



umicore

materials for a better life

electric
drive

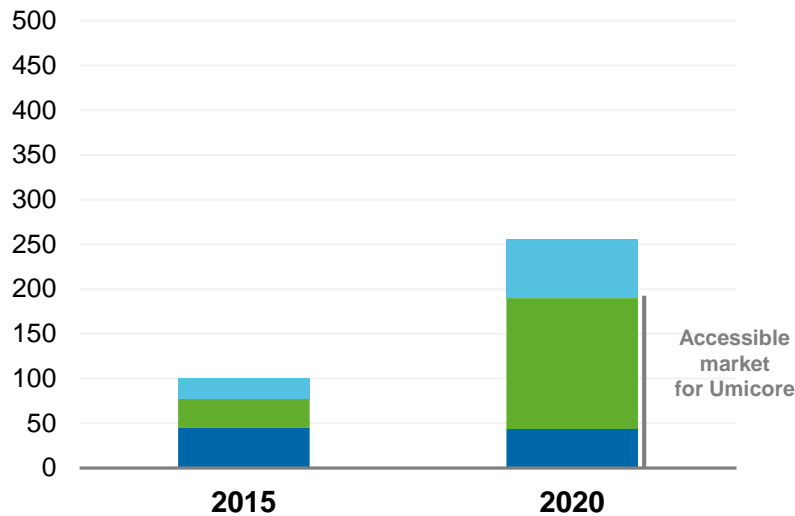
A new dimension for Umicore's
cathode materials

Accelerated expansion of cathode materials production capacity

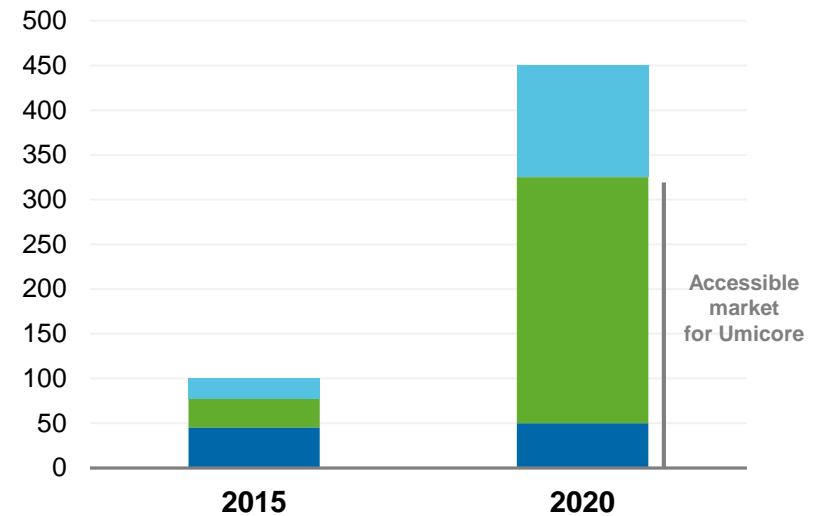
- **Sharp uplift in Umicore's orders for NMC cathode materials** for xEV
- **Outpacing global market growth** due to unique positioning
- Decision to **invest €300 million to accelerate expansion** of cathode materials capacity, on top of investment of €160 million currently in execution
- Combined investments to increase total cathode material production capacity more than six fold between 2015 and 2020, with revenue ramp-up starting in 2017
- **Drives value creation and underlines Umicore's leadership in clean mobility**

Upscaled NMC market growth projections

Cathode materials market (volume indexed)
Capital Markets Day high case - Sept 2015



Cathode materials market (volume indexed)
Current view




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

- Accelerated xEV adoption 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, including E-buses
- 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

Taking capacity to a new dimension

- **€300 million investment over 3 years** to further expand cathode materials capacity in South Korea and China. Project entails greenfield investments.
- This investment comes on top of previously announced investment of € 160 million
- Combined investments will **increase total cathode materials production capacity more than six-fold** between 2015 and 2020
- Commissioning schedule:
 - Starting in H2 2017 for current investment wave
 - Starting in H2 2018 for new expansion wave
- Both expansions deploy the **latest proprietary production technologies**

Rechargeable Battery Materials: a strong contributor to Horizon 2020 objectives



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

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