



Brussel, 19 November 2014

Driving the future of E-Mobility

On 18 November 2014, more than 160 representatives from the automotive industry, European institutions and other stakeholders attended in Brussels the CLEPA E-Mobility event showcasing the first results of the EUNICE project.

E-mobility is becoming a central element in transport policies worldwide since it reduces dependence on oil, cuts CO₂, noise emissions and allows the vehicles of tomorrow to be fully integrated into new traffic system models.

“The electrification of powertrains is characterized by a diversification of technological solutions designed to meet sustainable mobility requirements: hybrid, battery, and fuel cell vehicles can serve different mobility needs and purposes. In order to fully become a success story, E-mobility still needs to overcome a few hurdles: safety, availability and affordability are the challenges for the coming years”, said Mr Paul Schockmel, CLEPA CEO.

E-mobility also requires new ways of connecting vehicles to the power grid. The necessary intelligent grid charging infrastructures are to be set up in time to meet the ambitious goals announced by policymakers.

Technical regulation and harmonization of standards must ensure the safety of vehicles and the charging infrastructure. At the same time, standardization measures implemented by individual countries should not adversely impact the harmonization efforts made at international level.

Automotive suppliers are constantly developing innovative solutions: integrating lightweight materials into the vehicle architecture, increasing battery storage capacity and working on fast-charging solutions. Over time, this will also bring down the production cost of future electric vehicles.

The Eunice project is a prime demonstration of latest European technologies. Its main objective is the design, development and validation of a complete in wheel motor assembly prototype to meet the defined car top level specifications.

A strategic approach is crucial for the success of E-mobility in Europe: while automotive suppliers continue to develop innovative technologies, politics need to equal this commitment by investing into the necessary infrastructure. The acceptance and market development of E-mobility needs to be supported by a suitable regulatory framework and appropriate energy and transport policies.

“Tax incentives or bonus payment did not really push the European market. What is needed is to integrate E-mobility in a global multimodal approach. Moreover, investments in research and development must be continued. The EUNICE project is a good example and other should follow”, concluded Mr Paul Schockmel, CLEPA CEO.

Note to Editors

The main objective of the **EUNICE** project is the design, development and validation of a complete in wheel motor assembly prototype (electric motor, power electronics, reduction gear, structural parts and wheel), based on a McPherson corner suspension topology, to meet the defined car top level specifications. The main technical risks associated with the use of an in-wheel concept are the thermal stress under extreme operation conditions, vehicle dynamics, driveability, safety and durability. The proposed baseline concept will be based on an air cooled motor in wheel concept, with conventional airflow driven by vehicle, and forced airflow provided by an innovative wheel design. Detailed specifications of extreme operation conditions will be defined and validated by the OEM, during the project, including the hot day-cold day conditions, representative of vehicle extreme use. During the assembly and testing phase, the aspects related to vehicle dynamics, driveability, safety, user acceptance, reliability, previously defined, will be validated with the motor in wheel prototypes installed in a test vehicle. In addition, aspects as eco-design, LCA of the concept and components, dismantling and recyclability of key materials and rare earths will be considered during the in-wheel concept design.

Project coordinator:

Foundation Tecnalia Research and Innovation (Spain)

Consortium Partners:

Pinifarina S.p.A. (Italy)

Magneti Marelli Suspension Systems (Italy)

Foundation CIE I+D+I (Spain)

Industrias Puigjaner S.A. (Spain)

Maxion Wheels (Italy)

DENN

IVL Swedish Environmental Research Institute

Infineon Technologies AG (Germany)

AIC Automotive Intelligent Centre

AIT Austrian Institute of Technology

GKN DRIVELINE – GKN EVO eDrive Systems Ltd

CLEPA The European Association of Automotive Suppliers

CLEPA is the European Association of Automotive Suppliers. 113 of the world's most prominent suppliers for car parts, systems and modules and 25 National trade associations and European sector associations are members of CLEPA, representing more than 3 thousand companies, employing more than 5 million people and covering all products and services within the automotive supply chain. Based in Brussels, Belgium, CLEPA is recognized as the natural discussion partner by the European Institutions, United Nations and fellow associations (ACEA, JAMA, MEMA, etc).

Facts about the European automotive industry

- Some **12 million** people are employed in the European automotive industry
- European automotive suppliers directly employ **5 million** people
- European automotive suppliers invest **€18bn** in RDI per year. They are one of the biggest private investors into research and innovation
- Per year, **16 million** vehicles are manufactured in Europe, contributing to the stability and growth of the European economy

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