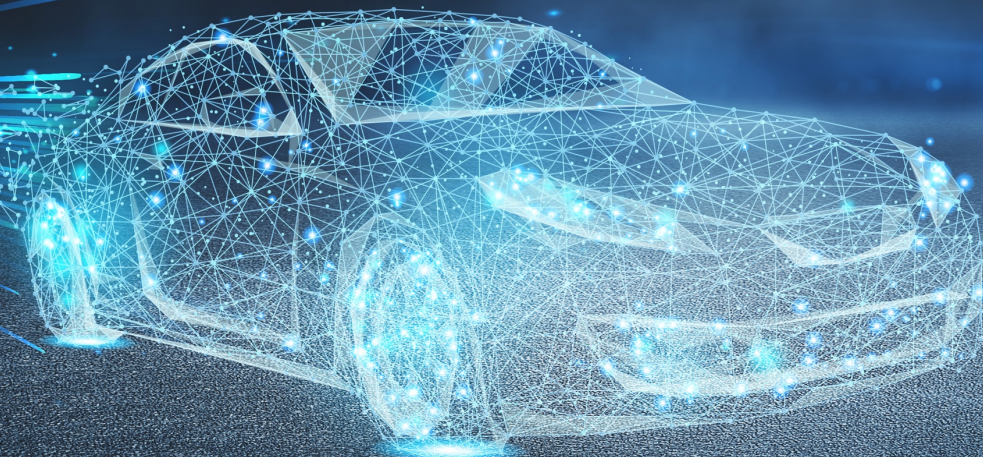


CAPITAL  
MARKETS  
DAY **POWERING  
AHEAD**

  
**umicore**  
*materials for a better life*

**Seoul, Korea**

6 June 2018



# Powering ahead



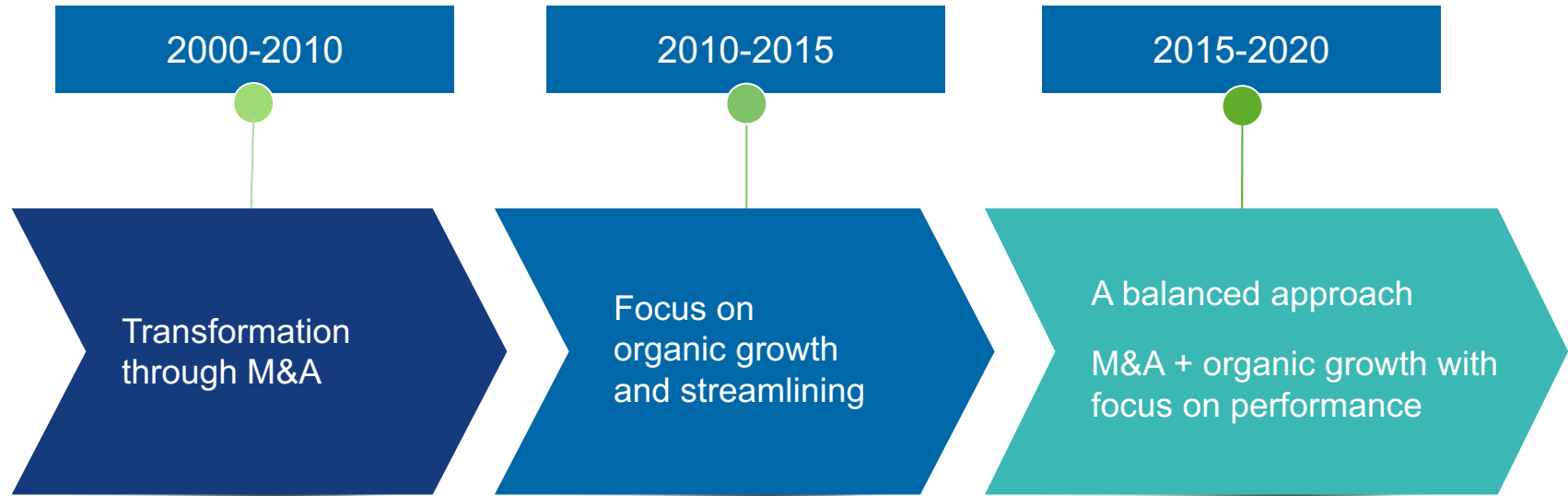
**SPEAKER**

**Marc Grynberg**

*Chief Executive Officer*



# Our strategic journey

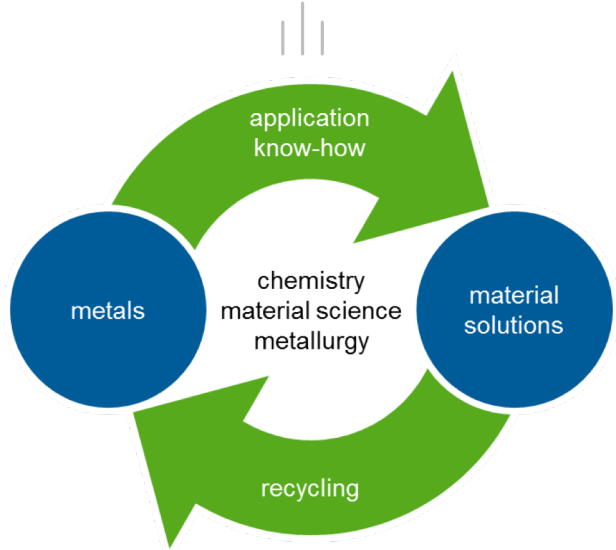


# In reality, our strategy is rolling out in sprints

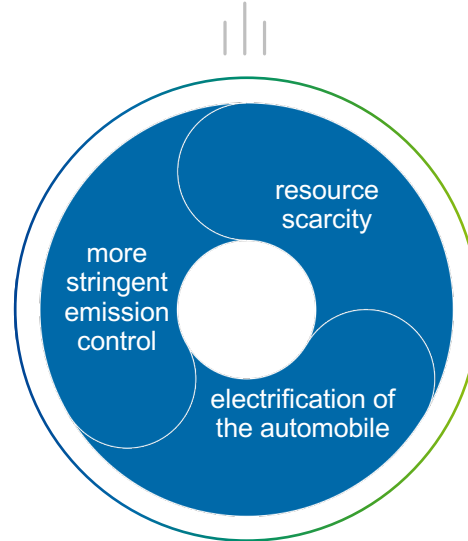


# Our foundations have not changed

Unique business model



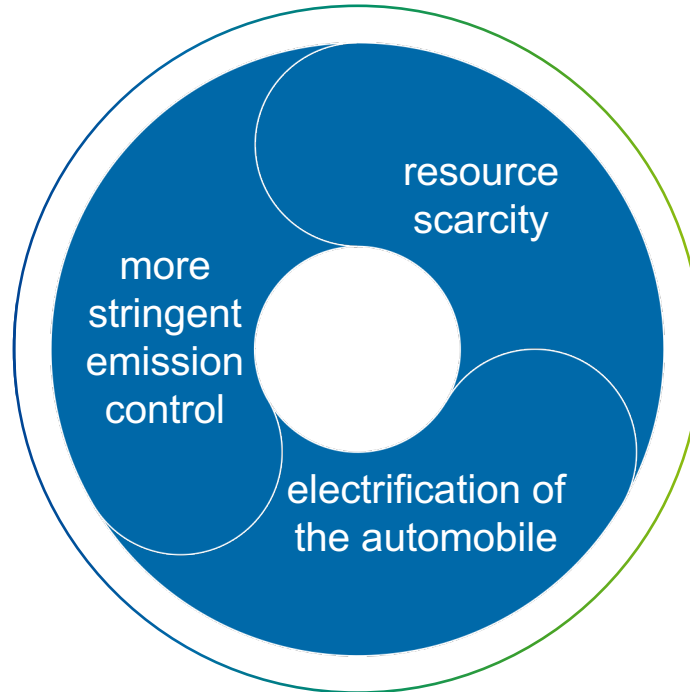
Supportive megatrends



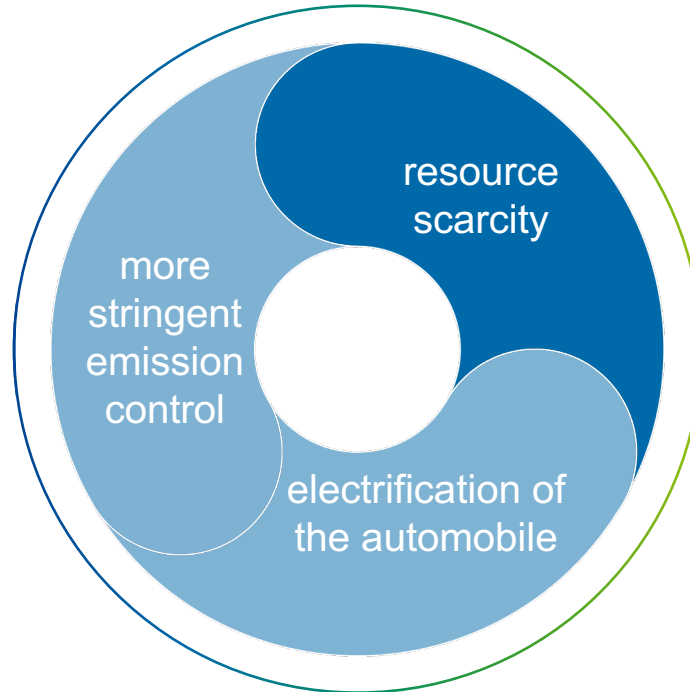
Industry leader in sustainability

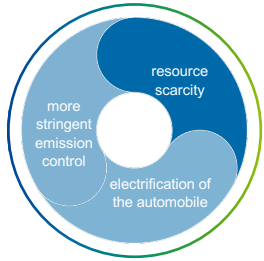


# Our foundations have not changed



# Our foundations have not changed



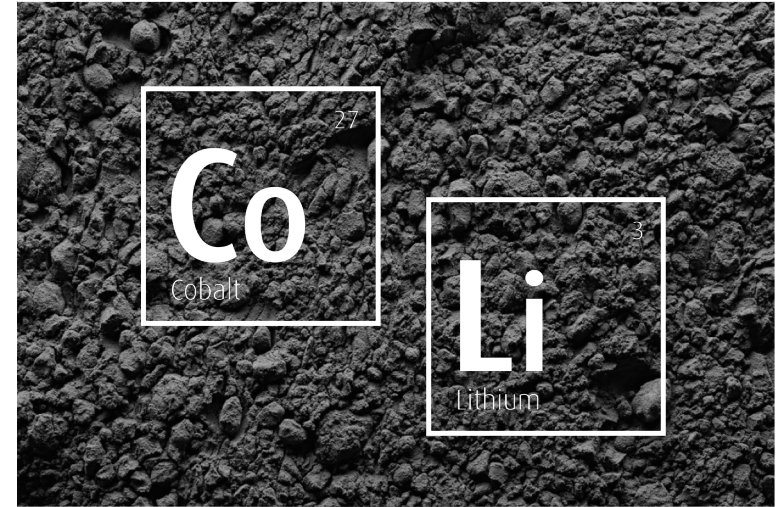


# Megatrends have amplified Resource scarcity continues to increase

**RESOURCE  
SCARCITY**



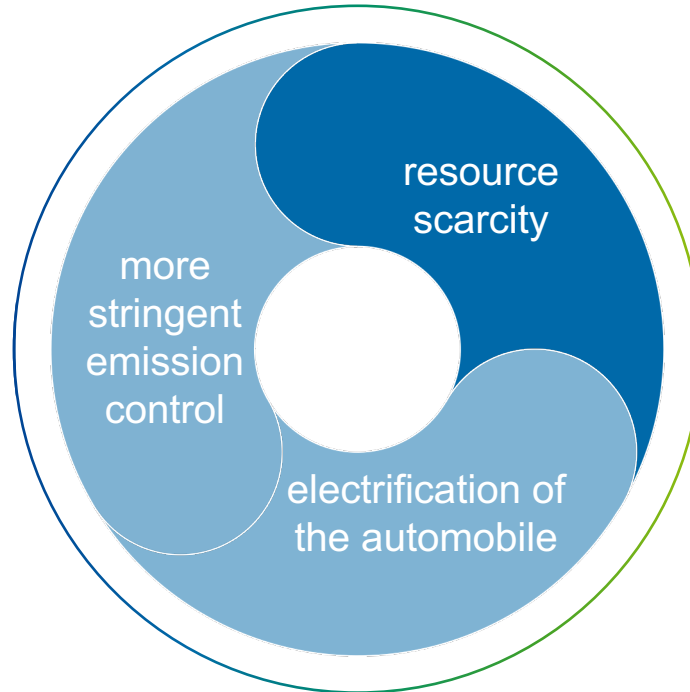
**Finite quantities  
of mineral resources**



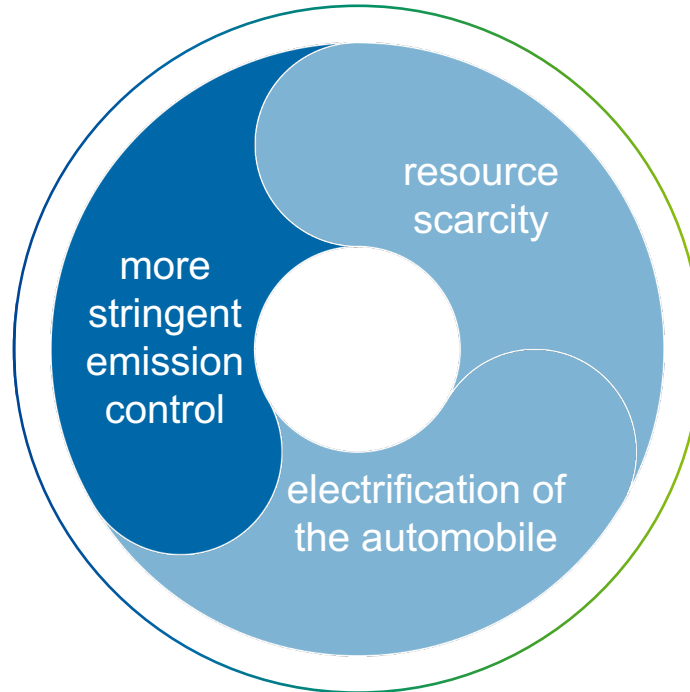
**Spotlight has moved from  
rare earths to cobalt and lithium**

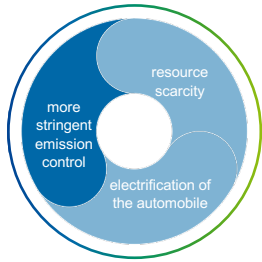


# Our foundations have not changed



# Our foundations have not changed





# Megatrends have amplified No tolerance for pollution



CLEAN  
AIR



Dieselgate

CAPITAL  
MARKETS  
DAY POWERING  
AHEAD

“ Volkswagen recalls  
8.5 million diesel  
vehicles in Europe

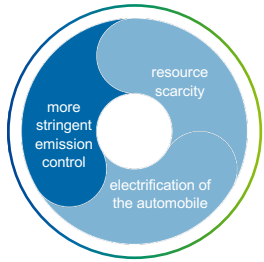
*New York Times, 15 Oct 2015*

“ After diesel scandal,  
VW turns to new  
leadership  
& electric cars

*National Public Radio, 24 April 2018*



COMMENTS  
FROM THE PRESS



# Megatrends have amplified No tolerance for pollution

**CLEAN  
AIR**



**NGOs increase  
pressure for real  
driving emissions  
testing**

“ Groupe PSA  
discloses vehicle  
emissions in real  
driving conditions

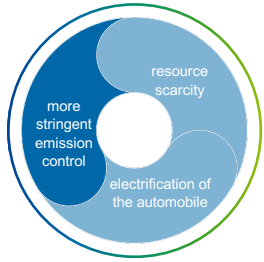
*Transport & Environment, 6 March 2018*

“ Europe Embraces  
Real-World  
Emissions Testing

*Wall Street Journal, 24 Sep 2015*



COMMENTS  
FROM THE PRESS



# Megatrends have amplified No tolerance for pollution

CLEAN  
AIR



Bans on driving in  
city centres

“ Oslo moves to ban  
cars from city centre  
within four years

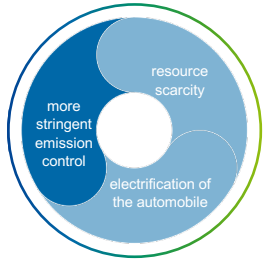
*The Guardian, 19 Oct 2015*

“ German top court  
allows cities to  
introduce diesel  
driving bans

*Clean Energy Wire, 27 February 2018*



COMMENTS  
FROM THE PRESS



# Megatrends have amplified No tolerance for pollution

CLEAN  
AIR



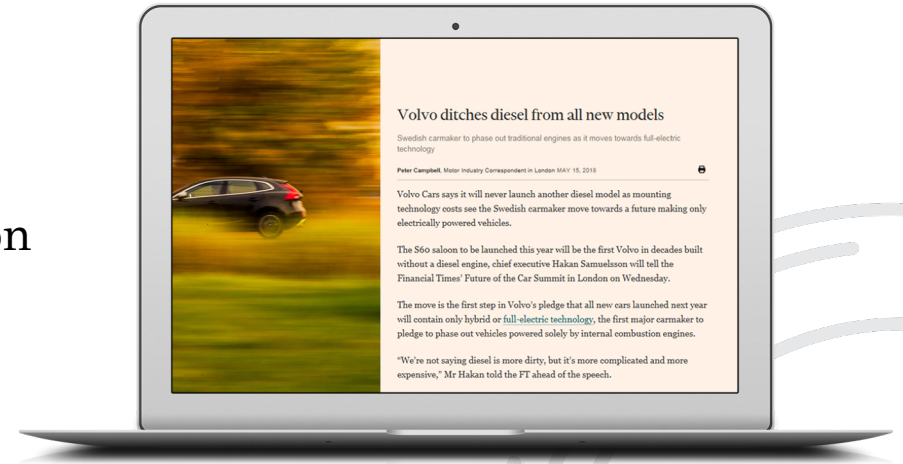
OEMs abandoning  
diesel platforms

“ Nissan, Toyota  
to shift away  
from diesel in  
wake of emission  
scandal

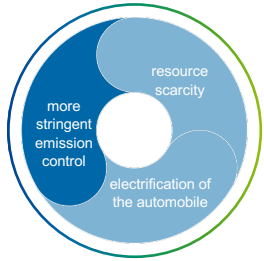
*Forbes, 11 May 2018*

“ Volvo ditches  
diesel from all  
new models

*Financial Times, 15 May 2018*



COMMENTS  
FROM THE PRESS



# Megatrends have amplified No tolerance for pollution

CLEAN  
AIR



New emission norms such as China 6 and Bharat Stage 6

“ China 6 emission standard to be implemented in 2020

*Gasgro, 11 May 2018*

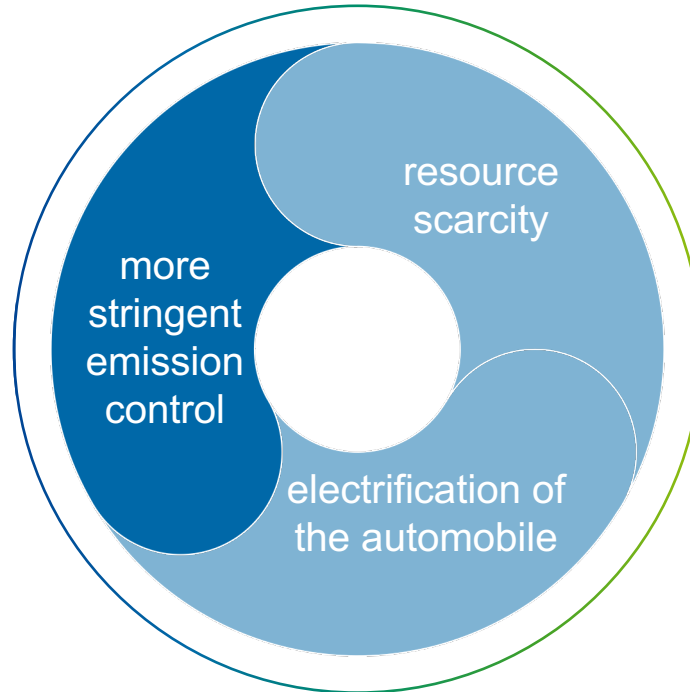
“ Bharat Stage 6 policy: Diesel cars could get priced off the roads

*The Hindu, 15 Nov 2017*



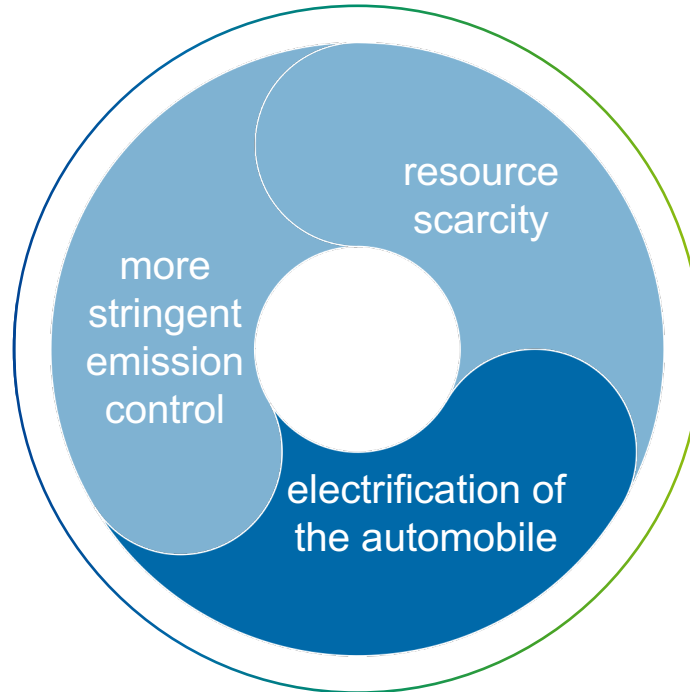
COMMENTS  
FROM THE PRESS

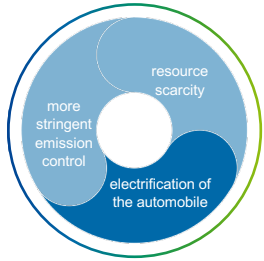
# Our foundations have not changed





# Our foundations have not changed

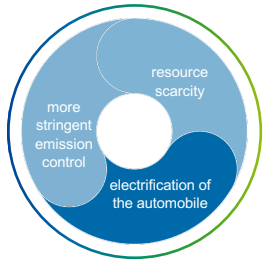




# Megatrends have amplified 2012 EV models

**ELECTRIFIED  
VEHICLES**

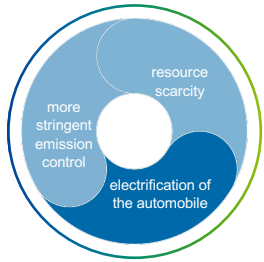




# Megatrends have amplified 2015 EV models

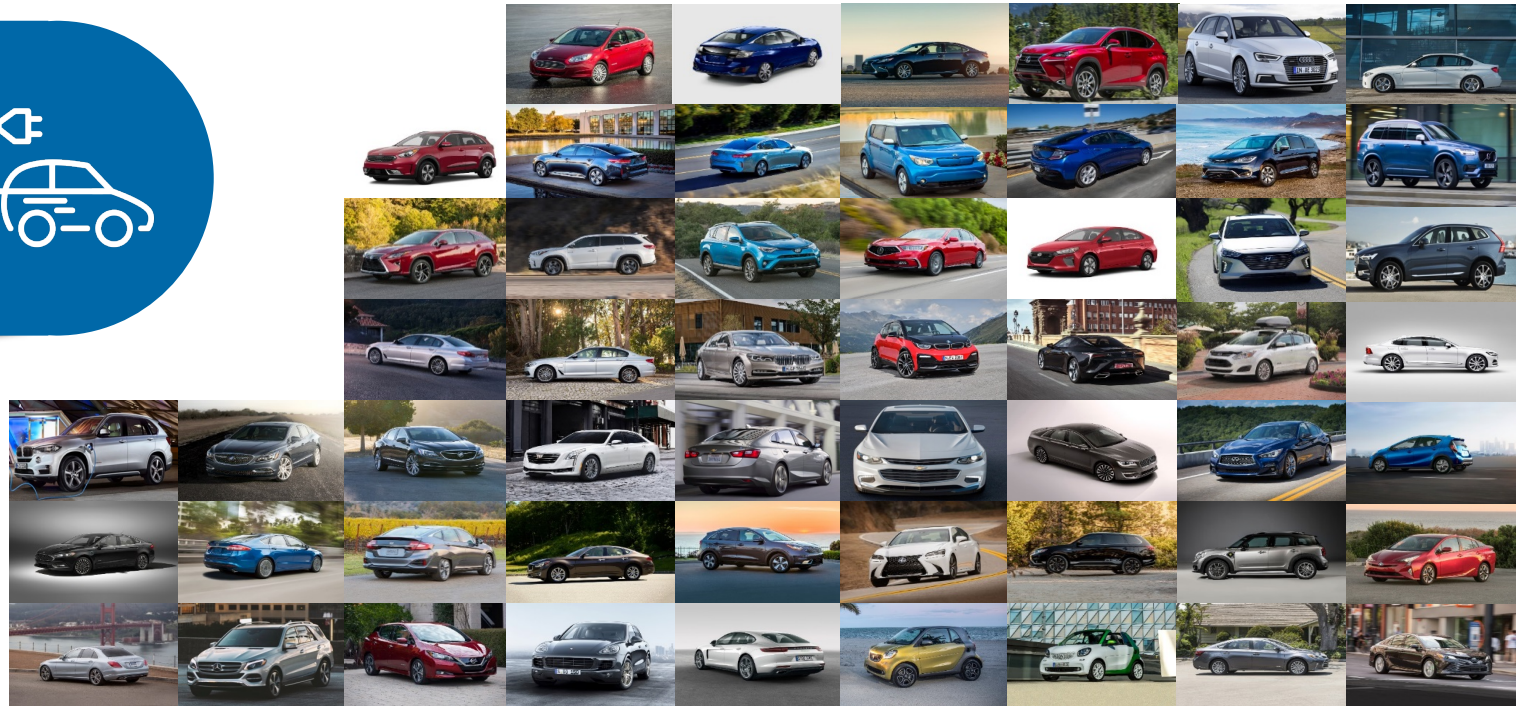
**ELECTRIFIED  
VEHICLES**





# Megatrends have amplified 2018 EV models

**ELECTRIFIED  
VEHICLES**



# Horizon 2020 as presented in 2015



Clear leadership  
in clean mobility  
materials and  
recycling



Doubled  
the size of the  
business in  
terms of earnings



Rebalanced  
the portfolio  
& earnings  
contributions



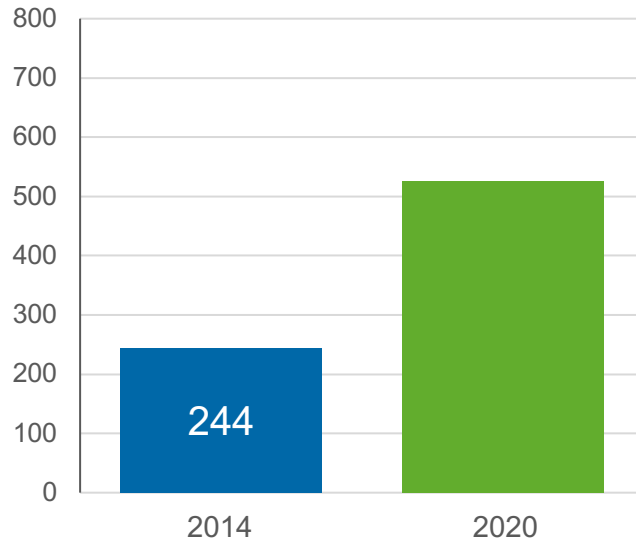
Turned  
sustainability  
into a greater  
competitive edge



# Doubled the size of the business in terms of earnings

## RECURRING EBIT\* view in 2015

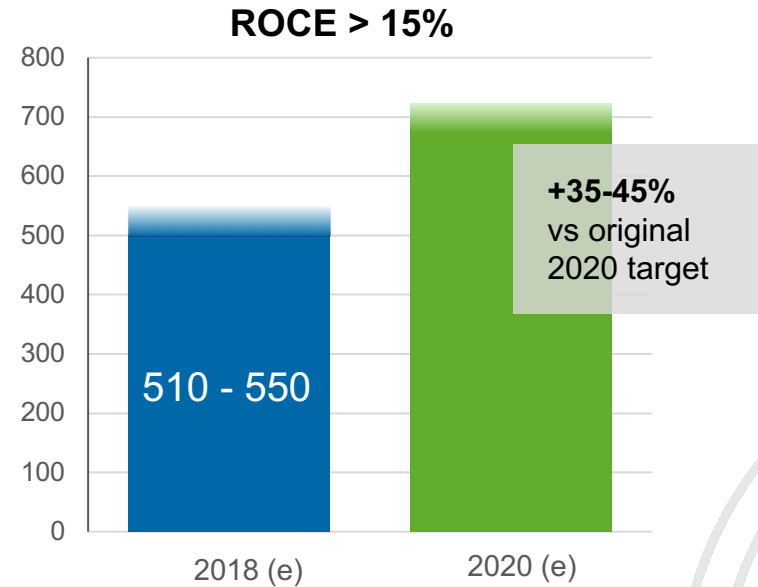
Million of Euros



☰  
\*excluding discontinued operations

## RECURRING EBIT Today's view

Million of Euros



# Horizon 2020 as presented in 2015



Clear leadership  
in clean mobility  
materials and  
recycling



Doubled  
the size of the  
business in  
terms of earnings



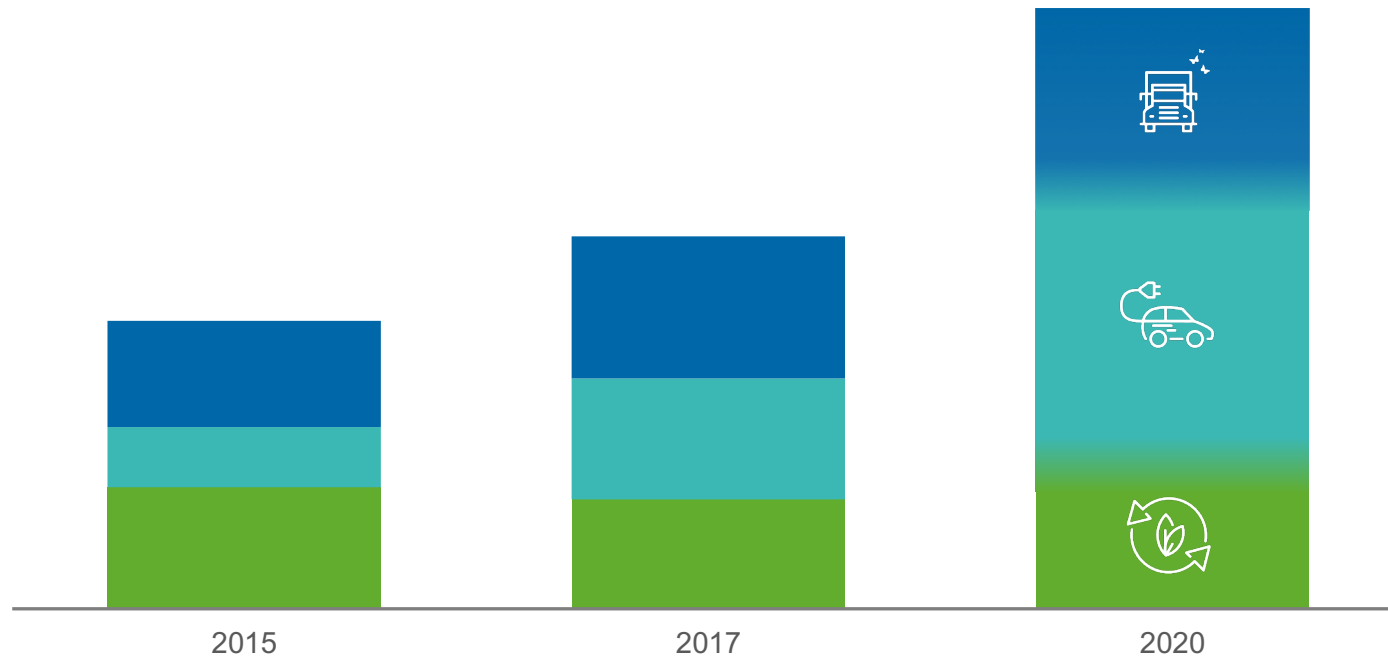
Rebalanced  
the portfolio  
& earnings  
contributions



Turned  
sustainability  
into a greater  
competitive edge



# Rebalanced the portfolio & earnings contributions



## REBIT DISTRIBUTION PER SEGMENT

- Recycling ●
- Energy & Surface Technologies ●
- Catalysis ●



# Horizon 2020 as presented in 2015



Clear leadership  
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materials and  
recycling



Doubled  
the size of the  
business in  
terms of earnings



Rebalanced  
the portfolio  
& earnings  
contributions



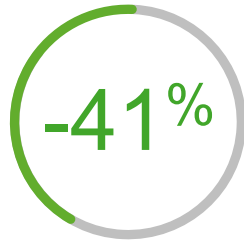
Turned  
sustainability  
into a greater  
competitive edge



## Turned sustainability into a greater competitive edge



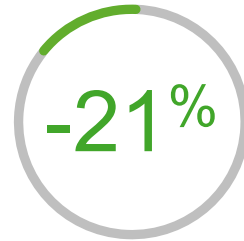
## Reduced emissions and energy consumption despite growth



**Metal emissions to air\***



**Metal emissions to water\***



**Energy consumption\***



\*vs 2015 benchmark





**Turned sustainability  
into a greater competitive edge**



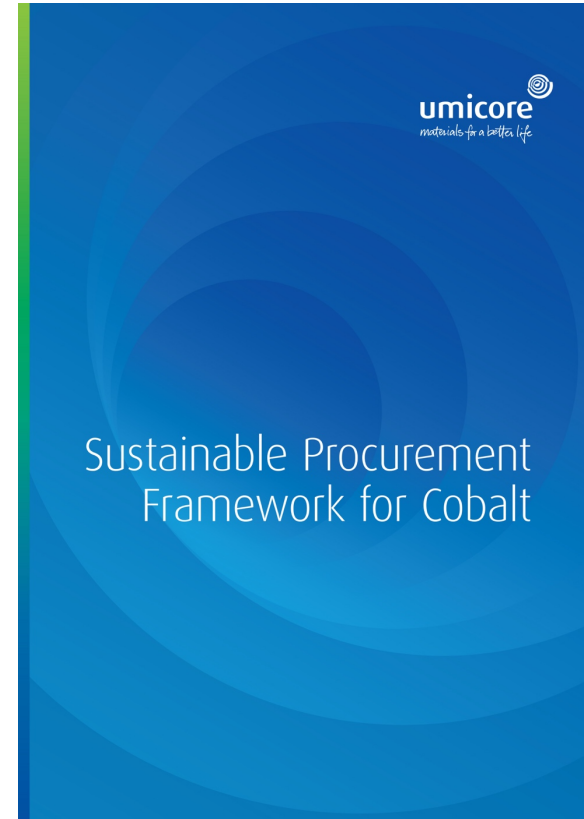
## Responsible and ethical supply

Full alignment with the OECD Due  
Diligence Guidance for Responsible Supply  
Chains of Minerals from Conflict-Affected  
and High-Risk areas



\*vs 2015  
benchmark

**CAPITAL  
MARKETS  
DAY** POWERING  
AHEAD



# Horizon 2020 as presented in 2015



Clear leadership  
in clean mobility  
materials and  
recycling



Doubled  
the size of the  
business in  
terms of earnings



Rebalanced  
the portfolio  
& earnings  
contributions



Turned  
sustainability  
into a greater  
competitive edge



# Clear leadership in clean mobility materials and recycling



Recycling  
Hoboken





# Clear leadership in clean mobility materials and recycling



Battery Recycling

Hoboken





# Clear leadership in clean mobility materials and recycling



Catalysis

Haldor Topsoe  
and Ordeg  
acquisition





# Clear leadership in clean mobility materials and recycling



Battery Materials

Cheonan







# Record investments € 1.1 billion cathode material expansion



Press release

Regulated information - Inside information  
8 May 2017 - 08:30 CET

## Umicore to boost capacity in cathode materials

Umicore announced today an investment programme of € 300 million between 2017 and 2019 to further increase its production of NMC (nickel-manganese-cobalt) cathode materials for lithium-ion rechargeable batteries. NMC is the preferred cathode material technology for rechargeable batteries used in vehicle electrification and global demand is increasing fast. The demand for Umicore's NMC materials is outpacing the market by a significant margin and the increased capacity will enable Umicore to cater for a surge in customer orders. The investment will also enable Umicore to meet growing demand for its proprietary high-energy LCO (lithium cobalt oxide) cathode materials used in high-end consumer electronics.

### Growth acceleration

Rechargeable Battery Materials is powering ahead with a new investment of € 660 million in China and Europe that will bring total capacity to at least 175,000 metric tons by 2021.

Given this growth acceleration Umicore now sees an upside potential of some 35 to 45% compared to the original Horizon 2020 recurring EBIT target, while maintaining the 15%+ ROCE target at Group level. This assumes current macroeconomic conditions continue to prevail.



Regulated information

27 April 2016

## Umicore to triple capacity for rechargeable battery cathode materials by 2018

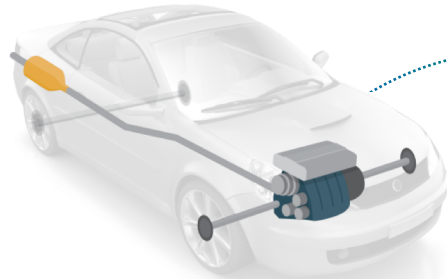
Umicore announced today an acceleration of its capacity expansion investments for NMC (nickel manganese cobalt) cathode materials. The acceleration is required to meet a surge in demand for materials used in hybrid and electric vehicles.

The expansion program entails investments of some € 160 million over a period of three years at the company's existing facilities in Cheonan (South Korea) and Jiangmen (China), as well as greenfield investments on adjacent land in both locations. Umicore will deploy its latest generation of proprietary production technologies which will enable the company to triple existing capacity by the end of 2018 across a broad range of material grades. These are in compliance with the very highest quality standards for the automotive industry. The new capacity should start coming on stream in the second part of 2017.

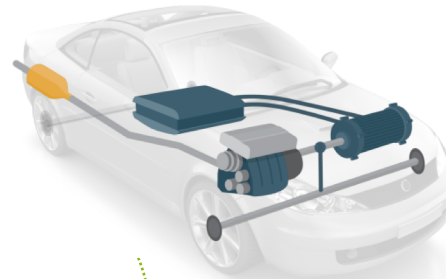


# Unique position in clean mobility

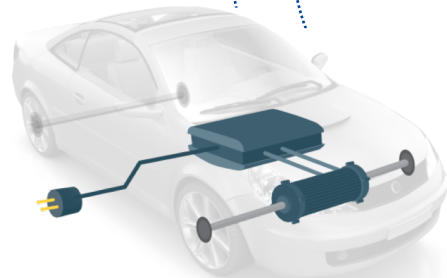
ICE  
Emission control  
catalysts



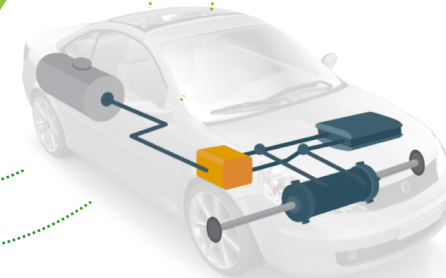
(p)HEV  
Battery materials  
and emission  
control catalysts



BEV  
Battery materials



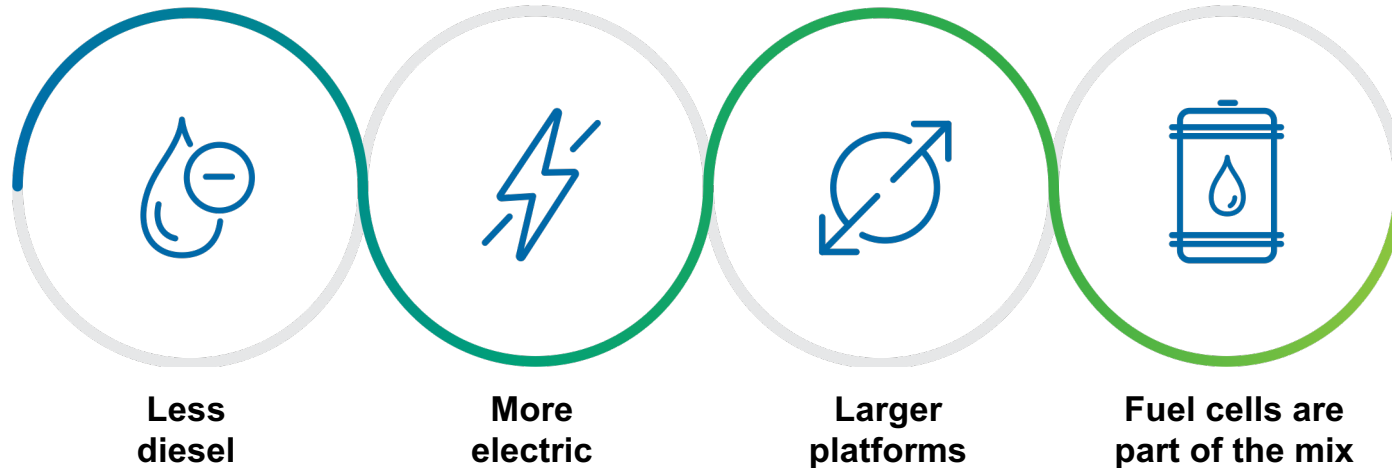
Fuel cells  
Electro-catalyst and  
battery materials



# Move to clean mobility

## Diversified drive trains with larger and fewer platforms

### FUTURE MIX HAS EVOLVED SINCE 2015



**The certainty is diversity**

Technological flexibility is the only answer to mixed challenges

umicore<sup>®</sup>

materials for a better life