



Johnson Matthey
Inspiring science, enhancing life

Presentation of results for the half year ended 30th September 2021

24th November 2021

Cautionary statement

This presentation 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 these statements 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 and you should therefore not place reliance on any forward-looking statements made. Johnson Matthey will not update forward-looking statements contained in this document or any other forward-looking statement it may make.

Introduction – Patrick Thomas, Chair

Resilient trading performance in a challenging environment

Strategic decisions taken on the portfolio including steps to simplify and focus

Focus on shareholder value through disciplined capital allocation – share buyback announced

Strong foundations in Clean Air and Efficient Natural Resources

Substantial opportunities for growth focused on climate change solutions

Liam Condon to join as Chief Executive on 1st March 2022





Robert MacLeod
Chief Executive

JM

Resilient performance in the first half



Resilient trading performance in a challenging environment



Strong foundations in Clean Air and Efficient Natural Resources



Scientific and metal expertise fundamental to long-term growth



Portfolio changes



Focusing investment towards climate change solutions

Portfolio changes

Battery Materials

Capital intensity
too high

Returns not
adequate

Intention to exit

Health

Weak current
performance

Lower long-term
outlook

In discussions about
potential sale

Advanced Glass Technologies

Non-core
activity

Sale agreed to
Fenzi S.p.A. for £178m

Completion expected
by end of fiscal year¹

Science and metal expertise at the heart of the group

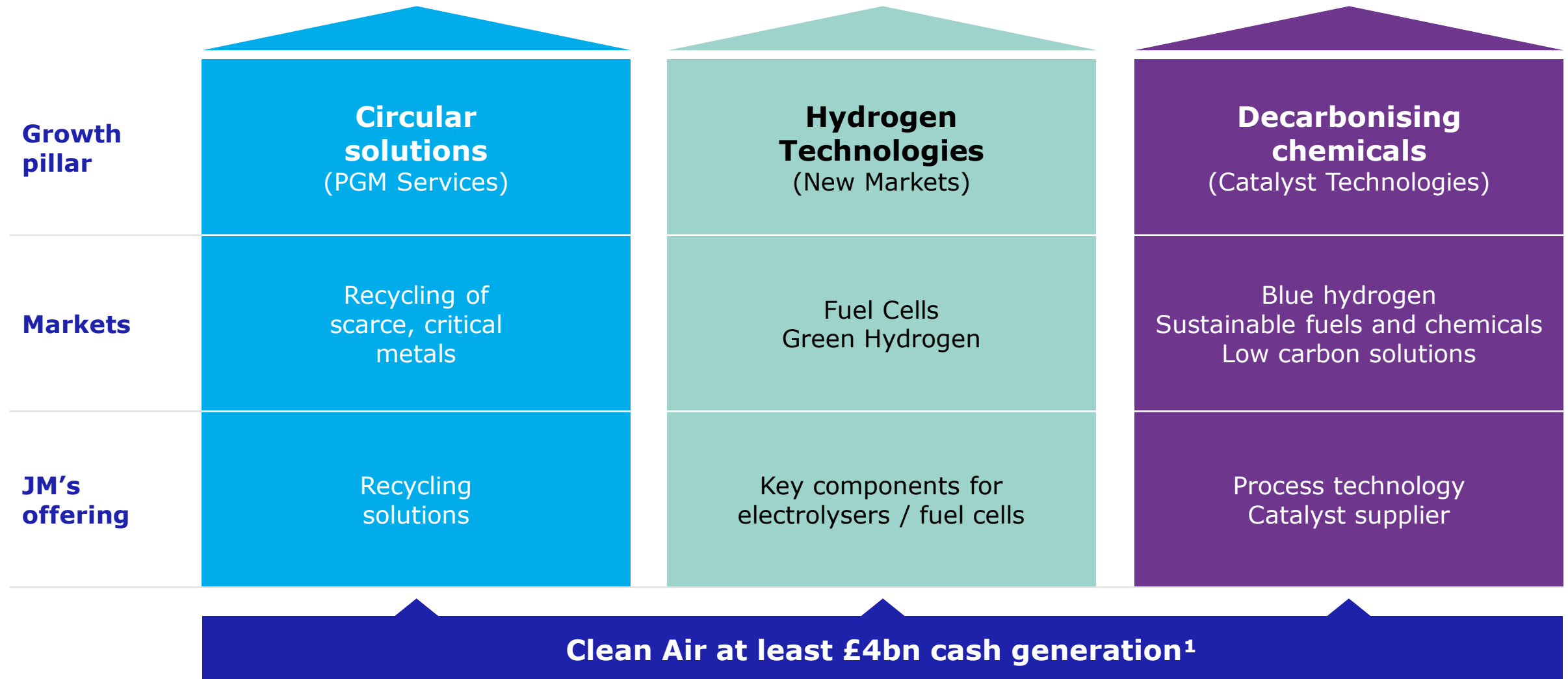
- Leaders in complex metal chemistry
- Developed over decades; hard to replicate
- Synergies across the group
- Key to many technologies tackling climate change

c.£200m
R&D spend (5% sales)

>1,600
R&D employees

87%
Gross R&D spend
contributing to 4 UN SDGs

Opportunities driven by climate change solutions



Clean Air: delivering cash

Strategic business wins

Leadership positions in LDD and HDD

Selectively targeting Euro 7 gasoline platforms

01

Efficiency levers

c.25% fixed costs of c.£550m p.a.
c.75% variable costs

Expect reduction in fixed costs of at least £100m by 2030

02

Capital efficiency

Capex of c.£135m (average past three years), reducing to maintenance level of c.£50m by 2025

03

Working capital reductions

Working capital unwind as business matures;
c.£2bn at 1st April 2021

04



On track to deliver at least £4bn of cash in the coming 10 years¹

Circularity of scarce critical materials

Enabling circularity

World leader in recycling of scarce pgms

- Twice the size of next largest player

Deep metals expertise

Supply of scarce critical metals for pgm based technologies, e.g. fuel cells

The needs of tomorrow

Low carbon manufacturing

- Carbon intensity of recycled metals
c.2% of primary metals¹
- Opportunity to capture more value over time

Design to recycle solutions

Applying expertise to new materials

Hydrogen Technologies

A large opportunity and strong competitive advantage

Strong competitive advantage

JM is already an established hydrogen player

Strong technology, underpinned by pgm expertise

Potential recycling solutions; security of supply

Existing manufacturing capacity



Our business today: Fuel cells
c.£40m annual sales¹; 50% autos

Customer progress



Fuel Cells

Major German auto supplier quadrupled demand expectations for 2024

New 5-year framework contract with EKPO Fuel Cell Technologies

Pipeline of more than 10 major truck and auto OEM platforms due to launch from 2022 to 2025



Green Hydrogen

MoU with Plug Power to develop advanced materials for electrolyzers

Testing with major electrolyser manufacturers





MoU with Hystar, newly established Norwegian company, for CCMs into PEM electrolyzers

2GW capacity today;
planning further expansion



1. 2020/21 sales excluding precious metals.
Note: EKPO Fuel Cell Technologies – a joint venture between ElringKlinger AG and Compagnie Plastic Omnium SE, CCM – catalyst coated membrane, MoU – Memorandum of Understanding, PEM – Proton exchange membrane.

Decarbonising chemical value chains

| JM's opportunity | | Process technology | Catalyst | Addressable market to 2030 ² |
|---|---|--------------------|----------|---|
|  Blue hydrogen | Ultra low carbon intensity technology – LCH™ <ul style="list-style-type: none"> • Selected for first UK hydrogen cluster (HyNet) • Pipeline of over 20 customer projects | ✓ | ✓ | £1bn to £8bn ³ |
|  Sustainable fuels | Patented technology for sustainable fuels <ul style="list-style-type: none"> • Fulcrum Sustainable Aviation Fuel catalyst loading complete • Pipeline of c.20 customer projects | ✓ | ✓ | £1bn to £2bn ³ |
|  Power to X¹ | Patented technology for sustainable fuels and chemicals <ul style="list-style-type: none"> • Haru Oni project – power to methanol • Selected partner for Repsol/Aramco liquid fuels project | ✓ | ✓ | Nascent today: significant post 2030 |
|  Low carbon solutions | Large installed base requiring decarbonisation | ✓ | ✓ | c.150 plants in Europe and North America ³ |

1. Power to X covers processes converting renewable electricity into products such as hydrogen or sustainable fuels.

2. Cumulative addressable revenue to 2030.

3. Source: blue hydrogen (IEA Sustainable Development Scenario and Net Zero Energy Scenario), sustainable fuels (IATA), low carbon solutions (JM).

Note: LCH – low carbon hydrogen.

Our path to net zero by 2040

Our vision is for a cleaner, healthier world

Key steps to achieving net zero

| | |
|---|--|
| Signed up to the UN Global Compact's Business Ambition for 1.5°C | Science-based targets independently verified by SBTi |
| Reduce our Scope 1 and 2 GHG emissions by 33% by 2030 ¹ | Reduce our upstream Scope 3 GHG emissions by 20% by 2030 ¹ |

| | |
|--|---|
| Example: reducing our Scope 1, 2 and 3 emissions We are shifting our energy supplies to renewables | 60% of global electricity demand from renewable sources by 2025 |
|--|---|

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Note: GHG is greenhouse gas. SBTi – Science Based Targets initiative.
1. Scope 1 covers direct greenhouse emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company. Scope 3 target is purchased goods and services category only. Baseline is 2019/20.

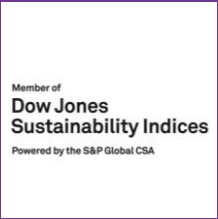
We are being recognised by stakeholders as a leader in sustainability



Platinum
rated



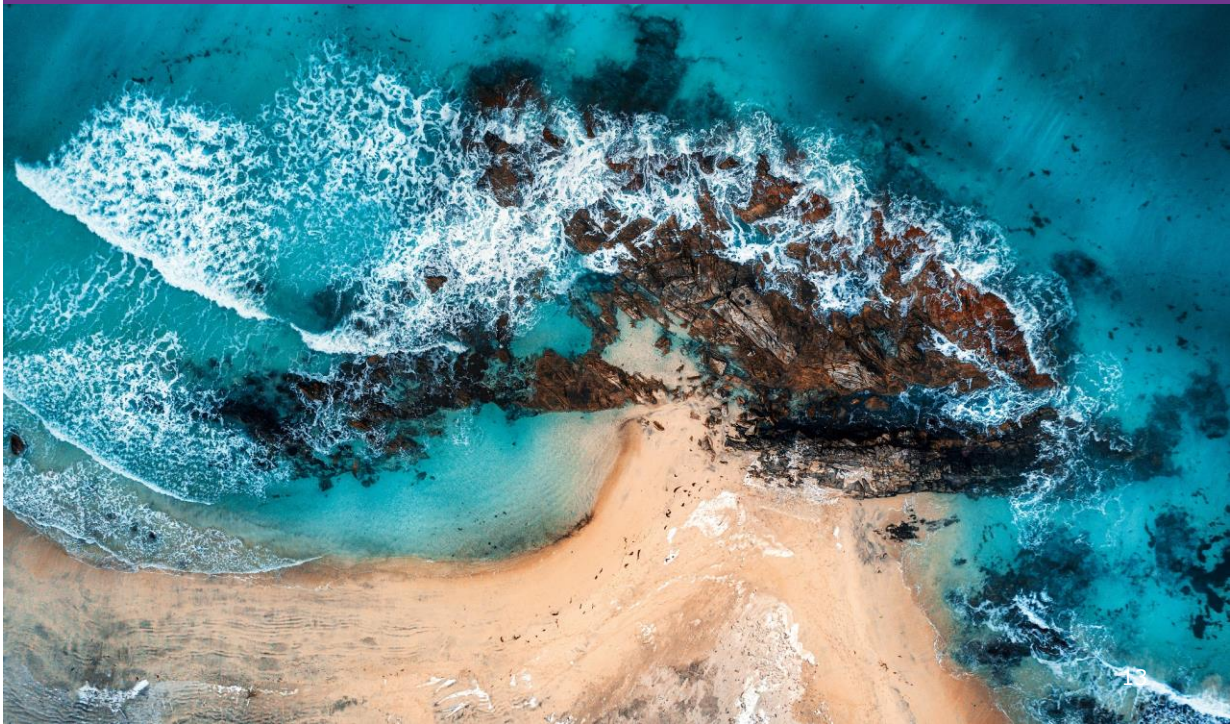
4.1
out of 5



69%
score



AAA
rated





Stephen Oxley
Chief Financial Officer

JM

Focusing on our priorities



Execution

- Better execution needed on capital projects
- Realising efficiencies
- Delivering operational performance

01



Capital allocation

- Simplifying the group
- Disciplined capital allocation to deliver attractive long-term returns

02

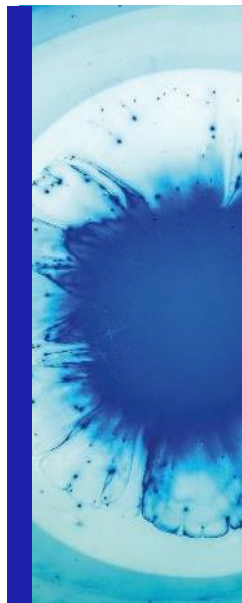


Growth

- Pivoting to high growth, high return opportunities
- Applying our science and metal expertise to deliver sustainable solutions

03

Resilient performance in a challenging environment



Resilient underlying performance in 1H

- Sales up 21%
- Operating profit up c.100%
- Earnings per share of 114.8p, up from 47.7p



Strong balance sheet

- Free cashflow of £189m
- Net debt of c.£700m
- Net debt to EBITDA: 0.9x

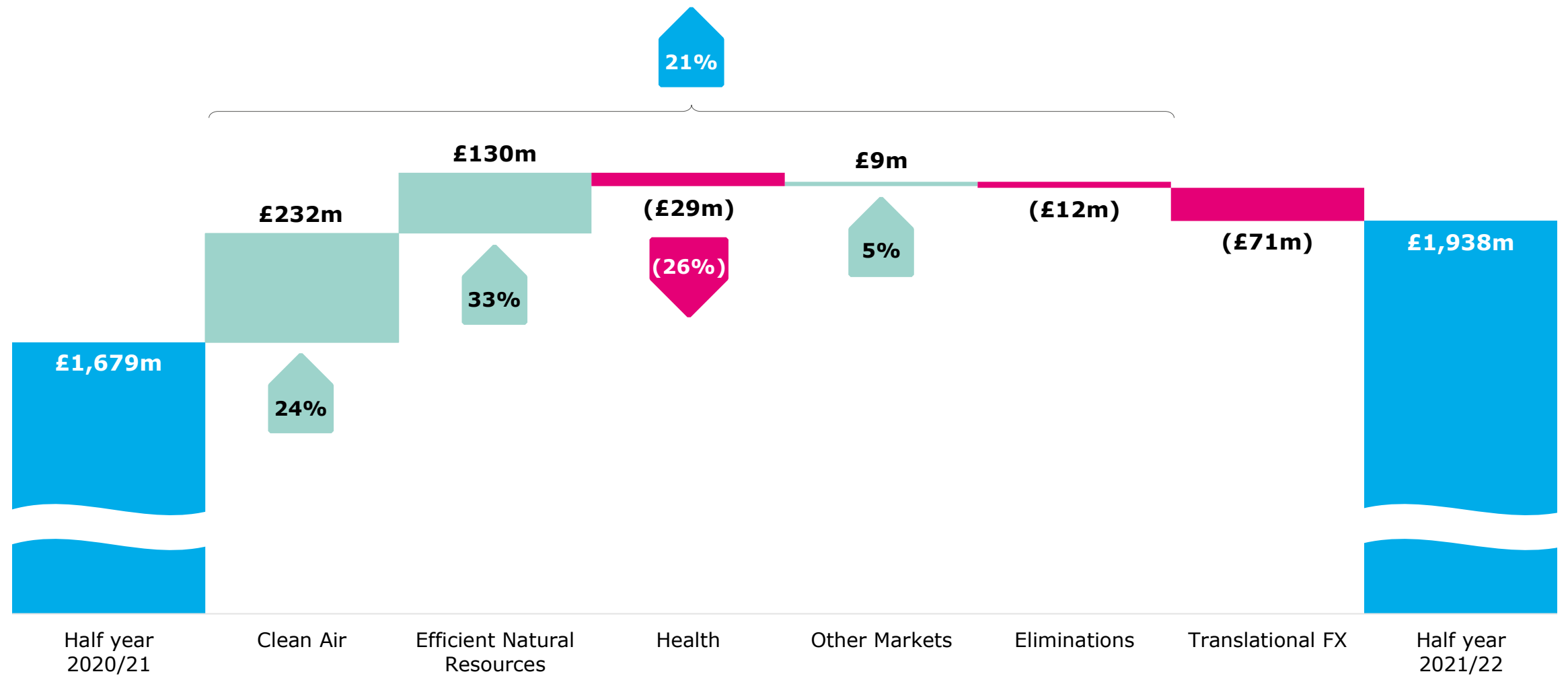


Delivered £42m efficiency savings
from total programme of £110m by 2023/24

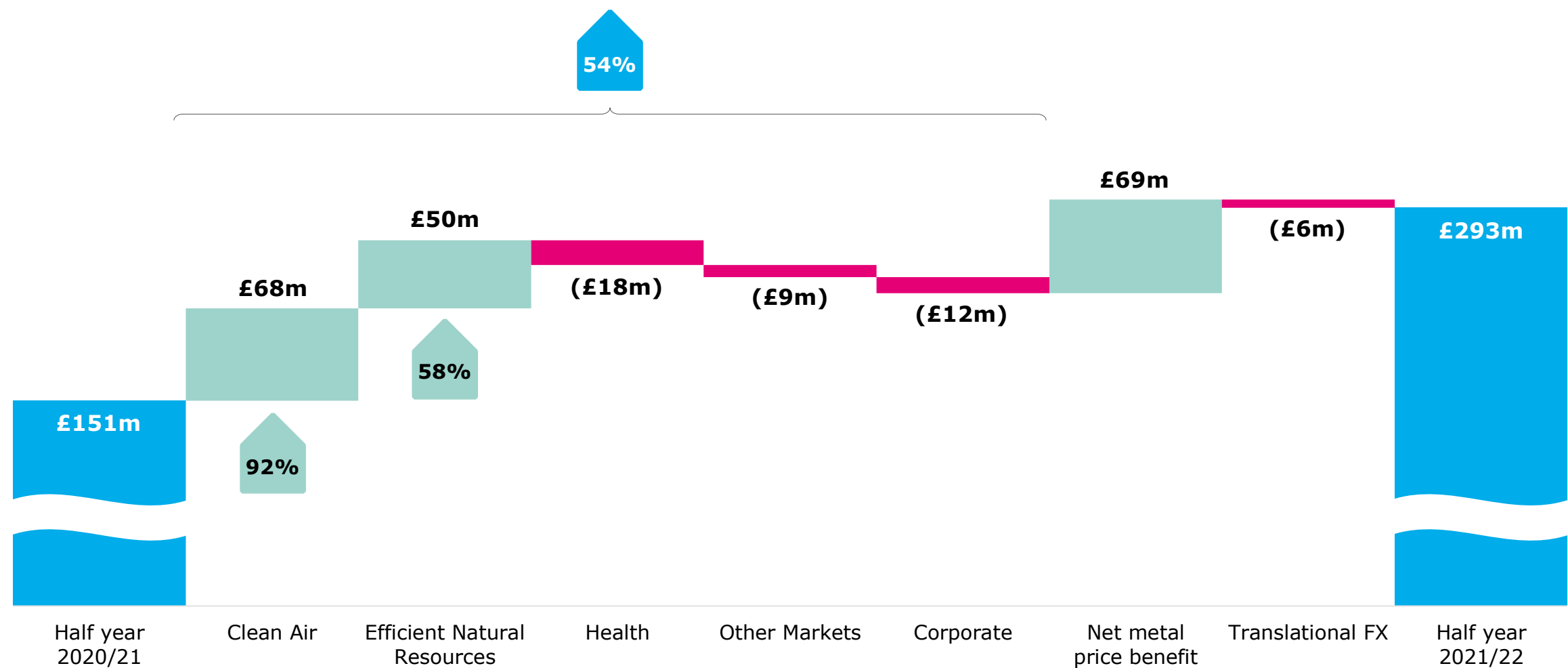


Interim dividend of 22.0p per share, up 10%

Group sales recovered strongly, primarily driven by Clean Air



Group underlying operating profit



Clean Air: strong recovery in end markets; supply chain constraints

| Underlying results for half year ended 30 th September | 2021 £m | 2020 £m | % change, constant rates | 2019 £m |
|---|--------------|--------------|-----------------------------------|--------------|
| Light duty diesel | 498 | 420 | +22 | 564 |
| Light duty gasoline | 270 | 260 | +8 | 340 |
| Heavy duty diesel | 428 | 323 | +40 | 488 |
| Total sales | 1,196 | 1,003 | +24 | 1,392 |
| Operating profit | 150 | 77 | +103 | 179 |
| Margin | 12.5% | 7.7% | | 12.9% |

Sales increased 24%

Strong performance across all regions

- Recovery in end market demand
- Strong growth in US Class 8 HDD
- China VI HDD legislative benefits

Supply chain disruption, principally semi-conductor chips

Operating profit increased 103%

Efficiencies – continuing benefits from transformation programme

Margin recovery and will benefit further with volumes

On track for strong cash generation for the full year

Efficient Natural Resources: strong performance

| Underlying results for half year ended 30 th September | 2021 £m | 2020 ¹ £m | % change, constant rates | 2019 ¹ £m |
|---|--------------|-------------------------|-----------------------------------|-------------------------|
| PGM Services | 300 | 215 | +46 | 173 |
| Catalyst Technologies | 223 | 196 | +19 | 252 |
| Total sales | 523 | 411 | +33 | 425 |
| Operating profit | 197 | 88 | +129 | 92 |
| Margin | 37.7% | 21.4% | | 21.6% |

Sales increased 33%

PGM Services – volatile and higher average pgm prices, and increased refinery volumes

Catalyst Technologies – primarily higher refills

- Continued good performance in ammonia; methanol benefited from delayed orders
- Licensing marginally up; pipeline remains strong with 2 licence wins in the half

Operating profit increased 129%

Strong growth in PGM Services and Catalyst Technologies

Higher average pgm prices (c.+£60m)

Margin expanded 16.3ppt to 37.7%

Health: discussions about a potential sale

| Underlying results for half year ended 30th September | 2021 £m | 2020 £m | % change, constant rates |
|---|--------------------|--------------------|---|
| Generics | 40 | 70 | -40 |
| Innovators | 43 | 49 | -4 |
| Total sales | 83 | 119 | -26 |
| Operating (loss) / profit | (4) | 15 | n/a |

Performance

Demand has been strong

Performance in both innovators and generics affected by:

- Acute labour shortage in the US
- Global supply chain constraints
- Generics also impacted by pricing pressure and delayed medical procedures

Strategic review

In discussions about a potential sale – we will provide an update in due course

Other Markets: investing in our new growth businesses

| Underlying results for half year ended 30 th September | 2021 £m | 2020 ¹ £m | % change, constant rates | 2019 ¹ £m |
|---|-------------|-------------------------|-----------------------------------|-------------------------|
| New Markets | 16 | 25 | -36 | 21 |
| Value Businesses | 175 | 166 | +11 | 213 |
| Total sales | 191 | 191 | +5 | 234 |
| Operating loss | (11) | (2) | n/a | (6) |

Increased investment in New Markets and lower sales in Fuel Cells driving operating loss

New Markets – investing for growth

Hydrogen Technologies (Fuel Cells and Green Hydrogen)

Fuel Cells sales of £10m, down on prior year:

- Temporary manufacturing issues as we ramped up new facilities
- Capacity used for new customer testing

Battery Materials

- Announced intention to exit

Value Businesses – non core

Strong recovery in sales, back towards pre-pandemic levels

- Actively managing for value
- Agreed sale of Advanced Glass Technologies for £178m

Underlying operating performance

| Underlying results for half year ended 30th September¹ | 2021 £m | 2020 £m | % change | % change, constant rates |
|---|--------------------|--------------------|-----------------|---------------------------------|
| Sales excluding precious metals (sales) | 1,938 | 1,679 | +15 | +21 |
| Operating profit | 293 | 151 | +94 | +102 |
| Finance charges | (29) | (41) | | |
| Share of profits of joint ventures and associates | - | (1) | | |
| Profit before tax | 264 | 109 | +142 | +153 |
| Taxation | (42) | (17) | | |
| Profit after tax | 222 | 92 | +141 | +154 |
| Underlying earnings per share | 114.8p | 47.7p | +141 | |
| Interim dividend per share | 22.0p | 20.0p | +10 | |

Reported results impacted by one-offs

| Half year ended 30 th September | 2021 £m | 2020 £m |
|---|------------|------------|
| Underlying operating profit | 293 | 151 |
| Amortisation of acquired intangibles | (3) | (5) |
| Major impairment and restructuring charges ¹ | (314) | (78) |
| Gain on significant legal proceedings ² | 44 | - |
| Reported operating profit | 20 | 68 |

Free cash flow

Free cash flow (£m)

| Half year ended 30 th September | 2021 | 2020 |
|---|------------|------------|
| Underlying operating profit | 293 | 151 |
| Depreciation and amortisation ¹ | 96 | 85 |
| Precious metal working capital inflow | 228 | 297 |
| Non precious metal working capital (outflow) / inflow | (214) | 19 |
| Net working capital inflow | 14 | 316 |
| Net interest paid | (34) | (44) |
| Tax paid | (49) | (20) |
| Capex spend | (184) | (175) |
| Other ² | 53 | (57) |
| Free cash flow | 189 | 256 |

Focusing capital allocation to drive long-term returns

Sources of capital



Clean Air

At least £4bn of cash over 10 years

Efficient Natural Resources

Growth and cash generation

Portfolio changes

Investing for growth in climate change solutions

Dividend

Return excess to shareholders:
£200m buyback announced

Capex outlook

01

Reduced previous capex guidance by c.£150m

02

Now expect c.£450m capex for FY 21/22

FY 22/23 capex of c.£400m under current plans

Investing in:

Maintenance capex
of c.£200m p.a.

Hydrogen Technologies
Scaling up Fuel Cells
and Green Hydrogen

Circular solutions
Investment in our
pgm refineries

Outlook for year ending 31st March 2022

Group

Guidance unchanged from 11th November 2021 trading update:
Low single digit growth¹ in underlying operating performance

Metal

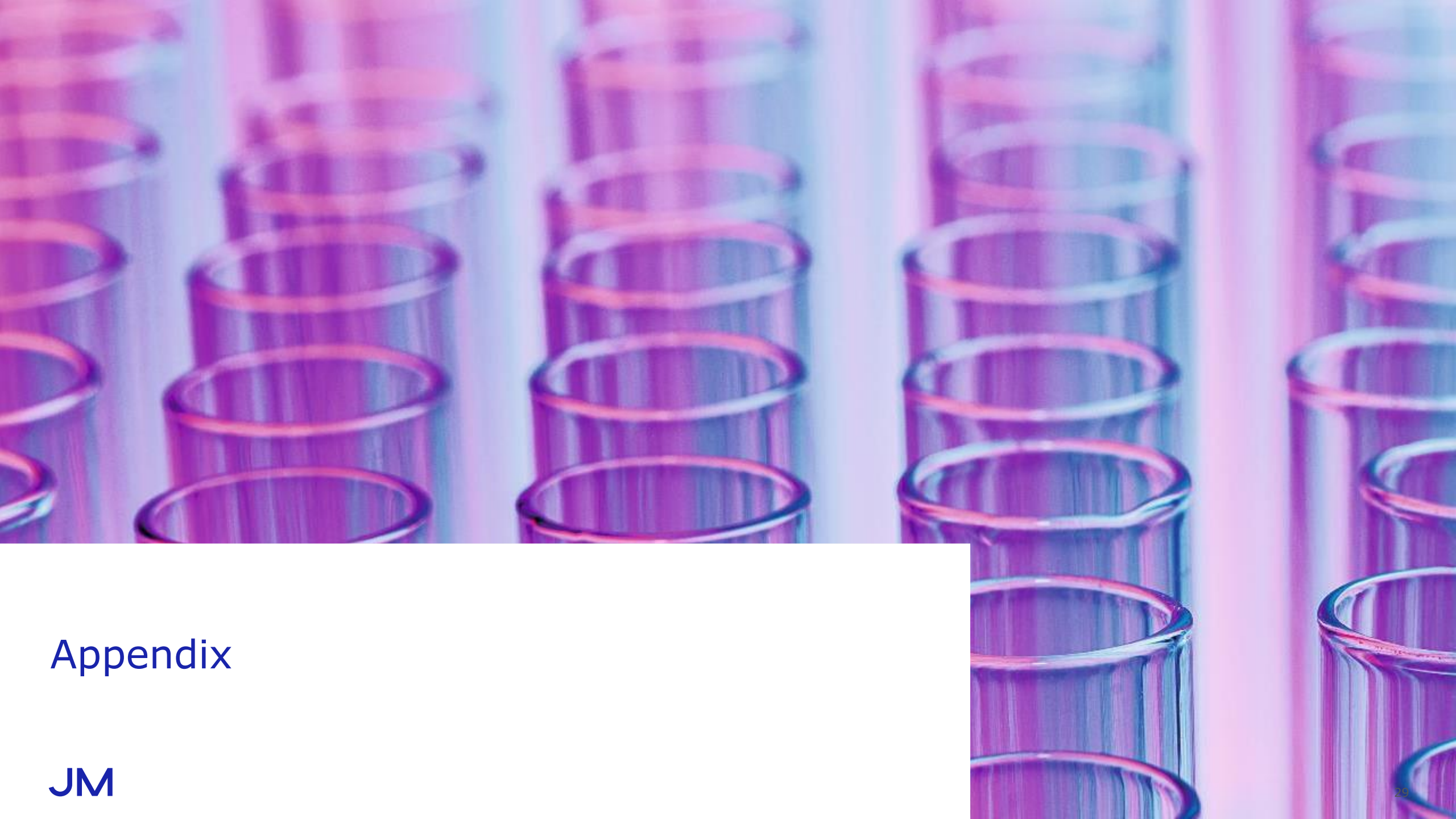
c.£45m benefit if precious metal prices remain
at current levels for rest of the year²

Foreign exchange

c.£15m adverse effect on underlying operating
profit at current FX rates³

Capex

Given our intended exit from Battery Materials,
now expected to be c.£450m



Appendix

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Net debt to EBITDA 0.9 times¹

| | £m | £m |
|---|------|--------------|
| Net debt at the beginning of the year | | (775) |
| Free cash flow | 189 | |
| Dividends | (96) | |
| Movement in net debt | | 93 |
| Lease adjustments ² | | 3 |
| Net debt before FX and other movements | | (679) |
| FX | | (20) |
| Net debt at the end of the period | | (699) |

Various market scenarios for powertrain evolution

| METRIC | | Faster electrification | Base | Slower electrification |
|--------|--|------------------------|--------|------------------------|
| 01 | Size of auto industry globally (million vehicles) ¹ | c.90m | c.100m | c.110m |
| 02 | LDD share Europe in 2030 ¹ | c.5% | c.10% | c.15% |
| 03 | % BEV penetration globally in 2030 ¹ | c.40% | c.30% | c.20% |
| 04 | Legislation ² | 2027 | 2026 | 2025 |

Light duty emissions control legislation roadmap

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 → | |
|-----------------------------|---|---|--|------|---------------------|-----------------|-------------------------------|-----------------|-----------------|-----------------|--|
| Europe | Euro 6d temp | EU6d | | | | | EU7 (2025-27 estimated start) | | | | |
| North America EPA | Tier 3 Phase In: NMOG + NOx, PM Tightening | | | | | | | | | 'Tier 4' (est.) | |
| North America CARB | LEV III Phase In: NMOG + NOx, PM Tightening | | | | | | PM = 1mg/mi | | 'LEV 4' (est.) | | |
| Japan | JP 18 (WLTP) | | | | | | | | | | |
| South Korea (Gasoline) | LEV III | LEV III (97g/km CO ₂ , 2020) | | | | | | | | | |
| South Korea (Diesel) | EU6c (RDE Phase I) | | EU6d (RDE Phase II, 97g/km CO ₂) | | | | | EU7 (estimated) | | | |
| China (Main economic areas) | CN6b non PN or RDE | | CN6b non RDE | | CN6b / RDE | | | | CN7 (estimated) | | |
| China (Nationwide) | CN5 (EU5) | | CN6a | | | | | | | | |
| Brazil | PL6 | | | PL7 | | | L8 | | | | |
| India | BSIV | BSVI Stage I (EU6b) | | | BSVI Stage II (RDE) | | | | | BSVII (est.) | |
| Indonesia (Gasoline) | EU4 | | | | | | | | EU5 (est.) | | |
| Indonesia (Diesel) | EU2 | | | EU4 | | | | | | | |
| Thailand | EU4 | | | | | EU5 (estimated) | | | | | |

Heavy duty emissions control legislation roadmap

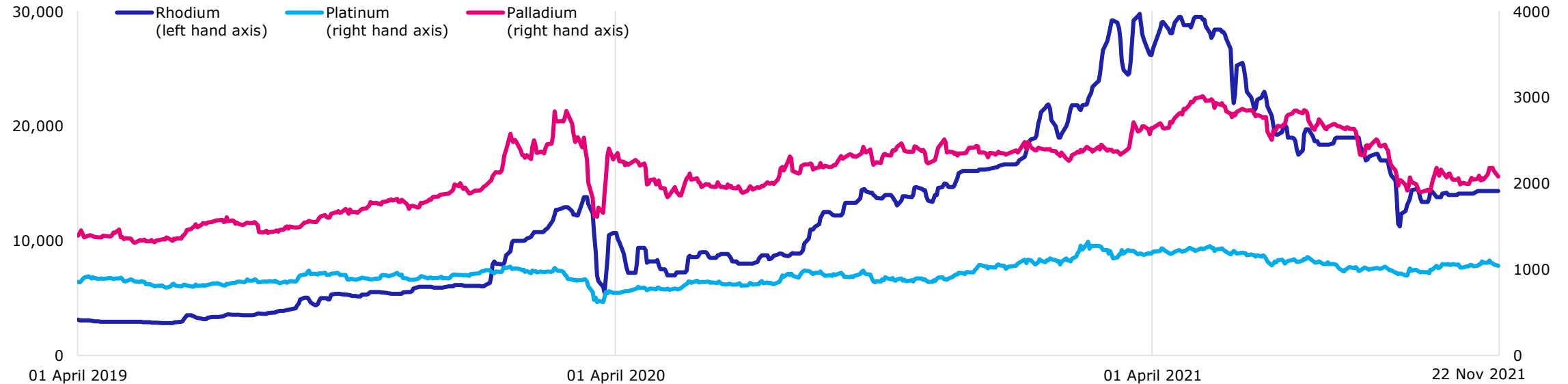
| On Road | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028+ |
|----------------------|---------|------|------|-----------|-----------|----------------------------|--------------|---------------|-----------|
| Europe | EU VI | | | | | EU VII (2025-27 est start) | | | |
| North America | US 2010 | | | | | | | US 2027 (est) | |
| North America (CARB) | US 2010 | | | | CARB 2024 | | | CARB 2027 | |
| Japan | JP 16 | | | | | | | | |
| South Korea | EU VI | | | | | | EU VII (est) | | |
| Brazil | P7 | | P8 | | | | | | |
| Russia | EE 5 | | | | | EE 6 (est) | | | |
| India | BS VI | | | BS VI RDE | | | | | BSVII est |
| China | CN VIa | | | CN VIb | | | | CN VII (est) | |

Non Road

| | | | | | | | | | |
|---------------|--|------------------|--|--|--|------|--|--|--|
| Europe | Stage V (adoption date is engine power rating and application dependent) | | | | | | | | |
| North America | Tier 4f | | | | | | | | |
| Japan | MLIT 2014 | | | | | | | | |
| Brazil | Stage IIIa | | | | | | | | |
| South Korea | Tier 4f | Stage V (est) | | | | | | | |
| China | Stage III | | | Stage IV (<560kw); timing not yet set for >560kw | | | | | |
| India | BT III | BT IV (Stage IV) | | | | BT V | | | |

Average pgm prices

US\$ per troy oz



| Price (US\$ per troy oz) | H1 2020/21 average | H1 2021/22 average | Current (22 nd November 2021) |
|--------------------------|--------------------|--------------------|--|
| Platinum | 859 | 1,108 | 1,044 |
| Palladium | 2,112 | 2,639 | 2,080 |
| Rhodium | 9,741 | 21,396 | 14,350 |