

Ecobat Lithium-Ion Battery Recycling

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Ecobat Overview

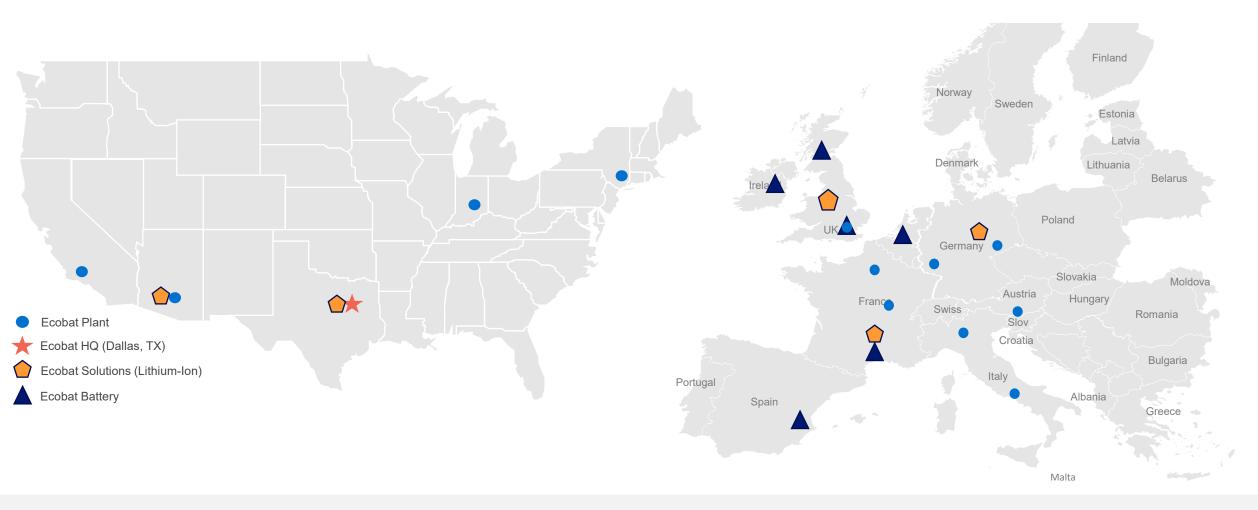
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ecobat Locations



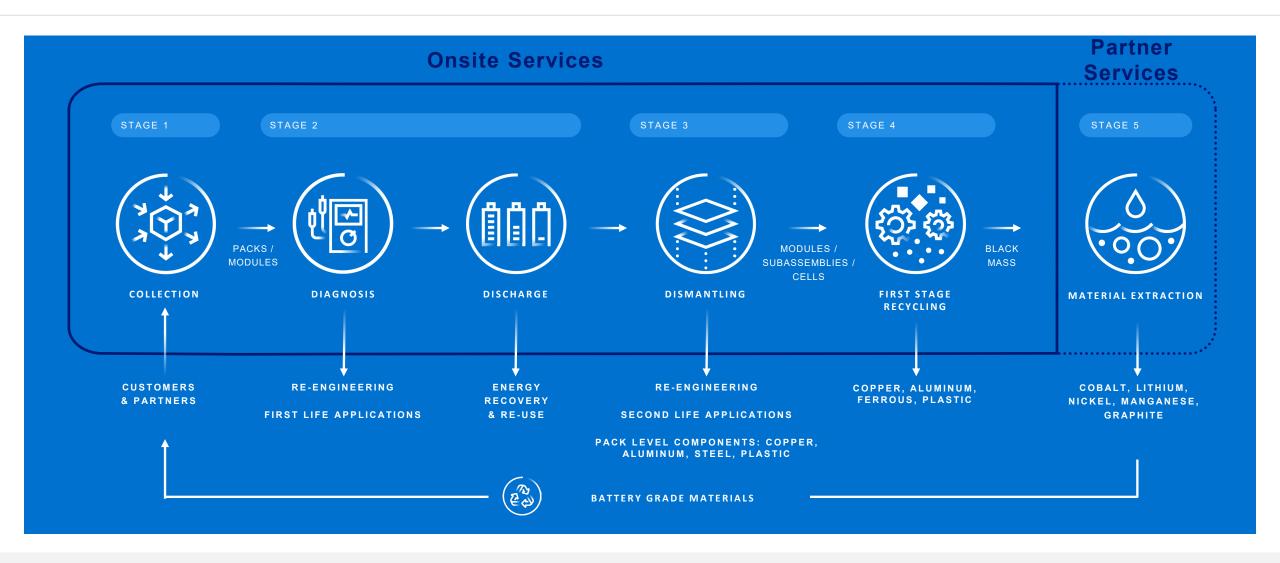
Extend throughout Europe and the United States creating a vast network that powers industries worldwide



Ecobat Solutions – Thomas Schaefer

Lithium-Ion Recycling





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Accepted Scrap Material



STAGE 1 COLLECTION

STAGE 2.1 **DIAGNOSTICS**

STAGE 2.2 DISCHARGE

STAGE 3 DISMANTLING

STAGE 4 RECYCLING

STAGE 5 EXTRACTION



Ecobat accepts ALL CHEMISTRIES AND FORMATS of LITHIUM-ION batteries.

Production scrap, cell phone, laptop, tablet, consumer, ESS, micromobility and EV batteries are all sorted by chemistry and treated on-site.

Ecobat offers transportation solutions for dangerous or damaged batteries.





Pretreatment Recycling



STAGE 1 COLLECTION

STAGE 2.1 DIAGNOSTICS

STAGE 2.2 DISCHARGE

STAGE 3 DISMANTLING

STAGE 4 RECYCLING

STAGE 5 EXTRACTION



Ecobat's recycling process produces multiple high-purity output streams, each of which is sent onward for further refining. Black Mass, the medium carrying nickel, cobalt and lithium, is transferred to partner facilities for recovery to battery grade sulfates and salts. These will be used in the production of new cathode active material precursor (pCAM), eventually making their way into new lithium-ion batteries.



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Pretreatment Recycling – Outputs and Destinations

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STAGE 1 COLLECTION

STAGE 2.1 DIAGNOSTICS

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Black Mass



Metallurgic Refiners to recover Co, Ni, Li

Copper, Aluminum, Ferrous Cut





Local Recyclers

Mixed Plastic, Electrolyte Solvent





Waste and Fuel, path to future recycling

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Operations:

- Updated recycling process installed July 2023
- Target Capacity: 10kmt
- Onsite storage 500mt
- Offsite storage and consolidation 150mt

Capabilities:

- In-house collections and logistics services specializing in at-risk batteries
- Discharging and Dismantling
- Lithium-ion Battery Recycling

Location Rationale:

- Majority of Lithium-ion Battery recycling in EU originates in Germany
- Prime location to service France, Austria, Italy, Poland and neighboring countries







Operations:

- Battery dismantling and health diagnostics
- Recycling Process installed Q4 2024
- Target Capacity: 15kmt
- Battery collections and sorting
- Onsite storage 5kmt

Capabilities:

- In-house collections and logistics services specializing in at-risk batteries
- Diagnostics & Discharge
- Lithium-ion Battery Recycling
- Non Lithium-ion Battery Sorting and Recycling

Location Rationale

- Regulated collection schemes
- Access to diversified end-markets outside of EU
- Attractive labor market and business climate





Operations:

- Permitted consolidation warehouse
- 40mt storage capacity
- Logistics permits to Germany and UK (US pending)

Capabilities:

- In-house collections and logistics services specializing in at-risk batteries
- Permitted on-site storage

Location Rationale

Access to French battery market and in-country OEM network









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Operations:

- Lithium-ion battery recycling
- Target Capacity: 15kmt
- Indoor Storage 8k 20K SF
- Outdoor Storage 700+ mt (RCRA Part B Permit in Process)

Capabilities:

- Lithium-ion Battery Recycling
- Discharging and Dismantling

Location Rationale:

- Captures Southwest market share with low-cost location
- Favorable permitting and regulatory environment
- Great relationship with community due to existing operational footprint (QML)









Thank You

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