

PROJECT PARTNERS



Vrije Universiteit Brussels
www.mobi.vub.ac.be



Valeo Thermal Systems
www.valeo.com



Centro Ricerche Fiat
www.crf.it



Imecar Elektronik
www.imecar.com



FEV Polska
www.fev.com



i2m Unternehmensentwicklung
www.i2m.at



Fraunhofer (IISB & LBF)
www.fraunhofer.de



Virtual Vehicle Research Center
www.v2c2.at



Austrian Institute of Technology
www.ait.ac.at



Ikerlan S Coop
www.ikerlan.es

FACTS AND FIGURES

Duration: 42 months

Starting date: December 2018

Overall budget: 5.8 M€

10 Partners, 8 Countries



Subscribe to SELFIE newsletter [here](#) or
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“Contributing to the market uptake of battery electric vehicles across Europe by cost reductions, fast-charge capability and long-range travel possibility”

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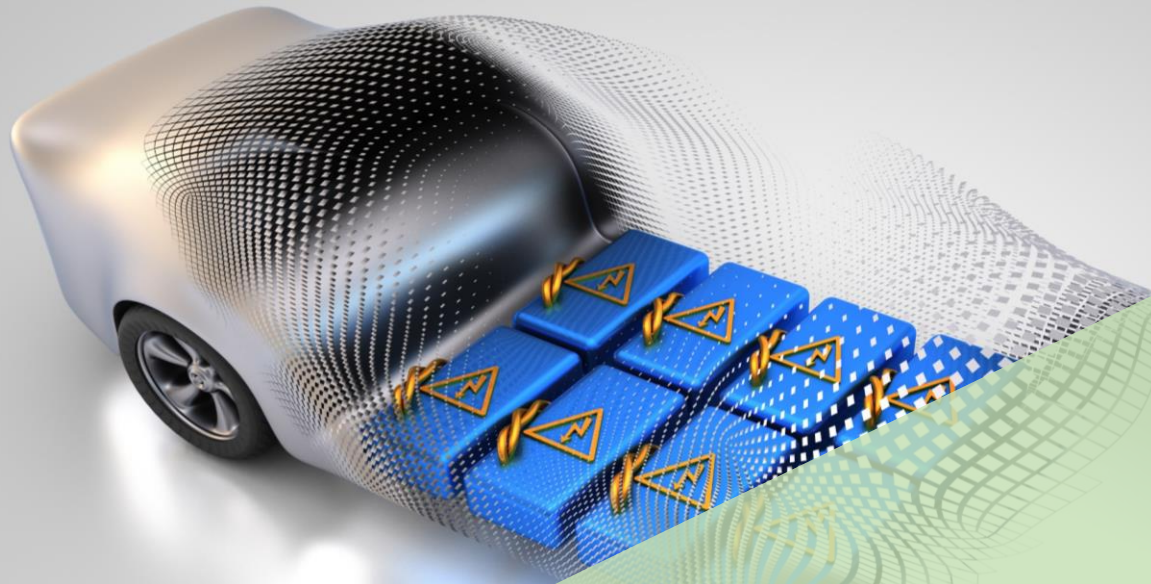
SELFIE is a project member of the E-VOLVE cluster

<https://www.h2020-evolvecluster.eu/>

Thermal battery management – next generation



SELFIE-sustained and Smart Battery Thermal Management Solution for Battery Electric Vehicles



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824290

www.eu-project-selfie.eu

ABOUT

SELFIE, a European Horizon2020 research and innovation project started in 2018, will develop a **novel self-sustained compact battery system** for next generation electrified vehicles.

Targeted benefits



Enabling fast-charging up to 5C (using 140 kW charger) resulting in total time for full charge ≤ 10 mins (3 times faster than today) for a 30 kWh battery pack



Enabling long range driving by employing a battery pack capable of handling charging powers up to 140 kW instead of the current 50-100 kW








Overall cost reduction by 30% at the pack level by simplified design of the battery system



Increase in energy efficiency by reduction of auxiliary load power consumption: 34-55% during winter and 17-20% during summer

Key Innovations powered by cross-industry collaboration

-  **Novel battery cooling plate**
-  **Efficient thermal interfaces for excellent thermal exchange**
-  **Thermally active battery housing structures**
-  **Modular design of cooling system**
-  **PCM heat buffer integrated in the body of the vehicle**

Battery thermal management concept

