

*Ficosa Technology Division widens its portfolio of innovations relating to safety, comfort, communications and sustainable mobility*

## **Ficosa is developing the “Battery Pack” for the electric and hybrid vehicles**

**Barcelona, 19<sup>th</sup> January 2010.-** Ficosa, the Spanish automotive systems and components multinational is working on the development of the “Battery Pack” for electric (EV) and/or hybrid “plug-in” vehicles (PHEV).

The “**Battery Pack**” developed by **Ficosa**, combines the **battery electronic control, the sensors, the refrigeration system and the communication system of the pack with the main car ECU, into a compact package with the batteries** becoming one of the possible energy sources for this type of vehicles.

The system allows monitoring and controlling the condition of the batteries. This means that they can find out how much charge is left in the batteries, and therefore how many km further the vehicle can travel. They can also find out about conditions that may affect the life of the battery and its performance, such as the temperature or electrical unbalances between cells, correcting these through refrigeration and cell balancing strategies. The system includes high level prediction and monitoring algorithms.

The Project includes the structural development of the unit so that it can withstand all vehicle conditions, including vibrations, safety in the event of a crash, extreme temperatures, etc., as well as being adaptable to the weight, volume and integration requirements in the car.

To research on this system, Ficosa has created a dedicated laboratory at its R&D Centre facilities in Mollet del Vallès (Barcelona, Spain).

With this new Project, **Ficosa Technology Division** is widening its portfolio of innovations based largely around the development of systems for vehicle safety and comfort (intelligent driver assistance systems and technology, driver awareness detectors, night vision, etc.), communications (antenna systems based on fractal® technology, intelligent communication modules, etc.) and sustainable mobility.

Despite of the current difficult economic situation, Ficosa continues investing in R&D with the aim of leading the market in the areas in which it operates worldwide, further diversifying its range of products with the addition of a new line which will meet an area of expected future growth in demand, namely vehicles that use alternative energies to the current ones and which the car manufacturers will gradually introduce into their range of models available on the market.

**Ficosa actively takes part in various collaborative research projects related to sustainable mobility and the electric vehicle**

Ficosa is leading the Project **"MARTA - Mobility & Automotion through Advanced Transport Networks"**, supported by the CDTI (Spanish Ministry of Science and Innovation), in which 18 companies and 19 technological centres and universities from across Spain are taking part. The aim of MARTA is to develop new systems and protocols for **communication between vehicles and between vehicles and infrastructures**.

In relation to the electric vehicle, Ficosa is leading in Catalonia the Project **"BATTMAN – Battery Manufacturing"**, supported by the Autonomous Government of Catalonia (ACC10) and the EU (FEDER), in which 4 Catalonian companies and 1 technological centre and 1 university are taking part to create **a core of companies in Catalonia capable of developing and producing battery systems for electric cars**.

Ficosa is also involved in the Project **"VERDE"**, led by SEAT and supported by the CDTI (Spanish Ministry of Science and Innovation), in which 20 Spanish companies and 16 technical centres and universities are taking part. The aim of the project is to **develop the electric vehicle and the various infrastructures needed in Spain**, both in terms of design and architecture of the vehicle (batteries, engines, converters, etc.) and the generation and distribution of energy and recharging points for "plug-in" vehicles.

At the European level, Ficosa is taking part in the Project **"POLLUX"**, supported by Europe and Spain through the Artemis platform, in which 22 European companies are involved in order to **rationalise and homogenise all of the ECUs (electronic control units) for the new generation of electric vehicles**.

**For more information:**

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