



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

# Umicore

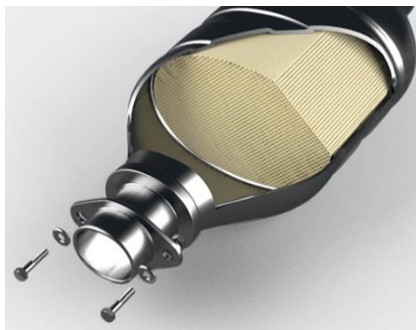
Investor Presentation  
September 28, 2017



# Introduction to Umicore

# Who we are

## A global materials technology and recycling group



One of three global leaders in emission control catalysts for light-duty and heavy-duty vehicles and for all fuel types



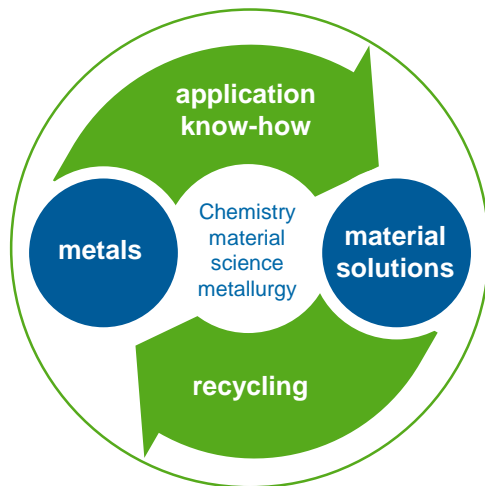
A leading supplier of key materials for rechargeable batteries used in electrified transportation and portable electronics



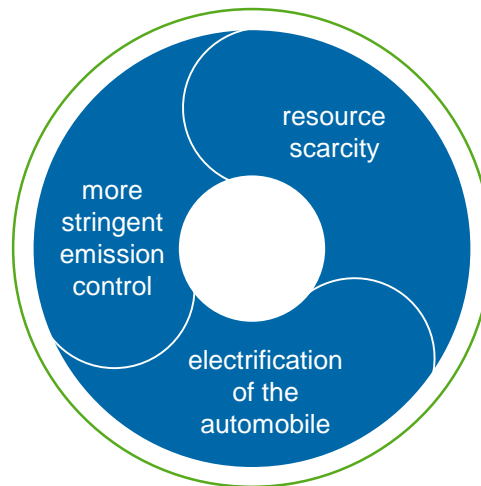
The world's leading recycler of complex waste streams containing precious and other valuable metals

# Our foundations

Unique business model



Supportive megatrends



Industry leader in sustainability



# Our Group structure



## CATALYSIS

Automotive Catalysts  
Precious Metals Chemistry



## ENERGY & SURFACE TECHNOLOGIES

Cobalt & Specialty Materials  
Rechargeable Battery Materials  
Electroplating  
Electro-Optic Materials  
Thin Film Products



## RECYCLING

Precious Metals Refining  
Jewellery & Industrial Metals  
Platinum Engineered Materials  
Precious Metals Management  
Technical Materials

Revenues\*  
million €

632.8

REBITDA\*  
million €

108.9

398.4

88.9

339.5

104.1

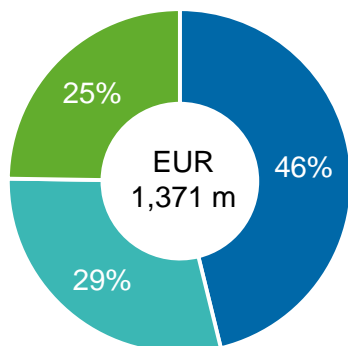


\*1H 2017

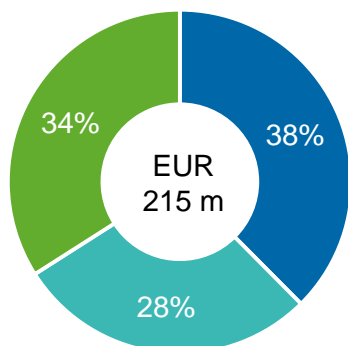
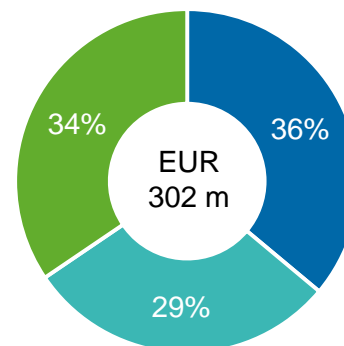
# Business group split for 1H 2017

## Excluding Corporate and Discontinued Operations

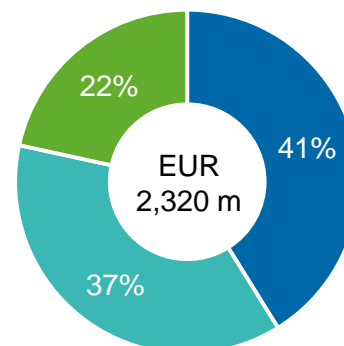
Revenues (excluding metal)



Recurring EBITDA



Recurring EBIT



Average capital employed



- Catalysis
- Recycling
- Energy & Surface Technologies

# Our Strategy – Horizon 2020

**By 2020 we expect to have...**



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

# Unique position in clean mobility materials

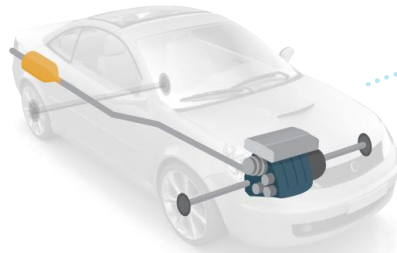
## Present across all drive trains



Leadership  
in clean mobility  
materials and  
recycling

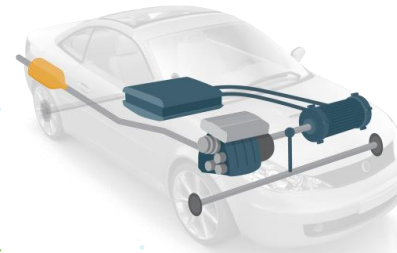
### Internal Combustion Engine

Umicore provides:  
Emission control catalysts



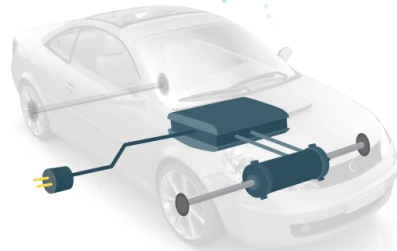
### Plug-In Hybrid Electric Vehicle

Umicore provides:  
Battery cathode materials and  
emission control catalysts



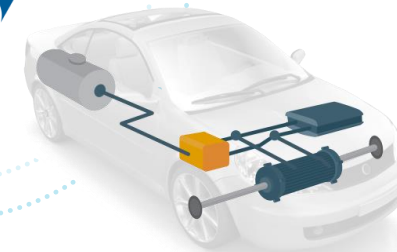
### Full Electric Vehicle

Umicore provides:  
Battery cathode materials



### Fuel cells

Umicore provides:  
Electro-catalyst and  
battery cathode materials





# Unique position in clean mobility materials

## Full service offering vs competitors

✓✓✓ Incumbent  
✓ Early stage

Automotive catalysts



Battery materials



Fuel cell catalysts



Refining & recycling services

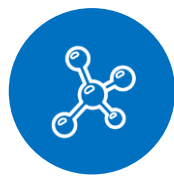


Leadership in clean mobility materials and recycling

	Automotive catalysts	Battery materials	Fuel cell catalysts	Refining & recycling services
Umicore	✓✓✓	✓✓✓	✓	✓✓✓
Automotive catalyst competitors	✓✓✓	✓	✓	✓ (incumbent in spent automotive catalysts)
Battery material competitors		✓✓✓	✓	
Fuel cell catalyst competitors	✓✓✓		✓	✓

# Unique position in recycling

## Metallurgical leadership and closed loop offering



**Unique technologies in Hoboken** for treating complex residues and by-products



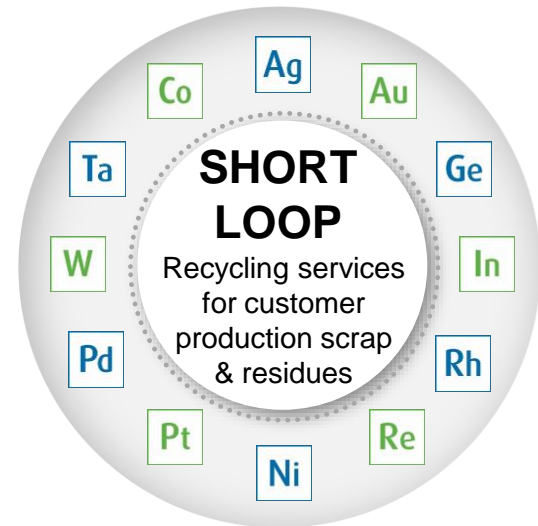
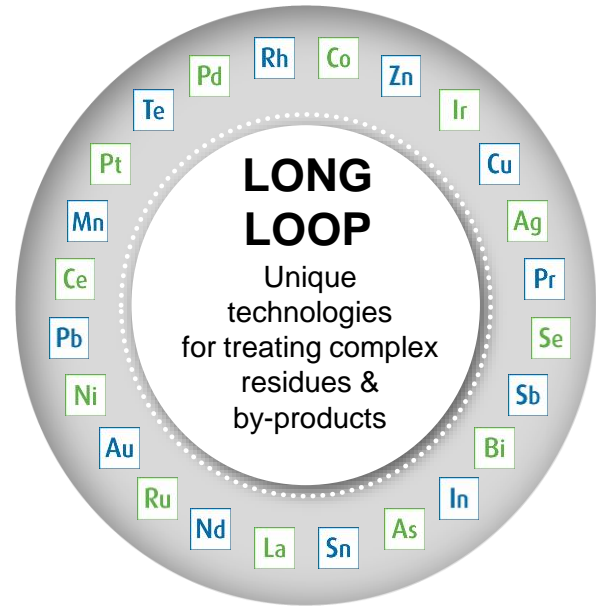
**Closing the loop** in product businesses by offering recycling services



**Over 200** input streams

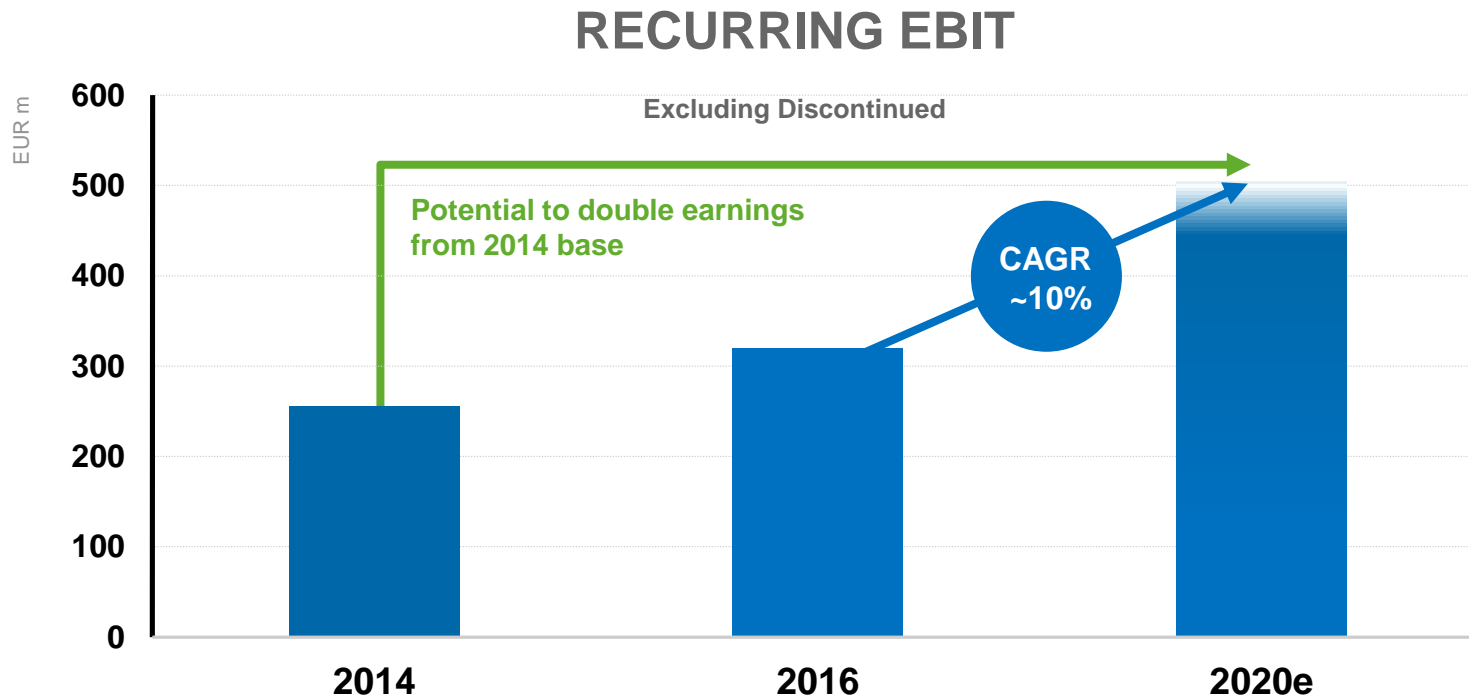


Recovery of **20 metals**




Leadership in clean mobility materials and recycling

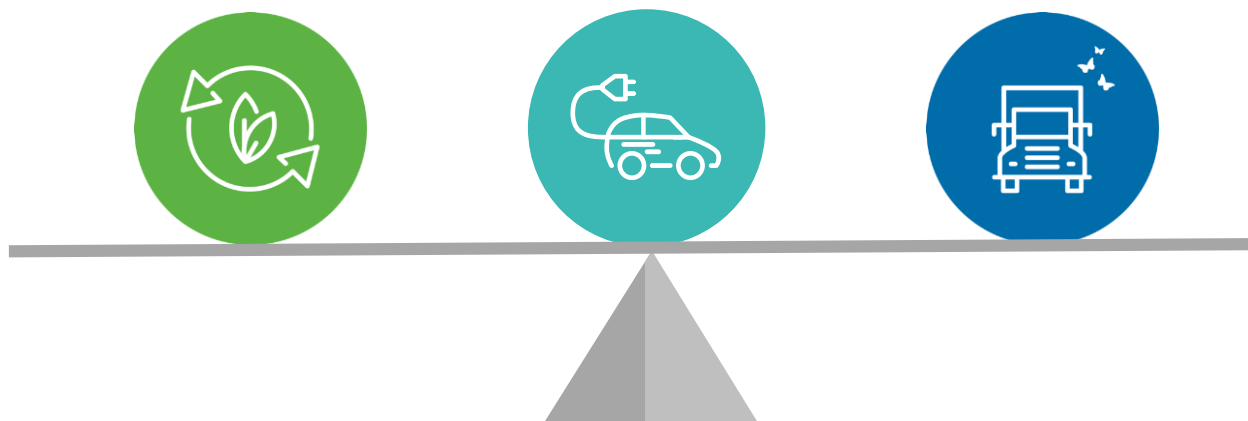
# Doubling the earnings



Double the size of the business in terms of earnings

 Increase average ROCE to beyond 15% target

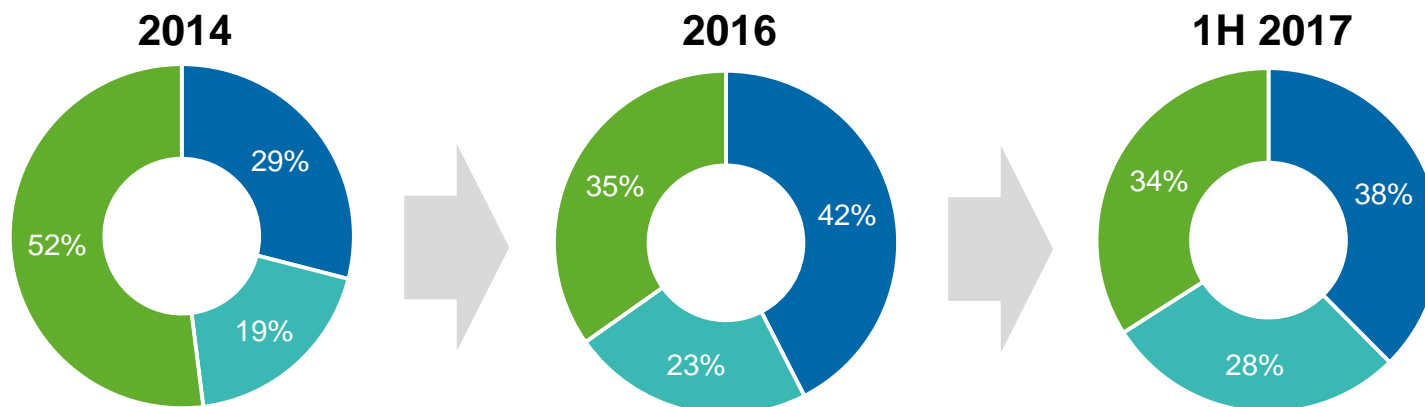
# Rebalancing the Portfolio



Rebalance the portfolio & earnings contributions

**More significant relative contribution expected from both Catalysis and Energy & Surface Technologies in 2020**

## Recurring EBIT

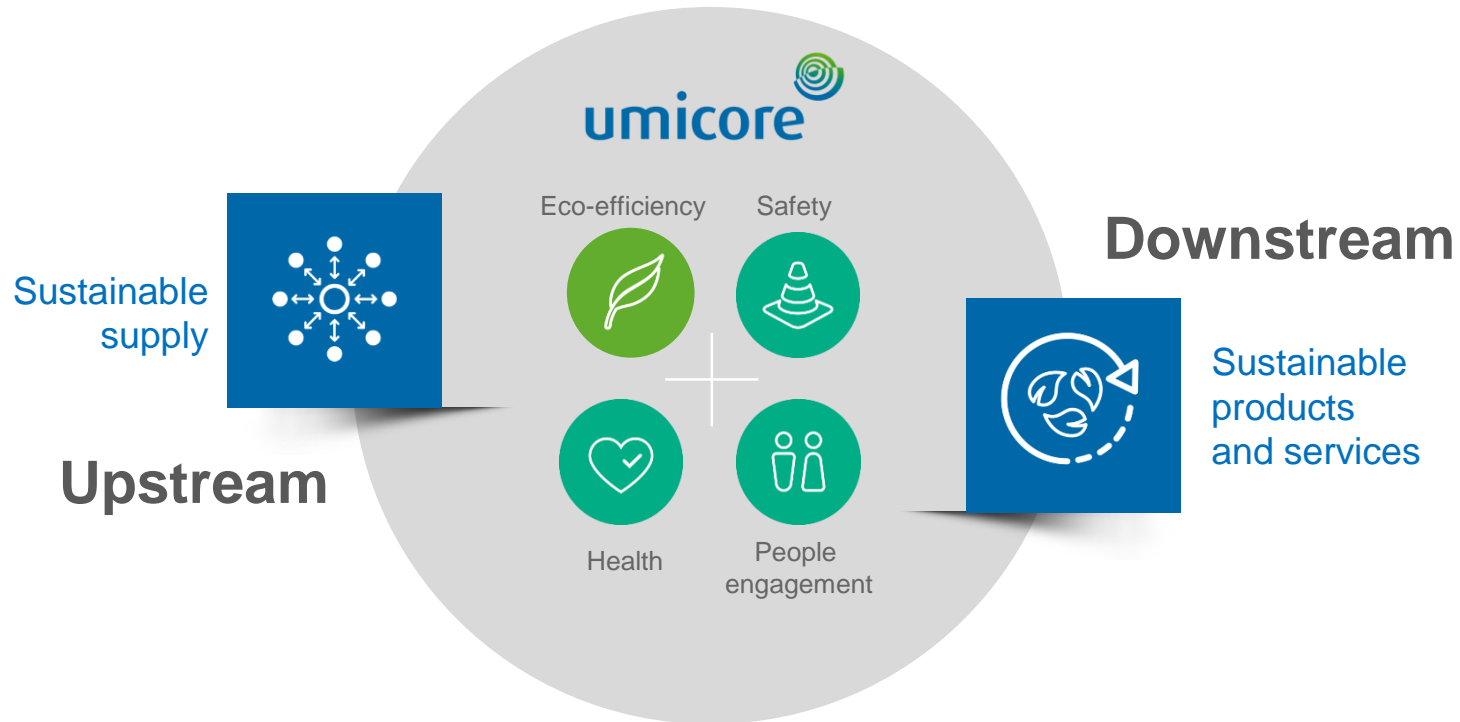


- Catalysis
- Recycling
- Energy & Surface Technologies

# Turning sustainability into a greater competitive edge



Turn  
sustainability  
into a greater  
competitive edge



We have transformed Umicore into a sustainability leader over the past 15 years

# Global presence

## 10,400 people, 61 industrial sites

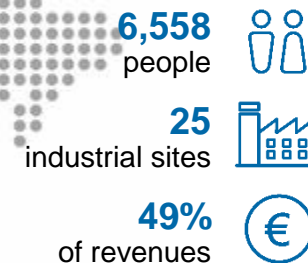
### North America



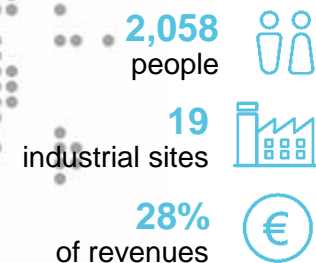
### South America



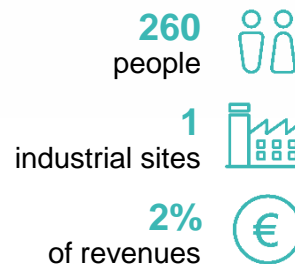
### Europe



### Asia-Pacific



### Africa






# Rechargeable Battery Materials

**Focus on recent growth  
investments**

# A leading player in the industry

## The strategy for success

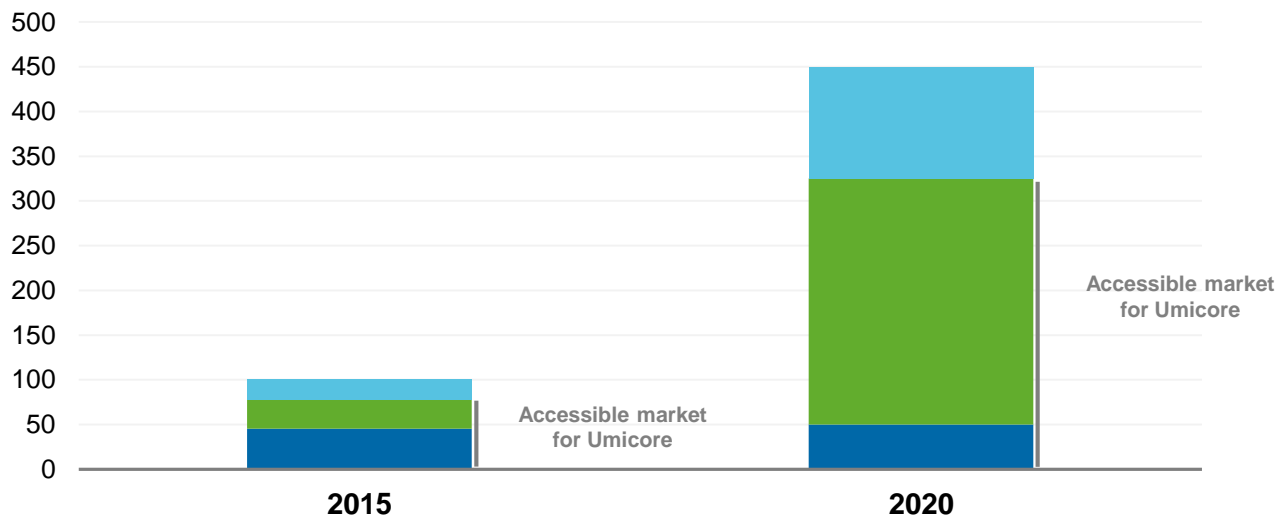
- 
 • Offering a broad spectrum of cathode materials, an advanced product roadmap and strong application support
- 
 • Operating the most efficient factories with a large industrial footprint close to the customers.
- 
 • Engaging in strategic key customer relationships and providing peace of mind via superior supply chain partnerships

Technology leadership and a proven quality track record combined with a strong application know-how are key for business success



# Strong market growth projections

**Cathode materials market (volume indexed)**  
**Current view**



- LCO (including high end)
- NMC (including high Ni) / NCA
- Other chemistries (LFP, LMO)

- Vehicle electrification driven by regulatory push and customer pull
- Significant impact on NMC, the preferred chemistry for vehicle electrification

# Umicore outpacing NMC market growth

- **Sharp uplift in orders from a diversified customer base** for Umicore's NMC cathode materials used in xEV and E-buses, outpacing global market growth
- Confirmation of **Umicore's unique positioning**
  - Longstanding presence in battery materials technology
  - Extensive IP portfolio
  - High-quality transportation-grade products and early qualification for transportation applications
  - Ability to scale up rapidly and massively to cater for customer needs
  - Closed loop offering
- **Drives value creation and underlines Umicore's leadership in clean mobility**

# Taking Umicore's capacity to a new dimension

- **€ 160 million** investment announced in April 2016 to triple existing capacity between 2015 and end of 2018 in South Korea and China
- **€ 300 million** investment announced in May 2017 to further expand cathode materials capacity in South Korea and China by 2020
- Combined investments will **increase total cathode materials production capacity more than six-fold** between 2015 and 2020
- Commissioning schedule:
  - Starting in H2 2017 for first investment wave
  - Starting in H2 2018 for recently announced expansion wave
- Both expansions deploy the **latest proprietary production technologies**

# Financials

# Highlights H1 2017

- **Strong performance: revenues +13% and REBIT +26% from continued operations**
- Growth across segments, most pronounced in Energy & Surface Technologies
- **Significant organic investments and acquisitions:**
  - Six fold expansion cathode materials production in South Korea and China on track; first production lines commissioned towards end 2017
  - In Automotive Catalysts, acquisition of remaining 50% of Ordeg JV in Korea and agreement to acquire HDD activities of Haldor Topsoe
- **Exclusive negotiations on sale of Building Products**
- **Private debt placement** in Europe and US for close to € 700 million
- **Decision to stop with quarterly trading updates;** continuing interaction with investors to address strategic themes
- **Interim dividend of € 0.65**

# Outlook 2017

Umicore expects full year recurring EBIT to be at the high end of the previously guided range of € 370 million to € 400 million assuming current market conditions continue to prevail. Excluding discontinued operations, this equates to the high end of a range of € 355 million to € 385 million.

# Outlook 2017



## CATALYSIS

- Patterns observed in the first half year expected to continue
- Higher revenues for full year compared to 2016, albeit with less pronounced growth in absence of major legislative steps



## ENERGY & SURFACE TECHNOLOGIES

- Higher volumes for Rechargeable Battery Materials on the back of surging customer demand for xEV
- Market trends in other business units expected to be supportive with usual seasonality



## RECYCLING

- Higher volumes as a result of the capacity ramp-up in Hoboken
- Maintenance shutdown scheduled in H2 similar to prior year

# Annexes



# Business Group key figures 2015 & 2016

## CATALYSIS

million €	2015	2016
Revenues	1,093.7	1,163.4
Recurring EBITDA	172.3	203.4
Recurring EBIT	124.2	152.5
of which associates	8.8	9.2
EBIT	115.9	125.6
R&D expenditure	91.1	102.0
Capital expenditure	78.8	46.5
Recurring EBIT margin	10.6%	12.3%
ROCE	13.4%	16.6%

## ENERGY & SURFACE TECHNOLOGIES

million €	2015	2016
Revenues	586.9	610.2
Recurring EBITDA	112.6	131.6
Recurring EBIT	70.2	81.7
of which associates	(3.5)	1.0
EBIT	37.3	74.2
R&D expenditure	20.3	20.2
Capital expenditure	42.5	144.3
Recurring EBIT margin	12.6%	13.2%
ROCE	11.0%	11.7%

# Business Group key figures 2015 & 2016

## RECYCLING


million €	2015	2016
Revenues	662.9	641.2
Recurring EBITDA	204.3	187.2
Recurring EBIT	141.5	124.9
EBIT	132.5	115.5
R&D expenditure	21.2	23.0
Capital expenditure	83.0	72.3
Recurring EBIT margin	21.3%	19.5%
ROCE	30.7%	26.3%

## DISCONTINUED OPERATIONS

million €	2015	2016
Revenues	291.8	258.1
Recurring EBITDA	39.6	30.7
Recurring EBIT	31.0	30.6
of which associates	0.7	0.9
EBIT	19.6	-34.2
R&D expenditure	3.0	3.1
Capital expenditure	27.5	14.5
Recurring EBIT margin	10.4%	11.5%
ROCE	14.9%	20.0%

# Financial calendar

<b>9 February 2018</b>	Full Year Results 2017
<b>26 April 2018</b>	Ordinary General Meeting of Shareholders
<b>31 July 2018</b>	Half Year Results 2018



## Forward-looking statements

This presentation contains forward-looking information that involves risks and uncertainties, including statements about Umicore’s plans, objectives, expectations and intentions.

Readers are cautioned that forward-looking statements include known and unknown risks and are subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond the control of Umicore.

Should one or more of these risks, uncertainties or contingencies materialize, or should any underlying assumptions prove incorrect, actual results could vary materially from those anticipated, expected, estimated or projected.

As a result, neither Umicore nor any other person assumes any responsibility for the accuracy of these forward-looking statements.

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