eCo-FEV

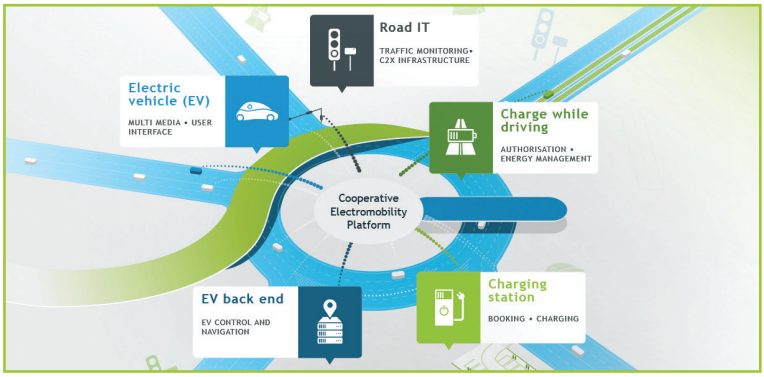
efficient Cooperative infrastructure for Fully Electric Vehicles

MOTIVATION AND OBJECTIVES

After 33 months of joint efforts, eCo-FEV has developed an open and flexible architecture taking fully electric vehicles (FEVs) one more step towards a mass market penetration. The project created a general architecture for the integration of FEVs into cooperative infrastructure systems. This includes new solutions for charging, such as contactless modes.
The project further promotes:

- A smart cooperative infrastructure for telematics services,
- An efficient multi-mode innovative FEV charging,
- Urban co-modal mobility,
- Environmental protection.

eCo-FEV successfully completed the project and carried out the final event on May 22nd, 2015 in Grenoble, France.



TECHNICAL APPROACH

For integration of FEVs with different infrastructure systems, eCo-FEV designed, developed and integrated the following subsystems: a road side system, an in-vehicle system and a back end.
This further includes innovative technologies like Charge While Driving, energy management and management of the whole charging process.

- Road side system: The road side unit in eCo-FEV includes communication hardware (e.g. Wi-Fi, UMTS), application unit hardware and potential gateways to interface with the road side infrastructure or with different charging infrastructures.
- In-vehicle system: An on-board unit is integrated into the FEVs, providing telematics services and charging assistance for FEV users.
- eCo-FEV back end: This platform provides data collection and data aggregation functionalities, and it provides FEV services to customers.

ACHIEVEMENTS

- One electromobility platform, combining existing infrastructures relevant for advanced FEV-related services
- This platform is mutualising and exploiting information from EVs and from independent EV-related infrastructures.
- Smart concept design integrating energy management and multimodal urban mobility planning
- Improvement of energy provision via reliable wireless communications
- Support of different charging modes (including Charge While Driving)
- Successful tests of platform and use cases at the Italian (Susa) and French (Grenoble) test sites
- Development of a potential business model and elaboration of an exploitation plan

Budget	4.3 M€	**Funding**	3 M€
Duration	33 months	**Start**	September 2012
DG	Connect	**Contract n°**	233826
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Partners	Hitachi Europe, CEA, EICT, POLITO, Renault, TU Berlin, TECNOSITAF, CRF, BlueThink, FACIT, Le Département de l'Isère, EnerGrid, IERC		
Website	www.eco-fev.eu		