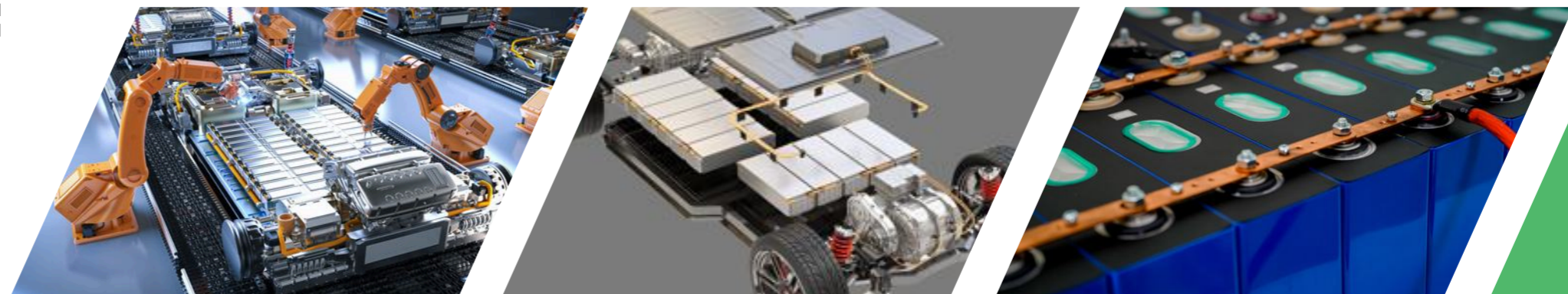
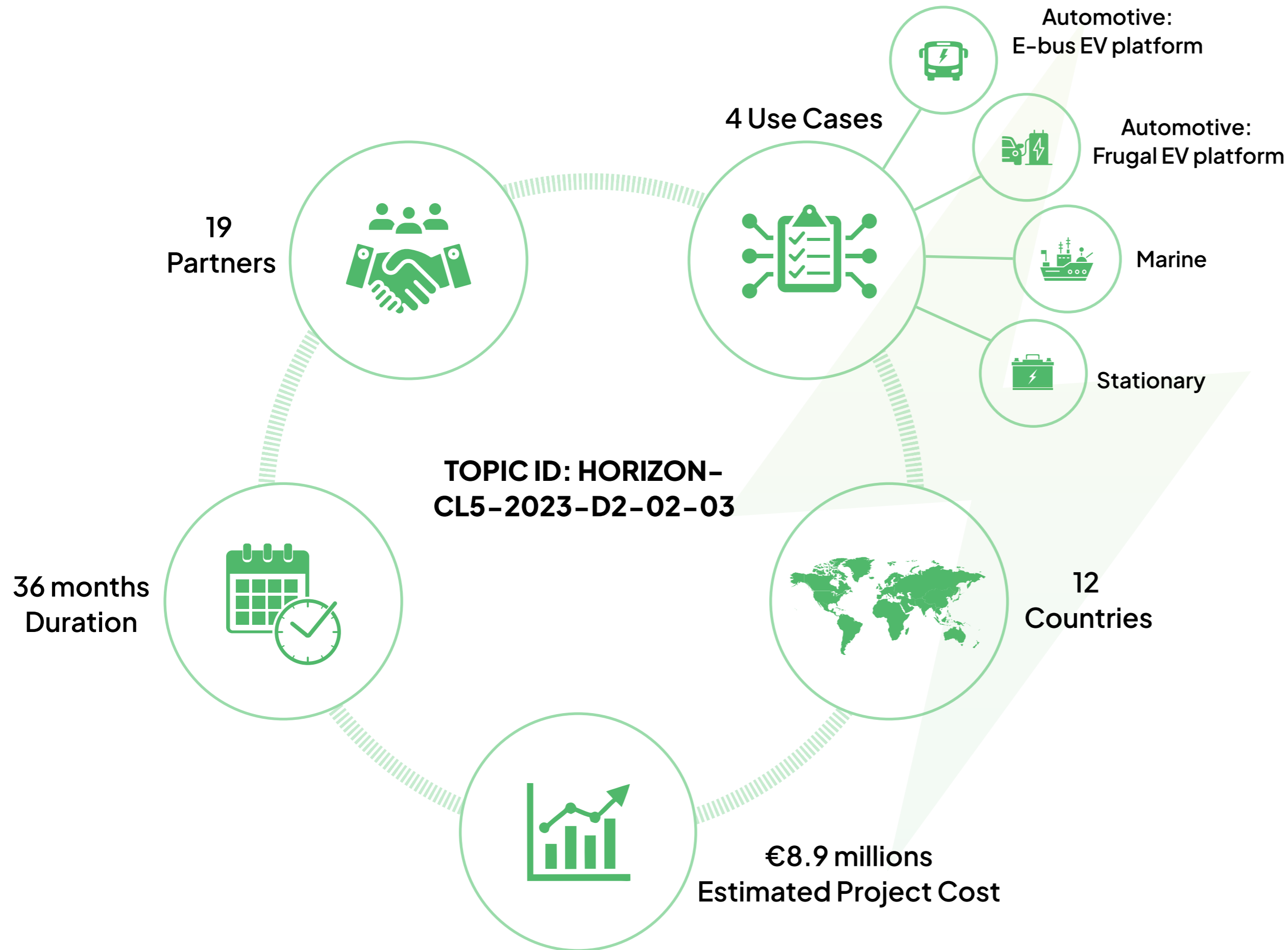


Battery Passport for Resilient Supply Chain and Implementation of Circular Economy



Project Information



Consortium Partners



Mercedes-Benz



NAVTEK NAVAL TECHNOLOGIES INC.



recycling for future



ELECTRIFYING FUTURE BeePlanet factory



Solutions for human progress



GENEVA GRADUATE INSTITUTE



ROK METALS



aspilsan Teknolojinin Enerjisi



UNIVERSITY OF SURREY

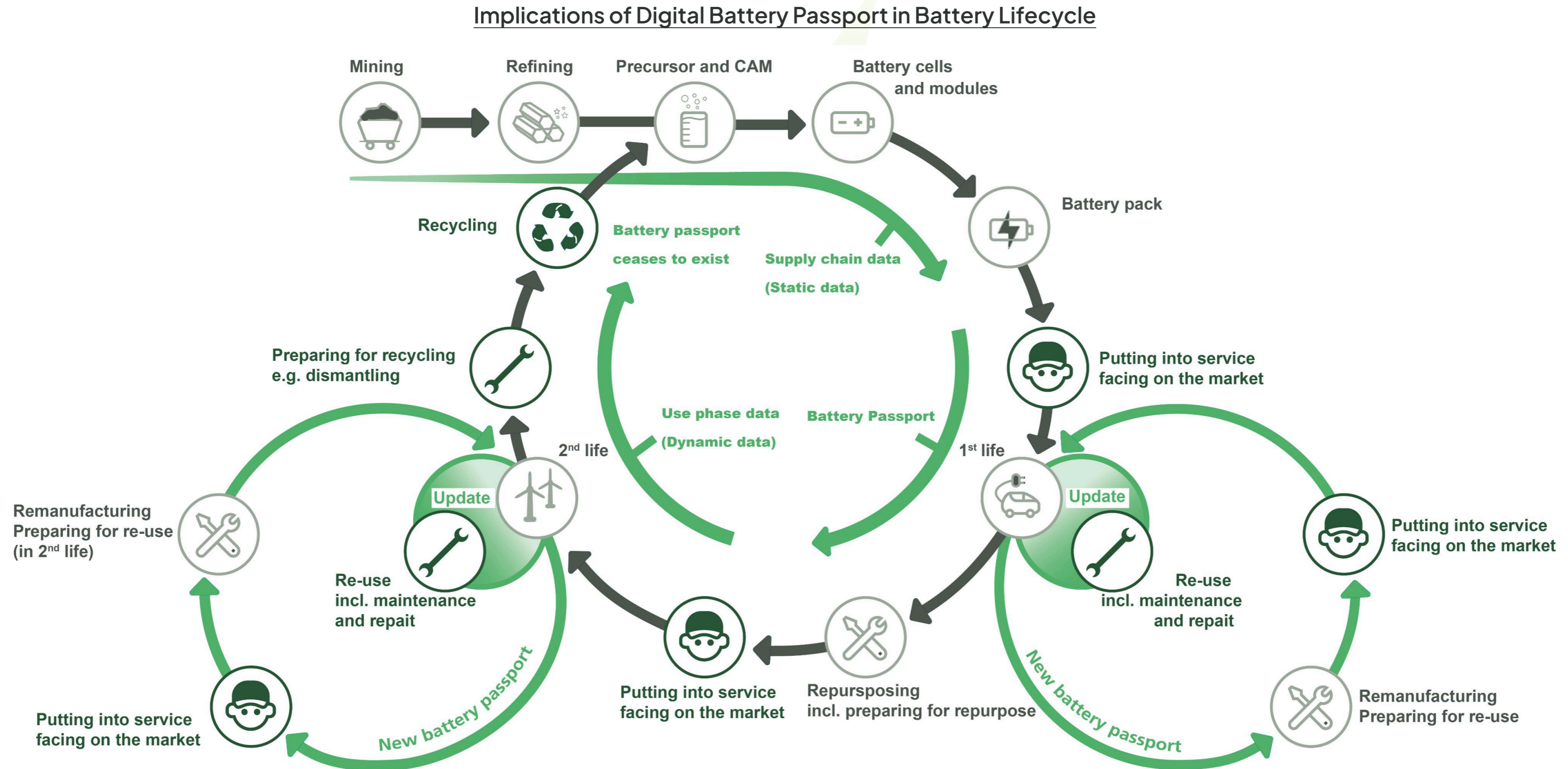


eurolithium Institute

Parakeet BV

Project Goal

Develop, validate, and implement a working Digital Battery Passport (DBP) service, as mandated by the “EU Regulation”.



Adopted from Battery Pass (2023)

Challenges



Lack of traceability and sustainability of supply chain



Lack of resiliency in the supply chain



Lack of circularity in the battery value chain

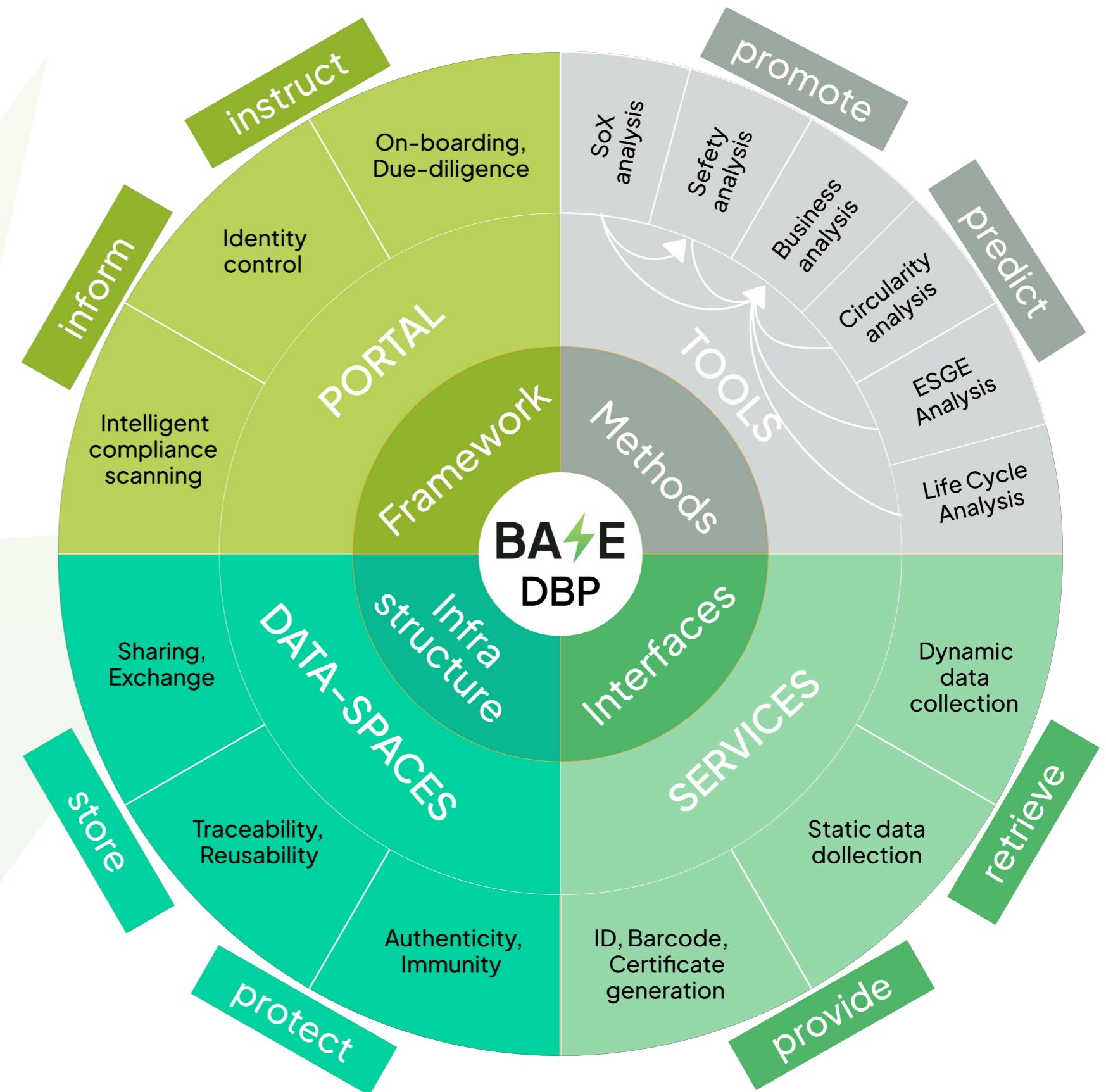
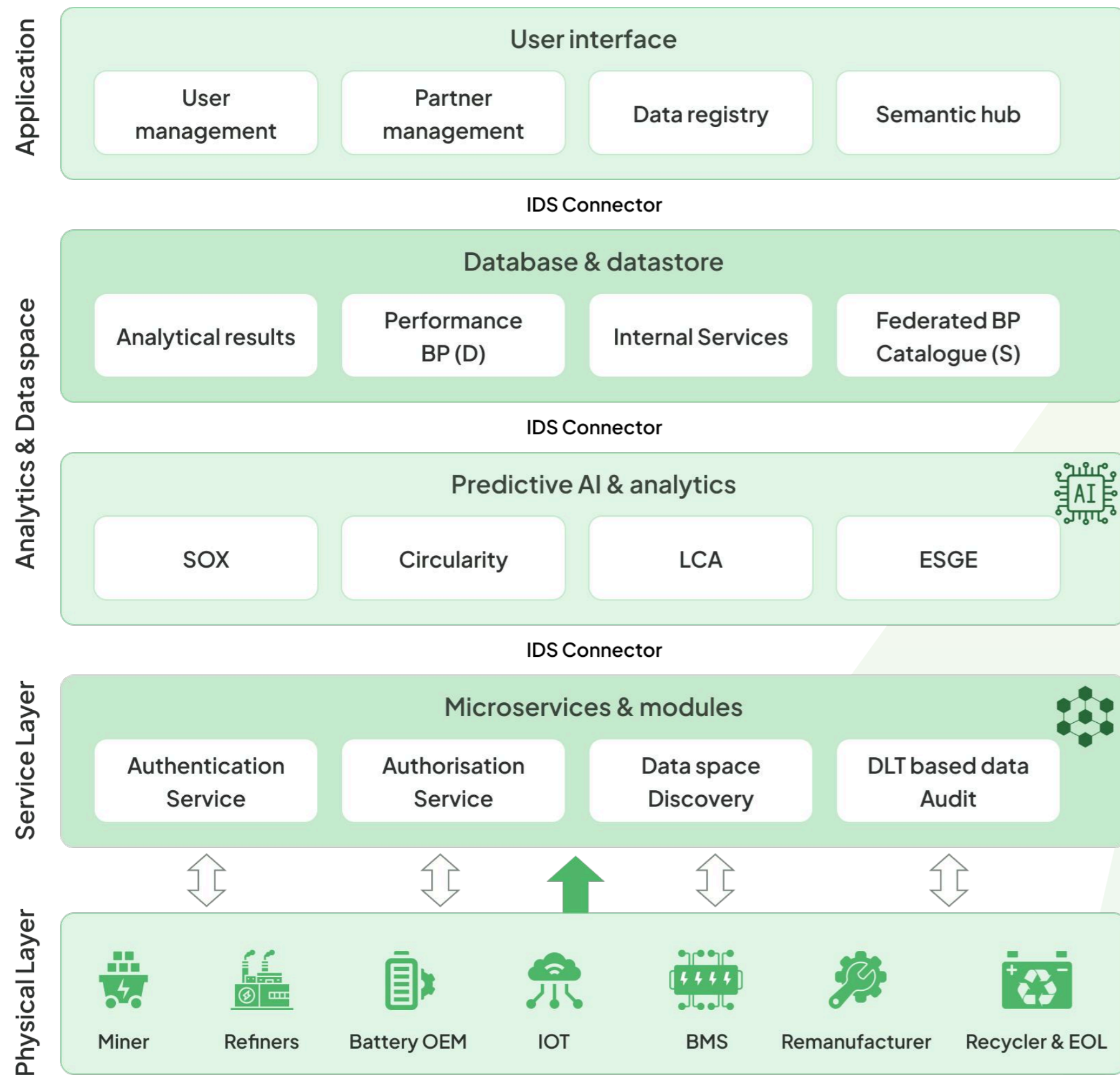
Objectives

- ⚡ Develop a trusted, interoperable DBP framework and platform
- ⚡ Ensure value chain track and traceability throughout the DBP lifecycle
- ⚡ Employ advanced analytical and AI techniques to estimate battery performance and safety indicators
- ⚡ Develop circularity indicators by accounting the 4R (Reduce, Repair, Reuse, and Recycle) aspects
- ⚡ Develop harmonised Environmental, Social, Governance, and Economic (ESGE) indicator
- ⚡ Develop a business model to promote circular economy in the battery value chain exploiting DBP
- ⚡ Demonstrate and validate the DBP concept

Impacts

- ⚡ Development and implementation of DBP through Distributed Ledger Technology (DLT)
- ⚡ Develop transparent calculation methods for battery indicators
- ⚡ Encourage new business models in different parts of battery value chains and circular data extraction
- ⚡ Improvement of battery transportation and workforce safety
- ⚡ Tested solution throughout the entire battery value chain
- ⚡ Promote sustainability and circularity through the adoption of 4R strategies
- ⚡ Contribution to the boost of the use of recycled and reusable materials
- ⚡ Increase the competitiveness of the European battery industry across the value chain
- ⚡ Reduce strategic dependencies for Critical Raw Materials (CRM) by promoting resource efficiency

Concept & Architecture



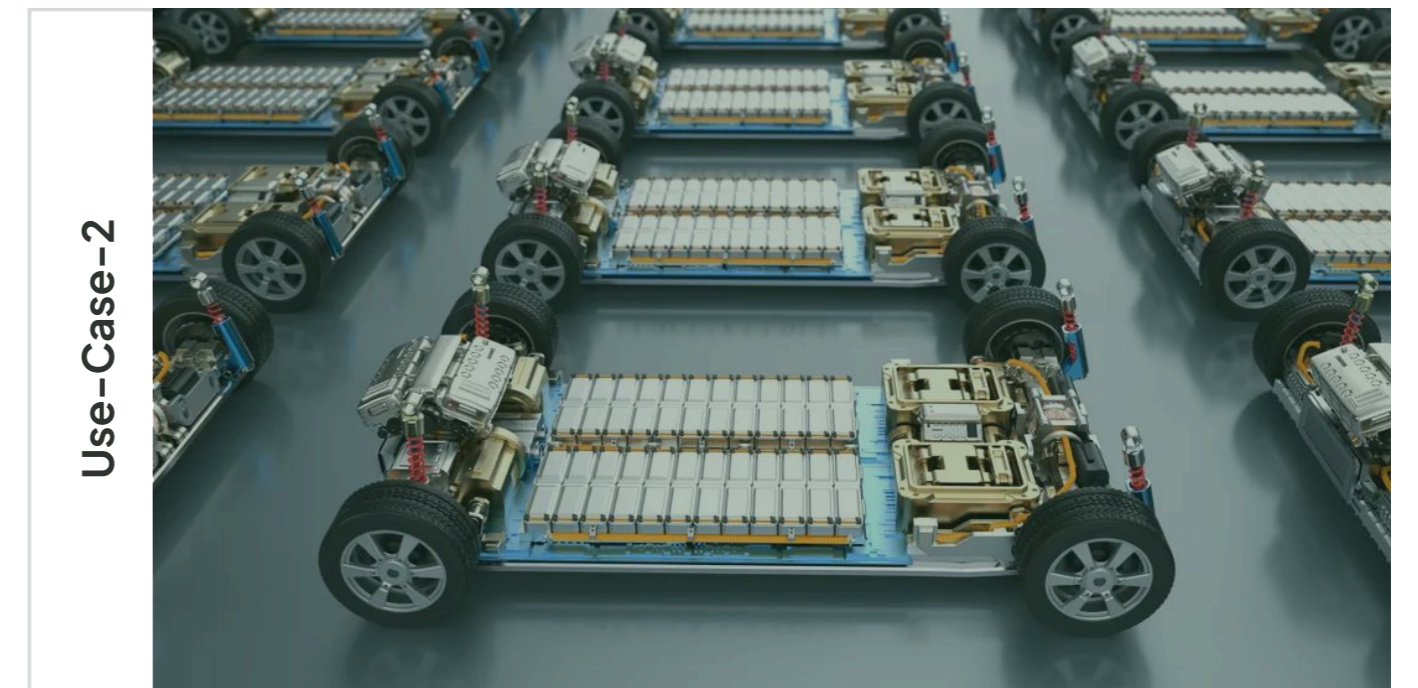
BASE Use Cases and Demonstration Methodology

General Objectives for each Pilot

- ✔ Secure and reliable access to federated DBP infrastructure
- ✔ Systematic immutable data inputs to DBP
- ✔ Transparency, accuracy, and reliability of battery indicators
- ✔ DBP data provisions with a realistic product development lifecycle
- ✔ Interoperable data sharing among value network members
- ✔ Real physical data for circularity index tuning, ESGE analysis and business impact analysis



Use-Case-1
Automotive: E-bus EV platform production pilot for MARCEDES-BENZ



Use-Case-2
Automotive: frugal EV platform production pilot for FORD Motors

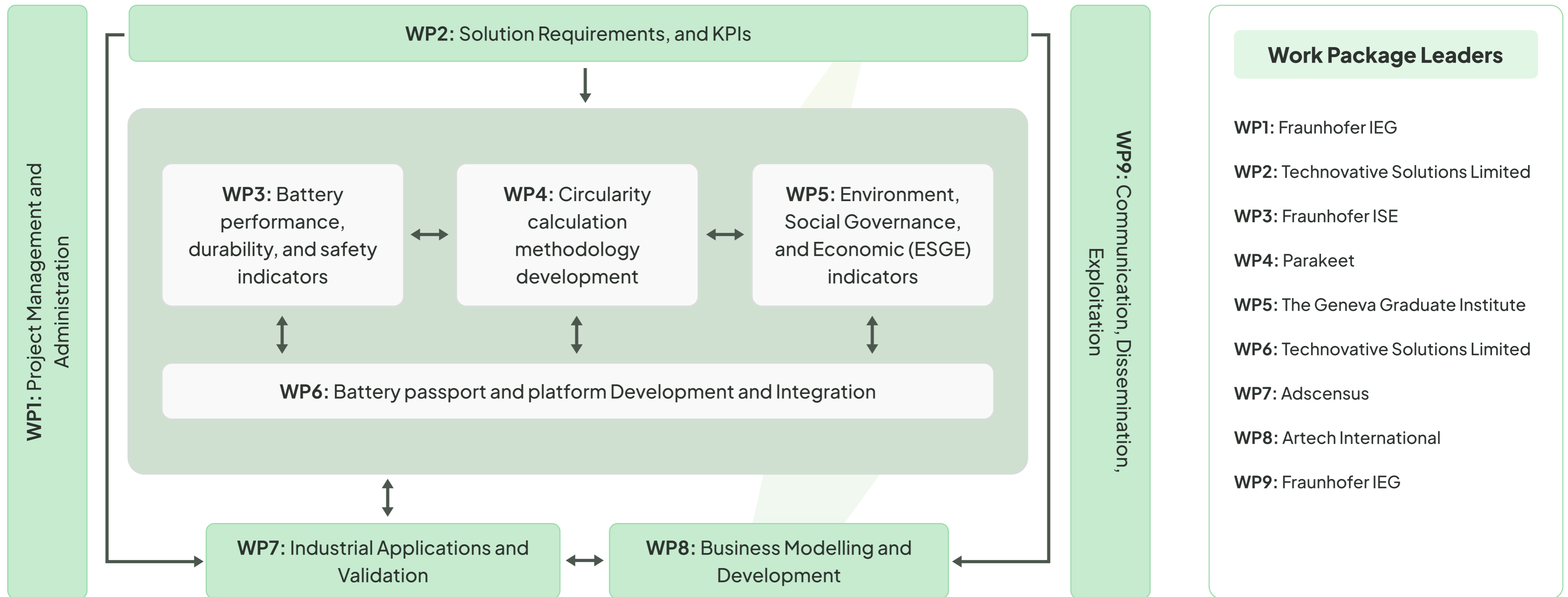


Use-Case-3
Marine: electric tugboat production pilot



Use-Case-4
Stationary: 2nd-life electric energy storage production pilot

Work Packages



Contact Us



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www.base-digibattpass.eu



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