


## Consortium

In order to realise this project a consortium of 13 outstanding partners from 5 European countries has been formed:

	ITE Instituto Tecnológico de la Energia, Spain (Coordinator)
	CIT Development S.L., Spain
	Consorzio per la Ricerca nell' Automatica e nelle Telecomunicazioni (CRAT), Italy
	Electronic Trafic, S.A (ETRA), Spain
	Energy Institute "Hrvoje Pozar" (EIHP), Croatia
	ENEL Distribuzione S.P.A., Italy
	Elektro Ljubljana, d.d., Slovenia
	ETREL Svetovanje in druge storitve d.o.o., Slovenia
	Fraunhofer-Einrichtung für Systeme der Kommunikationstechnik ESK, Germany
	OPREMA RAVNE, pnevmatika, hidravlika, orodja in tehnološke linije d.o.o., Slovenia
	T-Hrvatski Telekom d.d. (HAT), Croatia
	Technomar GmbH, Germany
	Zabala Innovation Consulting, S.A., Spain

## About mobincity




mobincity is a project funded by the European Commission under the Seventh Framework Programme (ICT for fully electric vehicles).

Total cost: 3.93 million Euro  
EU contribution: 2.9 million Euro  
Duration: from July 2012 to June 2015

During this time the consortium will develop a system to be installed within FEVs that is able

- To receive information from the surrounding environment (e.g. traffic or weather information) which can have influence to the vehicle performance
- To optimise the trip planning and routing of FEVs adapted to user's needs by using information from external sources including alternatives from other transport modes
- To define efficient and optimum charging strategies (including routing) adapted to the user needs and grid conditions
- To implement additional energy saving methods (as driving modes and In-Car Energy Management Services) within the FEV interaction with the driver.

Visit our website to learn more about the mobincity Project:

[www.mobincity.eu](http://www.mobincity.eu)

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Smart Mobility in Smart City



A collaborative project funded by the European Union's Seventh Framework Programme (FP7)

## Project Objectives



Fully Electric Vehicles (FEV) can contribute significantly to the reduction of greenhouse gas emissions and local air and noise pollution. However, electromobility is facing several weaknesses which are restricting its wider deployment, mainly related to overall limited efficiency and limited driving range.

**Out of this reason the Smart Mobility in Smart City project ( mobincity ) has been launched. Its major target is the optimisation of autonomy range and the increase in energy efficiency of Electric Vehicles by using all relevant data from vehicle, transport and energy infrastructures as well as the surrounding environment.**

One major cornerstone of mobincity is the development of a complete ICT-based integrated system which is able to interact between driver, his vehicle and all involved infrastructures in order to optimise the vehicle's charging, discharging and energy saving strategies by offering specific solutions for trip planning, routing and in-car energy management.

## Use Cases

The mobincity Use Cases are classified into three different categories:

### Trip Planning

An optimisation model that combines traditional with FEV specific routing in order to find the most optimal charging point location by using the least energy consuming route, including also the public transport infrastructure.



### On Trip Services

Dynamic services for unforeseen events like traffic congestions, changing weather conditions and congestions in the energy distribution network by offering re-routing, co-modality trip options and an optimised in-car energy management.



### FEV Charging

A full integration of the FEV charging with the whole energy supply chain, including distribution networks, charging stations, control centres, retailers and Distributed Energy Resources.



## The Architecture

The mobincity architecture consists of:

- Smart Transport Middleware (STM)** for collecting external data like weather or traffic information
- Proactive Intelligent Information System (PIIS)** for handling the high data volume provided by the SMT
- Electric Vehicle Supply Equipment (EVSE)** consisting of EV charging stations
- EVSE Operator-Backend** the operator's IT tool for the management of charging stations
- On-board Information System (OIS)** and the **Smartphone App** are two different opportunities for the user to interact with the vehicle's on-board software
- Master Interaction Aggregator (MIA)** the vehicle's central point of data acquisition for mobincity

