

EUROENERGEST, A BET FOR AUTOMOTIVE INDUSTRY

EuroEnergest: Increase of automotive car industry competitiveness through an integral and artificial intelligence driven energy management system.

Nowadays the climate change has become a reality and all efforts are focused on mitigation of human actions against the environment. Additionally, the automotive industry has to face new challenges in a market which is increasing its competitiveness, and has to deal with high energy prices.

These threats make necessary to rethink production processes in order to increase energy efficiency. Hence, the competitive EuroEnergest project, lead by Enertika, is created in order to achieve this goal and is also funded by the European Commission 7th Framework Programme.

The aim of the project is to reduce, at least by 10%, the energy consumption of HVAC systems and manufacturing processes in automotive industry by developing an Intelligent Energy Management System (IEMS). The IEMS allows the interaction between loads, power generation equipments and environmental and operating conditions in order to optimize the energy consumptions.

This development will be implemented on a real site (SEAT facilities, in the outskirts of Barcelona – Spain) for its validation.

One of the main objectives is the development of algorithms based on artificial intelligence to predict both the capacity of local power generation (cogeneration and solar photovoltaic in the case study) and demand forecasting based on production planning.

In this way, a thorough analysis of carbon footprint (CO₂ emissions) of manufacturing processes is obtained, and it will provide high value information of the car lifecycle while contributing to the energy rating industry. Besides the development, the implementation provides real facts to policy makers.

This R&D project has the ambitious challenge of implementing a prototype in an industry as demanding as the automotive one, which will allow transferring of the developed technology to other markets and the return of the public-private investment.

The partners of the consortium teaming up with Enertika and SEAT are UPC (ES), Brunel University (UK), Comfort Engineering Consulting (HU) and VTT Technical Research Centre of Finland (FI).

EuroEnergest is a clear example of a public-private funded R&D project in technology aiming at developing and transferring knowledge. This project will allow a considerable saving of energy while reducing the emissions of CO₂ to the atmosphere and obtaining a significant economic and social impact.

The project began last in October 2011 under the coordination of Enertika and will be developed over 36 months. For more information, please visit the project website www.euroenergest.eu or contact by e-mail at info@euroenergest.eu.