



# Primobius

Battery recycling without limits

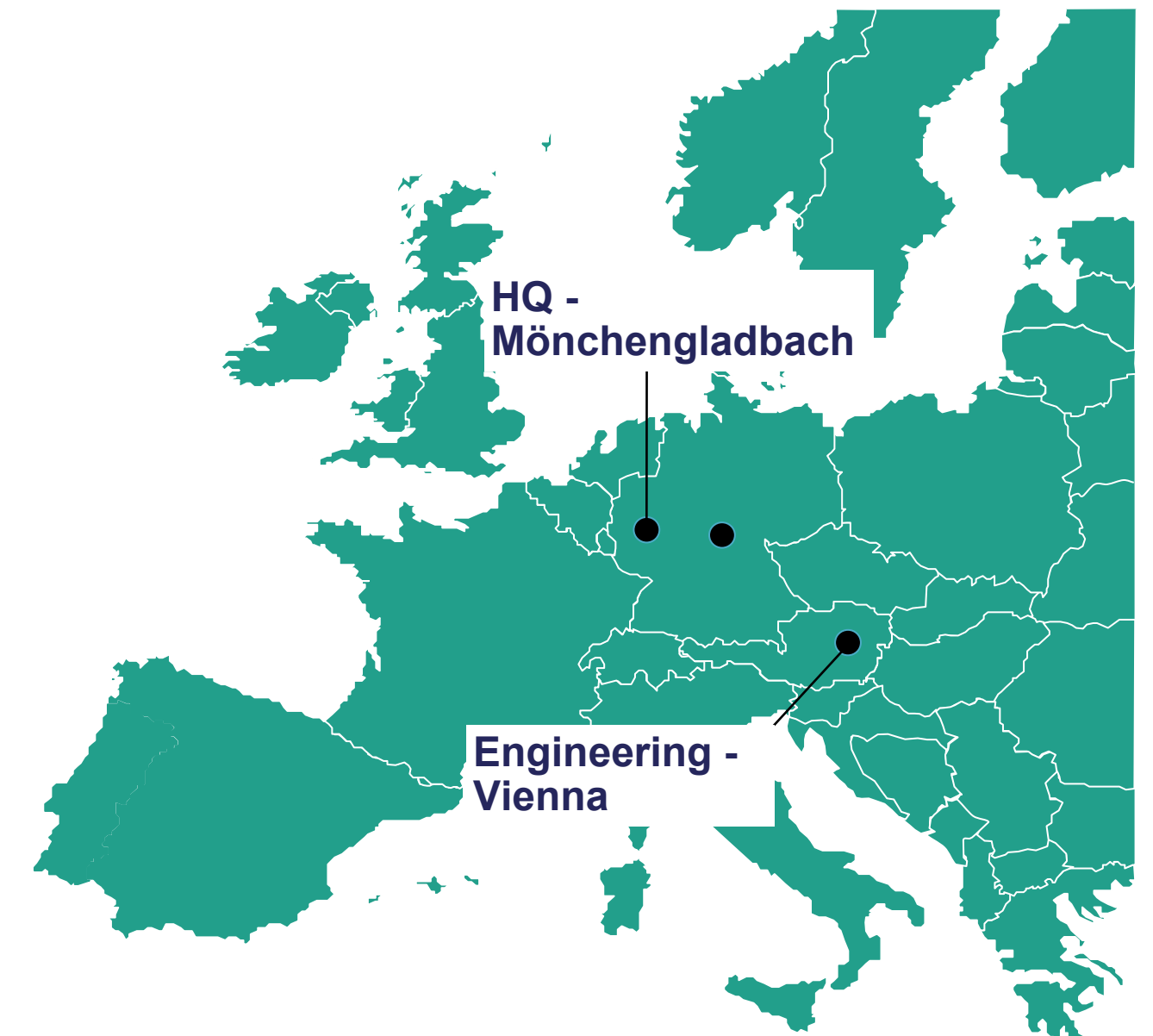
## CLOSING THE LOOP IN EV BATTERY RECYCLING

Perspectives from a plant builder



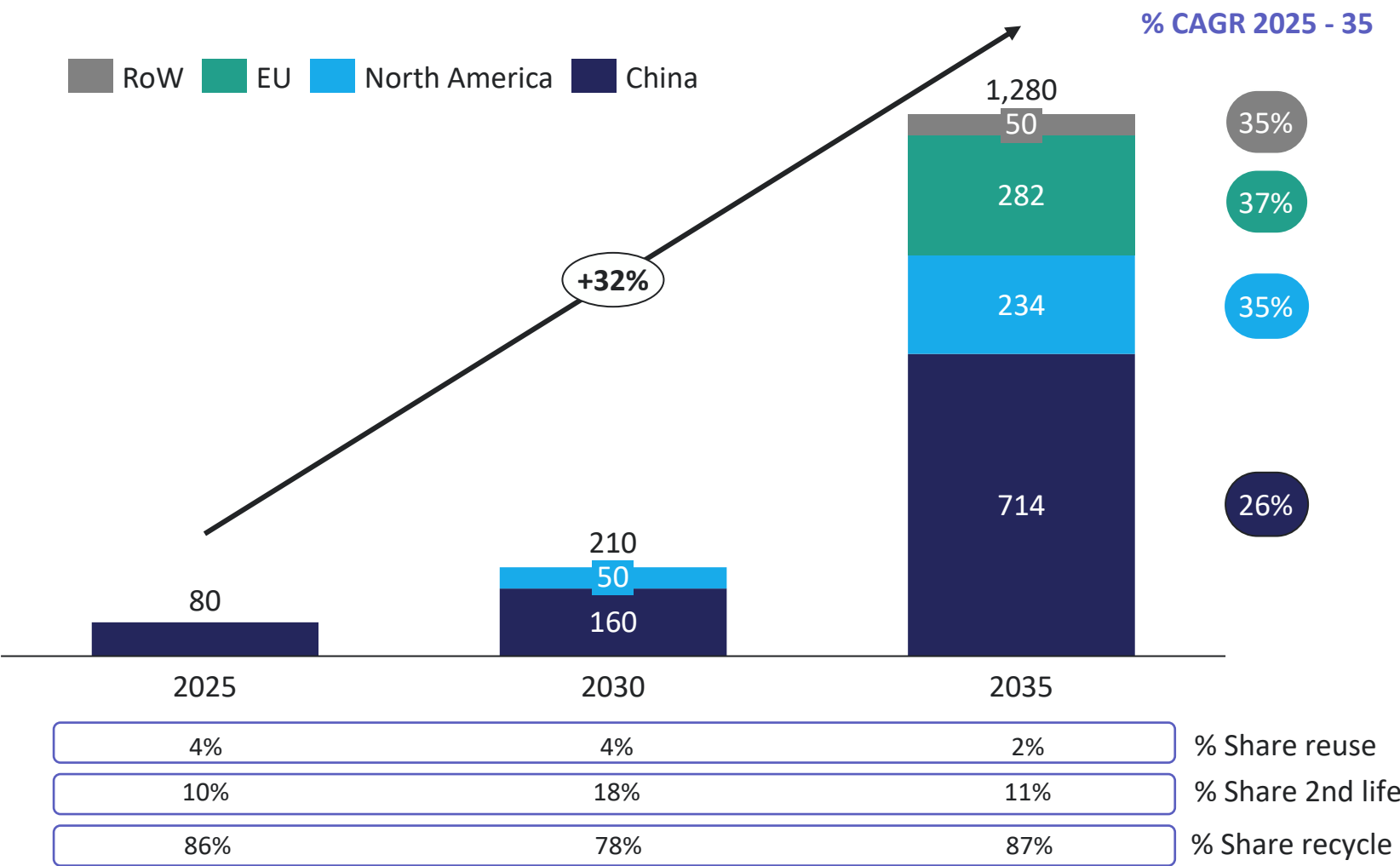
### Primobius combines deep process expertise with 150 years in building large industrial metal plants

- › Primobius is a **company of the SMS group**, a family-owned global plant manufacturer with subsidiaries all over the world
- › With **~50 employees** and growing, Primobius offers **flexible, efficient, and sustainable recycling solutions** for the battery value chain
- › Based out of **Germany**, Primobius provides recycling solutions combining **mechanical** and **hydrometallurgical process** steps to recover high-purity Cobalt, Nickel, Lithium, and other value streams
- › Primobius runs its **own R&D facility of scale for recycling operations** where it continues optimize and refine its offering
- › Primobius can deliver and support your project in any location **worldwide**



As growing volumes of batteries reach EOL, most of them will find their way into recycling, with the remainder going to reuse and 2nd life

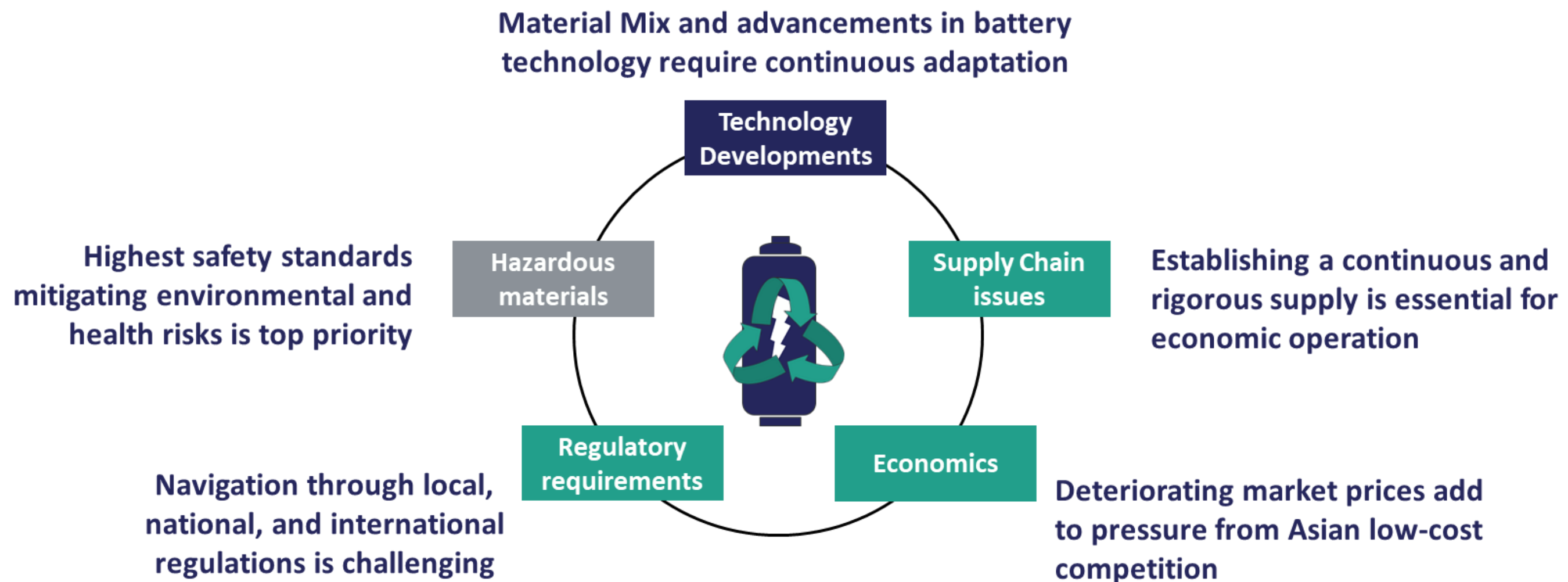
End of life battery development (in k t, in %)



- ⚡ Batteries reaching EOL in their first application are growing rapidly globally
- ⚡ The bulk of these batteries are expected to go directly to recycling
- ⚡ After 2030, rapidly growing EOL volumes and limited amounts that can be repurposed in 2nd life BESS or reused in EVs lead to larger share going directly to recycling



Primobius understands the challenges battery recyclers are continuously faced with





We can process multiple battery chemistries, formats and types without complete prior discharging leveraging a high level of automation



## **Battery Chemistry**

- › NCA, NCM, LCO, LFP etc

## **Material Form**

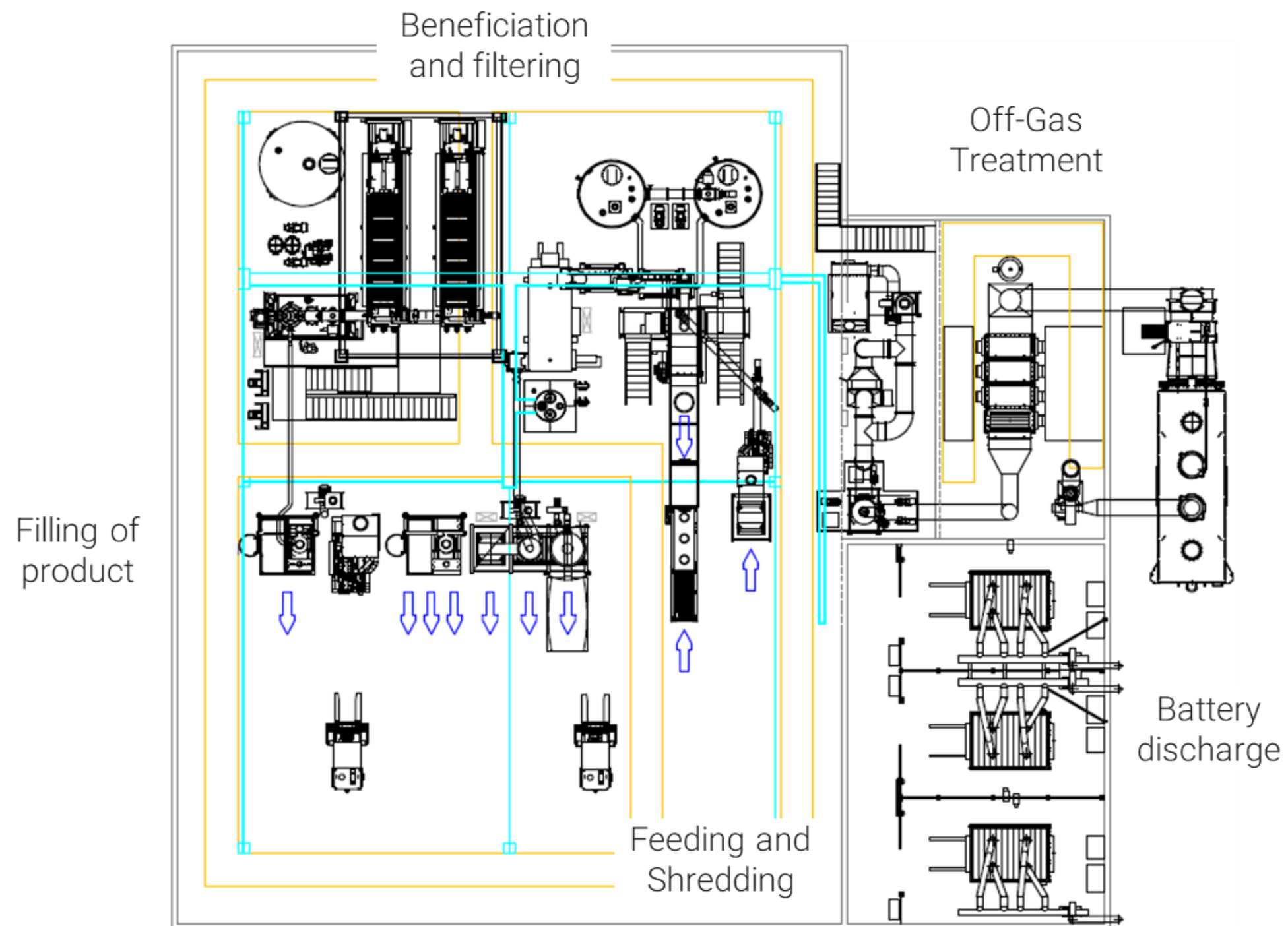
- › Foils
- › Scrap
- › Modules
- › Packs
- › Cells

## **State of charge**

- › Fully discharged in combination with discharging station
- › Up to 30% charged modules



## Typical layout





The right solutions along the entire battery recycling value chain





Redefining battery recycling with innovation & expertise – your success is our mission!



End-to-end  
recycling  
solutions



Eco-friendly &  
efficient  
technologies



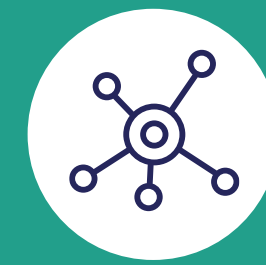
Lifecycle  
partnership



Safety, quality,  
and compliance  
first



Strong  
shareholder  
backbone



Access to  
ecosystem



## Selected technology supplier for Mercedes-Benz's vision of a complete circular economy



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- ⚡ Integrated plant including shredding and beneficiation as well as hydrometallurgical plant
- ⚡ Fully fed with Mercedes Benz batteries
- ⚡ Serves as own supply for Mercedes' battery value chain
- ⚡ Cooperation agreement in place for e.g. continuous improvement
- ⚡ Location in Kuppenheim, Germany



**THANK YOU!**



**Let's unlock your  
potential!**

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