

# ABOUT RELIEF



DURATION  
3 YEARS



BUDGET  
6 MIO €



12 PARTNERS  
7 COUNTRIES



9 Work  
Packages

## AIM OF THE PROJECT

Lithium metal is in high demand. Now more so than ever with the increasing popularity of e-mobility. Despite lithium recycling being an established process, an estimated 27% of the current global lithium production still turns into waste. RELiEF sets out with the clear goal of reducing lithium waste by more than 70% through the use of previously unused secondary lithium sources.

[lithium-relief.eu](http://lithium-relief.eu)

# PARTNERS



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## Revolutionising Lithium Recycling of Secondary Raw Materials

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# GOALS & OBJECTIVES

# APPROACH

# EXPECTED OUTCOMES

 **Reduce Li waste by more than 70% employing unused secondary Li sources.**

 **Improve Li metal circular value chain by developing a continuous battery material recovery process.**

1. Develop safe and efficient **pre-processing** unit operations for solid input materials.
2. Ensure **selective** and **high rate** of Li leaching.
3. Recover Li **selectively** from the **liquid stream**.
4. Development of **high purity** Li **derivative** recovery.
5. Recover functional current and next generation **battery grade material** (e.g., LFP, Li-M anode).
6. Development of continuous and **flexible flowsheet** and demonstration at **TRL 5**.
7. Development of a new **business model** to ensure the economic **competitiveness** of the process.

**Step 1**  
Sampling, extraction and material characterisation



**Step 2**  
Lithium Leaching, recovery and battery material synthesis



**Step 3**  
Battery material validation, process modelling and demonstration



**Step 4**  
Sustainable business modelling




 **Validated Recycling of Lithium:**

Demonstrating the feasibility of recycling lithium from secondary raw materials (SRM).

 Development of a **continuous and flexible process flow for battery materials** processing at industrial relevant environment.

 Develop and adapt **new business model** to EU industry.

 **Comprehensive Assessments:** Completion of Life Cycle Assessment (LCA) and other evaluations to confirm the economic, environmental, technological, and societal sustainability of the innovations.

 **Circular Economy Roadmap:** Development of a strategic roadmap for achieving EU battery circularity, optimizing the use of SRM.

**These results will promote a sustainable and circular battery ecosystem within the EU.**