

PROJECT

INCOBAT

INnovative COst efficient management system for next generation high voltage BATteries

Funding: European (7th RTD Framework Programme)

Duration: Oct 2013 - Sep 2016

Status: Complete

Total project cost: €5,786,665

EU contribution: €3,506,095



Call for proposal: FP7-2013-ICT-GC

[CORDIS RCN : 109693](#)

Background & policy context:

In recent years, electric mobility has been promoted as the clean and cost-efficient alternative to combustion engines. Although there are already solutions on the market, mass take-up has not yet taken place. There are different challenges that hinder this process from an end user point of view such as costs of the vehicle, driving range, or infrastructure support. Several of these challenges are directly connected to the battery, the central element of the full electric vehicle (FEV). The costs of the battery sum up to 40% of the total costs of a FEV, and the driving range of a FEV is strongly reduced in comparison to the combustion engine.

Objectives:

The aim of INCOBAT is to provide innovative and cost efficient battery management systems for next generation HV-batteries. To that end, INCOBAT will propose a platform concept in order to achieve cost reduction, reduced complexity, increased reliability as well as flexibility and higher energy efficiency.

The main outcomes of the project will be:

- Very tight control of the cell function leading to an increase of the driving range of the FEV by 30% for current chemistry and by a factor of 10 and more by enabling the use of new cell chemistries such as LiS or even Li-air
- Radical cost reduction of battery management system factor of 10 (at least) with respect to current solutions
- Development of modular concepts for system architecture and partitioning, safety, security, reliability as well as verification and validation, thus enabling efficient integration into different vehicle platforms.

INCOBAT is in the position to provide a 100% European value chain for the development of next generation HV battery management systems.

Parent Programmes:

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

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Avl List Gmbh

Address:

Hans-List-Platz
8020 Graz
Austria

Organisation Website:

<http://www.avl.com>

EU Contribution: €0

Partner Organisations:**Kemet Electronics Italia Srl****Address:**

VIA SAN LORENZO
40037 SASSO MARCONI
Italy

EU Contribution: €0

Fraunhofer Gesellschaft Zur Foerderung Der Angewandten Forschung E.v.**Address:**

Hansastrasse 27C
80686 MUNCHEN
Germany

Organisation Website:

<http://www.fhg.de>

EU Contribution: €0

Chemnitzer Werkstoffmechanik Gmbh**Address:**

Technologie Campus 1
9126 Chemnitz
Germany

EU Contribution: €0

Infineon Technologies Austria Ag**Address:**

SIEMENSSTRASSE 2
9500 VILLACH
Austria

Organisation Website:

<http://www.infineon.com/austria>

EU Contribution: €0

Imarine Deniz Teknolojileri Ve Arastirmalari Sanayi Ve Ticaret Anonimsirketi**Address:**

GOZTEPE MAH. GOKSU EVLERI MENEKSE SOK. B237B ANADO EYKOZ
34815 ISTANBUL
Turkey

Organisation Website:

<http://www.infineon.com>

EU Contribution: €0

Ideas & Motion Srl

Address:

Via Santa Margherita 8
12051 Alba
Italy

EU Contribution: €0**Impact Clean Power Technology Sa****Address:**

Ul Mokotowska 1
640 Warszawa
Poland

EU Contribution: €0**Technologies:**

Electric vehicle batteries (and energy management)
Battery management system module

Development phase: Research/Invention

Transport

STRIA Roadmaps: electrification**Transport mode:** Road transport**Transport sectors:** Passenger transport, Freight transport**Transport policies:** Digitalisation, Decarbonisation, Environmental/Emissions aspects**Geo-spatial type:** Other