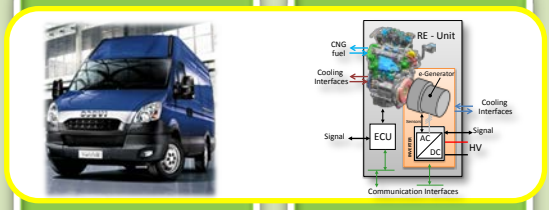
PROJECT OBJECTIVES

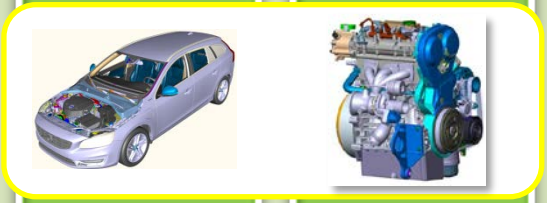
- Cost, weight and volume optimisation of REX unit in light commercial Vehicle. Target weight reduction for REX is 20% together with a reduction of Range Extender length by 25% respect to FUerex configuration.
- RE fuel consumption and emission optimisation acting both on ICE and electric machine efficiency and RE utilization strategies. Emission target is to match half of EuroVI standard with a correspondent best BSFC of 230gr/kWh.
- Standardisation and modularization.

PROJECT RESULTS

- Typical driving cycles for robust optimisation of EVs RE-EVs.
- Three integrated and optimised range extenders with improved performance.
- Range Extender unit with a gasoline 2 cylinder Natural Aspired engine where the integration of internal combustion engine and electric components allows a strong weight, cost and volume reduction and efficiency and packaging optimisation.
- Vehicle test demonstrating integration/NVH and vehicle performance.
- Functional Safety concept for EVs with safety requirements including High Voltage safety according ISO 26262.
- A method to optimize range extenders for different vehicle niches and different usage profiles.

DEMONSTRATIONS





DEMO Vehicles	Range Extenders

OPTIMORE PROJECT

The OptiMoRE project takes on the challenge to develop and optimise the concept of the fully integrated, range-extended, electrified light duty vehicle. Three different RE concepts will be developed and demonstrated to serve the niches from city vehicles, medium sized passenger cars up to light commercial vehicles.

Worldwide, there is a strong trend towards highly efficient, low (preferably zero) emission vehicles, i.e. electrical vehicles. In order to facilitate the transition from conventional fuel-driven vehicles towards electrically driven vehicles, there is a short(er) term need for advanced electrical vehicles with range extenders and/or advanced plug-in hybrids.

Most of the proposers of OptiMoRE are participating in the on-going FP7 project FUEREX.

www.optimore-project.eu

OPTIMORE

OPTIMORE

Technical Coordinator

Dr. Theodor Sams

AVL List GmbH
Hans-List-Platz 1
8020 Graz – Austria
✆ +43 316 787 1940
✉ theodor.sams@avl.com

Management Coordinator

Cor van der Zweep, M. Sc.

Uniresearch
Elektronicaweg 16c
2628 XG Delft - NL
✆ +31 15 275 4000
✉ c.vanderzweep@uniresearch.nl

www.optimore-project.eu

AVL
AVANCEZ 1829 CHALMERS
CRF CENTRO RICERCHE FIAT
IVECO
AVL SCHRICK
UNIRESEARCH
VOLVO
GETRAG Precision. Passion. Partnership.

OptiMoRE Project

This project is co-funded by the 7th Framework Programme of the European Commission

Start: 1 Oct 2012
End: 30 Sep 2014

Budget: 5.1 M€
Funding: 2.7 M€

OPTIMORE

Optimised modular range extender for every day customer usage

SEVENTH FRAMEWORK PROGRAMME

OPTIMORE