North American Li-ion Battery Supply Chain Database

With NAATBatt funding, NREL created the Li-ion Battery Supply Chain Database

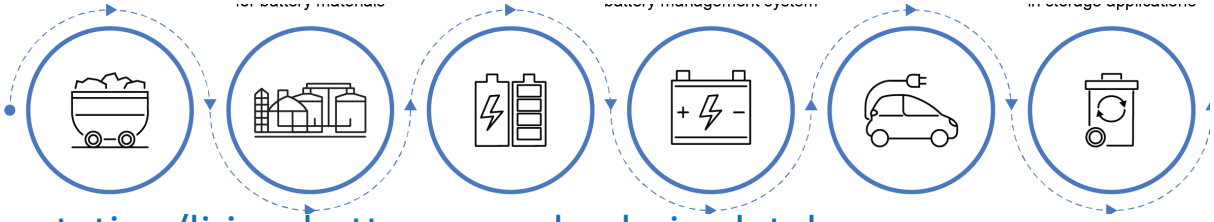
- Mining
- Materials processing
- Components production
- Cell and battery pack manufacturing
- Second use
- Recycling
- Equipment manufacturing
- Service providers
- Product distribution

Li-ion Supply Chain Database

nrel.gov/transportation/li-ion-battery-supply-chain-database

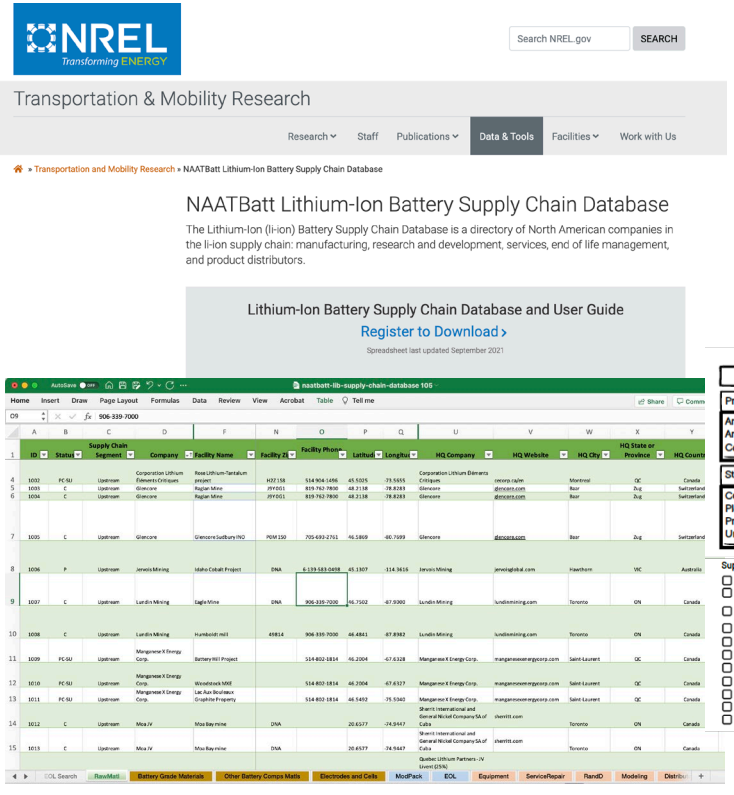
Google search: "NREL supply chain database"

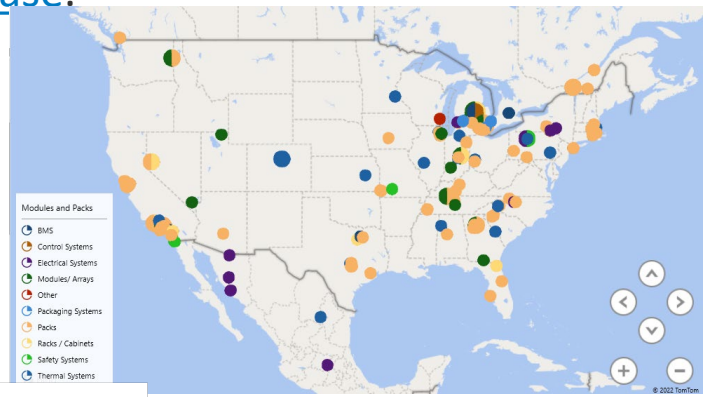
- Version 1: September 2021
- Version 2: August 2022 with updates in December.
- Search function: Industry segment and product, location, company data
- NREL will be releasing updated versions regularly to capture fast-moving market developments

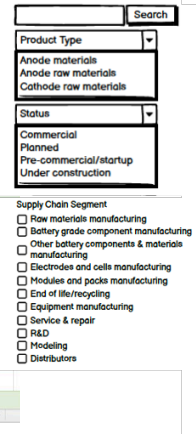


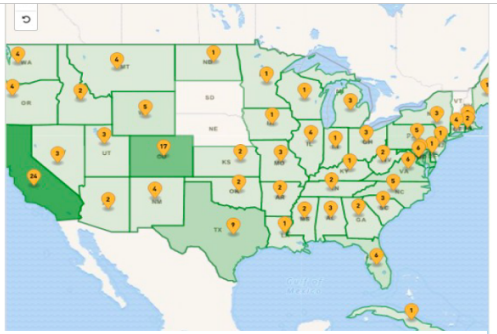
nrel.gov/transportation/li-ion-battery-supply-chain-database.

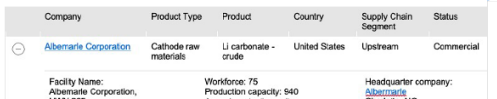
- **Manufacturing Supply Chain**
  - Raw Materials
  - Battery Grade Materials
  - Other Battery Components and Materials
  - Electrode and Cell Manufacturing
  - Module/Pack Manufacturing
- **EOL Supply Chain**
- **Other Segment Supply Chains**
  - Equipment
  - Service
  - R&D
  - Modeling and Software
  - Distributors

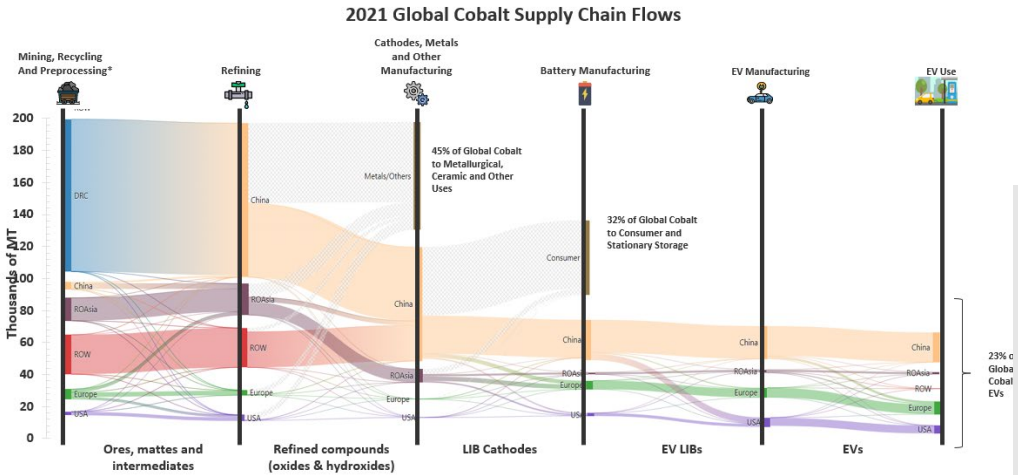


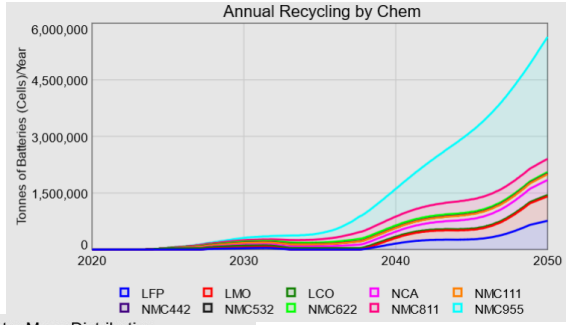


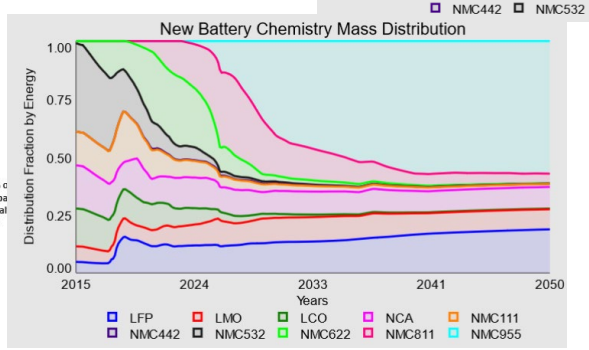












LIBRA – Lithium-Ion Battery Resource Assessment Model

LIBRA

LIBRA is a system-dynamics model that evaluates the macro-economic viability of the battery manufacturing, use, and recycling industries across the global supply chain under differing dynamic conditions

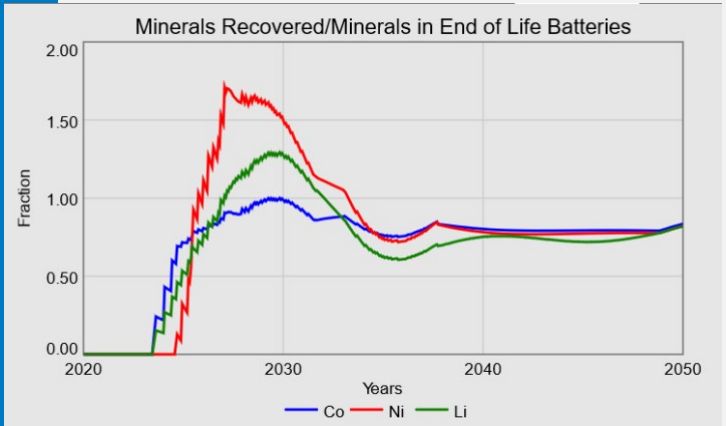
margaret.mann@nrel.gov

LIBRA Evaluates the Impact of Dynamic Conditions on the Growth of Battery Manufacturing and Recycling

Key Question: Under what conditions will a resilient lithium-ion battery supply chain develop?

As the lithium-ion battery industry grows, the supply chain will be affected by market demand and prices, government investments, and global manufacturing.

LIBRA assesses the *dynamic* flows of materials, growth in manufacturing, and recycling.



- *Cathode & Battery Manufacturing in US and elsewhere*
- *Recycling: Hydro, Pyro, and Direct*

- *Number of manufacturing and recycling plants built over time*
- *Profit of manufacturing and recycling plants over time*