MARTA project lays the technological and scientific foundations on the transportation for the 21st century

The Minister of Science and Innovation, Cristina Garmendia Mendizabal, chairs the presentation ceremony of MARTA, one of the hugest projects in the strategic sector of transportation in Spain.

According to Xavier Pujol, CEO of FICOSA “MARTA project is a clear and successful example of public and private cooperation and that in Spain it is possible to develop an innovating and worldwide competitive technology of applied communications for transportation.

Barcelona, 10th of February 2011.- Today, eighteen Spanish companies and institutions have presented MARTA project (Mobility and Automotive through Advanced Transport Networks). This enterprise, aimed to lay the scientific and technological foundations of the transportation in the 21st century, has required four years of work. Its objective is the promotion of research and development of communications among vehicles and between vehicles and infrastructures in order to reduce accidents and improve transportation in Europe.

The project has a budget over 35 million EUR and it is headed by FICOSA, with the participation of 18 Spanish companies from different sectors, like ETRA, GMV, SEAT, Telefonica among others; as well as 19 research centres and universities with a global scope that include 8 region.

The presentation, chaired by the Science Minister, Cristina Garmendia Mendizabal, has taken place in the MediaTIC building in Barcelona, with the participation of the Minister of Business and Work of the Catalan Government, Francesc Xavier Mena, and the Deputy Mayors of the Barcelona City Council: Jordi William Carnes, from the area of Taxes and Economic Development and President of 22@Barcelona, and Ramon Garcia-Bragado from the area of Housing and Home Affairs.

MARTA project is one of the 16 projects approved by the Spanish Centre for the Technological Development of the Industry (CDTI) in the third announcement of the Program.
of National Strategic Consortiums of Technical Research (CENIT) within the INGENIO 2010 enterprise, addressed to foster the public-private cooperation in R&D&I.

MARTA is conceived to be a contribution to solve problems in terms of traffic congestion, safety and environmental impact with the aim to reduce accidents and improve transportation in Europe through advanced technology systems.

Safety improvement

MARTA has studied applications for the integration of vehicles to the infrastructure and emergency centres to manage accidents and improve safety. Some practical applications are:

- In the event of an accident, the vehicle sends, via e-call, information of the details of the accident to the emergency centre (number of passengers, speed of the vehicle before the accident, etc.) and, at the same time, it warns the vehicles close to the accident place. Also, it sends a photograph of the accident to facilitate the rescue of the injured persons.

- In-vehicle intelligent system of driver’s somnolence detection that will activate visual, auditory and sensitive warnings.

- Communication vehicle to vehicle (V2V) will warn the driver not to start an overtaking manoeuvre when there is another vehicle on the opposite lane of a two-way road. Likewise, the system detects the presence of other vehicles in a junction, thus avoiding crashes due to lack of visibility.

- In-vehicle night vision cameras can automatically detect pedestrians and warn the driver. At the same time, vehicles nearby can be informed about any obstacle via V2V communication.

Effective transport management

Thanks to the technological solutions developed from the MARTA project, cameras and intelligent sensors installed in the road network (traffic lights, junctions, etc) will allow a smoother traffic. This way, traffic jams will be identified and the system can propose the best way to manage transport in certain circumstances, such as, for example, leaving the football stadium at the end of a football match.

Decrease of environmental impact

A better management of transport contributes to the reduction of environmental impact and CO2 emissions. Some solutions from MARTA project allow a reduction in traffic volume, especially in city areas. For example, in a city area, the car will show the user the expense of the journey by public transport in terms of cost and time. The system will show the driver the directions to the car park (previously booked), the bus or train timetables to reach destination.

MARTA has also other applications, such as Infotainment, designed to develop applications to provide information to the driver and passengers, as well as to entertain passengers to allow a more pleasant journey.
According to Xavier Pujol, CEO of FICOSA “MARTA project is a clear and successful example of public and private cooperation and that in Spain it is possible to develop an innovating and worldwide competitive technology of applied communications for transportation.”

And adds: “MARTA’s technology, developed in an exemplar way by a group of Spanish companies and institutions from different sectors with a first-level capacity of innovation, is an example of how the results of research and innovation projects are able to become products applied to highly technological sectors with high added value.”

**SPECIFICATIONS MARTA PROJECT**

**Infrastructure:** ETRA

**Supplier of automotive components (Tier1):** FICOSA

**Technological services:** GMV

**Car manufacturer:** SEAT

**Communications:** Telefonica

**Other partners:** ADTelecom, Agnitio, AT4Wireless, Atipic, IDCOM, Creativ IT, Opnatel, TSS

**OPIs/Universities:** Politechnic and Autonomous University of Madrid, University of Alcala de Henares, University of Valladolid, CIDAU and CEDETEL from Castilla Leon, TECNALIA and CEIT in Basque Country, CEMITEC in Navarra, Politecnical University of Catalonia, University of Barcelona, Politechnical University of Valencia (ITEAM, ITACA) and IBV and the University of Valencia, University of Murcia, CITIC in Andalucia and the University of Zaragoza.

**Budget:** 35 million EUR

**Start:** June 2007

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**About FICOSA**

FICOSA is an industrial group based in Spain and a global leader in research, development, production and marketing of automotive systems and parts. Founded in 1949, the company, with headquarters in Barcelona (Spain), holds a team close to 8,000 employees and manufacturing plants, technological centres and offices located throughout 19 countries in Europe, North America, South America and Asia.

The Group invests 4% of its income in R&D, and operates one of the top technology development centres in Spain addressed to the automotive, electronics, energy and communications industries. FICOSA has positioned itself for the future as a world leader in electronic systems with a global and more diversified business agenda and an expanded added value product line.

**More information**

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