



Johnson Matthey  
Inspiring science, enhancing life

# Presentation of results for the six months ended 30<sup>th</sup> September 2018

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21<sup>st</sup> November 2018

# 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.

# Delivering on our strategy and confident in our outlook

## Continued progress on implementing our strategy





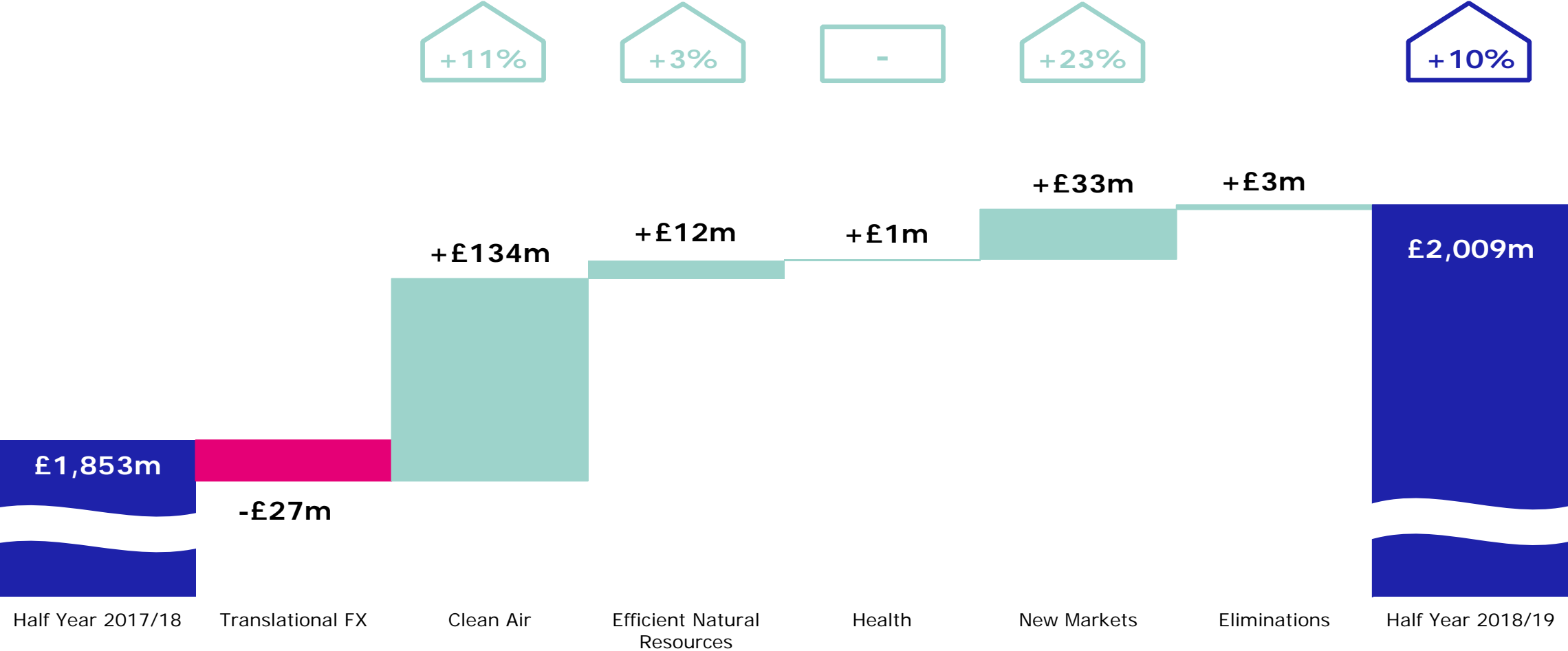
Anna Manz  
Chief Financial Officer

JM

# Good first half group performance

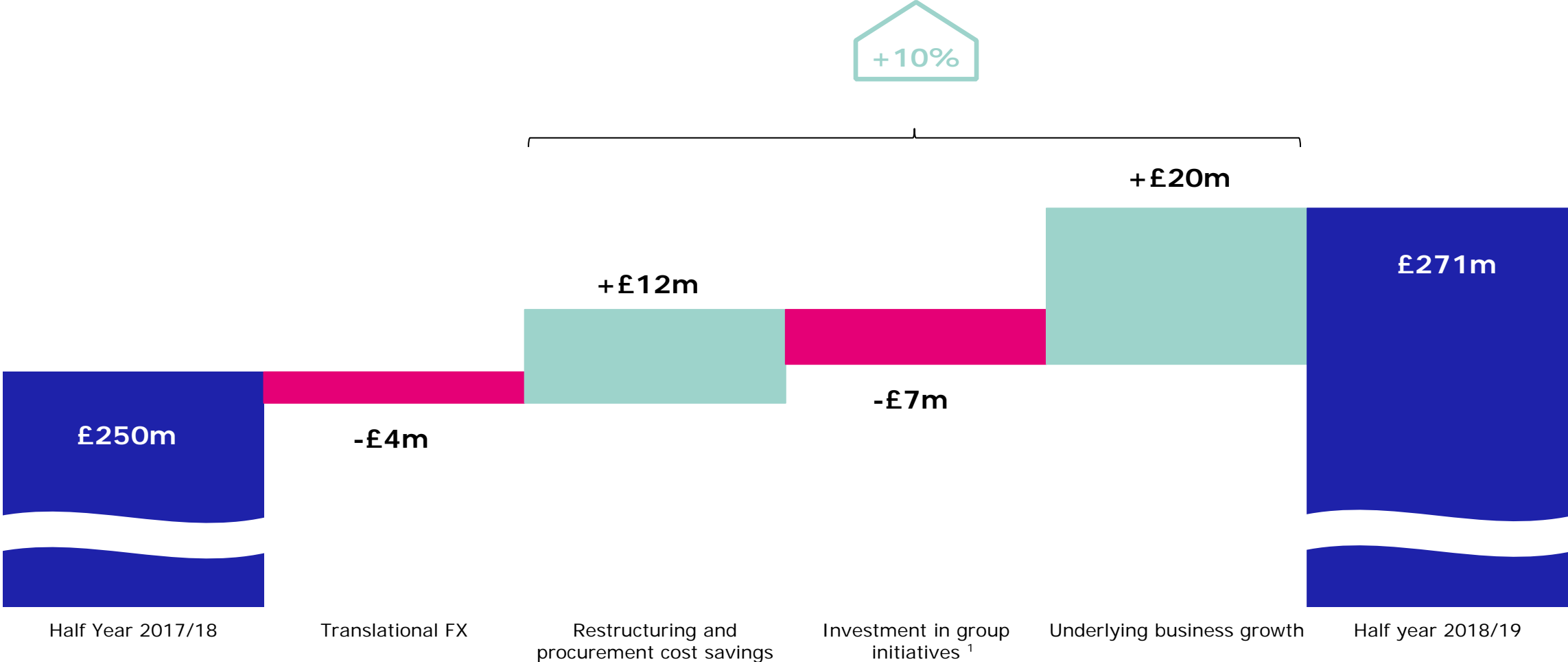
Underlying results for half year ended 30th September <sup>1</sup>	2018 £m	2017 £m	% change	% change, constant rates
Sales excluding precious metals	2,009	1,853	+8	+10
Operating profit	271	250	+8	+10
Finance charges	(20)	(16)	+24	
Profit before tax	251	233	+7	+9
Taxation	(41)	(42)	-	
Profit after tax	210	191	+9	
<b>Earnings per share</b>	<b>109.0p</b>	<b>99.8p</b>	<b>+9</b>	
<b>Interim dividend per share</b>	<b>23.25p</b>	<b>21.75p</b>	<b>+7</b>	

# Strong sales growth driven by Clean Air



# Strong growth in underlying operating profit

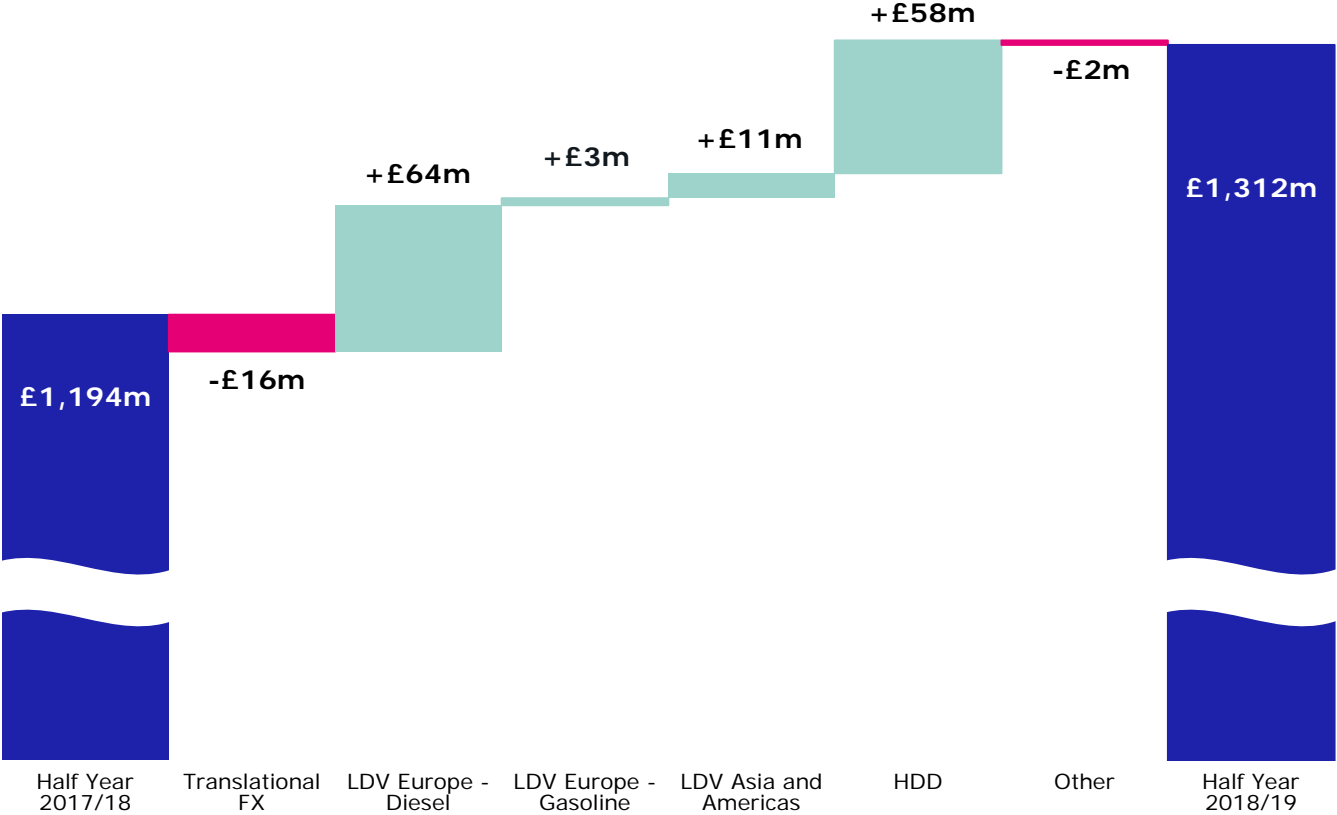
+10%



1. Includes IT and procurement

# Clean Air: Continued strength with double digit growth in both light and heavy duty

Sales up 11%



## Operating profit up 15%

- Margin improved by 0.5ppts
- Volume leverage
- Tight cost control

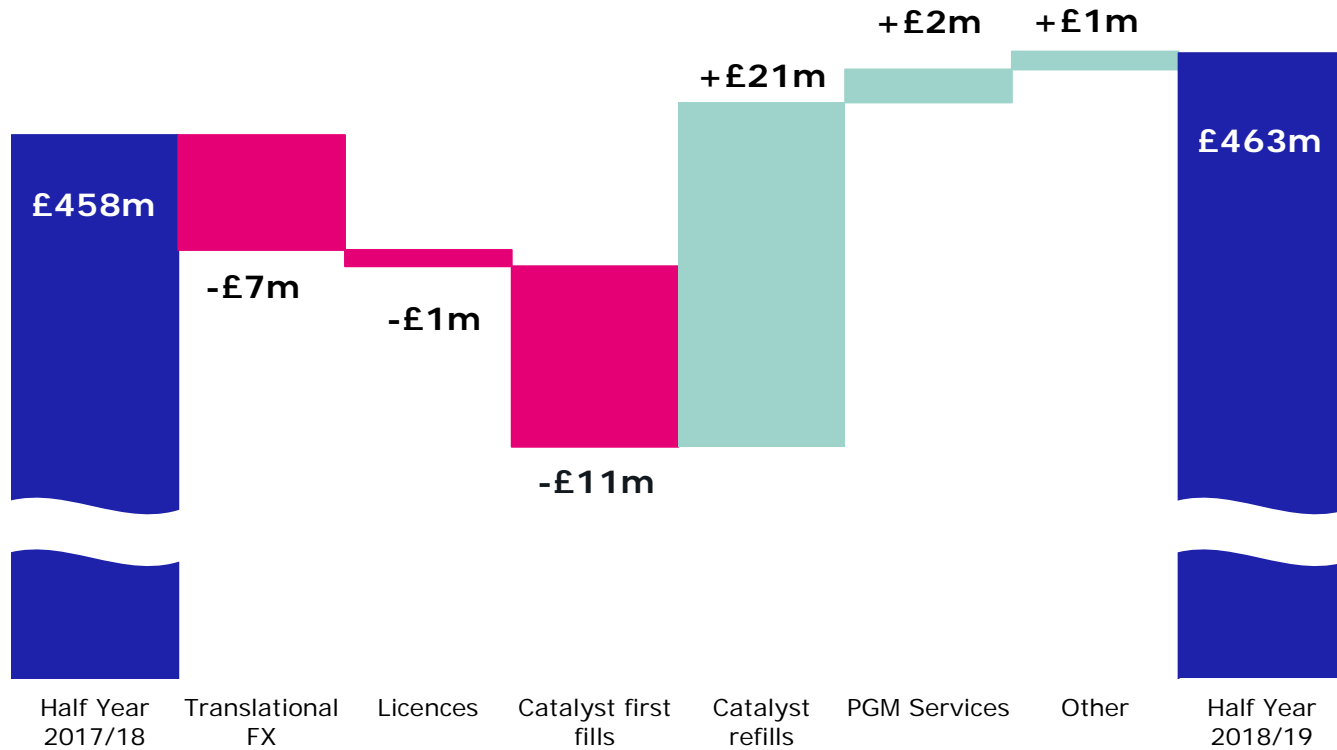
## Full year outlook

- Continued strong sales growth, driven by light duty diesel share gains in Europe
- Expect full year margin to be maintained in line with prior year



# Efficient Natural Resources: Sales growth with margin improvement

Sales up 3%



## Operating profit up 26%

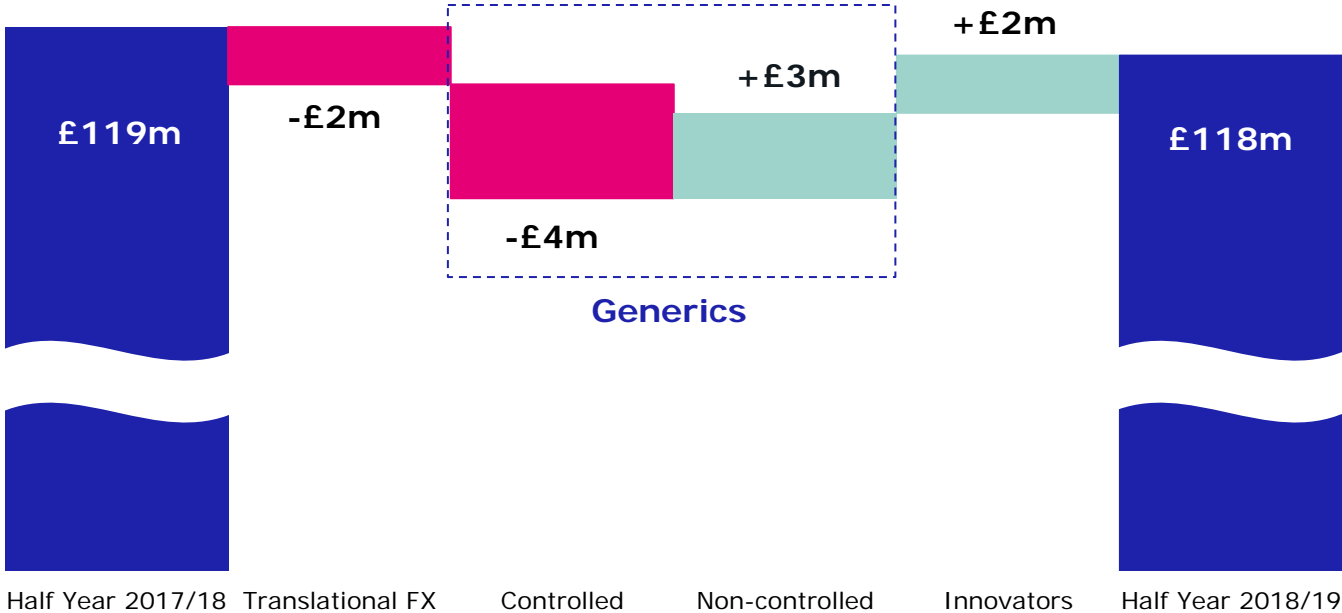
- Margin up 3.2 pts
- Higher average pgm prices (+c.£10m)
- Efficiency improvements
- Partly offset by increased investment in pgm refineries

## Full year outlook

- Slight sales growth
- Operating profit growth ahead of sales, plus c.£7m restructuring cost savings

# Health: Stable sales with operating profit down as expected

## Sales flat



## Operating profit down 31%

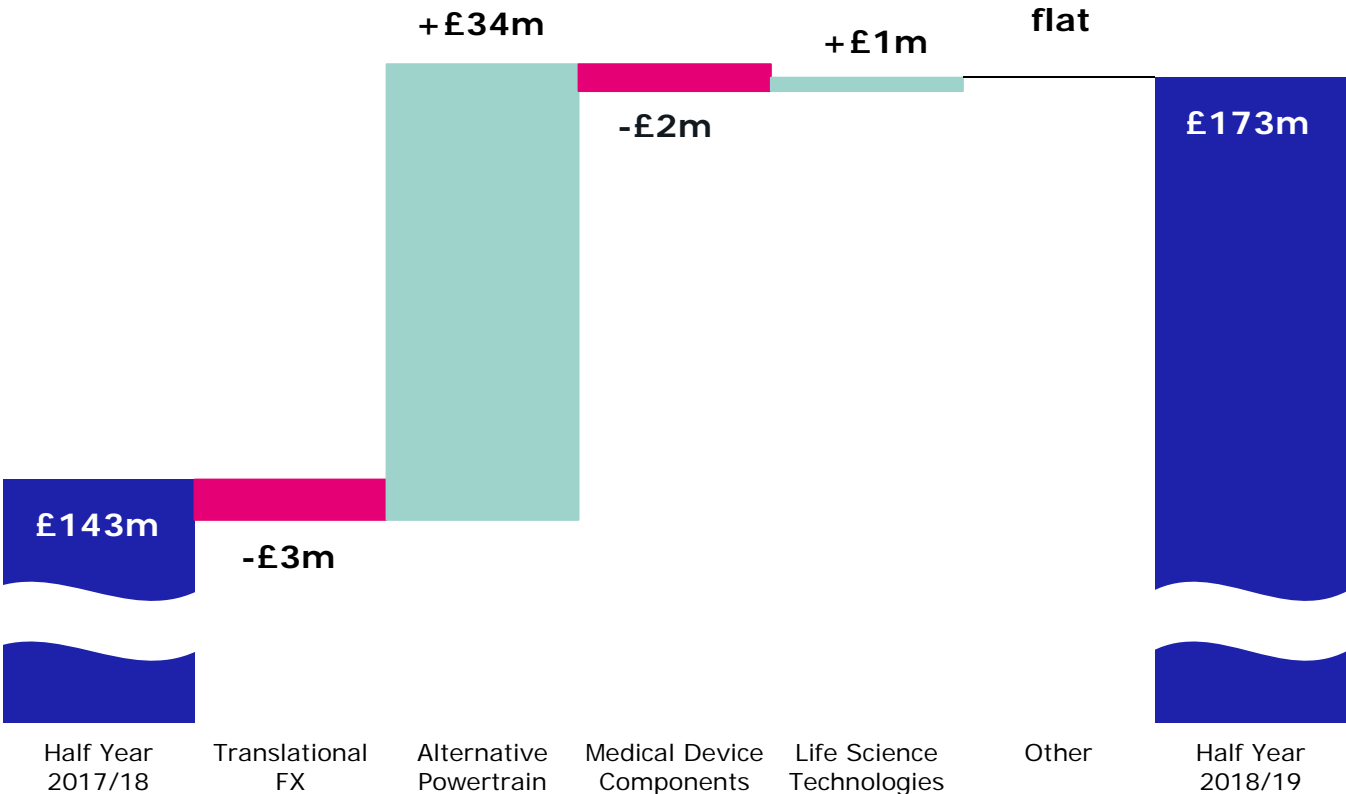
- Margin down 5.8 pts
- Decline in high margin products moving through natural lifecycle
- Small net cost from manufacturing footprint optimisation

## Full year outlook

- Guidance unchanged
  - Broadly stable sales
  - Operating profit down

# New Markets: Strong sales growth, operating profit declined

Sales up 23%



## Operating profit down 67%

- Margin down 4.5 pts
- Investing in strategic relationships for eLNO
- Strong growth in lower margin Battery Systems sales

## Full year outlook

- Sales growth
- Operating profit now expected to be down for the full year

# EPS growth slightly ahead of underlying operating profit growth

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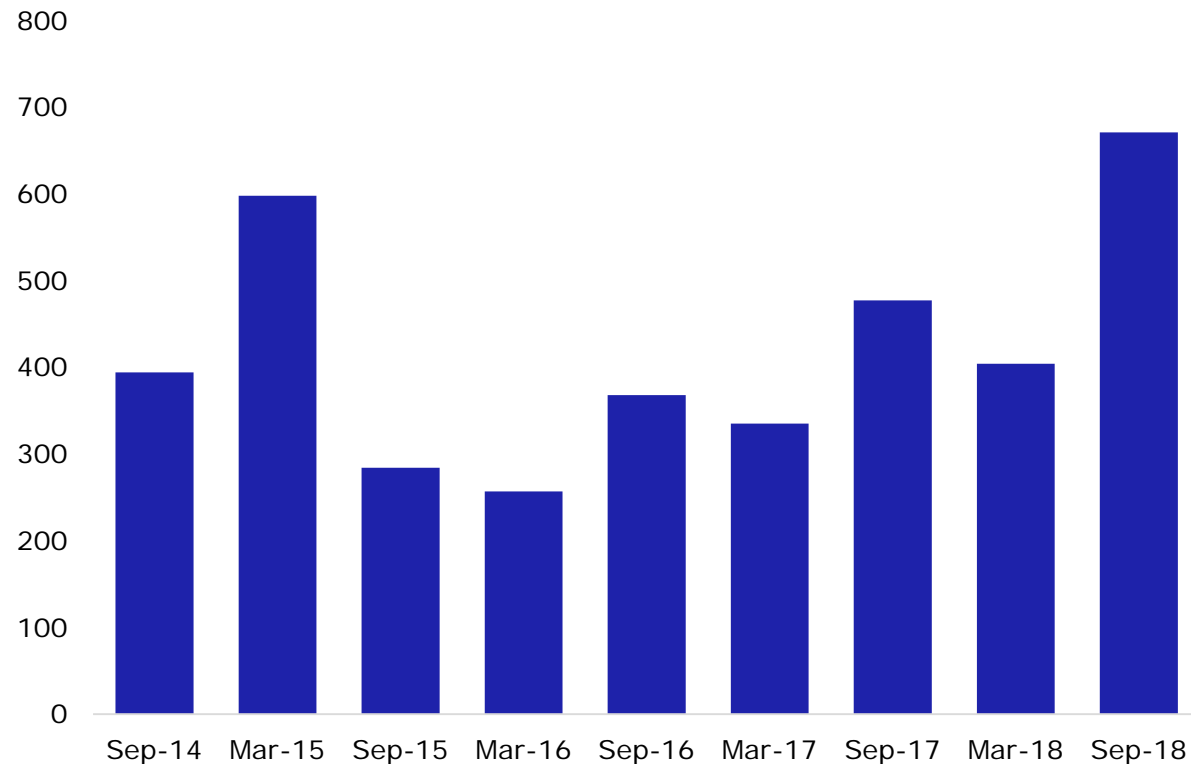
# Free cash flow impacted by working capital

## Free cash flow (£m)

Half year ended 30th September	2018	2017
Underlying operating profit	271	250
Depreciation and amortisation <sup>1</sup>	79	77
Precious metal working capital outflow	(283)	(156)
Non precious metal working capital outflow	(76)	(91)
Other working capital outflow	(32)	(17)
Net working capital outflow <sup>2</sup>	(391)	(264)
Net interest paid	(23)	(19)
Tax paid	(48)	(45)
Capex spend	(96)	(81)
Other	2	(8)
<b>Free cash flow</b>	<b>(206)</b>	<b>(90)</b>

# Pgm refinery downtime impacted precious metal working capital

## Precious metal (pm) working capital (£m)



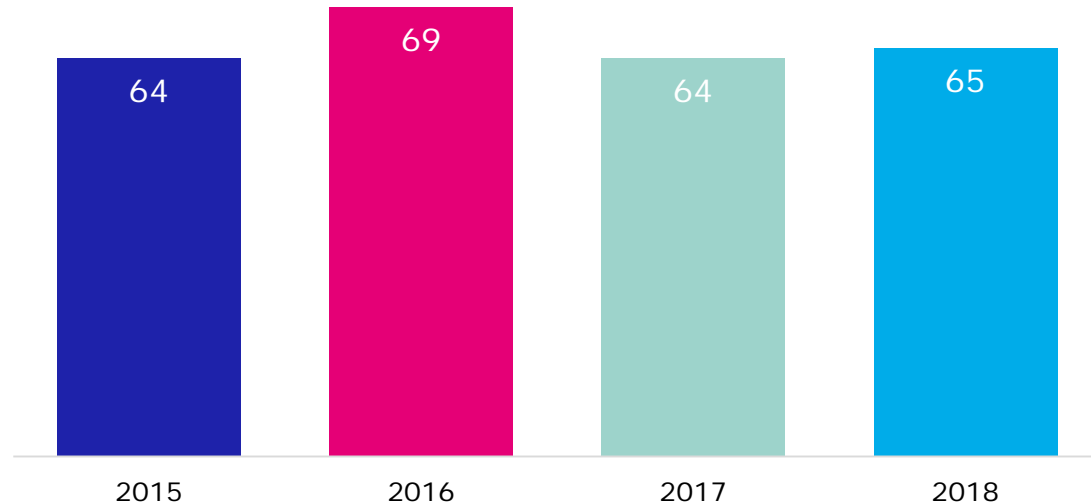
Pm working capital increased £267 million<sup>1</sup>, mainly in pm inventory

Impact from pgm refinery downtime

- Expect a significant reduction in pm working capital by year end

# Improvement in average non precious metal working capital days

## Working capital days excluding precious metals, half year ended 30<sup>th</sup> September



Non pm working capital increased by £130 million<sup>1</sup>

Working capital days broadly stable at 65 days compared to H1 17/18

Average working capital days down 2 to 61 days (reduction of 8 days over the last 18 months<sup>2</sup>)

# Strong balance sheet, net debt to EBITDA 1.5 times<sup>1</sup>

	£m	£m
<b>Net debt at the beginning of the year</b>		<b>(679)</b>
Free cash flow	(206)	
Dividends	(112)	
Movement in net debt before FX		(318)
<b>Net debt before FX</b>		<b>(997)</b>
FX		(39)
<b>Net debt at the end of the period</b>		<b>(1,036)</b>



# Progressing on my three focus areas

## Focus areas

## Progress

Rigorous and transparent resource allocation



- ROIC lower due to UK pension asset<sup>1</sup>
- On track to expand ROIC to 20% over the medium term

Disciplined management of working capital to drive continued strong cash



- Average non precious metal working capital days improved by 2 to 61 days

Drive increasing business wide efficiency



- Restructuring cost savings on track
- Procurement savings being delivered
- First site implementation of global IT system complete

# Confident in our outlook

Operating performance towards upper end of previous guidance of mid to high single digit growth

Growth led by Clean Air as diesel share gains in Light Duty Europe continue to ramp

Improvement in average working capital days (excluding precious metals)

Capex up to £350 million



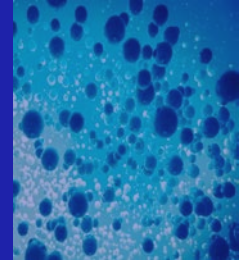
Robert MacLeod  
Chief Executive

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# Sustained growth and value creation through:

## Science

Invest in our world class **science** and technology



## Customers

Solving our **customers'** complex problems; lead in high margin, technology driven markets



## Operations

**Operate** as a safer, more connected, agile and efficient global business



## People

Deliver through our great **people**



# Delivering long term shareholder value through:

**Sustained growth in Clean Air**



**Market leading growth in Efficient Natural Resources**



**Break out growth in Health**



**Break out growth in Battery Materials**



Mid to high single digit EPS CAGR

Expanding ROIC to 20%

Progressive dividend

# Confident of delivery in a changing world



# Delivering on our strategy: Clean Air

**Global leader**

**Tightening legislation**

**Efficient manufacturing footprint**



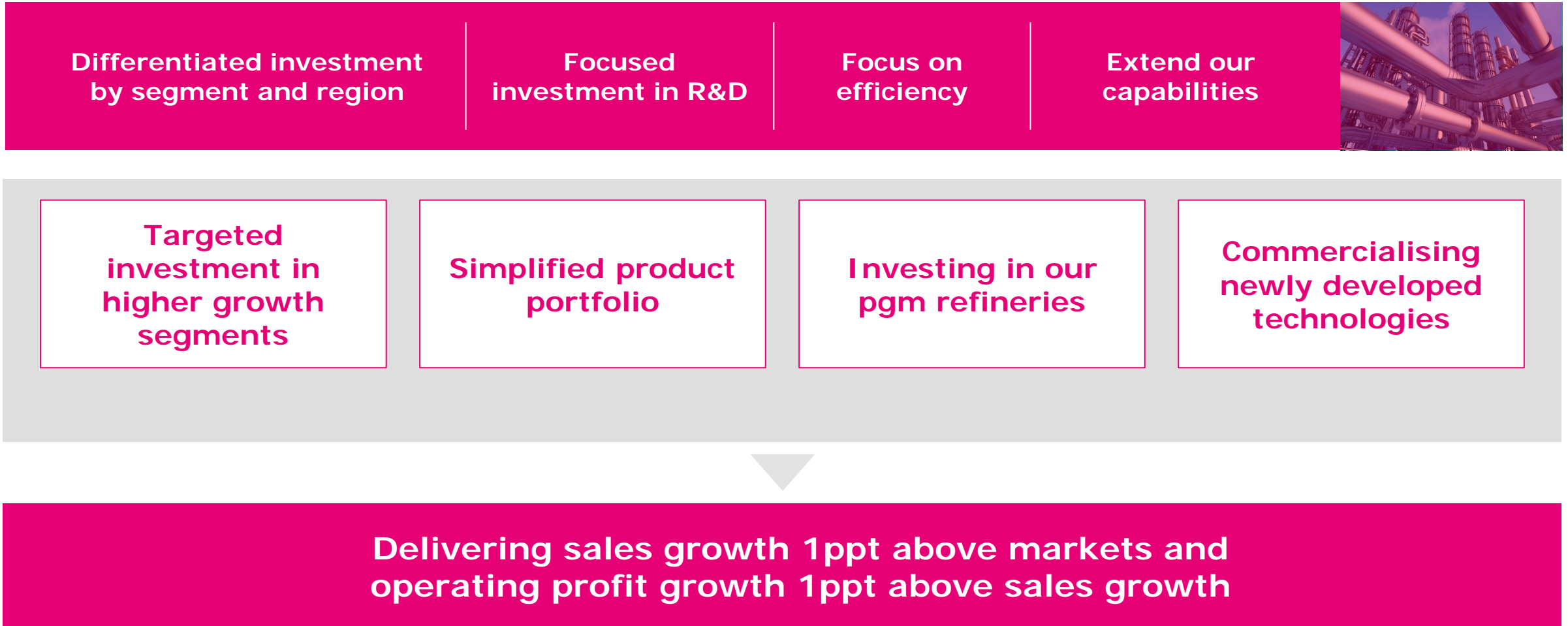
**Regional market shares largely on track**

**Legislation tightening in Europe and accelerating in Asia**

**Expanding capacity in Europe and Asia**

**Delivering a mid single digit CAGR sales growth over the next ten years with a broadly flat margin**

# Delivering on our strategy: Efficient Natural Resources





# Delivering on our strategy: Health

Enhance performance  
of existing business

Expand new product  
pipeline and portfolio

Build capabilities  
to better support  
customers



Actions being taken  
to improve efficiency

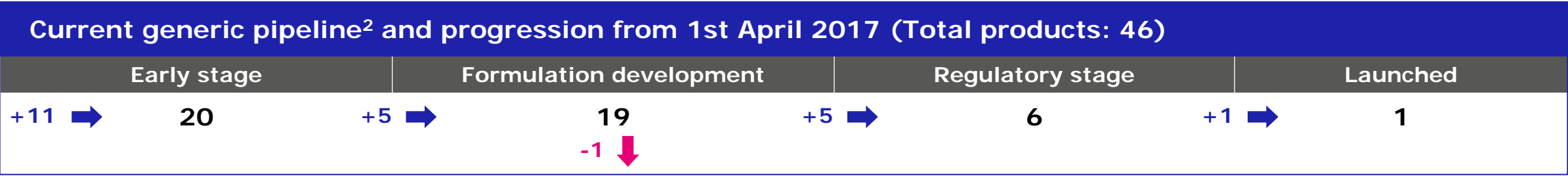
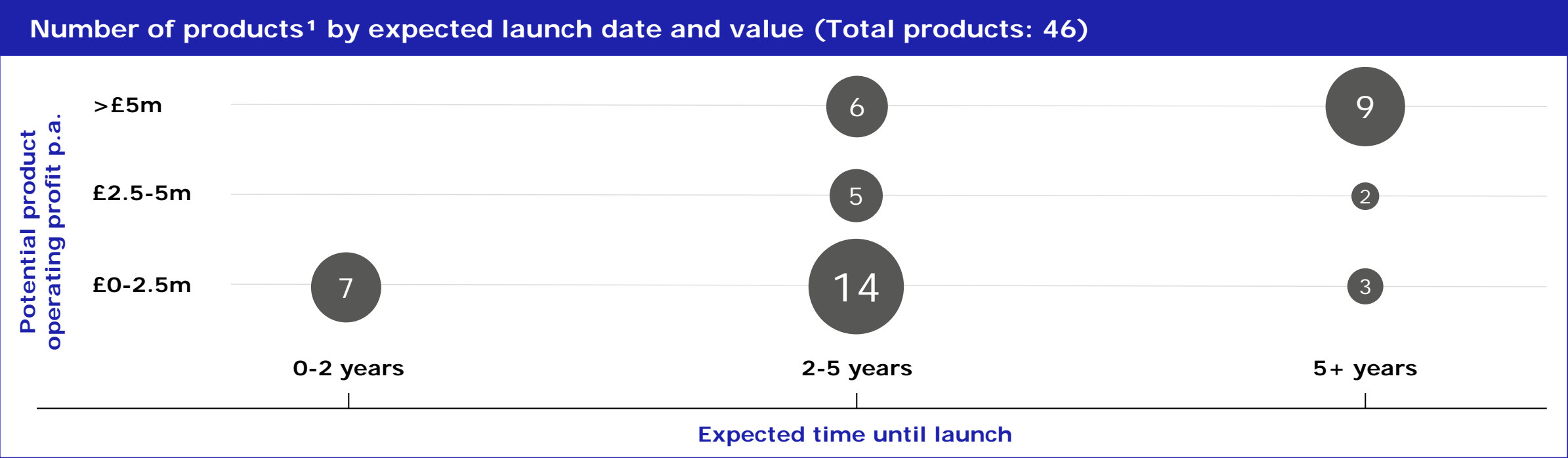
Closure of Riverside and  
Annan ramp up

Progressing new  
product pipeline



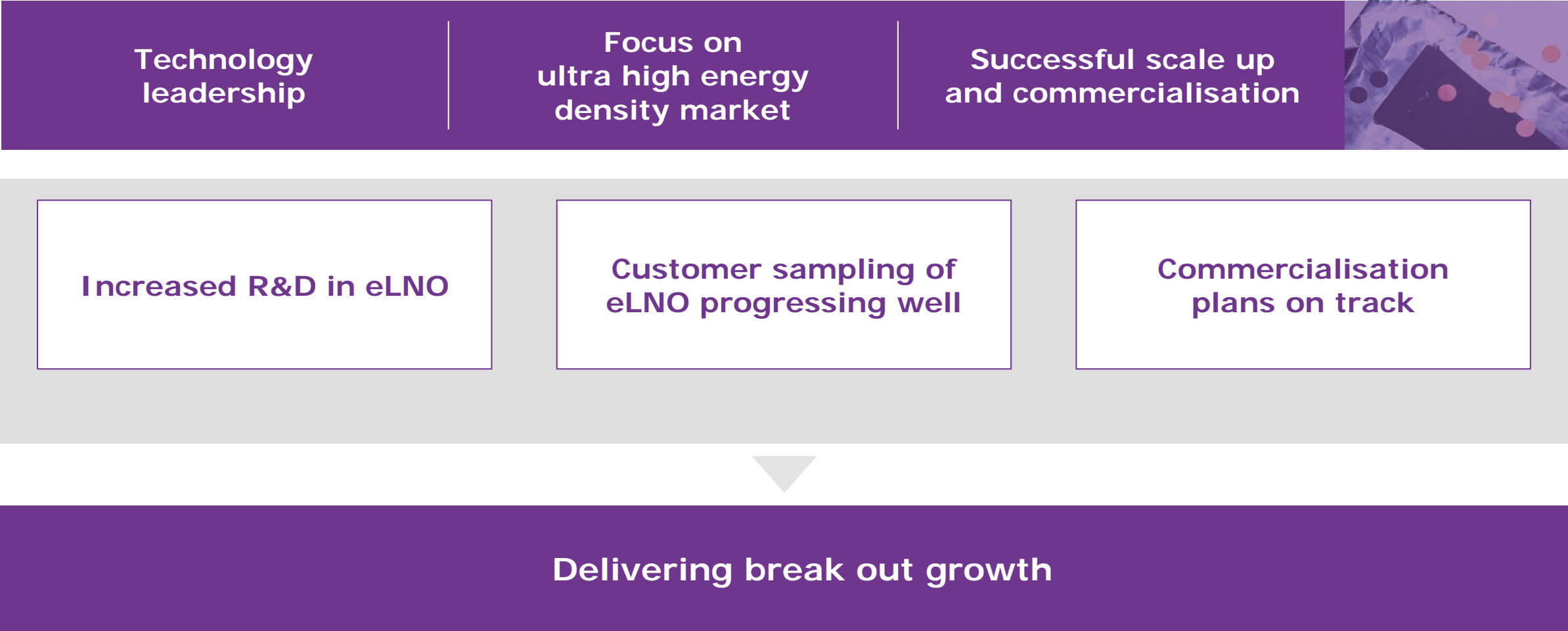
Delivering break out growth

# Health: Generic pipeline on track to deliver an additional c.£100m operating profit per year by 2025

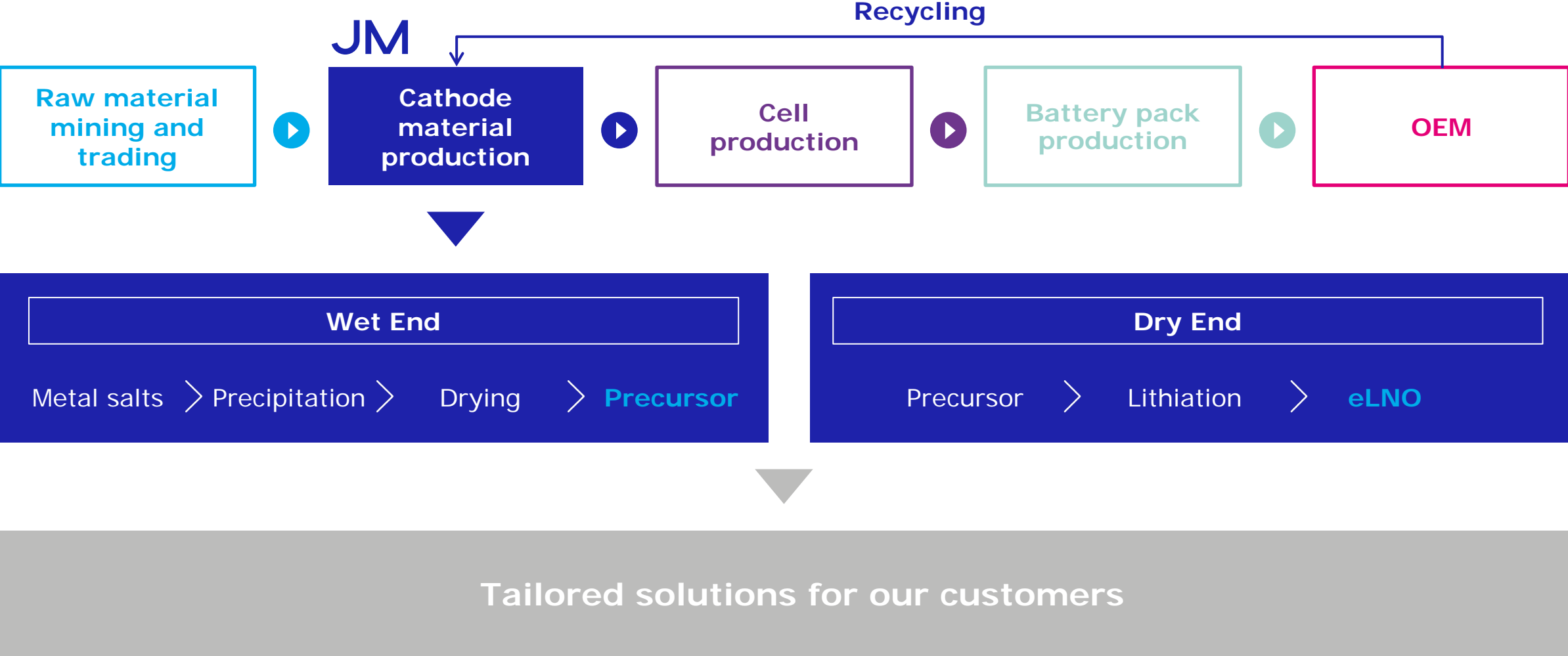


1. Size of bubbles proportional to number of products  
 2. Current pipeline as at October 2018

# Delivering on our strategy: Battery Materials



# Battery materials: Differentiating in our production



# Battery materials: Commercialisation plans on track

## Progress to date

- Developed best-in-class next generation battery material (eLNO)
- Positive feedback from customers
- Pilot plant operational
- Board approval for the initial investment in first commercial plant

## Next 12 months

- Expand R&D team
- Progressing through qualification process with customers
- Start construction of commercial plant
- Investing in customer application centre (UK)
- Further build capital projects team

# Confident in the delivery of our strategy

Good first half performance

Delivering on our promises

Building the platform for the future

Successfully executing on our strategy

Mid to high single digit EPS CAGR

Expanding ROIC to 20%

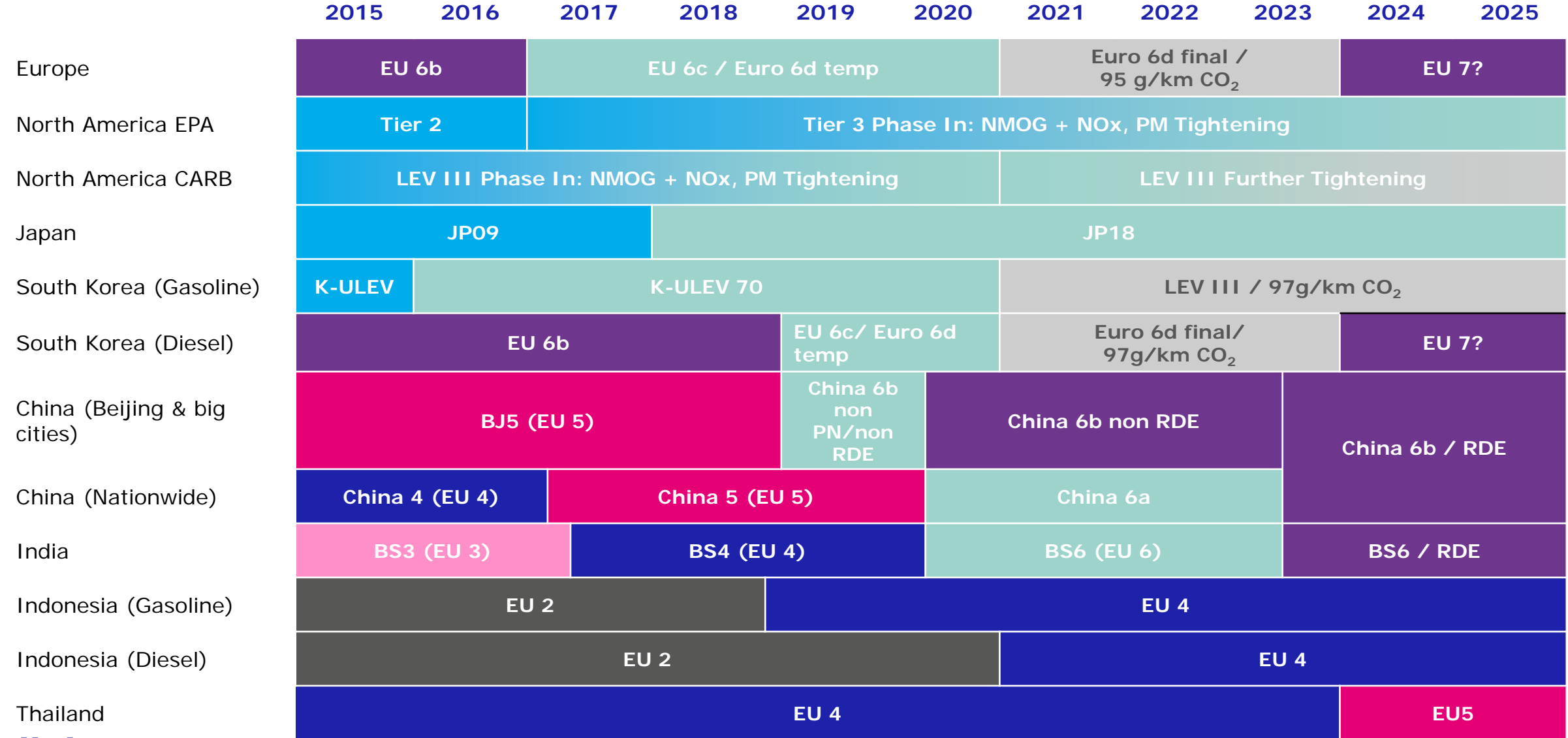
Progressive dividend



Appendix

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# Light duty emissions control legislation roadmap

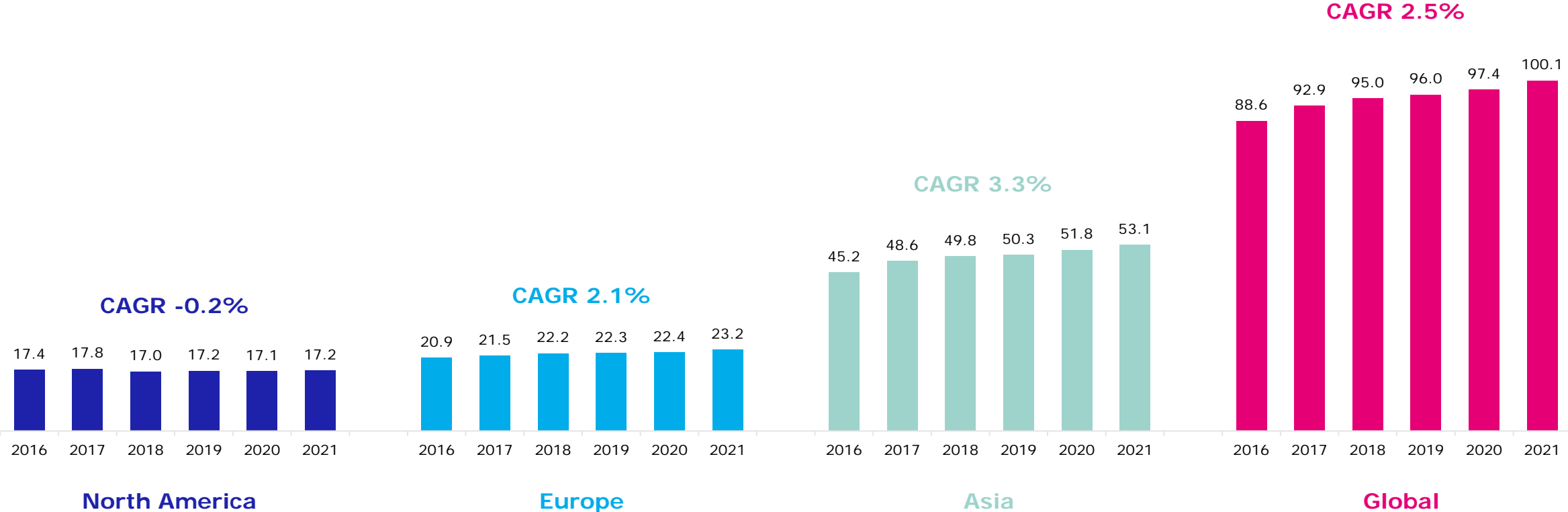




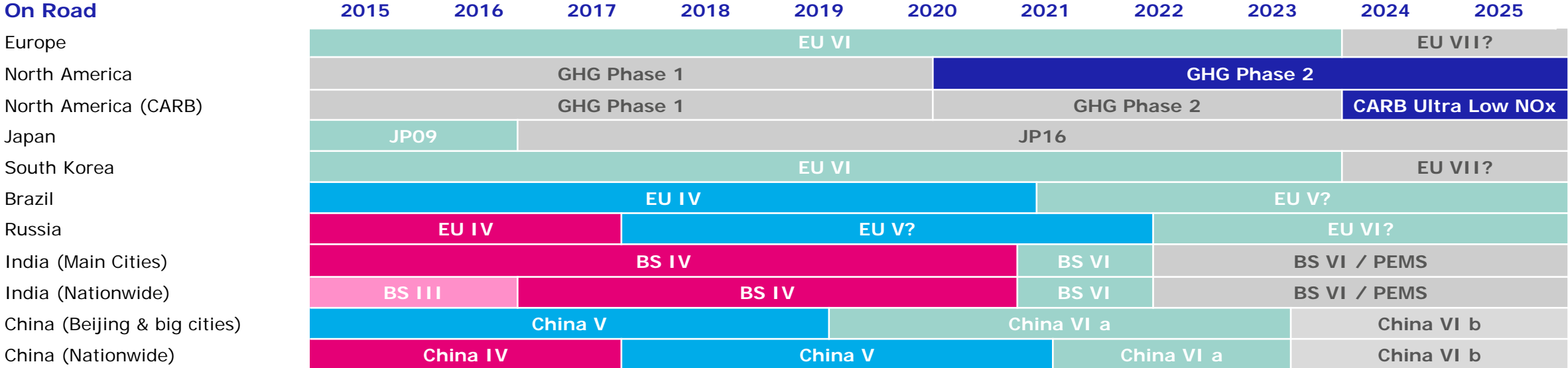
# Global growth in vehicle production

## Light duty vehicle production outlook (million)

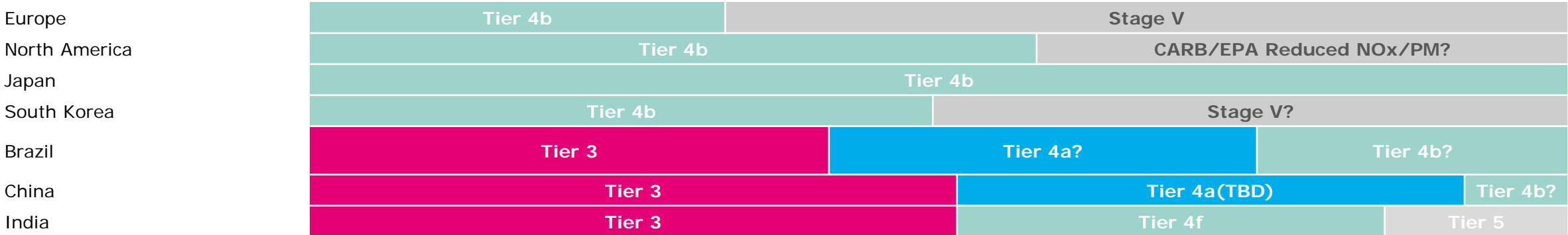
Calendar years



# Heavy duty diesel emissions control legislation roadmap

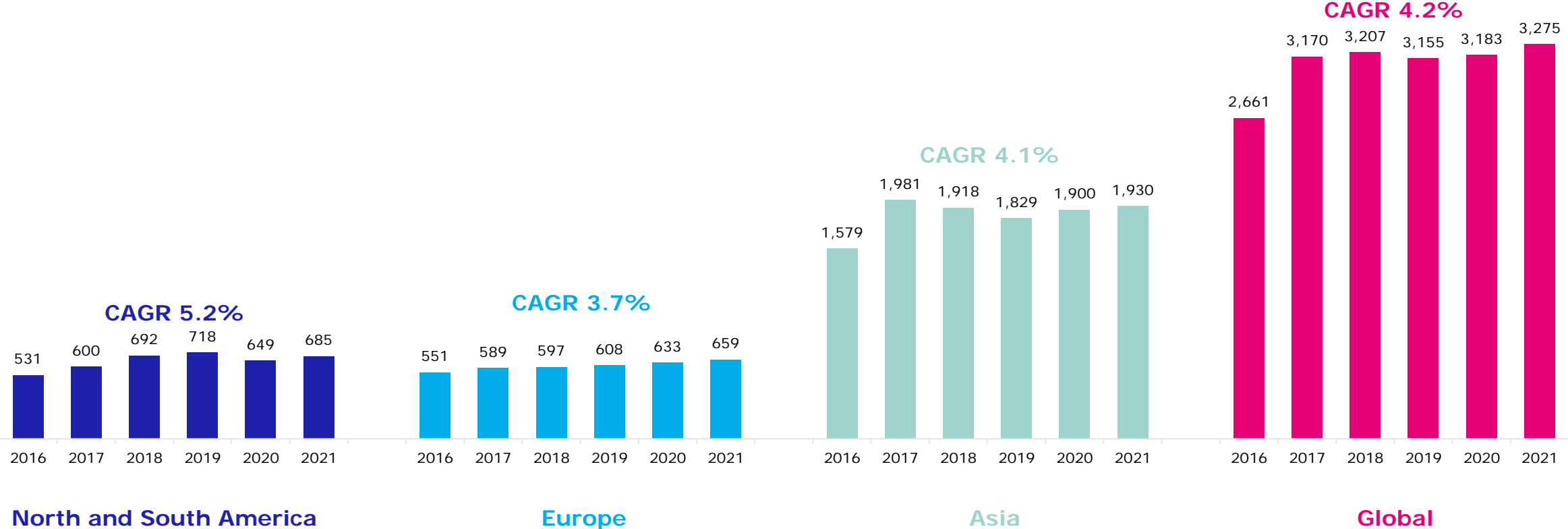


## Non-road



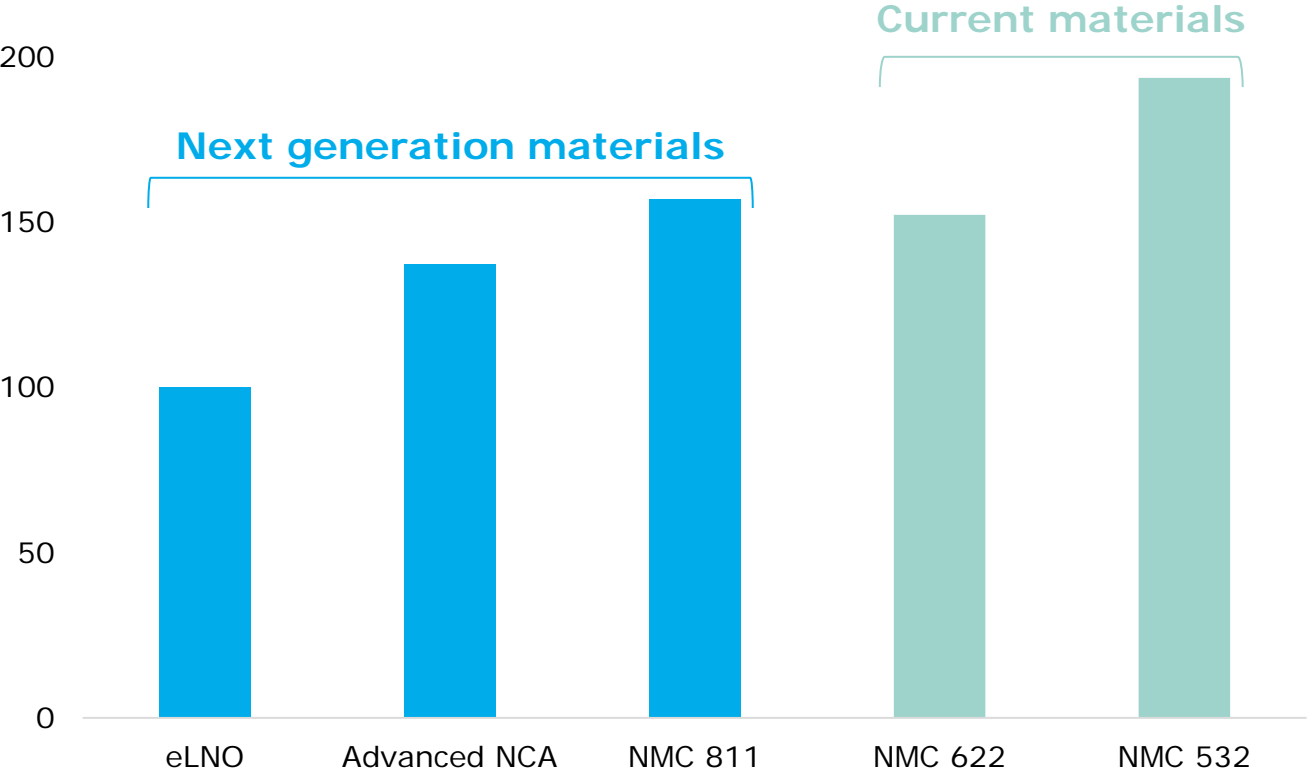
# Heavy duty diesel vehicle production (regulated engines)

Heavy duty diesel vehicle (regulated engines) production outlook (thousands)  
Calendar years



# eLNO has superior performance

**\$ per kWh per cycle to end of useful life<sup>1</sup>**  
(chart to scale, indexed with eLNO = 100)



Step change in energy density from current materials

Lower cobalt content than current materials

Lower \$ per kWh per cycle than current and future materials<sup>1</sup>

1. Cost per kWh to 80% retention. Results based on third party testing performed by Qinetiq, 2018. Electrochemical data from Qinetiq benchmark testing, cost data from JM. Electrochemical data extrapolated to 30Ah cell level

# eLNO: Commercialisation on track

Stage	Validation	A sample	B sample	C sample	Battery cell in production	Model in production
Summary	Early testing	Basic performance	Extended performance: basic plus safety, life performance	Full-scale functionality		
Volume Required	kgs	< 10t	c.200t	c.300t		
JM Supply	kgs	Pilot plant	Demo plant	Commercial plant		
Timing		c.12-18 months	c.12 months	c.12 months		
Calendar year		2019	2020	2021		
	Today				Start of commercial production in 2021/22	Supplying platforms in production in 2022/23