

# Partners Sought for Circular Battery Lifecycle Project (CIRBAT) - Recycling, Second-Life Manufacturing, and LCA Expertise for a Turkish DeepTech Company

## Summary

Profile type

**Research & Development Request**

Company's country

**Türkiye**

POD reference

**RDRTR20250721004**

Profile status

**PUBLISHED**

Type of partnership

**Research and development  
cooperation agreement**

Targeted countries

- **Austria**
- **Estonia**
- **Luxembourg**
- **Ukraine**
- **France**
- **Sweden**
- **Switzerland**
- **South Korea**
- **Denmark**
- **Portugal**
- **Lithuania**
- **Slovakia**
- **Germany**
- **Canada**
- **Spain**
- **Chile**

Contact Person

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Term of validity

**21 Jul 2025****21 Jul 2026**

Last update

**21 Jul 2025**

## General Information

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#### Short summary

The company is developing an R&D Project for Eureka Circular Value Creation 2025 call, titled CIRBAT. The project aims to establish a closed-loop circular battery value chain by integrating recycling, material refinement, second-life battery manufacturing, and a smart digital battery passport with decision-making capabilities. Therefore, industrial partners and university/research institute partners are sought.

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#### Full description

The CIRBAT project will create a full circular ecosystem for batteries, covering:

- Collection and fast AI-based battery diagnostics.
- Smart decision-making algorithms to recommend whether batteries should be refined or refurbished for second-life applications.
- Recycling and material refining to recover battery-grade materials.
- Production of new battery cells using recycled materials.
- Refurbishment and second-life manufacturing of batteries for new applications.
- Deployment in real-world use cases (e.g., BESS, microgrids).
- A Battery Passport Platform integrating lifecycle traceability, second-life application projections, and decision-making insights.
- Comprehensive Life Cycle Assessment (LCA) to quantify environmental and economic impacts.

Therefore, the company is looking for the following partners:

- Industry partners for battery recycling/material refining and second-life battery manufacturing.
  - A university/research institute partner for material refining process validation and Life Cycle Assessment (LCA).
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### Advantages and innovations

- AI-driven fast battery diagnosis and decision-making: Determines optimal recovery paths (refining vs. second-life).
- Battery Passport with embedded intelligence: Tracks material provenance, CO2 footprint, and projects second-life potential.
- Sustainability by design: Comprehensive LCA to inform the circular battery economy in line with EU Battery Regulation.
- Closed-loop value chain: From recycling to second-life deployment, fully traceable via digital tools.

### Technical specification or expertise sought

1. Industry Partner: Battery Recycler / Refiner  
Expertise in hydrometallurgical or direct recycling processes.  
Capabilities to refine recovered materials to battery-grade quality (Li, Co, Ni, etc.).  
Experience with industrial-scale material recovery and recycling compliance.
2. Industry Partner: Second-Life Battery Manufacturer  
Expertise in refurbishment of battery cells/modules.  
Capable of assembling and certifying second-life battery packs for energy storage or mobility applications.  
Ability to support testing and deployment in real-world pilot sites.
3. University / Research Partner  
Expertise in material refinement process optimization and validation.  
Experience conducting Life Cycle Assessments (LCA) for complex energy or battery systems.  
Ability to assess environmental and economic impacts of recycling vs. second-life options.

### Stage of development

**Under development**

### Sustainable Development goals

- **Goal 17: Partnerships to achieve the Goal**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 7: Affordable and Clean Energy**
- **Goal 13: Climate Action**

### IPR Status

**No IPR applied**

### IPR Notes

## Partner Sought

### Expected role of the partner

The company is looking for Spanish-based partners, including both end-users and technology developers, to collaborate on the development and validation of the Digital Battery Passport-Integrated BMS.

End-User Partners (e.g., EV manufacturers, energy storage providers, battery recyclers) who can integrate and test the system in real-world applications such as EVs, stationary storage, and second-life batteries. They will provide operational feedback on system performance, reliability, and user experience, ensuring alignment with industry needs.

Technology Developers (e.g., BMS manufacturers, software developers, cloud service providers) who can contribute to hardware and software development, enhancing system capabilities, connectivity, and compliance with EU Battery Regulations.

### Type of partnership

**Research and development cooperation agreement**

### Type and size of the partner

- **SME <=10**
- **R&D Institution**
- **Big company**
- **SME 11-49**
- **SME 50 - 249**
- **University**

## Call Details

### Framework program

**Eureka**

### Call title and identifier

**Eureka Call for circular value creation R&D projects 2025**

### Submission and evaluation scheme

**This is a single stage call.**

### Anticipated project budget

### Coordinator required

500000

No

Deadline for EoI

**4 Aug 2025**

Deadline of the call

**30 Sep 2025**

Project duration in weeks

**156**

Web link to the call

[\(https://eurekanetwork.org/opencalls/network-projects-circular-value-creation-2025/\)](https://eurekanetwork.org/opencalls/network-projects-circular-value-creation-2025/)

Project title and acronym

**Circular Battery Lifecycle Project (CIRBAT)**

## Dissemination

Technology keywords

- **04007001 - Energy management**

Market keywords

- **06007001 - Other energy production**
- **03008004 - Other electronics related (including alarm systems)**

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Sector groups involved

- **Renewable Energy**