

Rhoé: Mobility Innovation Consultancy

Rhoé is a cutting-edge consultancy specializing in mobility innovation and sustainable transportation solutions. Based in Thessaloniki, Greece, Rhoé operates at the nexus of technology, engineering, and policy to address pressing challenges in modern mobility. Rhoé offers a comprehensive range of services and products designed to revolutionize how people and goods move across urban and regional environments.

1. Core Services

Rhoé's multidisciplinary team brings together engineers, economists, data scientists, and project managers, combining expertise in transportation infrastructure, spatial planning, digital platforms, and market analysis. This integrated approach ensures the delivery of practical, innovative, and customized solutions that effectively address the unique needs of stakeholders.

- **Integrated Mobility Planning:** Rhoé designs future-ready transportation systems, including electric vehicle charging networks, autonomous vehicle pathways, and public transit optimization.
- **Smart Data Analytics:** Leveraging machine learning and mathematical/statistical modeling, Rhoé provides actionable insights through predictive modeling, enabling smarter decisions for infrastructure investments and operational efficiency.
- **Sustainability Consulting:** Expertise in reducing emissions and advancing green mobility through innovative technologies like battery swapping, digital twins, and fast-charging systems.
- **Innovation Consulting:** Rhoé assists organizations in the transport industry in participating in and managing research projects, securing funding, and integrating cutting-edge outcomes into their business strategies to drive growth and competitiveness.
- **Economic and Policy Analysis:** Rhoé assesses the market impact of mobility innovations and policies, offering strategies that align with economic and environmental objectives.

2. Innovative Projects

- **Current Direct (EU):** This initiative focuses on developing advanced lithium-ion battery cells for waterborne transport, paired with a cloud-based Energy-as-a-Service (EaaS) platform. The system allows efficient swapping of depleted batteries in electric vessels and integrates fleet logistics optimization and real-time network monitoring for seamless operations.
- **HYPOBATT (EU):** Aiming to electrify ferry routes like Norddeich-Norderney, this project brings together 18 European stakeholders to standardize multi-megawatt fast-charging systems for ships. Rhoé's Digital Twin innovation enables enhanced system design and operational efficiency.
- **ZEV-UP (EU):** Focused on making Battery Electric Vehicles (BEVs) more affordable and adaptable for diverse markets, this project integrates innovative Battery-as-a-Service solutions and conducts consumer-focused research to accelerate global EV adoption.
- **SAFARI (EU):** By deploying a digital platform with emergency management capabilities, this project strengthens port resilience during extreme weather events. Pilot tests are underway in Dunkirk, Seville, and Lisbon, creating a replicable model for global ports.



- [SwapWave](#) (EL): Exploring battery-swapping technology for coastal and short-sea shipping routes in the Ionian Islands, this project addresses infrastructure challenges and enhances energy flexibility, aiming to significantly reduce vessel downtime.
- [Street21](#) (EL): Hosted by Aristotle University of Thessaloniki, this project improves urban traffic flow by redesigning intersections for mixed use by conventional and automated vehicles, aligned with the European Green Deal.
- [EVCIP](#) (EL): A detailed study under the European Commission's Green Agreement to optimize EV charging infrastructure placement, tailored to local spatial and functional characteristics.
- [OPSPS](#) (EL): Aims to map and organize public spaces in urban areas using a holistic, multidimensional approach, enhancing accessibility and functionality.
- [HiHELIOS](#) (EU): Demonstrating hybrid battery systems for multi-functional grid applications, this project combines second-life NMC batteries with LFP batteries or supercapacitors, with pilots in Greece, Norway, and Belgium.
- [ENERGENIUS](#) (EU): A comprehensive digital platform that integrates energy, healthcare, traffic, and other sectoral data for AI-driven recommendations, fostering community-driven energy transitions.

3. Signature Products

- **ener.gy**: A proven energy optimization platform for ports, delivering up to 10% cost reductions through resource monitoring and management.
- **Intelli.ware**: An advanced warehouse management solution featuring real-time tracking, AI-driven analytics, and efficient resource allocation.

