

Case Study

How We Helped an **Energy Solutions Provider** Unlock **\$3Mn** in Annual Revenue through **Li-ion Battery Recycling**



Objective

A leading energy solutions provider engaged leB to gain a competitive edge in the rapidly evolving lithium-ion battery (LIB) recycling sector. Their focus was to understand the technology and market landscape of downstream value chain components and to improve recycling efficiency, reduce costs, and enhance sustainability.

Our Strategic Approach

To maximize value from the downstream LIB recycling value chain, we implemented a targeted research and analysis methodology. This approach helped pinpoint opportunities for improvement and innovation in core segments, specifically:

Battery Design for Recycling

Assessed design innovations that enable easier disassembly and material separation, reducing recycling complexity and costs.

Recycling Facility Development

Evaluated state-of-the-art recycling plant designs, operational models, and scalability potential to meet growing end-of-life battery volumes.

Advanced Materials Recovery

Analyzed cutting-edge recovery techniques for high-value materials such as lithium, cobalt, and nickel to maximize yield and purity

Value Chain & Market Assessment

Mapped downstream recycling processes, identified leading technology providers, and assessed market trends influencing competitiveness.

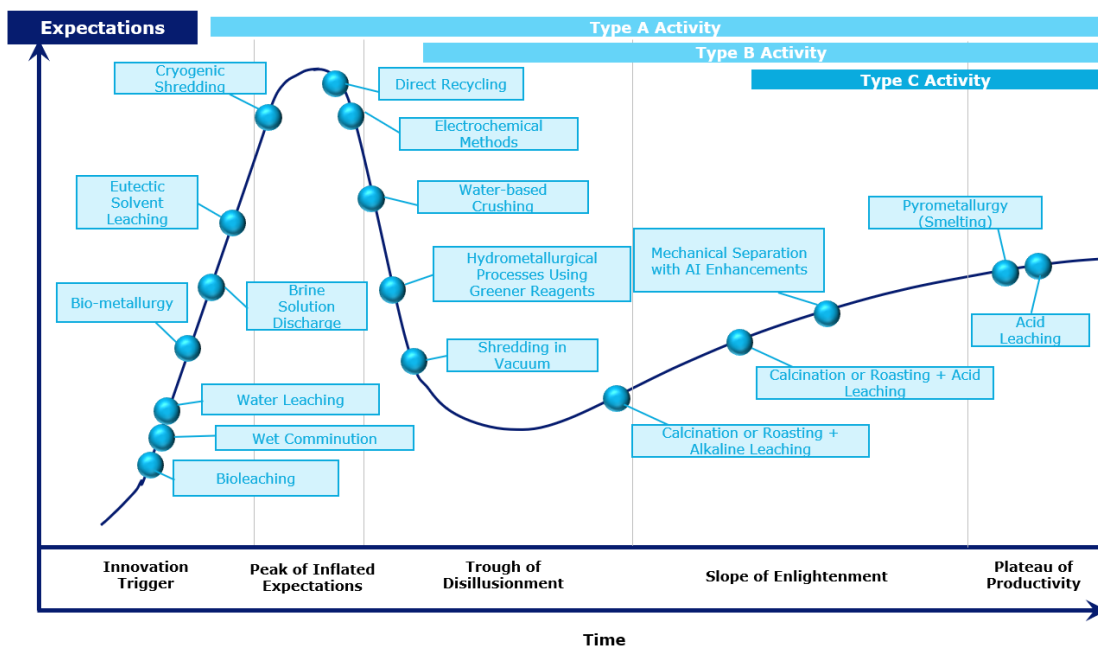
Snippets

Priority Matrix

	Years to mainstream adoption			
	Less than 2 years	2 to 5 years	5 to 10 years	More than 10 years
Trans-formational	Invest aggressively if not already adopted	Conservative investment profile	Moderate investment profile	Aggressive investment profile
High	Conservative investment Profile	Moderate investment profile	Aggressive investment profile	Invest with caution
Moderate	Moderate investment profile	Aggressive investment profile	Invest with caution	Invest with extreme caution
Low	Aggressive investment profile	Invest with caution	Invest with extreme caution	Invest with extreme caution

Low Investment Favorability High

Hype Cycle for Batteries



Impact

- Identified strategies to improve material recovery rates by **15%**, potentially adding **\$3 million** in annual revenue from recycled components.
- Optimized downstream processes to target a **20%** reduction in material sourcing costs.

Conclusion

Through targeted technology evaluation and market mapping, leB equipped the client with a clear, actionable strategy for enhancing LIB recycling performance. The approach not only supports immediate revenue gains and cost savings but also strengthens long-term sustainability positioning in an increasingly regulated and competitive market.

Ingenious Brain

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