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BATTERY2LIFE



BATTERY2LIFE Project



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BATTERY2LIFE Vision

The vision of BATTERY2LIFE is to facilitate the smooth transition of batteries to 2nd life use and boost the innovation of the European battery industry by providing enablers to implement open adaptable smart Battery Management Systems (BMS) and improved system designs towards reliable reconfiguration of used batteries.

Project Facts

Project Name

BATTERY Management system and System design for stationary energy storage with 2nd LIFE batteries

Call identifier

Cross-sectoral solutions for the climate transition (HORIZON-CL5-2023-D2-01)

Duration

36 months (January 2024-December 2026)

Project Coordinator

Dr Angelos Amditis, Institute of Communication and Computer Systems (ICCS)

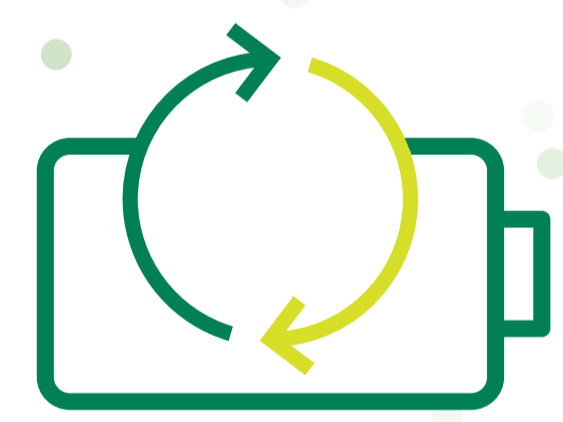
Business Cases

- i) Domestic storage- Austria,
- ii) Industrial (grid-scale) storage- Greece

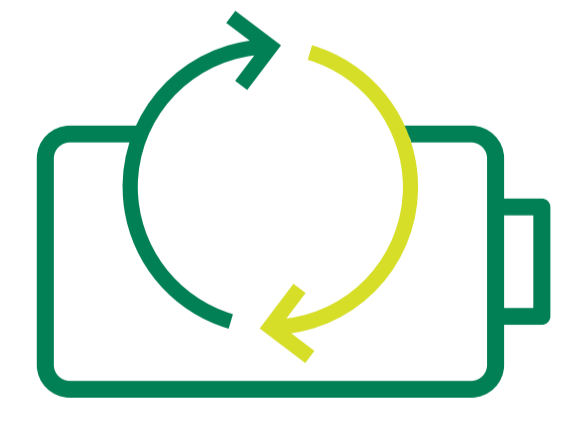
Project Objectives

- ▶ Enable the safe and efficient reconfiguration of the BS for 2nd life use.
- ▶ Design and develop an open cloud-based BMS, adaptable to battery technologies & communication protocols for 1st or 2nd life storage applications.
- ▶ Embed smart monitoring and control functionalities in the BMS to ensure safety and reliability in 2nd life operation.
- ▶ Develop AI-based tools for the reliable and efficient assessment, sorting and recombination of modules according to their suitability for 2nd life applications.
- ▶ Demonstrate and assess the efficiency and the impact of the developed solutions in domestic and utility-scale storage applications.
- ▶ Propose sustainable business plans to boost the competitiveness of the European battery industry.

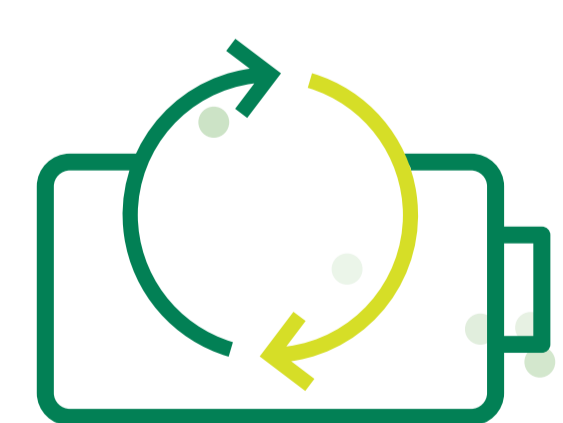
Project Expected Breakthroughs



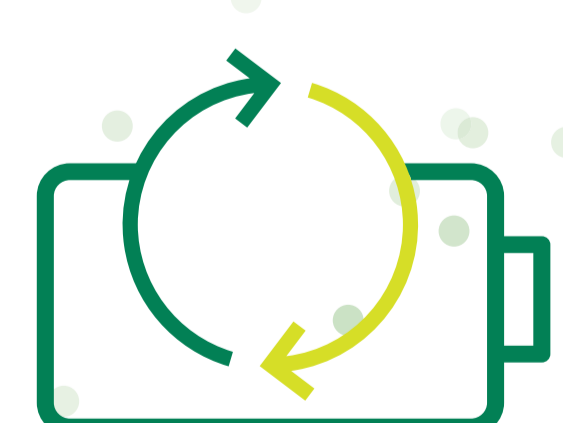
Battery pack design frameworks & open cloud Battery Management System (BMS) design frameworks for single module operation or recombination (reconfiguration) of modules or battery packs for consolidated and new battery technologies.



The embedded smart functionalities to offer more reliability and safety during operation.



The improved system designs to increase circularity, facilitate disassembly and offer enhanced critical control functions.



The advanced diagnostic tool and the sizing tool to facilitate the reliable assessment and reconfiguration of used modules.

Consortium



Miba Battery Systems



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