Providing a Closed-Loop Solution for Battery Recycling

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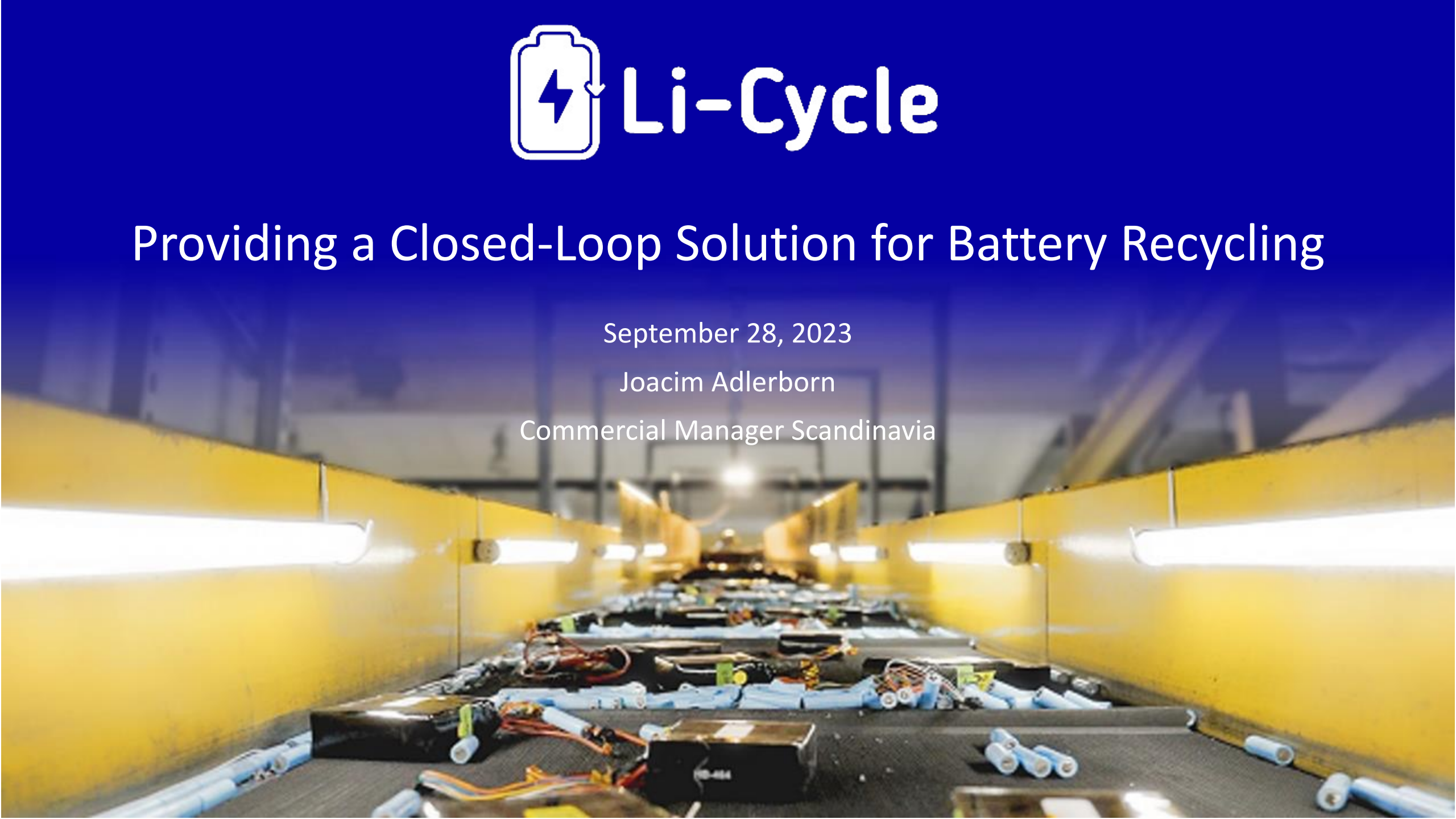


Agenda

1. Market Trends
2. Corporate Profile
3. Technology
4. Li-Cycle’s Spoke & Hub Network
5. ESG

Li-Cycle

Market Trends

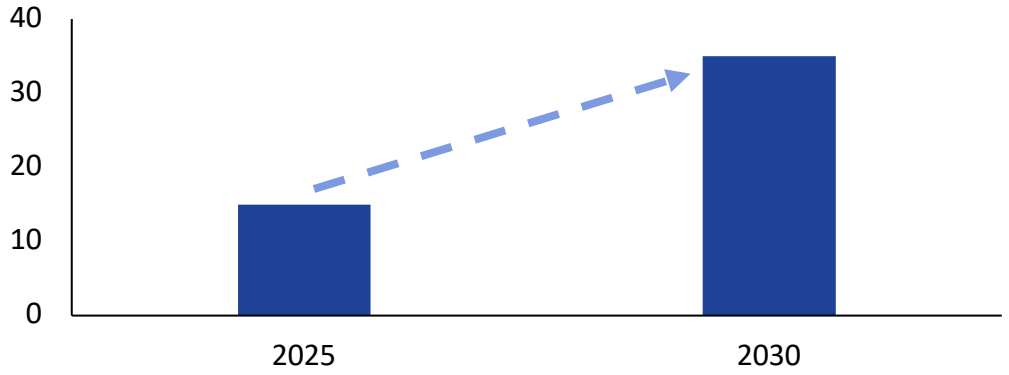
Recycling Imperative with Growing Electrification

Global EV and Battery Adoption

- **Li-ion manufacturing scrap and end-of-life battery waste**
- **Critical need for scalable, environmentally friendly recycling solution**
- **Shortage of <u>domestic</u> lithium, cobalt and nickel**

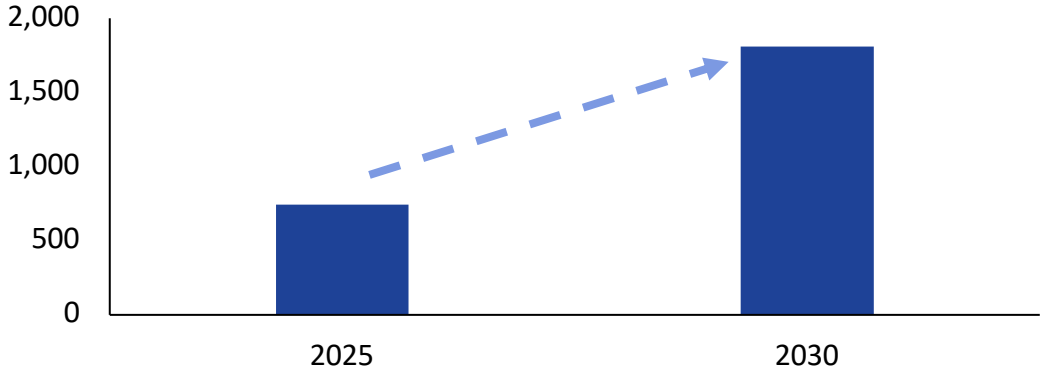
Electric Vehicle Sales (1)

(millions)



Manufacturing Scrap and Transportation Batteries for Recycling (2)

(thousands of tonnes/year)

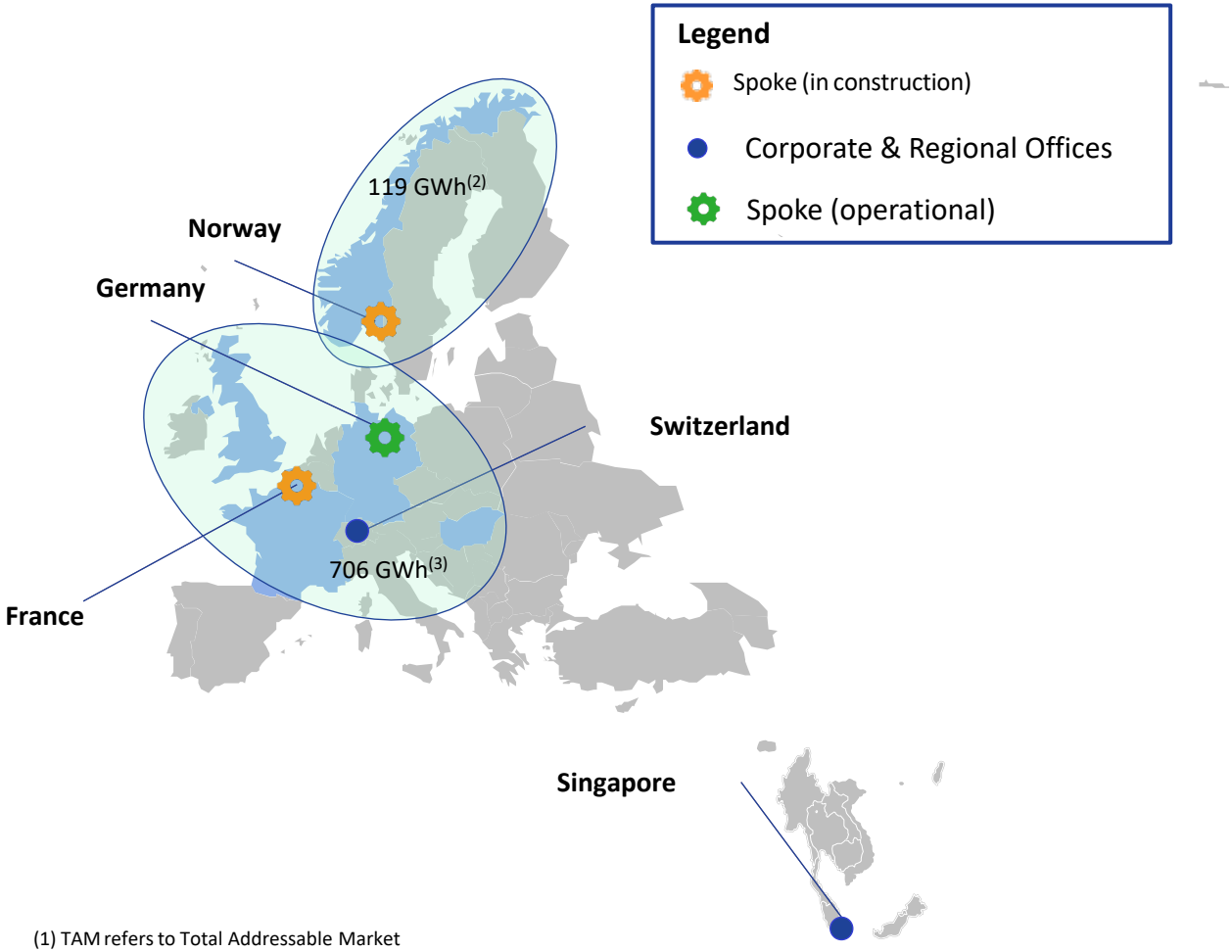


~10% of battery production is typically rejected as waste during manufacturing, creating significant recycling needs during EV ramp-up, in addition to building end-of-lifecycle supply

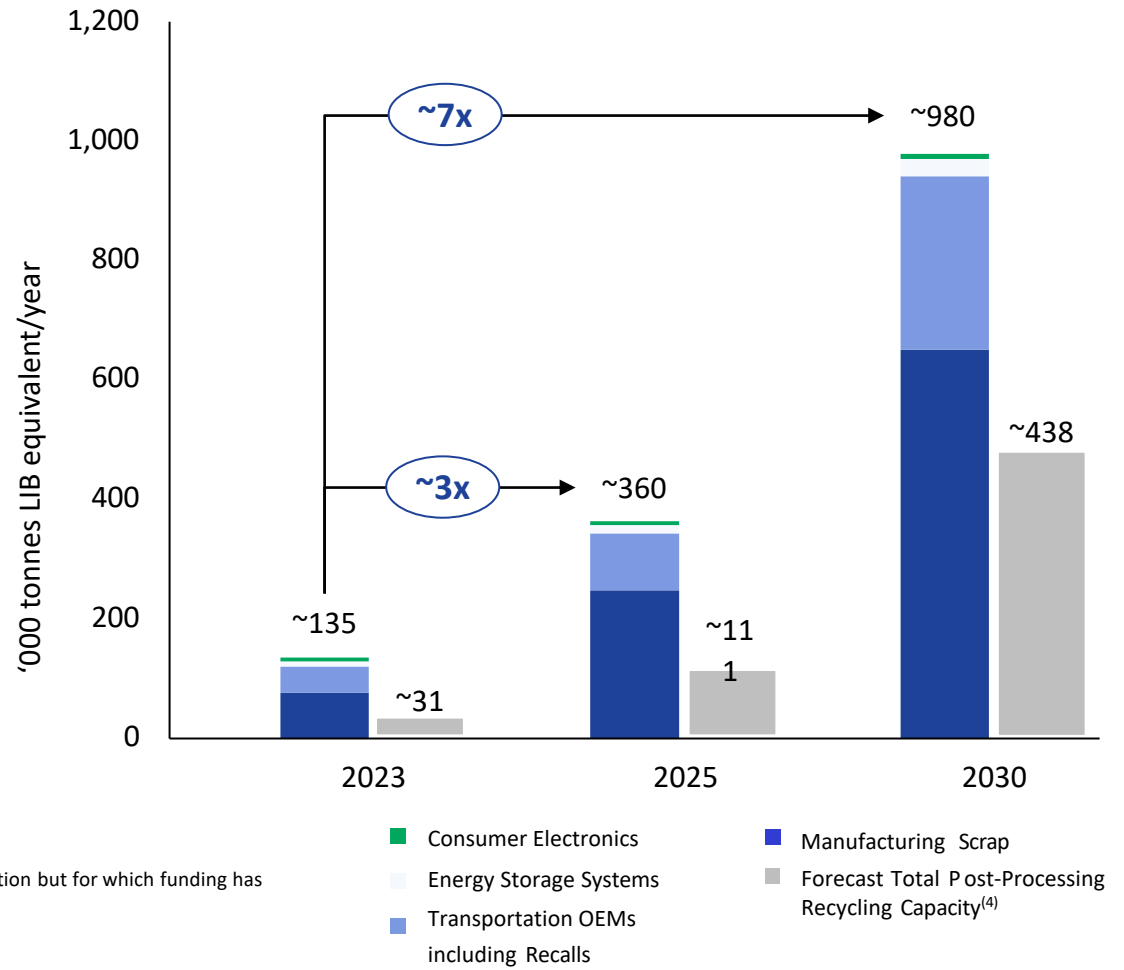
(1) BloombergNEF Electric Vehicle Outlook 2022 (includes BEV and PHEVs)

(2) Benchmark Mineral Intelligence (BMI), company sourced announcements and Li-Cycle estimates as of March 2023.

Europe Battery Materials Market: Accelerating Growth Rates



Total Europe Battery Materials TAM(1)



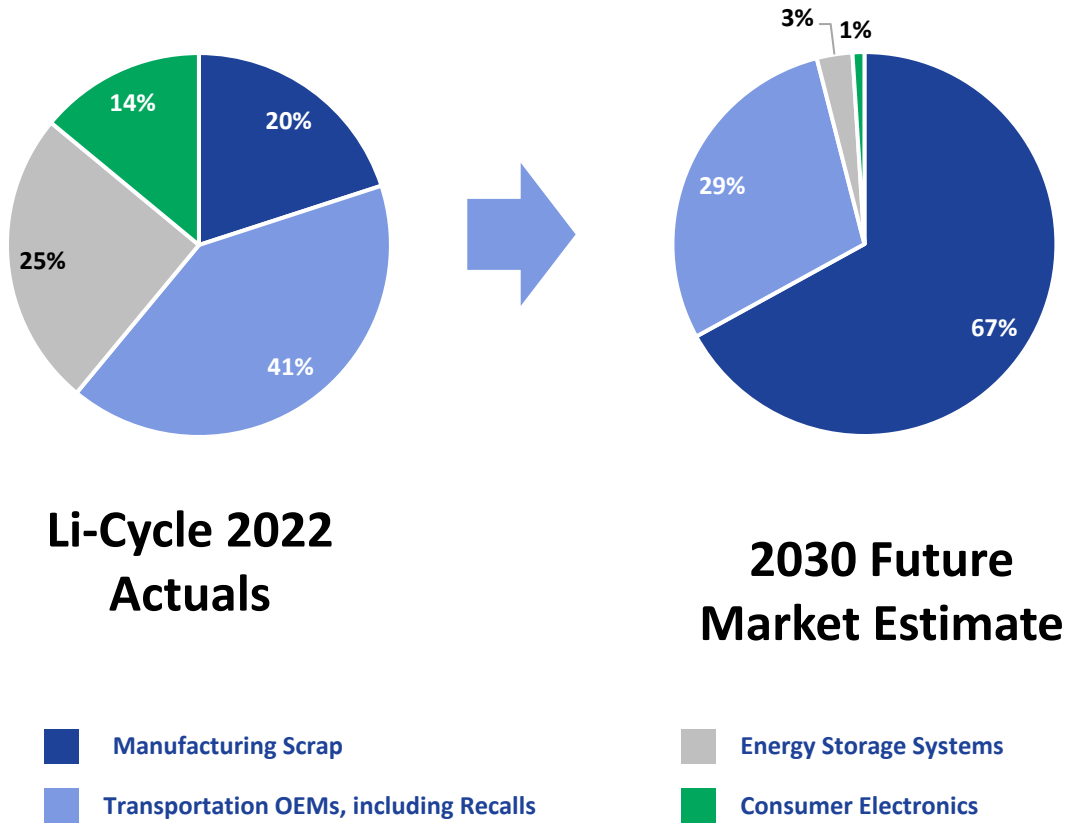
(1) TAM refers to Total Addressable Market
(2) Includes Norway and Sweden
(3) Includes Germany and France
(4) Independent source and Li-Cycle estimates; recycling capacity includes post processing capacity which is currently not operational/under construction but for which funding has been raised (52K tonnes in 2025 and 206K tonnes in 2030)

Spoke: Expanding Spoke Network Drives Portfolio Growth and Diversifies Feedstock Sources

Diverse Customer Sources

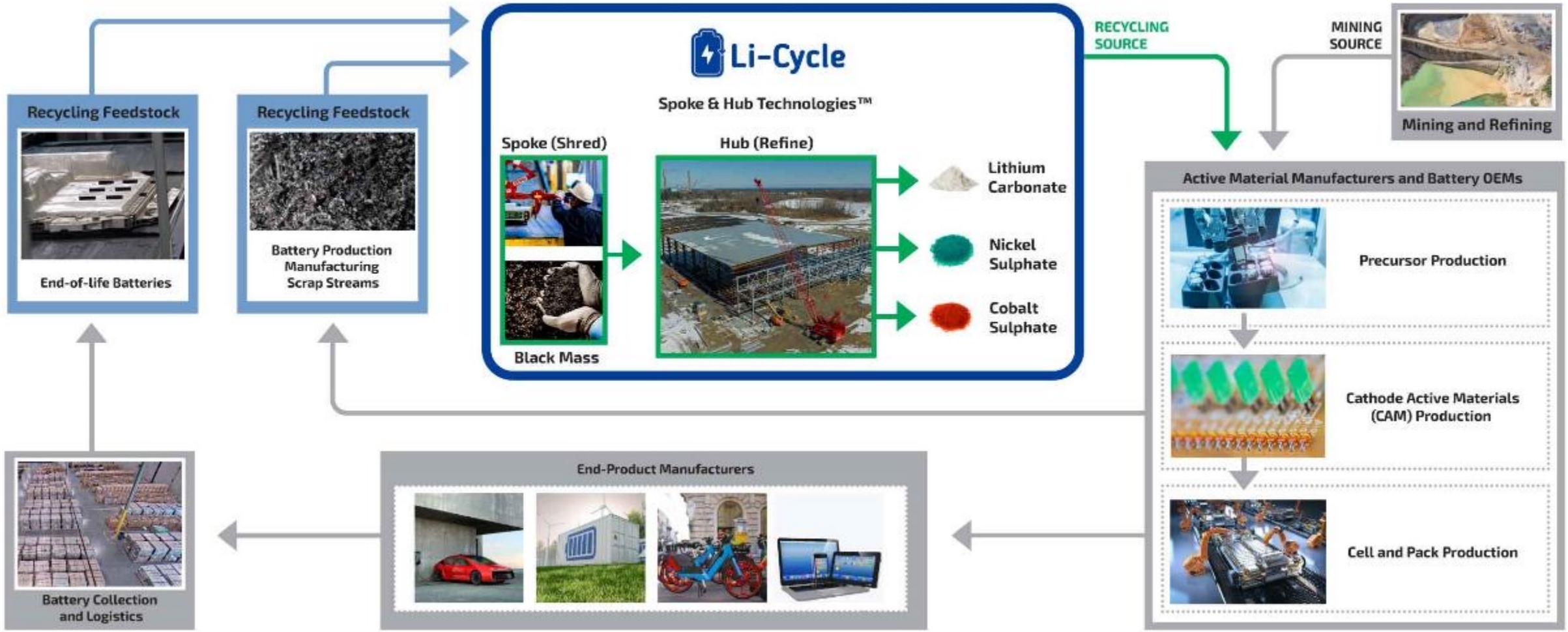
- **Battery Manufacturers**
- **EV OEMs & Service Providers to EV OEMs**
- **Energy Storage System Owners**
- **Consumer Electronics Recyclers**

Battery Input Mix(1) – LICY Actual and Future Market



(1) Measured by weight of input battery materials

Creating a Sustainable, Domestic Closed-Loop Supply Chain



Corporate Profile

Li-Cycle At-A-Glance

Key Facts

2016 Founded by Tim Johnston and Ajay Kochhar

2021 Publicly listed in August (NYSE: LICY)

~ $664M Proforma Cash on Hand[1]

~ 500+ Employees Globally

Strategic Objectives

Health and Safety

Zero harm goal: Taking care of our employees, contractors and the community is our license to operate.

Environmentally Sustainable

Core to our culture: Our technology, operations and people support a global decarbonization and greener future.

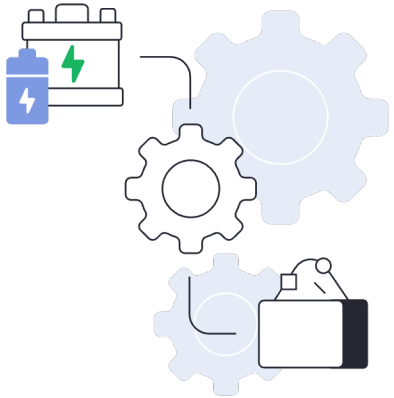
Profitable Growth

Accretive returns: Capture growth at value for our shareowners.

Spoke & Hub Technologies™

1 Spokes recycle batteries & scrap into black mass

2 Rochester Hub to process into battery-grade lithium, nickel, and cobalt



Spoke & Hub Capacities

Spoke current processing capacity:
61,000 tonnes of lithium-ion battery material/year

Expected to increase by year-end 2023 to: **81,000 tonnes** of lithium-ion battery material/year

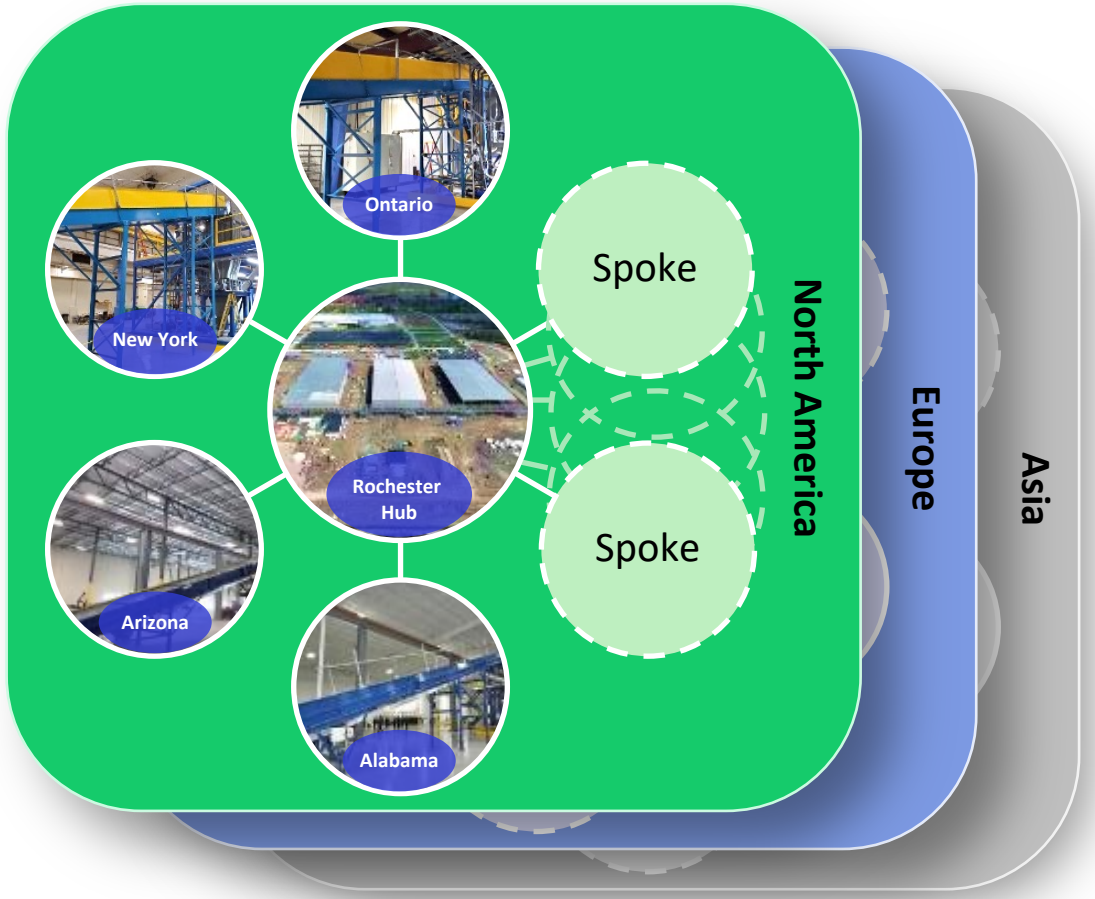
Rochester Hub expected processing capacity:
35,000 tonnes of black mass/year, equivalent to **90,000 tonnes of battery material**

(1) Proforma total = $289 million cash on hand as at June 30, 2023 plus $375 million DOE loan commitment announced on February 27, 2023.

Spoke & Hub Network: Executing on a Modular Strategy

North America 'Replicable' Model

- Strategically located Spokes
- Strong commercial partnerships
- Scaled Hub
- Supported by funding package



Differentiated Patented Technology

Environmentally Sustainable Resource Recovery

First Mover Advantage

Strong Balance Sheet

Technology

Li-Cycle's Spoke & Hub Technology

Streamlined, efficient, sustainable and closed-loop with ***up to 95% recovery rate***

Spoke Technologies

- No sorting or discharging
- Submerged mechanical shredding
- Automated processing
- Full pack shredding capability
- Modular plant construction
- No high heat thermal processing
- Process has no wastewater discharge and zero direct carbon emissions
- Suitable for urban areas

Hub Technologies

- Recover battery-grade materials, including: lithium, cobalt and nickel
- Black mass processed using hydrometallurgy
- No high heat thermal processing
- Minimal environmental footprint

Materials Recovered

- Lithium Carbonate
- Cobalt Sulphate
- Nickel Sulphate
- Manganese Carbonate
- Copper Sulphide
- Graphite
- Sodium Sulphate
- Gypsum

Key Differentiator - Full Pack Shredding Capabilities

Li-Cycle's "Generation 3" Spokes can process full EV and energy storage battery packs without any manual **dismantling and discharging**

- Facilities based on the "Generation 3" Spoke technology:
  - Arizona Spoke, Alabama Spoke, Germany Spoke, France Spoke, Norway Spoke
- Several advantages
  - Enhanced safety and increased cost-effectiveness
  - Cell-To-Pack shredding (pack is effectively a large module)
- Maintain the option to either dismantle packs into modules or shred entire packs

Full battery packs being processed to make black mass

Black mass to serve as feedstock for Hubs

Hubs to refine black mass into battery-grade materials

Li-Cycle Services – Holistic Battery Recycling

- End-of-Life Batteries
- Recalled Batteries
- Battery Packs
- Battery Modules
- Cells

Li-Cycle Powder-to-Pack Solution

- Cathode Powder
- Cathode/Anode Foils
- Pressing Scrap
- Electrode Cut-offs
- Cell Assemblies (stacking/folding/winding)
- Electrolyte Filling and Formation Rejects

Li-Cycle Spoke & Hub Network

Spoke & Hub Network: North America

Ontario Spoke

- Kingston, ON, Canada
- **5,000 tonnes/year processing capacity**
- Li-Cycle's first Spoke, and location of successful Hub pilot project
- Operational since Q3 2020

Alabama Spoke

- Tuscaloosa, AL, USA
- **10,000 tonnes/year processing capacity**
- Utilizes proprietary full EV pack processing technology
- Operational since Q4 2022

New York Spoke

- Rochester, NY, USA
- 5,000 tonnes/year main line processing capacity
- 13,000 tonnes/year ancillary processing capacity
- **18,000 tonnes/year total processing capacity**
- Operational since Q1 2021

Arizona Spoke

- Gilbert, AZ, USA
- **18,000 tonnes/year processing capacity (main line and ancillary)**
- Utilizes proprietary full EV pack processing technology
- Operational since Q2 2022

Rochester Hub

- Rochester, NY, USA
- Expected to be first-of-its-kind commercial hydrometallurgical battery resource recovery facility in North America
- **35,000 tonnes processing capacity of black mass/year**
- Expected production capacity of battery-grade materials:
  - Lithium Carbonate: **7,500-8,500 tonnes/year**
  - Nickel Sulphate: **42,000-48,000 tonnes/year**
  - Cobalt Sulphate: **6,500-7,500 tonnes/year**
- Commissioning expected to start in late 2023

Spoke & Hub Network: Europe

Germany Spoke

- Near Magdeburg, Germany
- **30,000 tonnes/year processing capacity (main line and ancillary)**; two main lines to meet growing demand
- Utilizes proprietary full EV pack processing technology
- Line 1 operationalized mid-2023; Line 2 expected to follow in late 2023

France Spoke

- Harnes, France
- **10,000 tonnes/year initial processing capacity**
- Utilizes proprietary full EV pack processing technology
- Targeting main line to be operational in 1H 2024

Norway Spoke

- Moss, Norway
- **10,000 tonnes/year processing capacity**
- Building completed and to be used as a consolidation centre

Portovesme Hub

Definitive Feasibility Study Stage (DFS)

- Sardinia, Italy
- Li-Cycle and Glencore to conduct a joint DFS for Phase 2: expected to be completed by mid-2024
- Cost-efficient and accelerated development plan

- ***Two-phase approach*** *to the Portovesme Hub project in Sardinia*
- *Phase 1 : 11,000 tonnes processing capacity of black mass/year*
  Targeted start of operations - mid 2024

- *Phase 2: 50,000-70,000 tonnes processing capacity of black mass/year*
- *Targeted* commissioning date by late 2026/early 2027

- **Expected End-Products (up to):**
  - Lithium Carbonate (battery grade): ~15,000 – 16,500 tonnes/year
  - Nickel contained: ~18,000 tonnes/year
  - Cobalt contained: ~2,250 tonnes/year

ESG

Significantly Improved Emissions Profile Compared to Mining

The Life Cycle Assessment calculation below was performed in line with the requirements of ISO 14044 and has been independently verified.

Compared with traditional mining and refining, ***Li-Cycle's Spoke & Hub Technologies™*** *can (per tonne of battery input):*

Reduce CO2 emissions by up to

67%

~117k tonnes of C02

Reduce NOX emissions by up to

89%

~495k tonnes of NOX

Reduce SOX emissions by up to

86%

~330k tonnes of SOX

Reduce water usage by up to

97%

~2 million cubic metres of water

(1) Based on independent Life Cycle Assessments (LCA) completed on behalf of Li-Cycle. Environmental benefits are shown as emission offsets comparison for 1 tonne of Battery Input. Mining & Refining baseline calculated by a third party, including external sources (GREET, Argonne National Laboratory).
(2) Li-Cycle's LifeCycle Assessment Results are fully loaded, i.e., inclusive of indirect costs not directly associated with the Spoke & Hub process, including transportation of material.
(3) Li-Cycle's process offsets 40-67% of the CO2 Profile of an EV Battery. The battery pack typically accounts for over ~40-50% of an electric vehicle's total CO2 emissions profile (Source: Volkswagen AG).
(4) Li-Cycle's process achieves an estimated 25-34% CO2 Offset Efficiency vs. Pyro Recycling, based on comparing Li-Cycle's LCA data to reference data from Argonne National Laboratory.

EU Battery REGULATION

Key Targets (by end of year>>)	2023	2024	2025	2026	2027	2028	2029	2030	2031		2035
1) Recycling Efficiency *Obligation on the first recycler to report to relevant national authorities*	50%	-	75% lead-acid 65% Li	-	-	-	-	80% lead-acid 70% li-based			-
2) Recovery Rate of Metals ***Obligation on the first recycler to report to relevant national authorities***	N/A	-	-	-	Li 50% Ni, Co, Cu - 90%	-	-		Li 80% Co, Ni, Cu - 95%		-
3) Recycled Content in batteries ***Cut-off dates calculated assuming Battery Regulation enters into force by Mat 2023***	N/A	-	-	-	-	Info on recycled content	-	Li 6% Ni 6% Co 16% Pb 85%			Li 12% Ni 15% Co 26% Pb 85%
4) Carbon Footprint ***Cut-off dates calculated assuming Battery Regulation enters into force by Mat 2023***	-	-	Declaration for EV batteries	-	Max threshold for EVs	-	-	-	-		-
5) Collection Targets	45% of portable batteries	-	-	-	**63% of portable batteries**	**51% of LMT**	-	**73% of portable batteries**	**61% of LMT**		-

Li-Cycle

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