

PROJECT

JOSPEL

Low energy passenger comfort systems based on the joule and peltier effects.

Funding: European (Horizon 2020)

Duration: May 2015 - Oct 2018

Status: Complete

Total project cost: €6,668,288

EU contribution: €6,668,288



Call for proposal: H2020-GV-2014

[CORDIS RCN : 194902](#)

Objectives:

The aim of JOSPEL project is the development of a novel energy efficient climate system for the optimization of interior temperature control management in electrical vehicles through an integrated approach that combines the application of the thermoelectric Joule and Peltier effect, the development of an efficient insulation of the vehicle interior, the energy recovery from heat zones, battery life increase duration enhancement as a side effect of thermal management, battery consumption reduction by Peltier cooling integration, innovative automated and eco-driving strategies and the electronic control of power flows. Main objective is the reduction of at least 50% of energy used for passenger comfort (<1,250 W) and at least 30% for component cooling in extreme conditions with reference to electric vehicles currently on the market.

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)

Lead Organisation:

Aimplas - Asociacion De Investigacion De Materiales Plasticos Y Conexas

Address:

CALLE GUSTAVE EIFFEL 4 PARQUE TECNOLOGICO DE PATERNA
46980 PATERNA VALENCIA
Spain

Organisation Website:

<http://www.aimplas.es>

EU Contribution: €656,198

Partner Organisations:

Alke Srl

Address:

VIA CILE 3-5-7
35127 PADOVA
Italy

Organisation Website:

<http://www.alke.com>

EU Contribution: €876,263

Simoldes Plasticos Sa**Address:**

RUA COMENDADOR ANTONIO DA SILVA RODRIGUES 165
3721-902 OLIVEIRA DE AZEMEIS
Portugal

EU Contribution: €261,294

Amv Design Srl**Address:**

VIA REGIA 71
35010 VIGONZA
Italy

EU Contribution: €299,688

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

HANSASTRASSE 27C
80686 MUNCHEN
Germany

Organisation Website:

<http://www.fraunhofer.de>

EU Contribution: €466,163

Insero As**Address:**

Chr M Ostergaards Vej 4
8700 Horsens
Denmark

EU Contribution: €344,488

Durplastics Sa**Address:**

Z.I. LES MOLINES SIN NUMERO
03450 BANYERES DE MARIOLA
Spain

EU Contribution: €205,551

Fundacion Para La Promocion De La Innovacion, Investigacion Y Desarrollo Tecnologico En La Industria De La Automocion De Galicia**Address:**

Poligono Industrial A Granxa 249
36400 PORRINO PONTEVEDRA
Spain

Organisation Website:

<http://www.ctag.com>

EU Contribution: €529,740

Cidete Ingenieros Sociedad Limitada

Address:

Calle Anselmo Clave 98
8800 Vilanova Y La Geltru
Spain

EU Contribution: €692,750

Atos Origin Sociedad Anonima Espanola

Address:

CALLE ALBARRACIN 25
28037 MADRID
Spain

EU Contribution: €643,125

Cleancarb

Address:

Rue Schmitz
8190 Kopstal
Luxembourg

Organisation Website:

<http://www.cleancarb.com>

EU Contribution: €484,253

Arkema France

Address:

Rue Estienne D Orves 420
92700 Colombes
France

Organisation Website:

<http://www.arkema.com>

EU Contribution: €439,459

Dok-Ing Društvo S Ogranicenom Odgovornošću Za Inženjering I Unutarnju I Vanjsku Trgovinu

Address:

KANALSKI PUT 1
10000 ZAGREB
Croatia

Organisation Website:

<http://www.dok-ing.hr>

EU Contribution: €324,688

European Thermodynamics Limited

Address:

PRIORY BUSINESS PARK, WISTON ROAD 8
KIBWORTH HARCOURT

LE8 ORX
United Kingdom

Organisation Website:

<http://www.etedyn.com>

EU Contribution: €444,631

Technologies:

HVAC
Cooling unit with low weight materials and lead free

Development phase: Research/Invention

HVAC
Interior surface heating system

Development phase: Research/Invention

Road vehicle propulsion
Cooling system using Bi₂Te₃-based alloy materials

Development phase: Research/Invention

Cabin and cockpit design
Innovative vehicle heating (fabrics with a heating coating in a thermoplastic matrix)

Development phase: Research/Invention

Cabin and cockpit design
Innovative vehicle heating (fabrics with a heating coating in a thermoset resin)

Development phase: Research/Invention

Transport

STRIA Roadmaps: electrification

Transport mode: Road transport

Transport sectors: Passenger transport

Transport policies: Decarbonisation

Geo-spatial type: Other