



Johnson Matthey
Inspiring science, enhancing life



An aerial photograph of a winding asphalt road through a dense green forest. A single red car is visible on the road, which curves through the trees. The background is a dense green forest.

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

1. Subject to the Netherlands works council consultation, and the satisfaction of customary completion conditions.

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

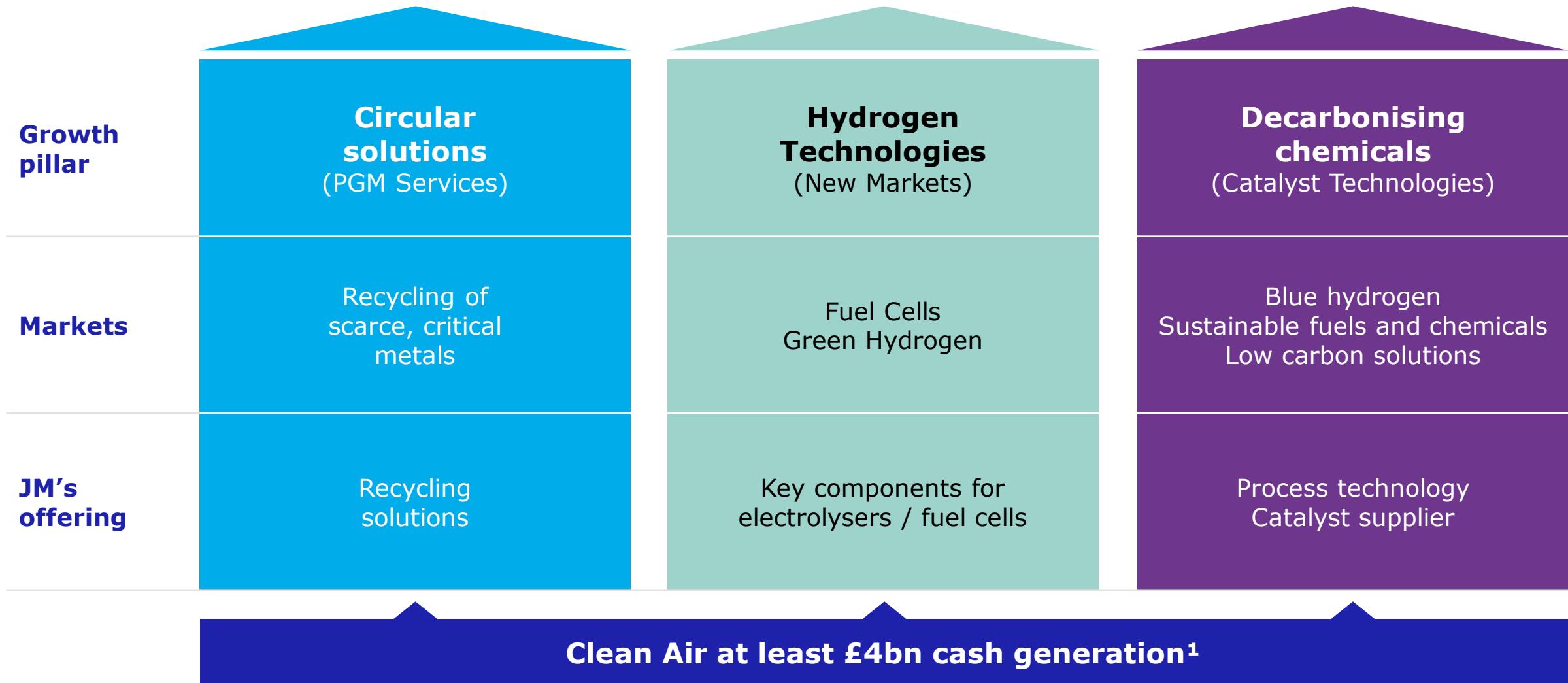


c.£200m
R&D spend (5% sales)

>1,600
R&D employees

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

Opportunities driven by climate change solutions



1. Driving at least £4bn of cash under our range of scenarios for 10 years from 1st April 2021.

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 completePipeline 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 methanolSelected 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 2030¹

Reduce our upstream
Scope 3 GHG emissions by 20% by 2030¹

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

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

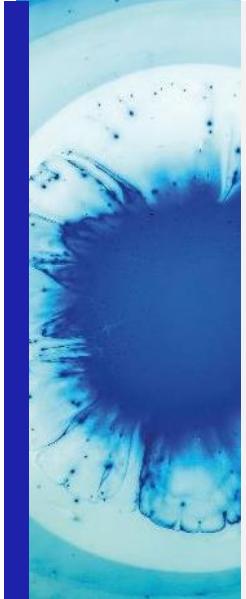


Growth

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

03

Resilient performance in a challenging environment



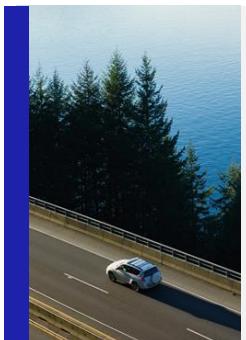
Resilient underlying performance in 1H

- 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

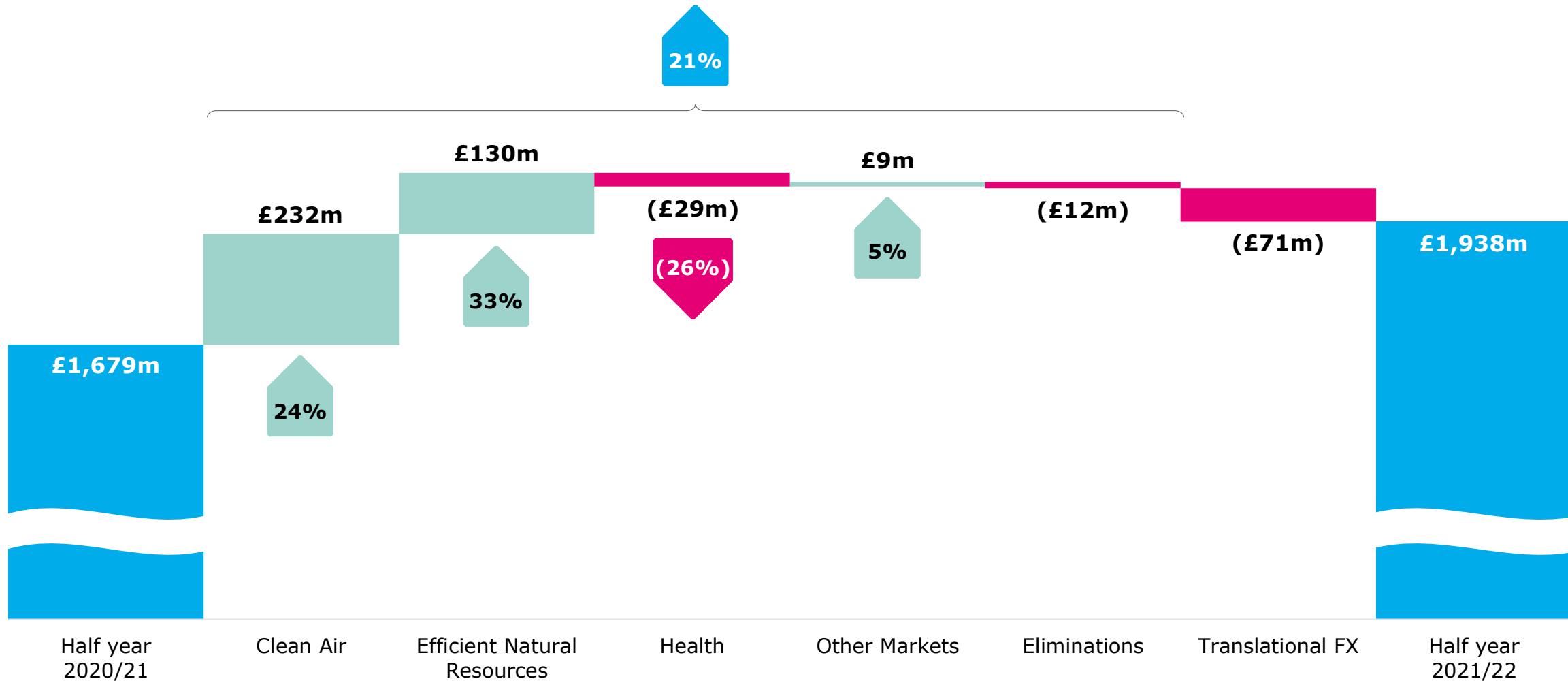


Delivered £42m efficiency savings
from total programme of £110m by 2023/24

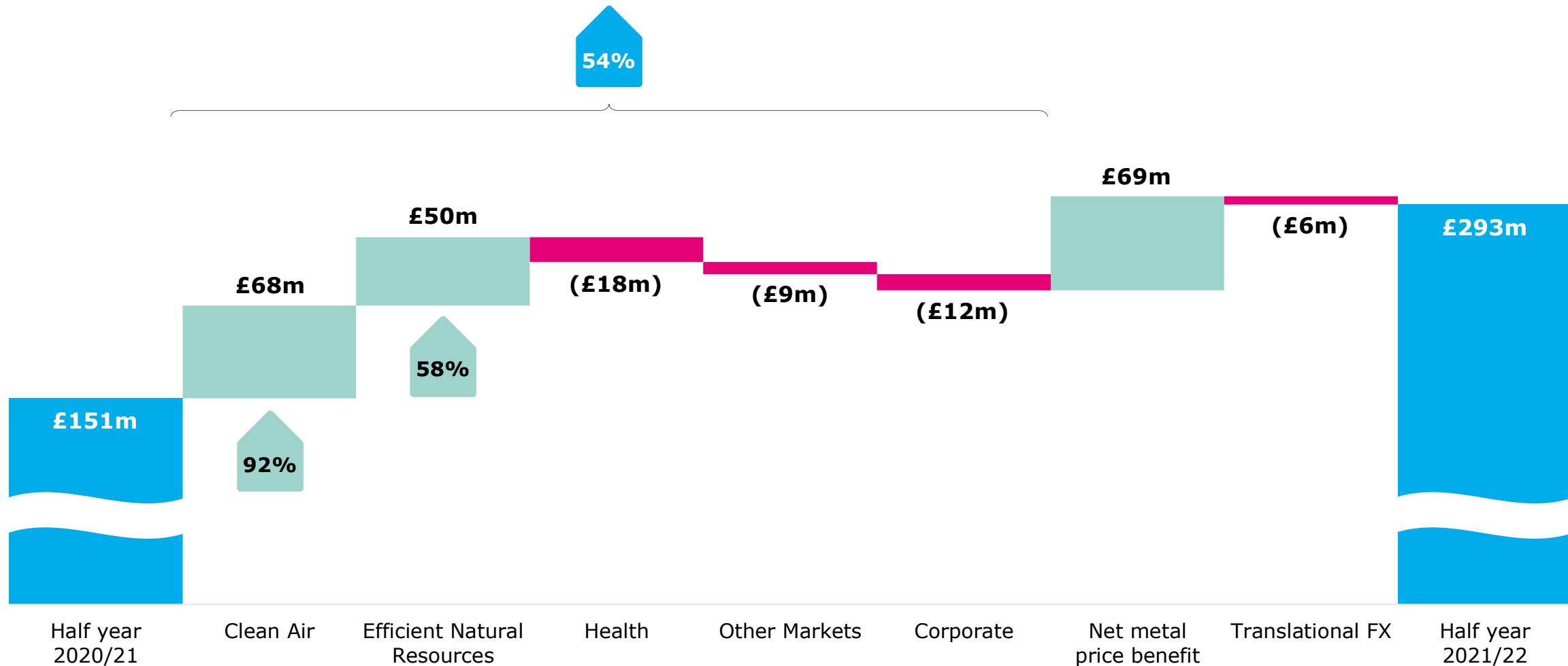


Interim dividend of 22.0p per share, up 10%

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 30th 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 30th September	2021 £m	2020¹ £m	% change, constant rates	2019¹ £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 30th September	2021 £m	2020¹ £m	% change, constant rates	2019¹ £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	

1. All figures 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.

Reported results impacted by one-offs

Half year ended 30th 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

1. £314m impairment of assets following the announcement of our intention to exit Battery Materials (1H 2020/21: £78m major impairment and restructuring charges incurred in relation to organisational efficiency initiatives).

2. £44m awarded to JM in relation to damages and interest from a company found to have unlawfully copied one of JM's technology designs.

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

1. Excluding amortisation of acquired intangibles, including loss on sale of non-current assets.

2. Includes non-underlying gain on significant legal proceedings, impairments, lease payments and movements in pensions and provisions.

Focusing capital allocation to drive long-term returns



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

1. At constant currency and constant metals prices (based on actual precious metal prices in 2020/21).

2. At current metals prices as at 22nd November 2021.

3. Foreign exchange rates as at 22nd November 2021.



Appendix

JM

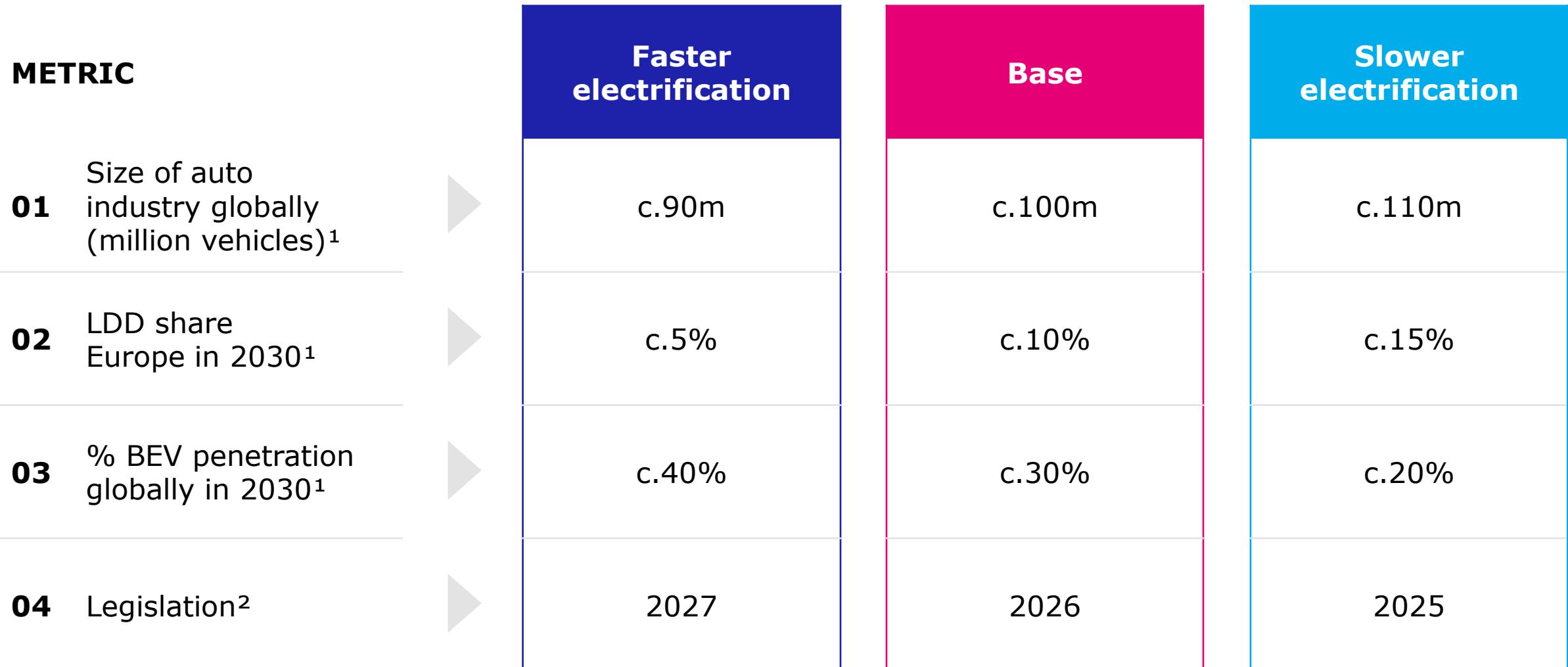
Net debt to EBITDA 0.9 times¹

	£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)

1. Net debt including post tax pension deficits.

2. New leases, remeasurements and modifications less lease disposals and principal element of lease payments.

Various market scenarios for powertrain evolution



1. JM assumptions for Western European passenger and commercial vehicles and global BEV penetration.

2. Expected enactment date for further legislation - Euro 7, China 7 and possible US legislation.

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



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