

PROJECT

MARBEL

MANUFACTURING AND ASSEMBLY OF MODULAR AND REUSABLE EV BATTERY FOR ENVIRONMENT-FRIENDLY AND LIGHTWEIGHT MOBILITY

Funding: European (Horizon 2020)

Duration: Jan 2021 - Jun 2024

Status: Ongoing

Total project cost: €11,703,385

EU contribution: €9,888,796



Call for proposal: H2020-LC-BAT-2020

[CORDIS RCN : 232007](#)

Objectives:

With the goal of accelerating the mass market take-up of ultra-high-performance batteries for battery electric vehicles (BEV) and plug-in hybrids (PHEV), MARBEL will base its approaches, solutions and innovations around the versatility concept as an axis within the entire project. It will focus on the need for fast charging and long-lasting batteries to boost end user demands, while applying high modularity and easy assembly and developing novel testing methodologies for safety, profitability and circularity.

MARBEL will design, develop and demonstrate new modular, compact, lightweight and high-performance battery packs together with flexible and robust battery management systems for these BEV and PHEV, while maintaining safety levels, allowing fast, high quality and cost-effective large-scale production and following the “made by Ecodesign” principles. A set of modules easy to pack together and to disassemble would ease the manufacture and dismantling of different battery configurations sharing the same production process and common elements. MARBEL will develop and qualify future and innovative performance- and safety- related test procedures of developed functionalities such as the use of miniaturized housings, a flexible test-bench simulating integration-in-EV conditions (electric Vehicle In-the-Loop, eVIL) and artificial intelligence as a tool to reduce the time of laboratory experiments.

MARBEL aims at a triple win, for people, business and planet. MARBEL is expected to generate scientific and technological impacts, boost the appearance and consolidation of new players (especially SMEs) and business models, reinforce the European position in the global battery market, and contribute to environmental and societal targets.

MARBEL consortium is made of 16 partners from 8 different European countries, representative of the aimed multi-stakeholder collaboration and business drivers required for developing the battery pack of the future.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Other programmes: LC-BAT-10-2020 Next generation and realisation of battery packs for BEV and PHEV

Lead Organisation:

Fundacio Eurecat

Address:

AVENIDA UNIVERSITAT AUTONOMA 23
08290 CERDANYOLA DEL VALLES (BARCELONA)
Spain

Organisation Website:

<http://www.eurecat.org/>

EU Contribution: €1,640,375

Partner Organisations:**Asas Aluminyum Sanayi Ve Ticaret Anonim Sirketi****Address:**

RUZGARLIBAHCE MAH. KUMLU SOK. ASAS ISM. 2
34810 ISTANBUL
Turkey

EU Contribution: €416,821

Centro Ricerche Fiat Scpa**Address:**

Strada Torino 50
10043 Orbassano
Italy

EU Contribution: €518,125

Fico-Triad Sa**Address:**

CALLE GRAN VIA DE CARLOS III 98 5
08028 BARCELONA
Spain

Organisation Website:

<http://www.ficosa.com>

EU Contribution: €400,497

Technische Hochschule Ingolstadt**Address:**

ESPLANADE 10
85049 INGOLSTADT
Germany

Organisation Website:

<http://www.haw-ingolstadt.de>

EU Contribution: €1,091,475

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

HANSASTRASSE 27C
80686 MUNCHEN
Germany

Organisation Website:

<http://www.fraunhofer.de>

EU Contribution: €430,969

Avl Italia Srl**Address:**

CORSO FRANCESCO FERRUCCI 112
10138 TORINO
Italy

EU Contribution: €1,196,535

Fundacio Institut De Recerca De L'energia De Catalunya**Address:**

C/ Jardins De Les Dones De Negre
8930 Sant Adria De Besos
Spain

Organisation Website:

<http://www.irec.cat>

EU Contribution: €985,875

Sintef As**Address:**

STRINDVEGEN 4
7034 TRONDHEIM
Norway

EU Contribution: €521,250

Idiada Automotive Technology Sa**Address:**

L Albornar
43710 Santa Oliva
Spain

EU Contribution: €483,189

Otc Engineering Sociedad Limitada**Address:**

C/ COMPOSITOR CASANOVAS 2 BLOQUE BIS
17800 OLOT
Spain

EU Contribution: €217,096

Tes Recupyl Sas**Address:**

RUE DE LA METALLURGIE
38420 DOMENE
France

EU Contribution: €404,163

A Agrati Spa**Address:**

VIA PIAVE 28 30
20837 VEDUGGIO CON COLZANO
Italy

EU Contribution: €221,515

Avl Thermal And Hvac Gmbh

Address:

IM ZUKUNFTSPARK 1
74076 HEILBRONN
Germany

EU Contribution: €367,255

Institute Of Communication And Computer Systems

Address:

Patission
10682 Athens
Greece

Organisation Website:

<http://www.iccs.gr>

EU Contribution: €466,688

Powertech Systems

Address:

22 RUE GUSTAVE EIFFEL
78300 POISSY
France

EU Contribution: €526,969

Technologies:

Electric vehicle batteries (and energy management)
Modular battery design

Development phase: Demonstration/prototyping/Pilot Production

STRIA Roadmaps: Vehicle design and manufacturing

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport
Societal/Economic issues, Environmental/Emissions aspects,

Transport policies: Safety/Security

Geo-spatial type: Other