¹	2,412	974	-	412	-	(113)	3,685
Underlying operating profit / (loss) from continuing operations¹	269	276	-	1	(73)	-	473
Segmental net assets	2,686	(668)	469	476	354	-	3,317
Net debt							(775)
Post-employment benefit net assets and liabilities (note 14)							96
Deferred tax net asset							112
Provisions and non-current other payables							(67)
Investments in joint ventures and associates							2
Net assets							2,685

¹ Sales and underlying operating profit are non-GAAP measures (see note 19). 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.

* The comparative period is restated to reflect the group's updated reporting segments and revised inter-segment revenue and sales for Efficient Natural Resources and eliminations for copper zeolite sales. Also restated to reflect classification of the Health segment as discontinued operations (see note 12) and to allocate precious metal inventory to segments in line with how the business is managed.

Notes on the Preliminary Accounts

for the year ended 31st March 2022**3 Revenue****Products and services**

The group's principal products and services by operating sector and sub-sector 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-sector	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
Efficient Natural Resources				
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
Platinum Group Metal Services	Various	Platinum Group Metal refining and recycling services	Over time	Based on output
		Other precious metal products	Point in time	On despatch or delivery
		Platinum Group Metal chemical and industrial products	Point in time	On despatch or delivery
Health (discontinued operation - see note 12)				
Generics	Pharmaceuticals	Manufacture of active pharmaceutical ingredients	Point in time	On despatch or delivery
Innovators	Pharmaceuticals	Development and manufacture of active pharmaceutical ingredients	Over time	Based on costs incurred
Other Markets				
Other Markets (excluding Diagnostic Services)	Various	Precious metal pastes and enamels, battery materials and systems, fuel cell technologies 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.

Notes on the Preliminary Accounts

for the year ended 31st March 2022

3 Revenue (continued)

Revenue from external customers by principal products and services

Year ended 31st March 2022

	Continuing operations			Total £ million	Health (discontinued) £ million
	Clean Air £ million	Efficient Natural Resources £ million	Other Markets £ million		
Metal	4,630	7,516	101	12,247	3
Heavy Duty Catalysts	849	-	-	849	-
Light Duty Catalysts	1,578	-	-	1,578	-
Catalyst Technologies	-	508	-	508	-
Platinum Group Metal Services	-	437	-	437	-
Generics	-	-	-	-	77
Innovators	-	-	-	-	84
Fuel Cells	-	-	25	25	-
Battery Materials	-	-	12	12	-
Battery Systems	-	-	151	151	-
Advanced Glass Technologies	-	-	62	62	-
Diagnostic Services	-	-	54	54	-
Medical Device Components	-	-	74	74	-
Other	28	-	-	28	-
Revenue	7,085	8,461	479	16,025	164

Year ended 31st March 2021*

	Continuing operations			Total £ million	Health (discontinued) £ million
	Clean Air £ million	Efficient Natural Resources (restated) £ million	Other Markets (restated) £ million		
Metal	4,573	7,090	87	11,750	2
Heavy Duty Catalysts	741	-	-	741	-
Light Duty Catalysts	1,641	-	-	1,641	-
Catalyst Technologies	-	487	-	487	-
Platinum Group Metal Services	-	375	-	375	-
Generics	-	-	-	-	146
Innovators	-	-	-	-	90
Fuel Cells	-	-	41	41	-
Battery Materials	-	-	14	14	-
Battery Systems	-	-	169	169	-
Advanced Glass Technologies	-	-	66	66	-
Diagnostic Services	-	-	43	43	-
Medical Device Components	-	-	60	60	-
Other	30	-	18	48	-
Revenue	6,985	7,952	498	15,435	238

* The comparative period is restated to reflect the group's updated reporting segments. Also restated to reflect classification of the Health segment as discontinued operations (see note 12).

Notes on the Preliminary Accounts

for the year ended 31st March 2022

4 Operating profit

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

	2022 £ million	2021 £ million*
Total research and development expenditure	201	185
Less: Development expenditure capitalised	(22)	(17)
Research and development expenditure charged to the income statement	179	168
Less: External funding received – from governments	(18)	(12)
Net research and development expenditure charged to the income	161	156
Inventories recognised as an expense	14,121	13,638
Write-down of inventories recognised as an expense	26	20
Reversal of write-down of inventories from increases in net realisable	(16)	(10)
Net gains on foreign exchange	(2)	(56)
Net losses on foreign currency forwards at fair value through profit or loss	6	58
Past service credit	(11)	(3)
<i>Depreciation of:</i>		
Property, plant and equipment	125	126
Right-of-use assets	13	13
Depreciation	138	139
<i>Amortisation of:</i>		
Internally generated intangible assets	1	2
Acquired intangibles	6	10
Other intangible assets	32	19
Amortisation	39	31
Gains and losses on significant legal proceedings	(42)	-
Profit on disposal of businesses (note 13)	(106)	-
Impairment losses included in administrative expenses	3	31
Impairment losses	3	31
Impairment losses included in major impairment and restructuring	401	80
Restructuring charges included in major impairment and restructuring	39	74
Major impairment and restructuring charges (note 5)	440	154
<i>Fees payable to the company's auditor and its associates for:</i>		
The audit of these accounts	2.1	2.0
The audit of the accounts of the company's subsidiaries	2.4	2.3
The audit of prior period accounts	0.2	0.7
Total audit fees	4.7	5.0
Audit-related assurance services	0.4	0.3
Total non audit fees	0.4	0.3
Total fees payable to the company's auditor and its associates	5.1	5.3

* Restated to reflect classification of the Health segment as discontinued operations (see note 12).

Gains and losses on significant legal proceedings

During the year, the group recognised a gain of £44 million in relation to damages and interest from a company found to have unlawfully copied one of our technology designs. An additional gain of £6 million was recognised following conclusion of legal proceedings associated to investments in Battery Materials, this was partially offset by a £8 million charge for environmental and other costs. The net gain is reported as non-underlying.

Notes on the Preliminary Accounts

for the year ended 31st March 2022**5 Major impairment and restructuring charges**

	2022	2021
	£ million	£ million*
Property, plant and equipment	238	26
Right-of-use assets	4	1
Goodwill	45	-
Other intangible assets	78	53
Inventories	17	-
Trade and other receivables	19	-
Impairment losses	401	80
Restructuring charges	39	74
Total major impairments and restructuring charges	440	154

* Restated to reflect classification of the Health segment as discontinued operations (see note 12).

Major impairment and restructuring charges are shown separately on the face of the income statement and excluded from underlying operating profit (see note 19).

Battery Materials – Following a detailed review of our Battery Materials business the group concluded that the potential future returns from the business would not be adequate to justify further investment. Accordingly on 11th November 2021, the group announced the decision to pursue the sale of all or parts of the business. An impairment charge of £314 million was taken at 30th September 2021 to a net book value to £nil based on our estimate of the recoverable amount at that time. For the full year, we have determined a further impairment charge of £11 million to £325 million based on fair value less costs to sell. The 31st March 2022 impairment charge comprises property, plant and equipment (£237 million), right-of-use assets (£4 million), other intangible assets (£70 million) and trade and other receivables (£6 million). A further £8 million was impaired in relation to associated intangible assets held in Corporate. The Battery Materials restructuring charge was £38 million for exit costs including redundancies.

Diagnostic Services – We updated our long term market assumptions for the oil and gas industry in which the Diagnostic Services business serves customers and considered faster paced transition to non-carbon intensive industries and alignment with the group’s overall strategy. This has resulted in an impairment to goodwill of £45 million.

Russia/Ukraine conflict - As announced on 7th March 2022, we discontinued with immediate effect all new commercial activities in Russia and Belarus in light of the ongoing conflict in Ukraine. Our operations in Russia include one small Clean Air manufacturing plant which has been written down to £nil, and a small Catalyst Technologies office. We have determined an impairment and restructuring charge of £32 million comprising of inventories (£17 million), receivables (£13 million), property, plant and equipment (£1 million) and a restructuring charge (£1 million).

In the prior year, excluding the Health segment, the group incurred non-underlying major impairment and restructuring charges of £154 million. The charges were in relation to efficiency initiatives that are transforming our organisation to create a more simple and efficient group allowing us to act with greater agility and pace in a dynamic external environment. There have been no further charges in relation to these initiatives in the current year.

Notes on the Preliminary Accounts

for the year ended 31st March 2022**6 (Loss) / earnings per share**

	2022 pence	2021 pence
Basic	(52.6)	106.5
Diluted	(52.6)	106.4
Basic from continuing operations	60.9	100.9
Diluted from continuing operations	60.8	100.8

(Loss) / earnings per share have been calculated by dividing loss or profit for the year by the weighted average number of shares in issue during the year.

Weighted average number of shares in issue

	2022	2021
Basic	191,568,756	192,711,413
Dilution for long term incentive plans	585,024	260,753
Diluted	192,153,780	192,972,166

7 Dividends

A final dividend of 55.0 pence per ordinary share has been proposed by the board which will be paid on 2nd August 2022 to shareholders on the register at the close of business on 10th June 2022, subject to shareholders' approval. The estimated amount to be paid is £102 million and has not been recognised in these accounts.

	2022 £ million	2021 £ million
2019/20 final ordinary dividend paid – 31.125 pence per share	-	60
2020/21 interim ordinary dividend paid – 20.00 pence per share	-	39
2020/21 final ordinary dividend paid – 50.00 pence per share	96	-
2021/22 interim ordinary dividend paid – 22.00 pence per share	43	-
Total dividends	139	99

Notes on the Preliminary Accounts

for the year ended 31st March 2022

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 2021	667	31	2,310	377	3,385
Additions	1	1	38	339	379
Transferred to assets classified as held for sale (note 12)	(107)	(5)	(392)	(282)	(786)
Transfers from assets in the course of construction	11	1	120	(132)	-
Disposals	(1)	-	(25)	(1)	(27)
Disposal of businesses (note 13)	(13)	(1)	(44)	(1)	(59)
Exchange adjustments	12	-	48	4	64
At 31st March 2022	570	27	2,055	304	2,956
Accumulated depreciation and impairment					
At 1 st April 2021	321	17	1,606	17	1,961
Charge for the year	18	2	117	-	137
Impairment losses	21	-	64	210	295
Transferred to assets classified as held for sale (note 12)	(91)	(4)	(335)	(210)	(640)
Disposals	(1)	-	(23)	-	(24)
Disposal of businesses (note 13)	(8)	(2)	(38)	-	(48)
Exchange adjustments	5	1	33	(2)	37
At 31st March 2022	265	14	1,424	15	1,718
Carrying amount at 31st March 2022	305	13	631	289	1,238
Carrying amount at 1 st April 2021	346	14	704	360	1,424

During the year, the group recognised impairments of £295 million. The impairment charge comprises of £2 million included in administrative expenses, see note 4, and £238 million included in non-underlying expenses, see note 5. A further £55 million of impairment charges were incurred in relation to the Health segment. During the prior year, the group recognised impairments in respect of four sites and plants, Clean Air (£18 million), Efficient Natural Resources (£4 million), Health (£5 million), and New Markets (£4 million), which were included in major impairment and restructuring charges, and additional impairments of £2 million, which were recognised in underlying operating profit.

The total capital expenditure in the year for discontinued operations equalled £22 million (2021: £24 million).

The depreciation charge for the year for discontinued operations equalled £12 million (2021: £20 million).

Notes on the Preliminary Accounts

for the year ended 31st March 2022

9 Other intangible assets

	Customer contracts and relationships £ million	Computer software £ million	Patents, trademarks and licences £ million	Acquired research and technology £ million	Development expenditure £ million	Total £ million
Cost						
At 1 st April 2021	133	367	65	42	226	833
Additions	-	66	1	-	33	100
Transferred to assets classified as held for sale (note 12)	-	(15)	(20)	(5)	(127)	(167)
Disposal of businesses (note 13)	(1)	(2)	-	-	-	(3)
Exchange adjustments	-	3	1	-	3	7
At 31st March 2022	132	419	47	37	135	770
Accumulated amortisation and impairment						
At 1 st April 2021	108	144	46	41	135	474
Charge for the year	4	31	1	2	1	39
Impairment losses	-	15	12	-	75	102
Transferred to assets classified as held for sale (note 12)	-	(13)	(18)	(5)	(79)	(115)
Reclassification	-	-	2	(2)	-	-
Disposal of businesses (note 13)	(1)	(2)	-	-	-	(3)
Exchange adjustments	1	3	1	-	1	6
At 31st March 2022	112	178	44	36	133	503
Carrying amount at 31st March 2022	20	241	3	1	2	267
Carrying amount at 1 st April 2021	25	223	19	1	91	359

During the year, the group recognised impairments of £102 million. The impairment charge comprises of £1 million included in administrative expenses, and £78 million included in non-underlying expenses, see note 5. A further £23 million of impairment charges were incurred in relation to the Health segment, see note 12. During the prior year, the group recognised impairments in respect of licences (£3 million) as part of a site closure in Efficient Natural Resources and information systems (£56 million), which were included in major impairment and restructuring charges, and additional impairments of £8 million, which were recognised in underlying operating profit.

The total capital expenditure in the year for the discontinued operations equalled £11 million (2021: £5 million).

The total amortisation charge in the year for discontinued operations equalled £nil (2021: £1 million).

Notes on the Preliminary Accounts

for the year ended 31st March 2022

10 Trade and other receivables

	2022 £ million	2021 £ million
Current		
Trade receivables	1,393	1,571
Contract receivables	88	181
Prepayments	75	88
Value added tax and other sales tax receivable	89	119
Advance payments to customers	10	11
Amounts receivable under precious metal sale and repurchase agreements ¹	114	308
Other receivables	27	144
Trade and other receivables	1,796	2,422
Non-current		
Value added tax and other sales tax receivable	3	2
Prepayments	-	3
Advance payments to customers	39	45
Other receivables	42	50

¹ The fair value of the precious metal contracted to be sold by the group under sale and repurchase agreements is £108 million (31st March 2021: £407 million).

11 Trade and other payables

	2022 £ million	2021 £ million
Current		
Trade payables	753	996
Contract liabilities	273	184
Accruals	439	369
Amounts payable under precious metal sale and repurchase agreements ¹	793	1,442
Other payables	305	334
Trade and other payables	2,563	3,325
Non-current		
Other payables	2	5
Other payables	2	5

¹ The fair value of the precious metal contracted to be repurchased by the group under sale and repurchase agreements is £782 million (31st March 2021: £1,766 million).

Notes on the Preliminary Accounts

for the year ended 31st March 2022**12 Discontinued operations and 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, during the year the board decided to sell the Health segment.

On 17th December, the group announced the sale of its Health segment to Altaris Capital Partners. The assets and liabilities have been classified as 'held for sale' at fair value less costs to sell (£272 million). The amount is lower than book value as a result of the deterioration of trading performance through this financial year that ultimately impacted Altaris Capital Partners' valuation of the business, consequentially this has resulted in an impairment charge of £228 million and a restructuring charge of £14 million. The impairment charge comprises goodwill (£144 million), property, plant and equipment (£55 million), right-of-use assets (£1 million) other intangible assets (£23 million) and inventories (£5 million). The business is classified as a discontinued operation and presented separately in the income statement and presented within assets held for sale on the balance sheet.

The Health segment was not classified as held for sale or as a discontinued operation as at 31st March 2021. The comparative statement of profit or loss and other comprehensive income has been restated to show the discontinued operations separately from continuing operations.

Financial information relating to the Health discontinued operations for the year is set out below.

	2022	2021
	£ million	£ million
Revenue	164	238
Expenses	(161)	(207)
Underlying operating profit from discontinued operations	3	31
Major impairment and restructuring costs from discontinued operations	(242)	(17)
(Loss) / profit before tax from discontinued operations	(239)	14
Tax credit / (expense)	22	(3)
(Loss) / profit after tax from discontinued operations	(217)	11
Exchange differences on translation of discontinued operations	5	(18)
Other comprehensive income / (expense) from discontinued operations	5	(18)
Total comprehensive expense from discontinued operations	(212)	(7)
Net cash inflow from operating activities	33	43
Net cash outflow from investing activities	(30)	(29)
Net cash outflow from financing activities	(6)	(12)
Net (decrease) / increase in cash generated by the discontinued operations	(3)	2
	pence	pence
(Loss) / earnings per ordinary share from discontinued operations		
Basic (loss) / earnings per ordinary share from discontinued operations	(113.5)	5.6
Diluted (loss) / earnings per ordinary share from discontinued operations	(113.5)	5.6

In the prior year, the Health segment incurred non-underlying major impairment and restructuring charges of £17 million. The charges were in relation to efficiency initiatives. There have been no further charges in relation to these initiatives in the current year.

Notes on the Preliminary Accounts

for the year ended 31st March 2022**12 Discontinued operations and assets and liabilities classified as held for sale (continued)**

During the year, the group decided to sell parts or all of its Battery Materials business. As at 31st March 2022, the proceeds less costs to sell for the Battery Materials business was estimated to be £50 million and so an impairment of £325 million has been recognised, see note 5. The business is classified as a disposal group held for sale.

The major classes of assets and liabilities comprising the businesses classified as held for sale as at 31st March 2022 are:

	Health	Battery	Total
	£ million	Materials	£ million
	£ million	£ million	£ million
Non-current assets			
Property, plant and equipment	107	39	146
Right-of-use assets	1	1	2
Other Intangible Assets	41	11	52
Current assets			
Inventories	137	1	138
Current tax assets	1	-	1
Trade and other receivables	59	4	63
Assets classified as held for sale	346	56	402
Current liabilities			
Trade and other payables	(60)	-	(60)
Lease liabilities	(1)	(1)	(2)
Cash and cash equivalents - bank overdrafts	(8)	-	(8)
Provisions	(2)	-	(2)
Non-current liabilities			
Lease liabilities	(2)	(5)	(7)
Provisions	(1)	-	(1)
Liabilities classified as held for sale	(74)	(6)	(80)
Net assets of disposal group	272	50	322

Notes on the Preliminary Accounts

for the year ended 31st March 2022**13 Disposals****Advanced Glass Technologies**

On 31st January 2022, the group completed the sale of its Advanced Glass Technologies business for a cash consideration of £173 million. The business was disclosed as a disposal group held for sale as at 30th September 2021.

	Advanced Glass Technologies £ million
Proceeds	
Cash consideration	173
Cash and cash equivalents disposed	(3)
Net cash consideration	170
Disposal costs paid	(10)
Cash inflow per cash flow statement	160
Assets and liabilities disposed	
Non-current assets	
Property, plant and equipment	11
Right-of-use assets	2
Goodwill	2
Current assets	
Inventories	17
Trade and other receivables	14
Cash and cash equivalents - cash and deposits	3
Current liabilities	
Trade and other payables	(10)
Net assets disposed	39
The profit on disposal of businesses totalled £106 million	
	Advanced Glass Technologies £ million
Net cash consideration	173
Less: carrying amount of net assets sold	(39)
Less: disposal costs	(10)
Cumulative currency translation gain recycled from other comprehensive income	(18)
Profit recognised in the income statement	106

14 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

	2022 UK plan %	2022 US plans %	2022 Other plans %	2021 UK plan %	2021 US plans %	2021 Other plans %
First year's rate of increase in salaries	3.85	3.00	2.20	3.40	3.00	2.06
Ultimate rate of increase in salaries	3.85	3.00	2.20	3.40	3.00	2.06
Rate of increase in pensions in payment	3.20	-	2.11	3.05	-	1.70
Discount rate	2.80	3.70	2.13	2.10	3.00	1.53
Inflation	-	2.20	2.15	-	2.20	1.64
- UK Retail Prices Index (RPI)	3.60	-	-	3.20	-	-
- UK Consumer Prices Index (CPI)	3.10	-	-	2.65	-	-

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 1st April 2021	186	(6)	(8)	(20)	(25)	(27)	100
Current service cost - in operating profit	(8)	(26)	-	(9)	(1)	(1)	(45)
Past service credit - in operating profit	-	-	-	-	11	-	11
Administrative expenses - in operating profit	(2)	-	-	(1)	-	-	(3)
Interest	4	(1)	-	-	(1)	-	2
Remeasurements	162	(7)	(1)	21	2	-	177
Company contributions	9	22	-	9	1	1	42
Exchange	-	-	-	(2)	-	1	(1)
At 31st March 2022	351	(18)	(9)	(2)	(13)	(26)	283

The remeasurement gain due to changes in financial assumptions in the legacy section of the UK pension plan during the year ended 31st March 2022 mainly reflects an increase in the net (after inflation) discount rate.

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

	2022 Post- employment benefit net assets £ million	2022 Employee benefit net obligations £ million	2022 Total £ million	2021 Post- employment benefit net assets £ million	2021 Employee benefit net obligations £ million	2021 Total £ million
UK pension - legacy section	351	-	351	186	-	186
UK pension - cash balance section	-	(18)	(18)	-	(6)	(6)
UK post-retirement medical benefits	-	(9)	(9)	-	(8)	(8)
US pensions	-	(2)	(2)	-	(20)	(20)
US post-retirement medical benefits	-	(13)	(13)	6	(31)	(25)
Other	1	(27)	(26)	2	(29)	(27)
Total post-employment plans	352	(69)	283	194	(94)	100
Other long-term employee benefits	-	(3)	(3)	-	(4)	(4)
Total long-term employee benefit obligations	-	(72)	-	-	(98)	-

Notes on the Preliminary Accounts

for the year ended 31st March 2022

15 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 years.

Notes on the Preliminary Accounts

for the year ended 31st March 2022

15 Fair values (continued)

	2022 £ million	2021 £ million	Fair value hierarchy Level
Financial instruments measured at fair value			
Non-current			
Investments at fair value through other comprehensive income ¹	45	53	1
Interest rate swaps - assets	11	20	2
Interest rate swaps - liabilities	(2)	-	2
Borrowings and related swaps	(2)	(3)	2
Other financial liabilities ²	(12)	-	2
Current			
Trade receivables ³	492	423	2
Other receivables ⁴	44	58	2
Cash and cash equivalents - money market funds	137	462	2
Other financial assets ²	27	44	2
Interest rate swaps	1	-	2
Other financial liabilities ²	(44)	(18)	2
Financial instruments not measured at fair value			
Non-current			
Borrowings and related swaps	(897)	(1,249)	-
Lease liabilities	(40)	(51)	-
Current			
Amounts receivable under precious metal sale and repurchase agreements	114	308	-
Amounts payable under precious metal sale and repurchase agreements	(793)	(1,442)	-
Cash and cash equivalents - cash and deposits	254	119	-
Cash and cash equivalents - bank overdrafts	(37)	(36)	-
Borrowings and related swaps	(265)	(26)	-
Lease liabilities	(10)	(11)	-

¹ Investments at fair value through other comprehensive income are quoted bonds purchased to fund pension deficit.

² Includes forward foreign exchange contracts, forward precious metal price contracts and currency swaps.

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.

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 year end.

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

	2022		2021	
	Carrying amount £ million	Fair value £ million	Carrying amount £ million	Fair value £ million
US Dollar Bonds 2022, 2023, 2025, 2027, 2028 and 2030	(688)	(662)	(662)	(689)
Euro Bonds 2023, 2025, 2028 and 2030	(176)	(179)	(186)	(193)
Sterling Bonds 2024 and 2025	(110)	(107)	(110)	(116)
KfW US Dollar loan 2024	(38)	(36)	(36)	(39)

Notes on the Preliminary Accounts

for the year ended 31st March 2022

16 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 31st March 2022, precious metal leases were £140 million at closing prices (31st March 2021: £437 million).

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.

As previously disclosed, the group has been informed by a customer of failures in certain engine systems for which the group supplied a particular coated substrate as a component for that customer's emissions after-treatment systems. The reported failures have not been demonstrated to be due to the coated substrate supplied by the group. The group has not been contacted by any regulatory authority about these engine system failures. Having reviewed its contractual obligations and the information currently available to it, the group believes it has defensible warranty positions in respect of this matter. If required, it will vigorously assert its available contractual protections and defences. The outcome of any discussions relating to this matter is not certain, nor is the group able to make a reliable estimate of the possible financial impact at this stage, if any.

The group works with all its customers to ensure appropriate product quality and we have not received claims in respect of our emissions after-treatment components from this or any other customer. Our vision is for a world that's cleaner and healthier; today and for future generations. We are committed to enabling improving air quality and we work constructively with our customers to achieve this.

18 Transactions with related parties

No related party transactions have taken place which have materially affected the financial position or performance of the group during the year.

Notes on the Preliminary Accounts

for the year ended 31st March 2022**19 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.

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.
Return on invested capital (ROIC) ¹	Annualised underlying operating profit divided by the 12 month average equity, excluding post tax pension net assets, plus average net debt for the same period.	Provides a measure of the group's efficiency in allocating the capital under its control to profitable investments.
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, 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 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.

Notes on the Preliminary Accounts

for the year ended 31st March 2022

19 Non-GAAP measures (continued)

Reconciliations to GAAP measures

Sales

See note 2.

Underlying profit measures

Year ended 31st March 2022

	Operating profit £ million	Profit before tax £ million	Tax expense £ million	Profit for the year £ million
Underlying	553	493	(86)	407
Profit on disposal of businesses	106	106	(4)	102
Gains and losses on significant legal proceedings	42	42	(6)	36
Amortisation of acquired intangibles	(6)	(6)	1	(5)
Major impairment and restructuring charges ¹	(440)	(440)	16	(424)
Reported	255	195	(79)	116

¹ The major impairments and restructuring charges result in a tax credit in the UK and US but not in other territories. The tax credit on these impairments have been offset by a tax provision for tax risk relating to historic transactions.

Year ended 31st March 2021*

	Operating profit £ million	Profit before tax £ million	Tax expense £ million	Profit for the year £ million
Underlying	473	388	(62)	326
Amortisation of acquired intangibles	(10)	(10)	2	(8)
Major impairment and restructuring charges	(154)	(154)	30	(124)
Reported	309	224	(30)	194

Underlying earnings per share

	2022	2021*
Underlying profit for the year (£ million)	407	326
Weighted average number of shares in issue (millions)	191.6	192.7
Underlying earnings per share (pence)	213.2	168.9

* Restated to reflect classification of the Health segment as discontinued operations (see note 12).

19 Non-GAAP measures (continued)

Return on invested capital (ROIC)

	2022	2021
	£ million	£ million*
Underlying operating profit	553	473
Average net debt	877	1,291
Average equity	2,467	2,481
Average capital employed	3,344	3,772
Less: Average pension net assets	(221)	(261)
Less: Average related deferred taxation	48	47
Average capital employed (excluding post tax pension net assets)	3,171	3,558
ROIC (excluding post tax pension net assets)	17.4%	13.3%
ROIC	16.5%	12.5%

Average working capital days (excluding precious metals)

	2022	2021
	£ million	£ million*
Inventories	1,549	1,814
Trade and other receivables	1,796	2,422
Trade and other payables	(2,563)	(3,325)
	782	911
Working capital balances relating to discontinued operations	-	(152)
Total working capital	782	759
Less: Precious metal working capital	(562)	(552)
Add: Precious metal working capital relating to discontinued operations	-	21
Working capital (excluding precious metals)	220	228
Average working capital days (excluding precious metals)	36	45

Free cash flow from continuing operations

	2022	2021
	£ million	£ million*
Net cash inflow from operating activities	605	769
Interest received	32	66
Interest paid	(111)	(159)
Purchases of property, plant and equipment	(358)	(304)
Purchases of intangible assets	(95)	(77)
Net proceeds from sale of businesses	160	19
Proceeds from sale of non-current assets	1	5
Principal element of lease payments	(14)	(14)
Less: Free cash outflow / (inflow) from discontinued operations	1	(10)
Free cash flow	221	295

* Restated to reflect classification of the Health segment as discontinued operations (see note 12).

19 Non-GAAP measures (continued)

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

	2022 £ million	2021 £ million*
Cash and deposits	254	119
Money market funds	137	462
Bank overdrafts	(37)	(36)
Cash and deposits transferred to assets classified as held for sale	(8)	-
Cash and cash equivalents	346	545
Less: Cash and cash equivalents - bank overdrafts from discontinued operations	8	4
Cash and cash equivalents from continuing operations	354	549
Interest rate swaps - current assets	1	-
Interest rate swaps - non-current assets	11	20
Interest rate swaps - non-current liabilities	(2)	-
Borrowings and related swaps - current	(265)	(26)
Borrowings and related swaps - non-current	(899)	(1,252)
Lease liabilities - current	(10)	(11)
Lease liabilities - non-current	(40)	(51)
Lease liabilities - current - transferred to liabilities classified as held for sale	(2)	-
Lease liabilities - non-current - transferred to liabilities classified as held for sale	(7)	-
Less: Lease liabilities relating to discontinued operations	3	1
Net debt	(856)	(770)
(Decrease) / increase in cash and cash equivalents	(205)	276
Less: Decrease / (increase) in cash and cash equivalents from discontinued operations	3	(2)
Less: Decrease / (increase) in borrowings	131	(70)
Less: Principal element of lease payments	14	14
Less: Principal element of lease payments from discontinued operations	(1)	(1)
Increase in net debt resulting from cash flows	(58)	217
New leases, remeasurements and modifications	(9)	(3)
Less: New leases, remeasurements and modifications from discontinued operations	3	-
Other lease movements	-	1
Exchange differences on net debt	(24)	107
Other non-cash movements	2	(6)
Movement in net debt	(86)	316
Net debt at beginning of year	(770)	(1,086)
Net debt at end of year	(856)	(770)
Net debt	(856)	(770)
Add: Pension deficits	(29)	(49)
Add: Related deferred tax	4	9
Net debt (including post tax pension deficits)	(881)	(810)
Underlying operating profit	553	473
Add back: Depreciation and amortisation excluding amortisation of acquired intangibles	171	160
Underlying EBITDA	724	633
Net debt (including post tax pension deficits) to underlying EBITDA	1.2	1.3
At 31 st March 2022 cash and cash equivalents includes £111 million (31 st March 2021: £nil) of restricted amounts relating to cash held in South Africa. The cash has been restricted as a result of a change in company residency status. The group anticipates extracting and/or utilising this in the near term and is reviewing options.		
Underlying EBITDA	724	633
Depreciation and amortisation	(177)	(170)
Gains and losses on significant legal proceedings	42	-
Major impairment and restructuring charges	(440)	(154)
Profit on disposal of businesses	106	-
Finance costs	(101)	(158)
Finance income	41	73
Income tax expense	(79)	(30)
Profit for the year	116	194

* Restated to reflect classification of the Health segment as discontinued operations (see note 12).

Notes on the Preliminary Accounts

for the year ended 31st March 2022

20 Events after the balance sheet date

On 25th May 2022, the group announced an agreement to enter into a €20 million minority investment in Enapter AG.

On 25th May 2022, the group agreed to sell parts of the Battery Materials business to EV Metals Group plc and Nano One Materials Corp.

Financial Calendar

2022

9th June

Ex dividend date

10th June

Final dividend record date

21st July

131st Annual General Meeting (AGM)

2nd August

Payment of final dividend subject to the approval of shareholders at the AGM

23rd November

Announcement of the results for the six months ending 30th September 2022

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 sectors in which Johnson Matthey 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.

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