





Project coordination



With more than 140 associated partners from industry and science, the **Leading-Edge Cluster Electric Mobility South-West** is among the most prominent regional networks in the field of electric mobility. The Cluster is managed by the State Agency e-mobil BW and aims at promoting the industrialisation of electric mobility in Germany as well as at positioning the State of Baden-Württemberg as a leading provider for sustainable and intelligent mobility solutions. Globally renowned large, medium-sized and small enterprises cooperate closely with excellent institutes along four technological fields of innovation: Vehicle, Energy, Information and Communication Technology (ICT), and Production.

www.e-mobilbw.de



CARA, European Cluster for Mobility Solutions, based in Auvergne-Rhône-Alpes, comprises over 210 members, including manufacturers, transport operators, universities, research, and education centres. CARA is associate member and representative of the PFA Automotive Industry and Mobilities. CARA is an association that aims to be the leading French cluster in Europe, addressing the global challenges of urban mobility and vehicles of tomorrow, fulfilling two missions:

- represent the regional automotive and industrial vehicles sector
- support the transformation of passengers and goods transport systems in urban environments.

www.cara.eu



Funding











AllFraTech at a glance



What: cooperation project on innovative mobility

- Cross-border R&D projects
- Internationalisation concept

Who: two regions, two clusters

- Baden-Württemberg: Cluster Electric Mobility South-West
- Auvergne-Rhône-Alpes: CARA-European Cluster for Mobility Solutions

How: two funding schemes

- Federal Ministry of Education and Research:
 "Internationalisation of Leading-Edge Clusters,
 Forward-Looking Projects and Comparable Networks"
- La Région Auvergne-Rhône-Alpes: "RDI Booster"

Why: one vision

- Strenghten existing cooperation in electric mobility
- Support small and medium-sized companies in the process of internationalisation

When: timeline R&D projects

- 2017–2018: concept development
- 2019–2021: implementation

R&D Projects

"Innovative Predictive High Efficient Thermal Management System – InnoTherMS"

German partners:

- Greening GmbH & Co. KG
- TheSys GmbH
- University of Applied Sciences Esslingen
- Fraunhofer Ernst-Mach-Institut

French partners:

- Saint Jean Industries
- Segula Matra Automotive
- IFP Energies Nouvelles
- INSA Lyon Laboratory CETHIL
- Université Claude Bernard Lyon I Laboratory LAGEP

Project idea:

The goal of this project is to develop and test an innovative scalable thermal management system for electric vehicles in urban and suburban transport by using existing energy potentials that would otherwise be lost to the environment. This increases the overall system efficiency of electric vehicles and extends the range.



"Efficient Modular Convenient Charging System – EMCC"

German partners:

- Carmedialab GmbH
- CTC cartech company GmbH

French partners:

- Centum Adeneo
- EFI Automotive
- Magtech
- Laboratoire Ampère

Project idea:

Today, plug-in connectors are the standard interface for charging electric vehicles. However, these systems have major disadvantages. Wireless and inductive charging are promising alternatives. EMCC consortium aims to develop and test a charging system that is modular, convenient, efficient, cost-effective, and safe.

