

## 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

*“Contributing to the market uptake of battery electric vehicles across Europe by cost reductions, fast-charge capability and long-range travel possibility”*

### Contact us

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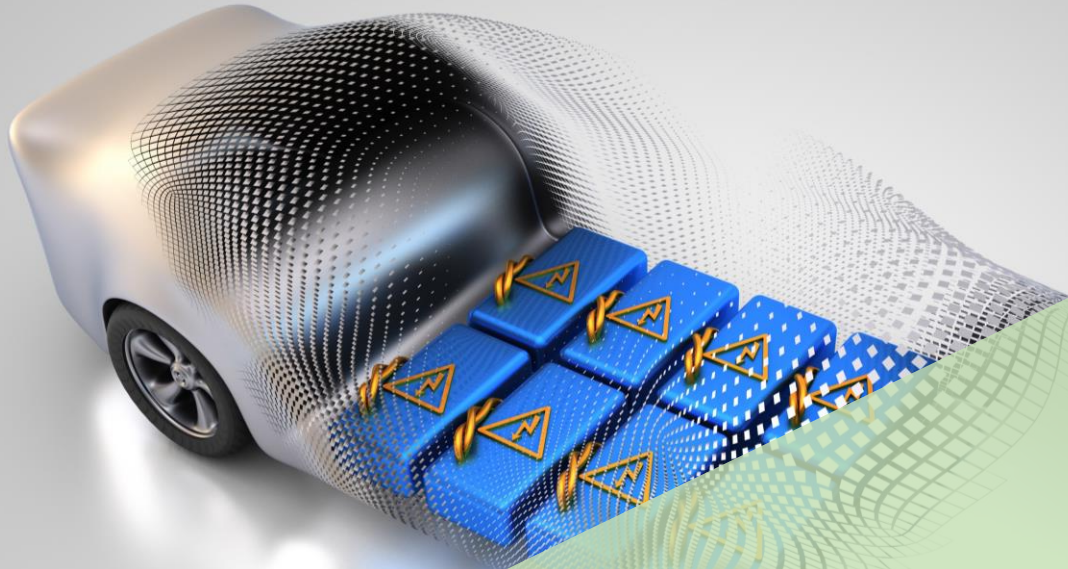
#### Dissemination leader

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Thermal battery management – next generation



**SELF**-sustained and Smart Battery Thermal Management Solution for Battery **E**lectric Vehicles



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

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## 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 6C (using 180 kW charger) resulting in total time for full charge  $\leq 10$  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 180 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

