Clean Air: delivering sustainable cashflow

Monday 7th February 2022
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

1. Well positioned to target high growth, high return opportunities across decarbonisation, hydrogen technologies and circularity positioning JM at the forefront of the net zero transition

2. Deep expertise in complex pgm chemistry underpins our leading market positions and competitive advantages across our world-class portfolio of technologies

3. Clean Air has attractive positions in a durable market underpinned by continued legislation and is on track to deliver at least £4bn of cash over the next decade¹

4. Focus on execution, efficiency, capital allocation and commercialising growth opportunities

5. Strategic update from Liam Condon in May 2022

¹ Driving at least £4bn of cash under our range of scenarios from 1st April 2021 to 31st March 2031. Cash target pre-tax and post-restructuring costs.
Today’s presenters

Alastair Judge
Chief Financial Officer and Interim Chief Executive

Over 30 years’ experience in finance leadership roles

Previous leadership positions at Avon Products Inc, Asda Stores and Unilever Plc

Peter Hill
Chief Commercial Officer and Transformation Director

Over 25 years’ experience in automotive supplier and materials industries

Previously Chief Marketing Officer and VP Product Management at Honeywell

Millissa Flanagan
Chief Operations Officer

Over 30 years’ experience in chemicals, metals, minerals, plastics and refining

Previous leadership positions in Conoco, GE, Novelis, SABIC and AkzoNobel
<table>
<thead>
<tr>
<th></th>
<th>Agenda Item</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Clean Air overview</td>
<td>Alastair Judge</td>
</tr>
<tr>
<td>02</td>
<td>Market</td>
<td>Peter Hill</td>
</tr>
<tr>
<td>03</td>
<td>Operations</td>
<td>Millissa Flanagan</td>
</tr>
<tr>
<td>04</td>
<td>Cash generation</td>
<td>Alastair Judge</td>
</tr>
</tbody>
</table>
Clean Air overview
Alastair Judge
Clean Air overview: delivering on our strategy

2020/21 sales by segment

- Light Duty Gasoline: 27%
- Light Duty Diesel: 42%
- Heavy Duty Diesel: 31%

£2.4bn

Winning in a durable market
Leadership positions in LDD and HDD
Selectively targeting Euro 7 gasoline platforms

Efficiency levers
Cost base is c.25% fixed (c.£550m p.a. today), c.75% variable
Reducing fixed costs by c.£100-200m by 2030/31

Capital efficiency
Capex of c.£135m (average past three years)
Reducing to c.£50m by 2024/25 and c.£35m p.a. by 2030/31

Working capital reductions
Working capital unwind as business matures; c.£2bn at 1st April 2021
Releasing c.£1.2bn cash by 2030/31 in our base case

On track to deliver at least £4bn of cash by 2030/31

Note: Sales excluding precious metals. LDD – Light duty diesel, HDD – Heavy duty diesel.
1. Driving at least £4bn of cash under our range of scenarios from 1st April 2021 to 31st March 2031. Cash target pre-tax and post-restructuring costs.
Clean Air remains a cash generative business of scale in 2030/31 and beyond

Sales of c.£2bn, of which c.50% HDD

Lean footprint and organisation, retaining technology leadership

Robust low double digit margins

Working capital of c.£0.8bn

Note: reflects our base case scenario. Sales excluding precious metals. HDD = heavy duty diesel.
Clean Air is serving a durable, global market

<table>
<thead>
<tr>
<th>Macro trend</th>
<th>2030/31 market impact (-/+ )</th>
<th>Timing</th>
<th>Global market</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global LD vehicle market</strong> grows from c.75m to c.100m vehicles¹</td>
<td></td>
<td></td>
<td>Sales excluding pgms² (£bn)</td>
</tr>
<tr>
<td><strong>Legislation tightening</strong> in LD and HD, focused on NOx and particulate emissions</td>
<td></td>
<td>2022-2025</td>
<td></td>
</tr>
<tr>
<td><strong>Powertrain LD electrification</strong> increases from c.6% to c.30%+ globally¹</td>
<td></td>
<td>2026-2030</td>
<td></td>
</tr>
<tr>
<td><strong>LD Diesel penetration in Europe</strong> decreases from c.30% to c.10%¹,³</td>
<td></td>
<td>2030-2031</td>
<td></td>
</tr>
</tbody>
</table>

| 2022 |
| 7.3 |
| 7.1 |
| 6.5 |
| 4.3 |

Note: LD – light duty, HD – heavy duty, NOx – nitrogen oxide.
2. JM estimates based on various external sources.
3. LD Diesel penetration in Europe of ICE vehicles.
We have two key scenarios for powertrain evolution for 2030/31

<table>
<thead>
<tr>
<th>Metric</th>
<th>Base case</th>
<th>Faster electrification</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Global LD vehicle production in 2030/31 (million vehicles)¹</td>
<td>c.100m</td>
<td>c.90m</td>
</tr>
<tr>
<td>02 EU7 legislation²</td>
<td>2026</td>
<td>2027</td>
</tr>
<tr>
<td>03 % global LD BEV penetration in 2030/31¹</td>
<td>c.30%</td>
<td>c.50%</td>
</tr>
<tr>
<td>04 Share of Europe LD ICE that is diesel in 2030/31¹</td>
<td>c.10%</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: LD – light duty, BEV – battery electric vehicle, ICE – internal combustion engine.
2. Expected implementation date for EU7 emissions legislation – 31st December 2026 (base case) and 31st December 2027 (faster electrification case).
Vehicle sizes

0-6 tonnes

6+ tonnes

Note: illustrative examples of vehicles.
Light Duty (0-6T): shift to BEV will be fastest in Europe by 2030/31

- **European Union¹**
  - Vehicle sales (m)
  - ZEV %: <10%, c.60%, 100%

- **N. America**
  - Vehicle sales (m)
  - ZEV %: <5%, c.30%, c.50%

- **China**
  - Vehicle sales (m)
  - ZEV %: c.10%, c.35%, c.50%

Source: JM estimates based on external IHS estimates.
Note: ICE includes ICE hybrid. ICE – internal combustion engine, ZEV – zero emission vehicle.
1. Includes EU, UK, Norway, Switzerland and the Balkans.
Heavy Duty (6T+): electrification constrained by infrastructure build

**European Union¹**
Vehicle sales (m)

- ZEV %: <1%, c.5%, c.30%

**N. America**
Vehicle sales (m)

- ZEV %: <1%, c.10%, c.20%

**China**
Vehicle sales (m)

- ZEV %: c.5%, c.20%, c.35%

Source: JM estimates based on external IHS estimates.
Note: ICE includes ICE hybrid. ICE = internal combustion engine, ZEV = zero emission vehicle.
1. Includes EU, UK, Norway, Switzerland and the Balkans.
Our scenarios are well placed within the range of market scenarios

Global LD electrification (ZEV) share by 2030/31

%, 0-6t

<table>
<thead>
<tr>
<th>BNEF NZS</th>
<th>Faster ele.</th>
<th>Bosch</th>
<th>IHS</th>
<th>Base case</th>
<th>BNEF ETF</th>
<th>BCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>55%</td>
<td>50%</td>
<td>38%</td>
<td>32%</td>
<td>30%</td>
<td>30%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Global HD electrification (ZEV) share by 2030/31

% >6t

<table>
<thead>
<tr>
<th>Bosch</th>
<th>Faster ele.</th>
<th>BCG</th>
<th>Morgan Stanley</th>
<th>BNEF NZS</th>
<th>BNEF ETF</th>
<th>Base case</th>
<th>KGP / LMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>44%</td>
<td>23%</td>
<td>23%</td>
<td>20%</td>
<td>19%</td>
<td>14%</td>
<td>13%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Note: ICE – internal combustion engine, ZEV – zero emission vehicle.
Source: external data sources (various). Note: calendar year 2030 approximated for 2030/31.
### Significant tightening of legislation globally

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>EPA</th>
<th>CARB</th>
<th>EU</th>
<th>China</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>20/21</td>
<td>Tier 3 Phase-In</td>
<td>Tier 3</td>
<td>EU6d</td>
<td>China 6a</td>
<td>BSVI</td>
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<tr>
<td>21/22</td>
<td>Tier 3</td>
<td>LEV III Phase-In</td>
<td>CF reduction/removal</td>
<td>China 6b RDE</td>
<td>BSVI with RDE</td>
</tr>
<tr>
<td>22/23</td>
<td>Tier 4</td>
<td>LEV IV</td>
<td>EU7 (earliest)</td>
<td>China 7 (key cities)</td>
<td>BSVII (phase-in period likely)</td>
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<tr>
<td>23/24</td>
<td></td>
<td></td>
<td>EU VI D/E</td>
<td>China VII (key cities)</td>
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<tr>
<td>24/25</td>
<td></td>
<td></td>
<td>EUVI (earliest)</td>
<td>China VII (nationwide)</td>
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<tr>
<td>25/26</td>
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<td>31/32</td>
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**Light duty**

**EPA**
- Tier 3 Phase-In
- Tier 3
- Tier 4

**CARB**
- LEV III Phase-In
- LEV IV

**EU**
- EU6d: CF reduction/removal
- EU7 (earliest)

**China**
- China 6a
- China 6b RDE
- China 7 (key cities)
- China 7 (nationwide)

**India**
- BSVI
- BSVI with RDE
- BSVII (phase-in period likely)

**Heavy duty**

**EPA**
- EPA 2010
- EPA 2027
- EPA 2031

**CARB**
- EPA 2010
- CARB 2024
- CARB 2027
- CARB 2031

**EU**
- EU VI D/E
- EUVII (earliest)

**China**
- China VIa
- China VIB
- China VII (key cities)
- China VII (nationwide)

**India**
- BSVI
- BSVI with PEMS
- BSVII

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**Example: Europe HD CLOVE Proposal**

**Tailpipe NOx (mg/kWh)**
- Euro VI: -80%
- Euro VII

**Particle count (#/kWh)**
- Euro VI: -84%
- Euro VII

Note: estimated introduction dates for anticipated legislation.
Legislation will drive more advanced technology and support pricing

**Heavy Duty Diesel**
- Tighter PN, NOx and NH₃
- Wider operating conditions
- Additional pollutants such as N₂O

**Light Duty Diesel**
- Tighter PN, NOx and NH₃
- Improved cold start emissions
- Optimised coatings for low/high speed

**Light Duty Gasoline**
- Tighter PN, NOx, NH₃ and N₂O
- PGM and system cost optimisation
- Enhanced system cost efficiency

**Legislative and market drivers**

**Typical current architecture**

**Possible future architecture**

**JM differentiation**
- Current market leader with unmatchable technology solutions and long term customer collaborations

**JM market share trend**

Operational programmes deliver cash

- Delivering efficiency across the value chain
- Working capital reduced with agile supply chain
- Leveraging new, highly efficient plants
- Capex reducing to c.£50m by 2024/25

Maintaining our license to operate through safety, sustainability, quality and talent development
Driving efficiency through four key focus areas

01 Productivity powerhouse
Dedicated programmes embedded, driving efficiency and reducing costs across the value chain

02 Agile supply chain
Global standardised and efficient supply chain, driving down working capital

03 Optimised operations footprint
Manufacturing the right parts at the right place and optimising across the global supply chain

04 Focused capital programme
Rigorous allocation of capital with robust planning and execution

Underpinned by a globally standardised operating model and experienced team
Leveraging new and highly efficient plants

Manufacturing sites

1. Querétero, Mexico, USA
2. Smithfield, USA
3. Wayne, USA
4. Pilar, Argentina
5. Royston, UK
6. Redwitz, Germany
7. Gliwice, Poland
8. Skopje, Macedonia
9. Germiston, South Africa
10. Bawal, India
11. Manesar, India
12. Kransbyarsk, Russia
13. Zhangijagang, China
14. Shanghai, China
15. Kitsuregawa, Japan
16. Nilai, Malaysia

New plants are up to 4x faster than legacy sites
Capex reducing to c.£50m by 2024/25

Focused on:

- Leveraging the new assets
- Focused capital allocation
- Robust planning and execution
- Rigorous maintenance programme

Capital expenditure (£m)

- Targeted capital allocation with further reduction post EU7

<table>
<thead>
<tr>
<th>Year (FY)</th>
<th>Expenditure (£m)</th>
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<tbody>
<tr>
<td>14/15</td>
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<td>15/16</td>
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<td>16/17</td>
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<tr>
<td>17/18</td>
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<tr>
<td>18/19</td>
<td>c.£200m</td>
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<td>19/20</td>
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<td>20/21</td>
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<td>30/31</td>
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</table>
Leverage operations across JM

01 Procurement
Building a detailed picture of cost out opportunities and contract strategies

02 New product introduction
Improving connectivity across the value chain for parts right the first time

03 Talent
Building careers, leveraging expertise and experience

04 Operational maturity
Sharing best practices and quick wins on cost out programmes
Cash generation
Alastair Judge

JM
Long-term cash drivers

- Winning with strong technology
- Driving operational efficiency
- Treating all fixed costs as variable over time
- Minimising capital expenditure
- Unwinding working capital

On track to deliver at least £4bn of cash by 2030/31

1. Driving at least £4bn of cash under our range of scenarios from 1st April 2021 to 31st March 2031. Cash target pre-tax and post-restructuring costs.
Fixed costs reduced by c.£100-£200m depending on the rate of electrification

Note: graph is illustrative and not to scale.
Working capital will reduce by £1.2bn in our base case.

### Working capital breakdown – 1 April 2021

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount (bn)</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>£0.4bn</td>
<td>Non-precious metal working capital</td>
<td>Varies with volume and business efficiency</td>
</tr>
<tr>
<td>£1.6bn</td>
<td>Precious metal working capital</td>
<td>Varies with pgm prices, volume and business efficiency</td>
</tr>
</tbody>
</table>

**Working capital reduced by:**

- Optimising plant and distribution footprint
- Agility in supply chain and production systems
- Integrated planning with our partners
- Smart terms for high pgm LDG programmes

Declining volumes and metal prices underpin the reduction of working capital.

Note: pace of working capital unwind depends on pgm prices.
Delivering cash from operational efficiencies, lower working capital and reduced capex

Cash breakdown (£bn) – base case¹

- Reduction in working capital
- Underlying EBIT
- Depreciation less capex

£4bn++

Cash breakdown (£bn) – faster electrification¹

- Reduction in working capital
- Underlying EBIT
- Depreciation less capex

£4bn+

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¹ Breakdown of cash delivered from 1st April 2021 to 31st March 2031. Cash target pre-tax and post-restructuring costs.
Clean Air remains a cash generative business of scale in 2030/31 and beyond

Sales of c.£2bn, of which c.50% HDD

Lean footprint and organisation, retaining technology leadership

Robust low double digit margins

Working capital of c.£0.8bn

Note: reflects our base case scenario. Sales excluding precious metals. HDD – heavy duty diesel.
Conclusion

On track to deliver at least £4bn of cash by 2030/31¹

Strong technology and trusted partner

Strong team and depth of experience

Delivering on robust commercial and operational plans

Leveraging JM’s strength in pgms and contributing to new business growth

1. Driving at least £4bn of cash under our range of scenarios from 1st April 2021 to 31st March 2031. Cash target pre-tax and post-restructuring costs.