

PROJECT

FREE-MOBY

People Centric easy to implement e-mobility

Funding: European (7th RTD Framework Programme)

Duration: Sep 2013 - Dec 2016

Status: Complete

Total project cost: €6,031,840

EU contribution: €3,997,764



Call for proposal: FP7-2013-ICT-GC

[CORDIS RCN : 109296](#)

Background & policy context:

The FREE-MOBY project is focused to the implementation of easy to deploy micro fully electrical vehicles (450-650kg and speeds up to 90+ km/h)) and city EVs (650-1000kg).

By an extra cost of only 15% solar installations in roof houses can be integrated with robust battery packs that can smooth peak powers up to 30%. Solar parking and integrated photovoltaic-battery installations are becoming more and more popular in many EU countries. The availability of largely deployed renewable energy installations attracts a large number of EV users with a push-pull impact on efficiency, reduced energy waste (wind) and dependency on hydrocarbons.

Objectives:

FREE-MOBY addresses:

- Developments of prototypes of premium Micro EVs for both passengers and freight delivery applying large scale manufacturing concepts,
- Full convergence between renewable energy and electromobility with common technology developments,
- Demonstration of secure and smart interactivity vehicle to infrastructures,
- Development of a simplified electric architecture serving a two motor powertrain with robotised two gear box and independent two axles control,
- Development of universal battery-monitoring systems, with a focus on simplified battery management systems based on pure monitoring of cells status,
- Development of sub-module battery packs holdings integrating monitoring and managing sensing electronics,
- Development of modular battery packs sub-modules based on standard battery cells including the option of safe partial swapping,
- ICT use leading to lower vehicles production cost and simplified maintenance,
- Developments smart photovoltaic modules with embedded electronic,
- Integration of simplified overall electric architectures by adopting the ICT advancements introduced in portable devices.

The project will open a new route in electro-mobility based on simplicity, freedom of operation, low cost of use and easy to find components.

Parent Programmes:

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

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

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Bitron Spa**Address:**

Corso Principe Oddone 18
10122 Torino
Italy

EU Contribution: €262,205

Partner Organisations:**Icpe Sa****Address:**

Splaiul Unirii 313 Sector 3
30138 Bucuresti
Romania

EU Contribution: €272,823

Instytut Mechanizacji Budownictwa I Gornictwa Skalnego**Address:**

Ul. Racjonalizacji 6/8
02 673 Warszawa
Poland

EU Contribution: €166,080

Bjlguarska Asotziatziya Yelyektrich**Address:**

SREDETS SABORNA 14
1000 SOFIA
Bulgaria

Organisation Website:

<http://www.baeps.org>

EU Contribution: €36,800

Cisc Semiconductor Gmbh**Address:**

Lakeside B07
9020 Klagenfurt
Austria

EU Contribution: €373,997

Interactive Fully Electrical Vehicles Srl**Address:**

Via Carle
12048 Sommariva Del Bosco Cn
Italy

Organisation Website:

<http://www.ifevs.com>

EU Contribution: €272,595

Fundacion Cidaut

Address:

PLAZA VICENTE ALEIXANDRE CAMPOS 2 PQ TECNOLOGICO DE BOECILLO 209
47151 VALLADOLID
Spain

Organisation Website:

<http://www.cidaut.es>

EU Contribution: €338,060

Ricerca Sul Sistema Energetico - Rse Spa**Address:**

Via Raffaele Rubattino 54
20134 Milano
Italy

EU Contribution: €327,825

Lithium Balance A/s**Address:**

Hassellunden 13
2765 SMORUM
Denmark

Organisation Website:

<http://www.lithiumbalance.com>

EU Contribution: €449,750

Stmicroelectronics Srl**Address:**

VIA C.OLIVETTI 2
20864 AGRATE BRIANZA
Italy

Organisation Website:

<http://www.st.com>

EU Contribution: €449,260

Torino E-District Consorzio**Address:**

Via Nicola Fabrizi 136
10145 Torino To
Italy

EU Contribution: €126,742

University Of Surrey**Address:**

Stag Hill
Guildford
GU2 7XH
United Kingdom

EU Contribution: €350,427

E-Distribuzione Spa

Address:

Via Ombrone 2
198 Roma
Italy

EU Contribution: €237,480

Poli Model Srl**Address:**

Strada Carignano
10024 Moncalieri
Italy

Organisation Website:

<http://www.polimodel.it>

EU Contribution: €333,720

Technologies:

Energy efficiency
Photovoltaic modules

Development phase: Research/Invention

STRIA Roadmaps:

Transport electrification, Vehicle design and manufacturing, Low-emission alternative energy for transport

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport
Societal/Economic issues,

Transport policies: Decarbonisation

Geo-spatial type: Other