Growth, returns and cashflows
## Horizon 2020 strategy financial targets

Delivered on financial targets

<table>
<thead>
<tr>
<th>Accelerating profitable growth</th>
<th>2015 – 2020 Targets</th>
<th>2020 Values</th>
<th>2021 Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAGR revenues of 7 %</td>
<td>7 %</td>
<td>9 %</td>
<td></td>
</tr>
<tr>
<td>CAGR adj. EBITDA of 8 %</td>
<td>12 %</td>
<td>18 %</td>
<td></td>
</tr>
<tr>
<td>Double adj. EBIT to € 0.5bn by 2020</td>
<td>Achieved in 2018</td>
<td>Tripled by 2021</td>
<td></td>
</tr>
<tr>
<td>Group ROCE &gt; 15 %</td>
<td>12.1 %</td>
<td>22.2 %</td>
<td></td>
</tr>
</tbody>
</table>

High investments & strong returns

- Delivered on top-line growth ambition
- Not at the detriment of margins – double digit earnings growth
- Strong value creation notwithstanding ROCE headwinds due to delayed capacity utilization in Rechargeable Battery Materials in China
- Record 2021 results with record precious metal prices as accelerator
Horizon 2020 strategy drove step-change
Doubled in size: earnings, capital employed and value

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>STEP CHANGE</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce ('000)</td>
<td>8.8</td>
<td>+ 26 %</td>
<td>11.1</td>
</tr>
<tr>
<td>Revenues (€ bn)</td>
<td>2.3</td>
<td>x 1.7</td>
<td>4.0</td>
</tr>
<tr>
<td>adj EBITDA (€ bn)</td>
<td>0.47</td>
<td>x 2.7</td>
<td>1.25</td>
</tr>
<tr>
<td>Average Capital Employed (€ bn)</td>
<td>2.2</td>
<td>x 2.0</td>
<td>4.4</td>
</tr>
<tr>
<td>Enterprise Value (€ bn)</td>
<td>4.5</td>
<td>x 2.1</td>
<td>9.6</td>
</tr>
<tr>
<td>Market Cap (€ bn)</td>
<td>4.2</td>
<td>x 2.1 ~ 15% annual TSR</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Doubled size of the Group driven by strong underlying market growth and accelerated by metal prices

Substantial growth investments, yet to generate full payback potential

Strong double digit shareholder returns (with increased volatility in recent years)

Balanced earnings growth across different business groups

Enterprise Value and Market Cap calculated end of calendar year
TSR = Total Shareholder Return = Market Cap accretion (eoy) + dividend payout
Workforce = fully consolidated entities

2021 at average 2020 precious metal prices
Metal price assumptions going forward
Anticipate non-linear price changes interlinked to the pace of electrification

Strategy is *not* predicated on today’s high precious metal prices

- Near-term structural supply/demand tightness to support prices
- Over time, gradually lower PGM demand for emission control applications
- Except for Pt, supported by a.o. fuel cell growth
- Two price sets considered: gradual PGM price normalization scenario vs stable pricing at comparable average 2020 levels* (Recycling & Catalysis sensitivity)

Battery materials metals (Co, Ni & Li) simulated at 2021 average prices

- Probability of continued price volatility in view of emerging battery market characteristics
- Battery Recycling supply expected to become a stabilizing factor as from the end of the decade

* Au, Ag, Pt, Pd, Rh

Historical average precious metal prices
& average third party projections (€/kg)

Based on following sources (May): Barclays, BMO, BNP Paribas, BofA, Canaccord, CIBC, Credit Suisse, Desjardins, Deutsche, Goldman Sachs, HSBC, Jefferies, JP Morgan, Leman, Macquarie, National Bank of Canada, Natixis, NSB, Raymond James, Royal Bank of Canada, Scotiabank, GBM, Stifel, UBS
Differentiated sources of value creation
Balancing growth, returns and cash flows for the Group

<table>
<thead>
<tr>
<th>Value driver</th>
<th>Contribution to Umicore’s value creation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earnings growth</strong></td>
<td>Low</td>
</tr>
<tr>
<td>(adj EBITDA growth)</td>
<td></td>
</tr>
<tr>
<td><strong>Return-driver</strong></td>
<td>Low</td>
</tr>
<tr>
<td>(adj ROCE &gt; Cost of Capital)</td>
<td></td>
</tr>
<tr>
<td><strong>Free Operational CF generation</strong></td>
<td>Low</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td><strong>High</strong></td>
</tr>
</tbody>
</table>

- Attractive earnings growth driven by Rechargeable Battery Materials & Battery Recycling Solutions
- Group growth rate depends on metal prices
- Group returns above Cost of Capital across the plan despite sizeable growth investments
- Reinvest significant free cash flows of Catalysis & Recycling in E&ST
- Cash flow payback as from second half of decade
Umicore Group earnings growth ambition

Secular earnings growth while maintaining attractive historical margins

- **adj EBITDA**
  - **€ 1.25 bn** at 2020 rates
  - Double digit CAGR
  - + 18% CAGR
  - + 13% at 2020 rates


- 2026 ambition
  - € 2.5 bn to € 3 bn vs 2021
  - appr. € 1.5 bn vs 2026
  - > 20% margin

- 2030 vision
  - € 2.5 bn to € 3 bn vs 2026
  - > 20%

**Phased growth conditional upon value creative returns from contracts**

- **Group margin profile**
  - **Adj EBITDA margin**
    - 2021: 31%
  - **Adj EBIT margin**
    - Average margins 2022-2030

**Ambitious 2026 growth plan** with
- Rechargeable Battery Materials as transformative factor and growth in Catalysis

**Growth expected to be non-linear and dependent on metal price trends**

**Substantial growth beyond 2026** from battery materials, battery recycling and fuel cells

**Attractive Group margins** in line with historic average (assuming normalized PGM prices)
Catalysis
Balancing growth, returns and cash flows

<table>
<thead>
<tr>
<th>Value driver</th>
<th>Low Contribution to Umicore’s value creation</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings growth (adj EBITDA growth)</td>
<td><img src="image1" alt="Diagram" /></td>
<td>Fuel Cells</td>
</tr>
<tr>
<td>Return-driver (adj ROCE &gt; Cost of Capital)</td>
<td><img src="image2" alt="Diagram" /></td>
<td>Cost of Capital</td>
</tr>
<tr>
<td>Free Operational CF generation</td>
<td><img src="image3" alt="Diagram" /></td>
<td></td>
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</tbody>
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- Capture unprecedented value peak in Automotive Catalysts in the decade
- Prepare growth acceleration in fuel cell catalysts after mid-decade
- Reduction in Cap Empl in Automotive Catalysts to drive high(er) returns
- Initial payback in fuel cells towards end of decade (lower capital intensity)
- High free cash flows over the plan
- Transition from growth to free cash flow focused business model in Automotive Catalysts
Catalysis

Committed to capture medium-term growth while driving efficiency & cash

Revenues
adj EBITDA
margin

2021
€ 1.69 bn
€ 0.40 bn
24 %

2026 ambition
app. € 2.0 bn
close to € 0.5 bn
> 20 %

2030 vision
> 2021 and < 2026
comparable vs 2026
< 30 %

Fuel cell catalysts
in % of adj EBITDA

< 5 %
< 10 %

Mid single digit CAGR 2021-2026
Double digit CAGR at 2020 rates

Attractive medium-term growth from car market recovery, final legislation cycle and HDD expansion

Maintain margins above historical average through continued operational efficiency focus

Substantial free cash flows accelerating as from mid-decade

Strong position in fuel cells with meaningful growth contribution as from mid-decade and material contribution as from next decade

Substantial fuel cell acceleration after 2030
Balancing growth, returns and cash flows

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<td>Free Operational CF generation</td>
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- Unprecedented transformational growth in Rechargeable Battery Materials
- Partial payback by 2026 from high growth investments in Rechargeable Battery Materials; becoming value creative shortly thereafter
- Significant upfront growth investments dampen free cash flows; strong free cash flows once new greenfield sites are ramped-up

Trend vector from 2021-2026 to 2026-2030
E&ST

Rechargeable Battery Materials to drive transformative growth

Revenues
- 2021: €1.17 bn
- 2026 ambition: €2.5 bn to €3 bn vs 2021
- 2030 vision: €2.5 bn to €3.5 bn vs 2026

adj EBITDA margin
- 2021: €0.26 bn, 22%
- 2026 ambition: €0.6 to 0.8 bn
- 2030 vision: higher vs 2026

Non-linear approx. 20% CAGR 2021-2026 or approx. x 2.5

Step-change in revenues & earnings as from mid-decade driven by Rechargeable Battery Materials

Robust underlying EBITDA margins despite impact from substantial upfront growth & start-up costs. Margin increase after 2026

Material but phased investments conditional upon value creative returns from contracts

Non-Rechargeable Battery Materials businesses target selective growth, maintaining +20% adj EBITDA margins

Phased growth conditional upon value creative returns from contracts
## Recycling

### Balancing growth, returns and cash flows

**Value driver**

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<thead>
<tr>
<th>Low</th>
<th>Contribution to Umicore’s value creation</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earnings growth</strong> (adj EBITDA growth)</td>
<td>Normalizing PGM prices</td>
<td>Stable PGM prices</td>
</tr>
<tr>
<td><strong>Return-driver</strong> (adj ROCE &gt; Cost of Capital)</td>
<td>Cost of Capital</td>
<td></td>
</tr>
<tr>
<td><strong>Free Operational CF generation</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Low**
  - Earnings path to depend on prevailing metal prices
  - Initial battery recycling payback second half of decade
  - Highly value creative returns across the plan (even with lower metal prices)
  - Battery recycling capital investment to somewhat dilute returns
  - Significant free cash flows despite important mid-decade battery recycling investments

**Trend vector from 2021-2026 to 2026-2030**
Recycling

Strong margins, returns & cash flows and Battery Recycling kicking in mid-decade

Earnings dependent on assumed metal prices but continue to generating superior margins even at normalized PGM prices

Includes substantial Battery Recycling Solutions - related development costs up to 2025

Includes one initial large-scale battery recycling plant, operational by 2026 with full contribution by end of the decade. Potential for additional growth

Substantial free cash flow generation, accelerating as from battery recycling plant commissioning

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues adj EBITDA</th>
<th>adj EBITDA margin</th>
<th>Battery Recycling in % of adj EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>€ 1.11 bn</td>
<td>€ 0.64 bn</td>
<td>58 %</td>
</tr>
<tr>
<td>2026 ambition</td>
<td>&gt; € 1.0 bn</td>
<td>close to € 0.5 bn</td>
<td>&gt; 40 %</td>
</tr>
<tr>
<td>2030 vision</td>
<td>&gt; € 1.0 bn</td>
<td>&lt; 40 %</td>
<td></td>
</tr>
</tbody>
</table>

Sizeable additional battery recycling growth potential

High single digit CAGR at 2020 rates normalization well above historical levels

2026 assuming a gradual PGM price normalization scenario at over 2020 PGM prices

Includes one initial large-scale battery recycling plant, operational by 2026 with full contribution by end of the decade. Potential for additional growth

Substantial free cash flow generation, accelerating as from battery recycling plant commissioning
Growth investments to accelerate
Over 3/4th of Group capex in battery materials, battery recycling & fuel cells

Capex 2015-2021

- € 2.8 bn

Capex 2022-2026*

- > € 5 bn

Phased capex and conditional upon value creative returns

<table>
<thead>
<tr>
<th>Investment Area</th>
<th>Capex as % of Group total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel cell capex as % of Catalysis</td>
<td>&lt; 20 %</td>
</tr>
<tr>
<td>Rechargeable Battery Materials capex as % of E&amp;ST</td>
<td>&gt; 90 %</td>
</tr>
<tr>
<td>Battery Recycling Solutions capex as % of Recycling</td>
<td>appr. 50 %</td>
</tr>
<tr>
<td>Total as % of Group total</td>
<td>&gt; 75 %</td>
</tr>
</tbody>
</table>

Umicore Capital Markets Day 2022
Capital allocation shift to accelerate
Doubling of capital employed subject to value creative returns

**Average Capital Employed**

- Catalysis
- E&ST
- Recycling

**Trend vector 2030 vs 2026**

- **GROUP**

**Close to doubling of average capital employed by 2026 (vs 2021)** driven by Rechargeable Battery Materials & Battery Recycling Solutions

**Catalysis**

- Stable base up to 2026 (incl. fuel cell investments);
- Significantly lower base as from mid-decade;
- Substantial working capital release anticipated

**E&ST**

- Grow to appr. 2/3rd of group capital base driven by Rechargeable Battery Materials expansion

**Recycling**

- Increase in capital base through large scale Battery Recycling plant & ESG investments in Hoboken

**Further growth beyond 2026** depending on growth pace in Rechargeable Battery Materials and Battery Recycling Solutions

**E&ST in % of average Group Cap Employed**

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2021</th>
<th>2026</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Cap Employed</td>
<td>~ 1/3rd</td>
<td>~ 50%</td>
<td>~ 2/3rd</td>
<td>&gt; 2/3rd</td>
</tr>
</tbody>
</table>

Group totals include Corporate. Capital Employed sensitive to prevailing metal prices through NWC. Projections assume gradual normalization of PGM prices and battery material metal prices in line with 2021 average price.
Capital allocation shift to accelerate

Group returns above cost of capital with some temporary dilution in E&ST

- **2026 ambition**
  - **Catalysis**: ~ 20%
  - **E&ST**: > 8%
  - **Recycling**: ~ 30%
  - **GROUP**: > 12.5%

- **2030 vision**
  - **Catalysis**: > 20%
  - **E&ST**: > 12.5%
  - **Recycling**: ~ 20%
  - **GROUP**: 15%

**Plan ambitions**

- **Lower capital employed base drives higher returns**
- **Near-term returns dampened** by Rechargeable Battery Materials’ growth costs and investments. Above cost of capital shortly after 2026
- **Highly value-creative returns** on higher capital base incl. Battery Recycling; assumes normalized PGM prices
- **Stay above cost of capital** across the plan and create substantial value towards end of decade once mid-decade investments are ramped-up

Capital Employed sensitive to prevailing metal prices through NWC
Operational cash flow profile
Substantial free cash flows in Catalysis & Recycling reinvested into E&ST

Cumulative cash flows 2022 - 2026
- Catalysis
- E&ST
- Recycling

€ 6 - 7 bn

Group free operational cash flow appr. break even

Potential for substantial operational free cash flows after 2026 depending on level of growth investments to accommodate post-2030 growth

Substantial free cash flows in Catalysis and Recycling Accelerating further beyond 2026
Reinvested in Rechargeable Battery Materials expansion
E&ST cash payback after capacity ramped-up (> 2026)

Free oper CF
Net capex + change in NWC
adj EBITDA

Group total includes Corporate
Free Operational CF defined as adj EBITDA – equity accounted contribution – Capex – change in NWC
Net capex includes co-financing
Funding levers
From full autonomous funding to co-funding partnership model

Policy unchanged:
Maintain Investment Grade status

<table>
<thead>
<tr>
<th>Embedded in group strategy</th>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strong free operational cash flow generation</strong></td>
<td><strong>Capital Market funding</strong></td>
</tr>
<tr>
<td>Catalysis &amp; Recycling as strong free cash flow generators</td>
<td>To accelerate Rechargeable Battery Materials expansion, conditional upon business &amp; return visibility.</td>
</tr>
<tr>
<td><strong>ESG-focused debt funding appetite</strong></td>
<td></td>
</tr>
<tr>
<td>Leverage on growing debt appetite &amp; capacity in the market for ESG- and electrification-focused projects</td>
<td></td>
</tr>
<tr>
<td><strong>Co-funding partnership model</strong></td>
<td></td>
</tr>
<tr>
<td>Customers open to participate in operational funding in return for capacity assurances &amp; technology commitment</td>
<td></td>
</tr>
<tr>
<td><strong>Joint Venture investment sharing</strong></td>
<td></td>
</tr>
<tr>
<td>Selective strategic JV set-ups allow to share the upfront investment burden in return for sharing the returns</td>
<td></td>
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<tr>
<td><strong>Grants and other funding incentive mechanisms</strong></td>
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<tr>
<td>Access substantial support funding for the electrification transformation as an established player with proven technology and industrialization skills</td>
<td></td>
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Optional:
- Grants and other funding incentive mechanisms
- Capital Market funding
- Selective strategic JV set-ups allow to share the upfront investment burden in return for sharing the returns
- Access substantial support funding for the electrification transformation as an established player with proven technology and industrialization skills
- To accelerate Rechargeable Battery Materials expansion, conditional upon business & return visibility.
materials for a better life