

■ Motivation and Objectives

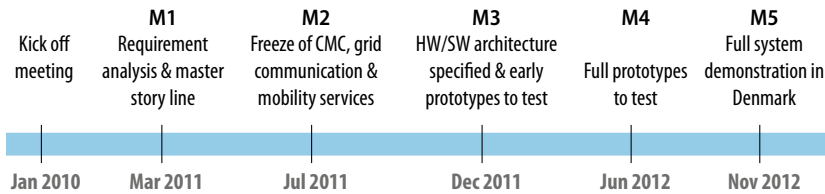
In order to enable e-mobility for road transport, there are still plenty of problems to be addressed:

- **On-board:** electrical storage, thermo-electrical management, energy efficient and light weight e-auxiliaries, e-energy transponder and E-HMI, etc.,
- **External:** infrastructural measures, such as electricity grid enhancement, billing & roaming, safe sockets, e-management & service centres, regenerative energy utilities, etc.

Many activities to resolve these problems are already underway, however there is one crucial and cross-cutting factor of foremost importance for the successful introduction of Electric Vehicles (EV): the customer acceptance of electric vehicles and her/his readiness to take up e-driving – overcoming range anxiety, i.e. concerns about being stranded due to running out of charge.

■ Project Plan, Milestones and Deliverables

The sequence of activities starting from the identification of relevant business models and scenarios to the selection of the use cases, the definition of the requisite off-board service and infrastructure Information and Communication Technology (ICT), the development of the on-board communication unit and e-energy service ICT and the validation of integrated subsystems and the corresponding prototype tests is essential to the success of the project.



■ Technical Approach

To develop an on-board electric energy communication & service platform for realistic use cases including the relevant external communication and services the following actions are taken:

- Selection of representative use cases according to realistic scenarios and business models,
- Identification & development of those off-board ICT & services according to the use cases,
- Development of “Prototypes” for the on-board communication and e-energy service unit,
- Verification of all integrated sub-systems on prototype level and proof of the concept.

Great emphasis is placed on the “openness of the electricity-service platform” granting access to multiple players maintaining the customers’ choice.

■ Achievements

- WP1:** Implementation of project governance, initial definition of privacy/security aspects and creation of a project website.
- WP2:** Detailed definition of scenarios and use cases, initial impact evaluation of Full Electric Vehicles (FEV) to the current automotive industry business model, relevant stakeholders mapping and analysis.
- WP3:** Implementation of the Control & Management Centre (CMC) and definition of system boundaries, scope, roles and architecture. Analysis of the communication between charging components and the electricity infrastructure supporting the EV services rendered to the driver. Requirements analysis for the interface between the CMP and the utility.
- WP4:** Requirements analysis and specification of the EV Communication Device (EVCD), as well as development of most effective EVCD concepts; specification of services incl. HW platform selection and development of requisite algorithms and identification of required data sources.
- WP5:** Preparations for prototype tests and full scale demonstration in Denmark.

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Duration	36 months	Start	January 2010
DG	INFSO / G4	Contract n°	DG INFSO 249105
Coordinator	Hannes Lüttringhaus, Continental	Contact	hannes.luettringhaus@Continental.com
Partners	Continental, Renault, VW, CEA, BetterPlace, SAP, ENDESA, Lindholmen ScP, ATB, ERPC, ERASMUS		
Website	www.elvire-project.org		