NOAE WORKSHOP

June 12, Aachen/Germany

Cross Border Collaboration

FLANDERS' DRIVE

PARTNER VOOR INNOVATIE EN ONTWIKKELING IN DE VOERTUIGINDUSTRIE

Located in an inspiring environment

Flanders' DRIVE

- Research institute for the **vehicle and mobility industry** developing and presenting **technological solutions** in R&D domains:

Clean and Energy-Efficient Vehicles

Intelligent Driver and Traffic Systems

Lightweight Solutions

Intelligent Development Tools

Advanced Manufacturing Processes

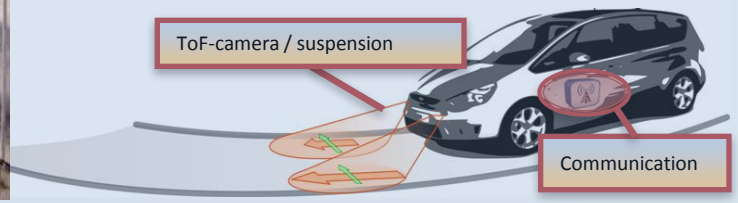
- Open innovation approach **driven by the industry**
- **High-tech Infrastructure** for vehicle, system and component testing
- Wide **international network** of 170 partners

R&D projects

2009 | 2010 | 2013 | 2014 …

Zero accidents

Active suspension
ReVAS



V2I communication,
VISION

Intelligent mobility

GPS vehicle positioning

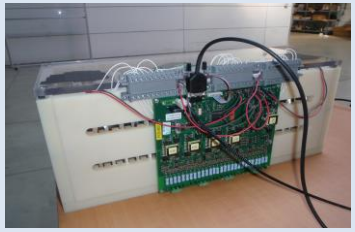
Inductive charging

e-vectoorc

FP 7 2013-2014

Zero emission

Lightweight door



Battery Management
ESto

Electric Powertrain

iCOMPOSE

Integrated Control of Multiple-Motor and Multiple-Storage Fully Electric Vehicles

FP 7 2014-2016

FLANDERS DRIVE

Click to edit Master title style

Project idea
Energy Consciuos Design

Aim and Scope of the project

Aim:
The project aims to develop a better understanding of the thermal requirements, the availability of on board energy resources, the existing energy technologies and their interactions to design and to manage thermal systems in electric and hybrid vehicles for low energy consumption.

Scope:
Strategies to apply the available energy resources have to be defined, being the internal combustion engine or the energy from the battery or the grid. Human thermal comfort, which can be defined as a combination of subjective sensation and several objective interactions (heat and mass transfer rates) in the cabin environment, has to be considered

Project decription

WP1: assessment of human body comfort sensation
WP2: definition of requirements and validation criteria at vehicle level
WP3: simulation of energy and thermal flows
WP4: development of proof of concept for low energy consuming HVAC system
WP5: development of proof of concept for a self-learning energy management system
WP6: validation in industrial use-cases

Energy Conscious Design

Demanded partners

- OEM's or Tier-1's able to bring in an additional case study for the project
- Producers of industrial and agricultural vehicles
- Research centers with relevant expertise / experience

- Other parnters with an interest in P(H)EV, thermal management, battery systems, cabin comfort

Contact

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