

## Vehicle to Grid model and prototype solution



### THE PROJECT

“V2G-eVolution 2 Grid” is a research innovation project funded under the Programme Electric Mobility Europe 2016 and coordinated by IREN (Multi-Utility, ITA), with the participation of 3 more European partners: MECAPROM (Automotive & Engineering, ITA), CTC (Automotive & Engineering, GER) and Aalborg University (DEN).

The overall objective of the project is to contribute to a zero CO2 emissions future, developing testing and optimizing an integrated V2G solution composed by a light quadricycle enabling V2G, a bidirectional V2G enabling charging infrastructure and an Energy Management and Control System.

The partners will test the novel V2G integrated solution in real simulated conditions of two case studies (public and household), evaluating benefits and obstacles at technological and regulatory level, assessing its business potential and creating awareness about the results of the project, engaging stakeholders, public administrations, and car owners.

### PROJECT OBJECTIVES

- ◆ To develop, test and optimize an integrated V2G solution composed by a prototype light quadricycle enabling V2G, prototype V2G charging points (both domestic and public) and a software platform (Energy Management System) enabling interaction with electricity grids and markets.
- ◆ To test the solution in real simulated conditions.
- ◆ To assess the Legislations and Standards Development in EU and project partner countries.
- ◆ To assess and evaluate the benefits and obstacles of integrating the needs and purposes of the involved stakeholders in the future balancing market.
- ◆ To assess the business potential of the V2G solution based on the evolving European market, with the aim of fostering market introduction.
- ◆ To create awareness and communicate about the results of the project, engaging all the involved stakeholders.

### PROJECT IMPACT

**The V2G project will create substantial impacts in Europe, such as:**

- ◆ Accelerate the time to market for solutions for integrating electric mobility in Europe’s (sub-) urban mobility systems.
- ◆ Involve policy decision makers and stakeholders for exchanging know-how and experiences on electric mobility solutions for European urban areas.
- ◆ Support industry, service sector, politics, authorities and users in their efforts to develop suitable and feasible solutions for electric mobility.
- ◆ Actively contribute to promote zero emission mobility in EU cities.
- ◆ Focus on passenger transport while considering urban freight and logistics.
- ◆ Consider issues of interoperability and compatibility.
- ◆ Provide new knowledge on efficiency, social aspects, regulation and conditions for market uptake.
- ◆ In addition, the deployment of Smart Grids provides an opportunity to boost the future competitiveness and worldwide technological leadership of EU technology.

### PARTNERS



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