

ALTEO

POWERING
TOMORROW

ON THE ROAD TOWARDS
CIRCULAR ECONOMY

Hungarian Battery Days
Presentation by Anita Simon
Deputy-CEO @ALTEO

Agenda



1. Battery market overview



2. Snapshot of the recycling value chain



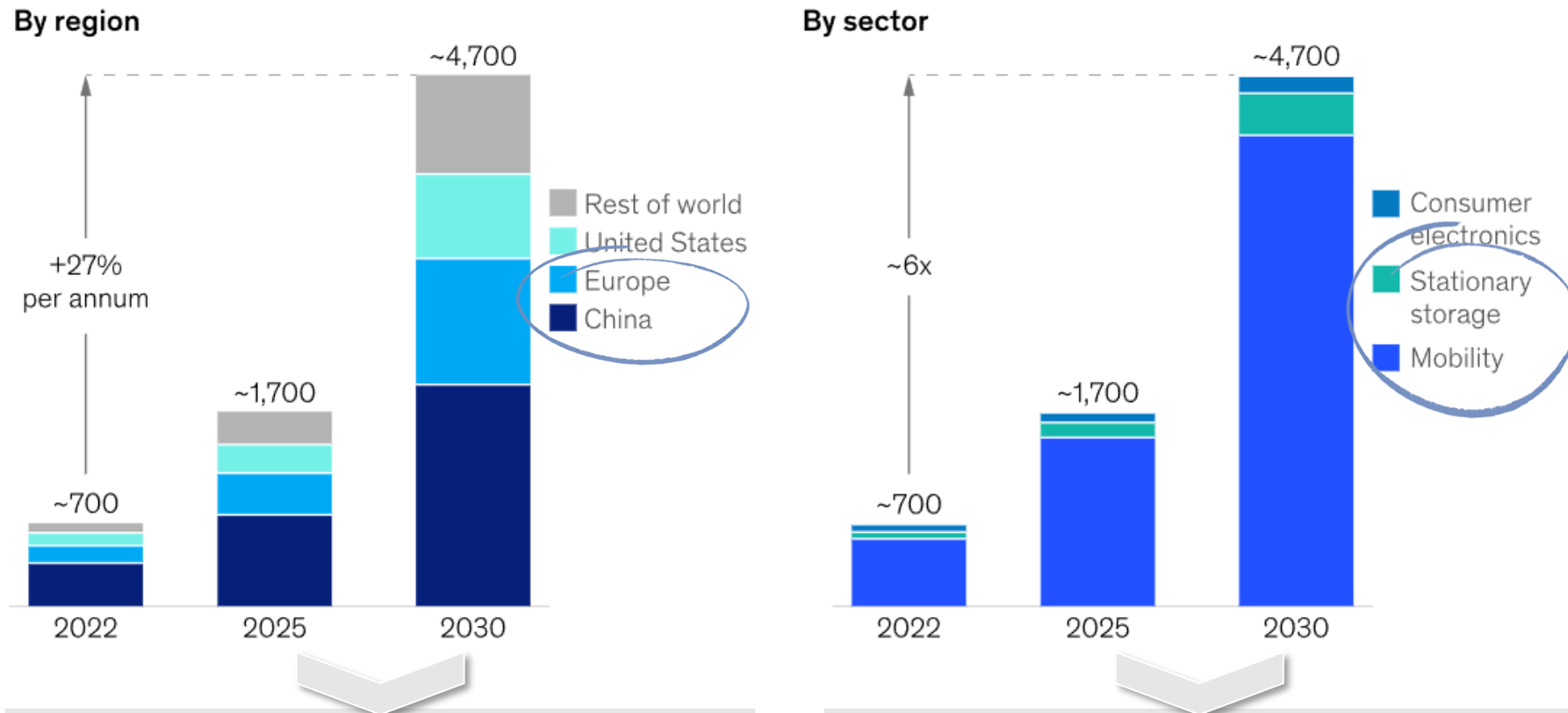
3. Key drivers of market growth



4. ALTEO's vision as a pioneer on this market

Rapid battery market growth mainly supported by electrification of transportation

Global Li-ion battery cell demand, GWh



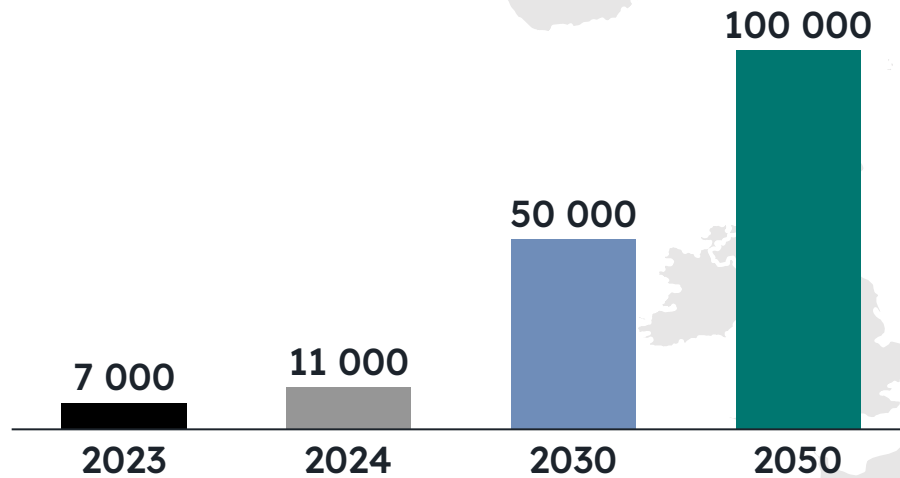
China clearly remains the dominant market, both in production and demand. However, Europe is catching up fast

Mobility (EV sales growth) is the key market driver, followed by the expansion of energy storage solutions



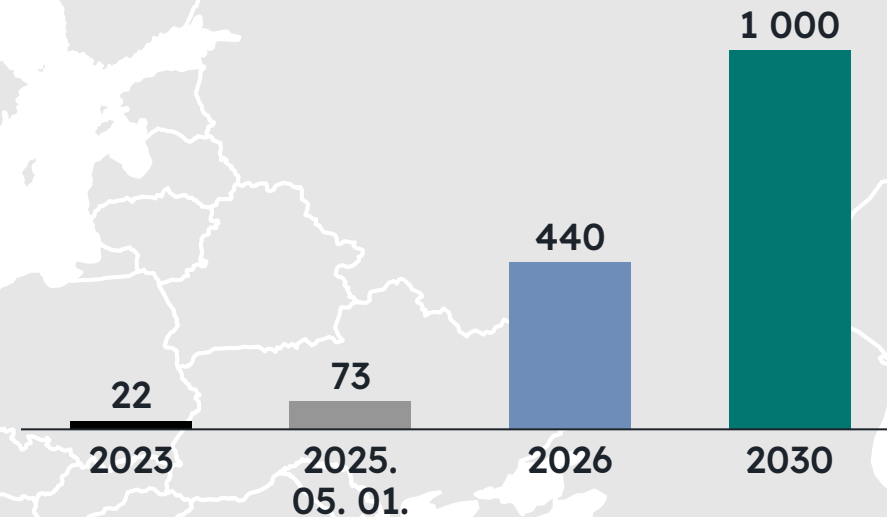
Europe and Hungary are moving fast toward a more flexible and sustainable energy system.

Battery energy storage capacity in **Europe** (MW)



- Battery storage capacity in Europe is projected to increase fivefold to more than 50 gigawatts (GW) by 2030, with an investment of approximately €80bn

Battery energy storage capacity in **Hungary** (MW)



- Hungary to significantly increase energy storage capacity by 2030 to 1 GW
- Rapid growth is driven largely by the spread of solar power

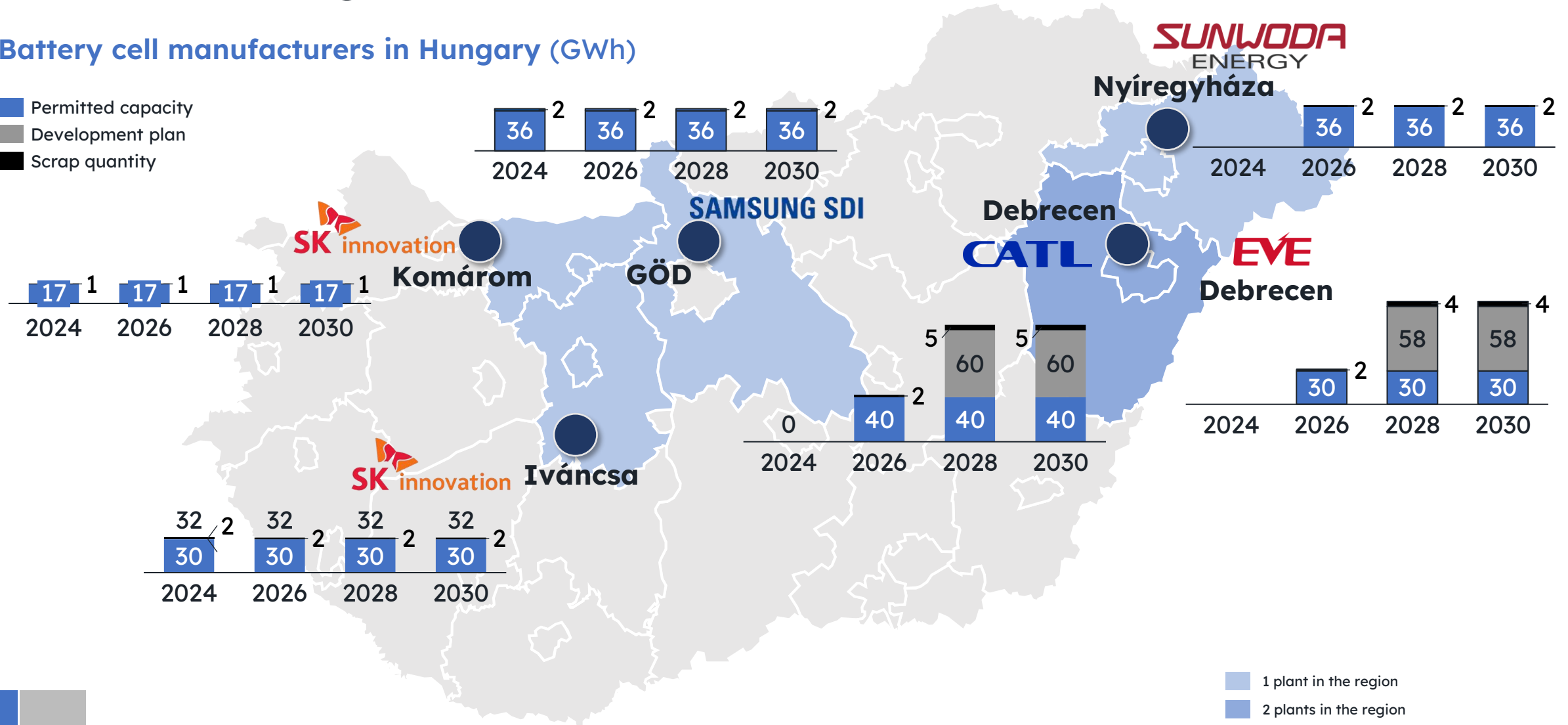


Hungary to capture the growth of battery manufacturing



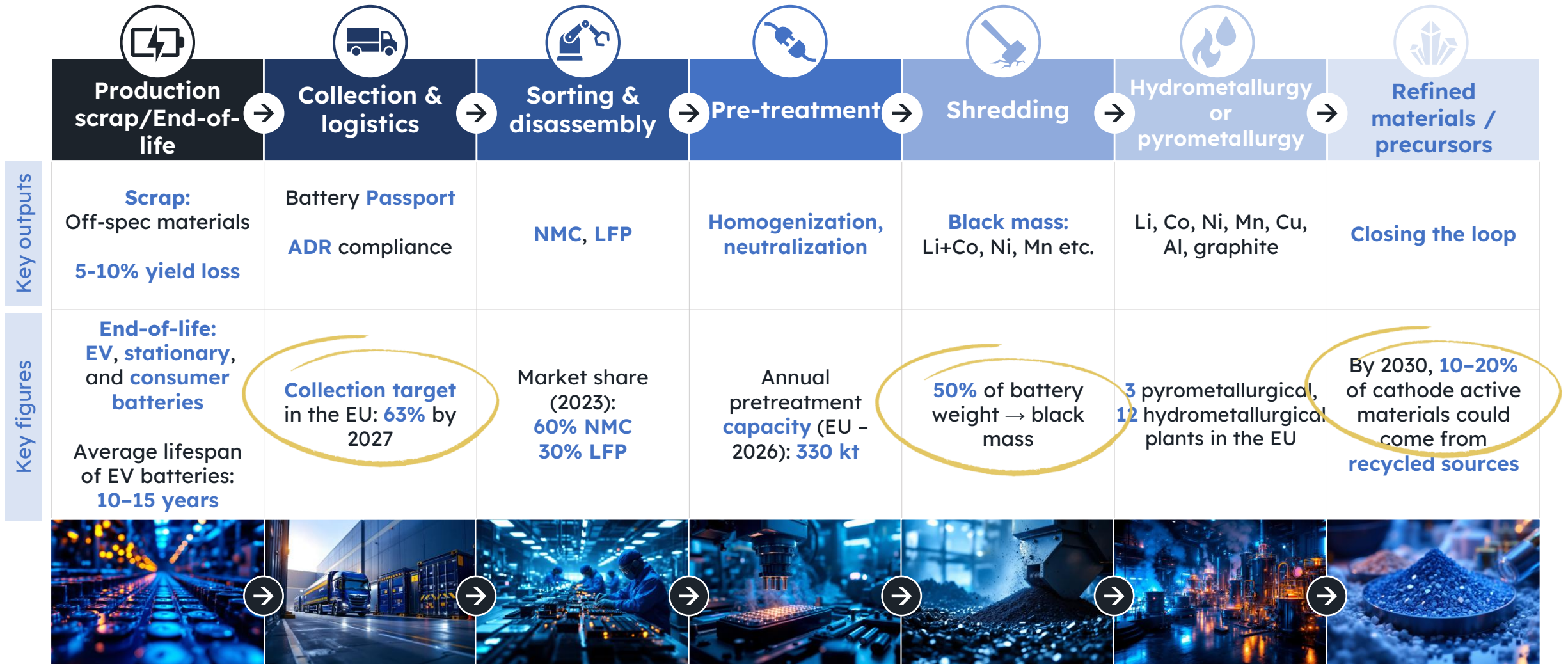
Battery cell manufacturers in Hungary (GWh)

- Permitted capacity
- Development plan
- Scrap quantity






- 1 plant in the region
- 2 plants in the region

To recycle batteries is to create value






Geographical dependence on critical materials defines recycling efficiency



	 Chinese export control	 Battery line retooling	 Costs of recycling
Value chain element	Production	Sorting & disassembly	Pre-treatment
Description	<p>China plans to tie the export of rare earth elements to case-by-case agreements under new restrictions</p> <p>China mines 70% of the world's rare earth elements</p>	<p>Most production lines cannot handle NMC and LFP technologies simultaneously; retooling is required before processing different battery types</p>	<p>Recycling in Europe has higher costs than in East Asia</p> <p>The total operating costs of battery recycling in the EU are 60% higher than in China (2025)</p>
Impact	Supply bottlenecks and cost increase for the European battery market	Limits flexibility and causes downtime when switching battery types	It creates a competitive disadvantage for European recyclers

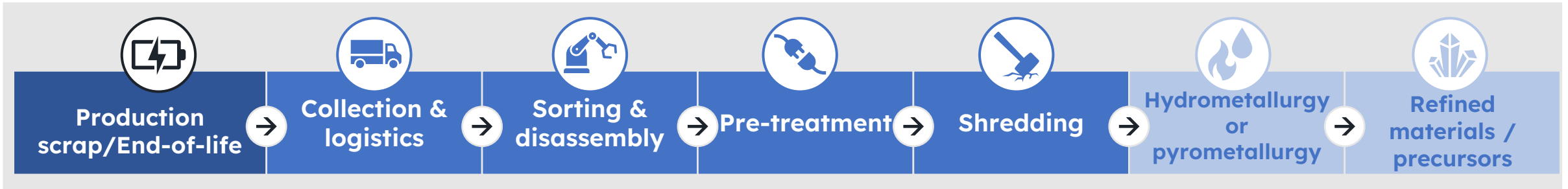


Institutional incentives to support battery recycling market development

	 State support	 Recycling efficiency targets	 EU Battery Regulation
Value chain element	Production (scrap)	Hydrometallurgy or pyrometallurgy	Refined materials / precursors
Description	<p>National and EU/state funding schemes promote the growth of battery manufacturing</p> <p>The European Commission approved €264M battery investment aid in Hungary (2025)</p>	<p>EU's recycling efficiency targets</p> <p>By 2027: 90% for cobalt, copper, lead, nickel and 50% for lithium</p> <p>By 2031: 95% for cobalt, copper, lead, nickel and 80% for lithium</p>	<p>Minimum recycled content</p> <p>From 2031: 16% cobalt, 85% lead, 6% lithium, and 6% nickel</p> <p>From 2036: 26% cobalt, 85% lead, 12% lithium, and 15% nickel</p>
Impact	Establishment of new factories directly contributes to an increase in production scrap	Drives investment in advanced recycling technologies	Drives demand for efficient recycling to meet mandatory recycled content targets



At ALTEO, we see battery recycling not just as an **ALTEO** obligation — but as a strategic opportunity



At ALTEO, the combination of charging, storage, and recycling creates a truly circular energy ecosystem.

ALTEO's circular value proposition

- **Already a pioneer** in this business sector
- Established battery recycling division, covering a complex value chain
- Committed to **safe** recycling practices
- Currently employs more than **100+ people** (including partners) in this field
- Uses **modern technologies** (dry shredding, slush drying) adapted to different battery component types

There are 15 plants in Europe using hydrometallurgy or pyrometallurgy

ALTEO CIRCULAR





**Innovation drives recycling.
Education sustains it.**