iCOMPOSE NEWSLETTER

Highlights from the 3rd project year

iCOMPOSE Consortium – 9 partners from 6 countries

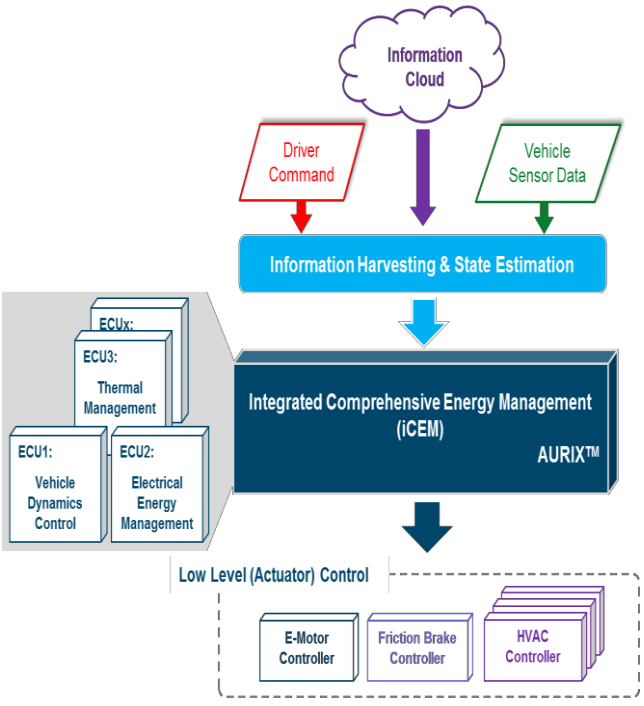
iCOMPOSE Hard Facts

PROJECT COORDINATION: VIRTUAL VEHICLE Research Center (Austria)
START: 1 October 2013
WEBSITE: www.i-compose.eu
DURATION: 38 months
NUMBER OF PARTICIPATING ORGANIZATIONS: 9
NUMBER OF PARTICIPATING COUNTRIES: 6

The iCOMPOSE project – A short introduction

The **I**ntegrated **Co**ntrol of **M**ulti**p**le-M**o**tor and Multiple-**S**torage Fully **E**lectric Vehicles (iCOMPOSE) project is funded by the **European Union** within the **Seventh Framework Programme (FP7)** and **has started** its **three-year activity on the 1st of October 2013**.

One of the main factors for energy efficiency enhancement in fully electric vehicles is systems integration. To achieve this, iCOMPOSE proposes a step change in the control software architecture with particular focus on comprehensive energy management. This will lead to energy savings and extended driving range of the fully electric vehicle, with benefits of improved vehicle safety and comfort.



Technical concept of iCEM

Successful Year 2 Review Meeting

With the **review meeting** on the **4th of November 2015,** the second project period was closed successfully.
The meeting took place in **Lommel, at Flanders Make**.
All partners presented their contributions done in the second year and provided an outlook on their next steps.

F2F Meeting in Mladá Boleslav

On the **2nd and 3rd of May 2016**, Škoda hosted the semi-annual general assembly meeting and invited the iCOMPOSE partners to **Mladá Boleslav, Czech Republic**. All partners presented the current status of the work packages as well as the contributions and next steps.
Besides the review meeting, a test drive with the Škoda e-Rapid, with and without the automatic gearbox, and HMI-concept implemented in a digital dashboard, was a bullet point on the agenda as well as a visit to the Škoda museum.

Publications

SpringerBriefs

The SpringerBriefs series publishes the book **"Comprehensive Energy Management. Enhancement of energy efficiency in fully electric vehicles"**. It collects articles from the **"4th Generation EV" cluster projects** and is edited by Daniel Watzenig and Bernhard Brandstaetter from VIF.
The main topics of the book are integration of the energy management, thermal management and driveability/dynamics control.

The book will be of interest to a wide range of readers: academics and researchers within engineering, graduate students, automotive engineers at OEMs and suppliers, ICT and software engineers, managers, and other decision-makers.

It includes **contributions from the iCOMPOSE project** by the following chapters:

- Semi-Autonomous driving based on optimized speed profile (Sebastiaan van Aalst, Flanders Make)
- The Design of Vehicle Speed Profile for Semi-Autonomous Driving (Zdenek Herda, Škoda)
- Model Based Functional Safety Engineering (Dariusz Szymanski, Flanders Make)
- Predictive Energy Management on Multi-Core Systems (Stephanie Grubmüller, Virtual Vehicle)
- Model predictive control of highly efficient Dual Mode Energy Storage systems including DC/DC converter (Ralf Bartholomaeus, Fraunhofer IVI)
- Holistic Thermal Management Strategies For Electric Vehicles (Matthias Hütter, AVL)

First Journal Paper accepted

"A Fast and Parametric Torque Distribution Strategy for Four-Wheel-Drive Energy-Efficient Electric Vehicles" University of Surrey.

Deliverable 7.1 – "Demonstrator vehicles available"

Deliverable 7.1 is available for public download on our project website www.i-compose.eu**.**

It presents the architecture, hardware components and integration for the **three demonstrators** developed by **Flanders Make, Škoda and Fraunhofer IVI**.

Two vehicle demonstrators, being a **Range Rover Evoque FEV** and a **Škoda Rapid Spaceback**, and a **DMES HiL demonstrator**, simulating the LOTUS Evora 414E, will be used to validate the software and hardware components developed within the iCOMPOSE project.



The 3 demonstrators

Final Meeting

iCOMPOSE's final meeting is taking place at Flanders Make in Lommel, Belgium, on the **12th and 13th of December**. We are looking forward to a successful final reviewing and to meet all of you again!

Thank you to the Consortium

Dear **iCOMPOSE partners**,
our project is almost finished. Therefore, we want thank you for your great work, efforts and cooperation. We hope to work with you again in future projects!
Your iCOMPOSE Coordination Team

iCOMPOSE is a project under the Seventh Framework Programme of the European Commission