

PROJECT

ECO-FEV

Efficient Cooperative infrastructure for Fully Electric Vehicles

Funding: European (7th RTD Framework Programme)

Duration: Sep 2012 - May 2015

Status: Complete

Total project cost: €4,265,317

EU contribution: €2,960,000



Call for proposal: FP7-2012-ICT-GC

[CORDIS RCN : 104780](#)

Background & policy context:

eCo-FEV pools the expert knowledge and innovative strength of its 13 partners to achieve a breakthrough in Fully Electric Vehicle (FEV) introduction by creating an integrated electro mobility IT platform. At present, infrastructures that are used by FEVs are rarely cooperating with each other. FEVs are still no mass market products. eCo-FEV wants to change that - as soon as possible. Therefore, information from several existing infrastructures has to be combined in one electro mobility platform for Smart Cities.

Acting as a general architecture for the FEVs usability in everyday traffic, the eCo-FEV platform will enable precise EV telematics services and charging management services based on real time information.

So, with the help of the aimed-at eCo-FEV architecture, relevant FEV-related services will be connected to provide the FEV users with reliable and seamless information. The consolidation of information services will significantly push the mass market introduction of FEVs. FEVs will benefit the Smart City social community in several ways, e.g. saving the overall used energy, reducing dependence on fossil fuel and thus impacting the environment. Therefore, the eCo-FEV partners will define, test and evaluate the eCo-FEV platform architecture and charging services until its final presentation in May 2015.

The eCo-FEV research is connected to different areas of electric mobility such as road traffic, communication technologies and power supply.

Objectives:

It is commonly estimated that FEVs will benefit the social community in several ways, e.g. saving the overall used energy, reducing dependence on fossil fuel and thus impacting the environment. But due to limited range, a lack of charging spots and insufficient telematics services FEVs are still some kind of niche products.

Electrification of vehicles has to become affordable, removing the actual bottlenecks of availability of charging stations and of low user acceptance due to high vehicle cost, long recharging time and limited ranges. So, eCo-FEV aims to develop a cooperative architecture in order to combine the information of several infrastructures for FEVs and users. It is the objective of the eCo-FEV project to propose this open architecture in order to enable the extensibility and flexibility of the eCo-FEV concept in the follow up deployment in different implementation situations, e.g. implementation site local requirements, specific use case requirements, client requirements etc.

With the help of eCo-FEV's advanced telematics services FEV users will be able to react on the current traffic situation and to actively manage the charging process.

Overall, eCo-FEV will promote:

- the FEV introduction in mass market,
- the integration of FEV into the existing infrastructures,

- a smart cooperative infrastructure for telematics services,
- an efficient multi-mode innovative FEV charging,
- the urban co-modality mobility,
- the environmental protection.

Methodology:

Administrative work packages

The work of eCo-FEV is organized into five work packages (WPs). The responsibilities of the two administrative WPs overlap each other, facilitating a close cooperation and the exchange of experiences between WPs.

WP101 and WP102 are working on the general management of the project and are responsible for the quality control of technical and management activities.

WP501 and WP502 are concerned with the dissemination of the project's results and their economic exploitation. Together with WP101 they are going to coordinate the exchange of information with other relevant R&D projects and standardization organizations.

Technical work packages

The project includes three technical WPs:

- WP200 conducts a comprehensive study on potential use cases and provides the system and component specifications used as a reference in WP300.
- In WP300, the eCo-FEV architecture is developed and validated. The output of WP300 will be the creation of integrated prototype sub-systems with communication capacities at the test sites.
- In WP400, the use cases tests are prepared, executed and evaluated.

Parent Programmes:

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

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Hitachi Europe Limited

Address:

Lower Cookham Road Whitebrook Park
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United Kingdom

EU Contribution: €441,358

Partner Organisations:

Schulz - Institute For Economic Research And Consulting Gmbh

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Germany

EU Contribution: €47,498

European Center For Information And Communication Technologies Gmbh

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TORGAUER STRASSE 12-15 EUREF CAMPUS HOUSE 13
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Germany

EU Contribution: €277,800

Renault Represented By Gie Reginov

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France

Organisation Website:

<http://www.renault.com>

EU Contribution: €172,013

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Organisation Website:

<http://www.crf.it>

EU Contribution: €492,875

Commissariat A L Energie Atomique Et Aux Energies Alternatives

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EU Contribution: €256,801

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EU Contribution: €238,875

Bluethink Spa

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EU Contribution: €72,456

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Organisation Website:
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EU Contribution: €218,625

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EU Contribution: €0

Facit Research Gmbh & Co. Kg

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EU Contribution: €132,609

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EU Contribution: €395,140

Tecnositaf Spa Con Unico Socio

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EU Contribution: €167,300

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Italy

Organisation Website:
<http://www.energrid.it>

EU Contribution: €46,650

Technologies:

Electric road vehicles
Full EV infrastructure inter-communication system

Development phase: Research/Invention

Documents:

 [Common Deliverable ECO-FEV \(Other project deliverable\)](#)

STRIA Roadmaps:

Cooperative, connected and automated transport, Transport electrification, Infrastructure

Transport mode: Road transport

Transport sectors: Passenger transport

Transport policies: Digitalisation, Decarbonisation, Environmental/Emissions aspects

Geo-spatial type: Urban