



# IESTA

## IESTA – Institute for Advanced Energy Systems & Transport Applications

IESTA is a combined industrial/academic research and consulting association for innovative mobility and energy systems. The institute creates strategic partnerships between innovative Austrian and European enterprises, top listed research facilities and policy-makers in the area of research, technology development and innovation. IESTA offers state of the art methodology for systematic creation of solutions. Its strength lies in effective and efficient management of the whole innovation process from basic and applied research, development, testing, prototyping and demonstration, to communication, dissemination and exploitation of results.

The IESTA portfolio comprises:

### Comprehensive R&D Project Management Services

- ▶ Initiation
- ▶ Planning
- ▶ Execution
- ▶ Monitoring and Controlling
- ▶ European, national and regional projects
- ▶ Handling of large consortia and large project volumes

### Platform for Innovation and Communication

- ▶ Utilization of systematic innovation methods
- ▶ Formation of consortia on national and international level

### Studies and Consulting services on

- ▶ Smart/Cooperative Mobility
- ▶ Alternative Propulsion Technologies
- ▶ Energy Conversion and Energy Efficiency Analyses

In the last few years IESTA has successfully supported both industry and academia with:

- ▶ 5 EU projects: Overall budget over 160 Mio Euro
- ▶ 11 projects on national level: Overall budget over 30 Mio Euro

One of the most recent projects, which IESTA is coordinator of, is the Austrian E.-Mobility Flagship project „eMPROVE“ – Innovative solutions for the industrialization of electrified vehicles.

eMPROVE aims at innovative solutions for the industrialization of electrified vehicles, increasing both energy and cost efficiency, with particular focus on possibilities for future industrial mass production. This will be accomplished by improving dedicated vehicle components (e.g. transmission, energy storage systems), by using novel methods, processes and materials for new components (e.g. for battery housing, gear box and thermoelectric heating), and by integrating requirements and recommendations regarding recycling and second life of battery systems into the development and product cycle. Eventually, two tangible integrated demonstrators, a PHEV full vehicle and a modularized battery pack system, will show the functionality of technological solutions of eMPROVE. By this, eMPROVE significantly contributes to the reduction of the main barriers of electro mobility, i.e. range anxiety and high vehicle prices.



The renowned partners of eMPROVE are: IESTA (Coordinator), AVL List GmbH, Samsung SDI Battery Systems GmbH, Saubermacher Dienstleistungs AG, REDUX Recycling GmbH, Zörkler Gears GmbH & Co KG, 4a manufacturing GmbH, ATT advanced thermal technologies GmbH, AIT Austrian Institute of Technology GmbH, Montanuniversitaet Leoben, Leichtmetallkompetenzzentrum Ranshofen GmbH, and VIRTUAL VEHICLE Research Center.



Comprehensive View of E.-Mobility, Source: Flagship project VECEPT, supported by IESTA)

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## REFERENCES:

### EU proposal coordination of

**EU FP7 ITN 2011 „GRESIMO“** - 12 Partner - 3,4 M€  
[www.gresimo.eu](http://www.gresimo.eu)

**EU FP7 ITN 2013 „BATWOMAN“** - 20 Partner - 3,5 M€  
[www.batwoman.eu](http://www.batwoman.eu)

**EU ARTEMIS Call 2012 „CRYSTAL“** – 72 Partner – 86,6 M€  
[www.crystal-artemis.eu](http://www.crystal-artemis.eu)

**EU ARTEMIS Call 2013 „DEWI“** – 58 Partner – 39,6 M€  
[www.dewiproject.eu](http://www.dewiproject.eu)

**EU ECSEL R&I Actions 2014 „TEAADS“** – 37 Partner – 27,5 M€

### Proposal & project\* coordination on national level of

**VECEPT\*** – All Purpose Cost Efficient Plug-In Electric Vehicle - 12 Partner – 6,8 M€  
[www.vecept.at](http://www.vecept.at)

**eMPROVE\*** – Innovative solutions for the industrialization of EVs – 12 Partner – 6,7 M€  
[www.emprove.at](http://www.emprove.at)

**GreenHVAC4Rail\*** – Heating ventilation and Air Conditioning - 5 Partners- 1,3 M€

**EV-CEA\*** – Electric Vehicle with Combustion Engine Assist – 4 Partner - < 1 M€

**eWingDelcer\*** – Energy optimized delcer of a airplane wing - 5 Partner – 1,14 M€

**TWID\*** – Thermal Wing Ice Detector – 4 Partner - 1 M€

**PF-EC(H)EV** – Poly Fuel Energy Conversion for Hybrid EVs – 4Partner - 1,4 M€

**EN4MAX** – Energy for maximum range - 3 Partner - < 1 M€

**IRE\*** – Integrated Range Extender – 2 Partner - < 1 M€

**EV-CEA** – Electric Vehicle with Combustion Engine Assist – 4 Partner - < 1 M€

**MAGNISCOPE** – Magnificant Diagnosis Digital Scope – 2 Partner - 1,7 M€

**NG Mobility** – Next Generation Mobility – 36 Partner – 10,6 M€