

PROJECT

SMARTV2G

Smart Vehicle to Grid Interface

Funding: European (7th RTD Framework Programme)

Duration: Jun 2011 - May 2014

Status: Complete

Total project cost: €3,279,368

EU contribution: €2,520,000



Call for proposal: FP7-2011-ICT-GC

[CORDIS RCN : 99306](#)

Background & policy context:

In a context of an obliged continuous optimisation of the energy consumption rates in developed societies, embedded systems and solutions can perform a significant role in the transition process towards a Sustainable Urban Life concept in European countries. One of the main and most promising technological areas that are expected to be able to contribute in a most relevant way to that overall target is the one constituted by the electric vehicles.

Objectives:

Develop a vehicle to grid system made up of a grid of smart charging stations.

Define control systems architecture.

Develop information processing between EV and charging stations.

- Define specification of standards for communication, interfaces and information processing.
- Ensure security and identification when using charging stations.
- Test and validate the developed technology and systems.
- Disseminate projects results and ensure scalability for future economic use.

Methodology:

Because of various user scenarios it is necessary to implement a specific architecture not only for the communication between electric vehicles and charging stations but also to the different electricity providers. A geolocation system is the base for a charging station finder. An intelligent data warehouse will handle all data from different data sources. At the top of the system a main dashboard will help to control the system in a very visual way.

Parent Programmes:

[FP7-ICT - Information and Communication Technologies](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Asociacion Instituto Tecnologico De La Energia

Address:

Avda Juan De La Cierva

46022 Paterna
Spain

Organisation Website:

<http://www.ite.es>

EU Contribution: €496,481

Partner Organisations:

Etrek Svetovanje In Druge Storitve Doo

Address:

POD JELSAMI 006
1290 GROSUPLJE
Slovenia

Organisation Website:

<http://www.etrrel.si>

EU Contribution: €357,528

Technomar Gmbh

Address:

HOHENLINDENER STR. 1
81677 MUNCHEN
Germany

Organisation Website:

<http://www.technomar.de>

EU Contribution: €360,200

Elektro Ljubljana Ove, Inzeniring Spodrocja Obnovljivih Virov Energije, D.o.o.

Address:

SLOVENSKA CESTA 56
1000 LJUBLJANA
Slovenia

EU Contribution: €113,880

Fraunhofer Gesellschaft Zur Foerderung Der Angewandten Forschung E.v.

Address:

Hansastrasse 27C
80686 MUNCHEN
Germany

Organisation Website:

<http://www.fhg.de>

EU Contribution: €644,201

Cit Development S.l.

Address:

Alameda De Cervantes
30800 Lorca Murcia
Spain

EU Contribution: €374,102

Universita Degli Studi Di Roma "la Sapienza"

Address:

Piazzale Aldo Moro 5
00185 ROMA
Italy

Organisation Website:

<http://dma.ing.uniroma1.it>


EU Contribution: €173,608

Technologies:

Electric road vehicles
Energy management system for charging station

Development phase: Research/Invention

Documents:

 [SMARTV2G Flyer \(Project presentation\)](#)

STRIA Roadmaps: Transport electrification, Infrastructure

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport

Transport policies:

Decarbonisation, Deployment planning/Financing/Market roll-out, Environmental/Emissions aspects

Geo-spatial type: Other