# The European Commission to support research on enhanced road safety

*ADASENS (a Ficosa Omron Company) will be the responsible for the adaptation of ADAS software platforms, and for the testing of the final vehicles*

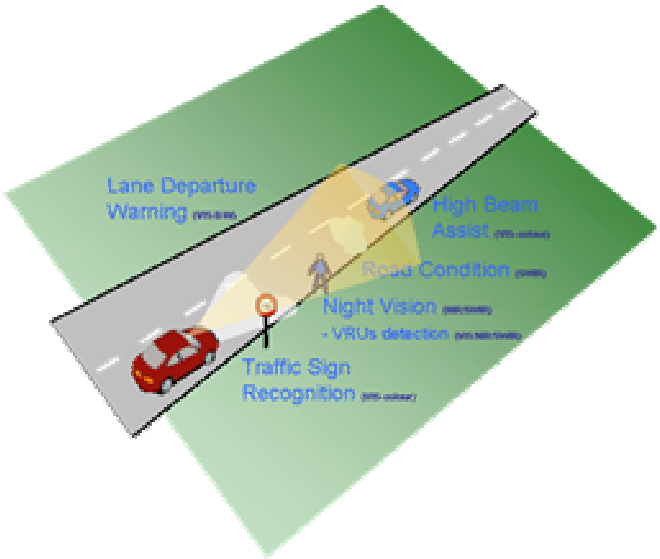
**Bruxelles, Feb 11, 2010** - The European Commission just signed a research agreement with some of the most important European Institutes to fund the development of innovative technologies that will make our vehicles safer and more comfortable in the next future.
The "2_WIDE_SENSE" **5 million Euro project** officially started on **Jan 1, 2010**; during the next 3 years the research activities will focus on the development and testing of new sensors to be placed onboard vehicles, aimed at helping the perception of the surrounding environment.
*"An enhanced perception of the road environment provides the vehicle with the ability to both help the driver and take informed decisions in case of danger: not only will the prompt recognition of crossing pedestrians, lane markings, or traffic signs dramatically increase the safety of our roads, avoiding accidents and reducing casualties, but it will increment people's mobility standards, as well"* says **Eric Costard**, from **Alcatel Thales III-V Lab, France**, **coordinator of the project**.

The partners in this project will **develop and test new cameras** that should provide enhanced visibility not only in the visible domain, but in wave lengths in which the human eye is not capable of perception: drivers will then be able to perceive more details than what they can see now by looking out of the windshield. Such details may also be processed by an onboard computer to automatically detect vehicles, pedestrians, traffic signs, and other road infrastructure and participants. The project will assess these innovative technologies that may hopefully represent a breakthrough for future systems.

*"Our primary goal is to keep working on technologies that -one day- may prevent vehicles from crashing and therefore dramatically reduce the toll that our society is paying, daily, on our roads. More than 90% of road accidents are caused by human factors: if only we could give the vehicle a brain able to understand the environment and help the driver, taking informed decisions in case of immediate danger,"* continues **Alberto Broggi**, a professor at **VisLab, University of Parma, Italy**, and **responsible for project dissemination**,*"we could save the lives of many of the 100.000 people that each year die on European roads."*

The European Commission is committed to **decreasing the number of accidents** and their consequences on European roads and selected only 13 projects for funding, out of the 75 research proposals submitted in the last call. The positive evaluation of both proposed research and the consortium partners capabilities, as well as their background history and know-how, are the key factors considered for the selection of this proposal. The project partners are:

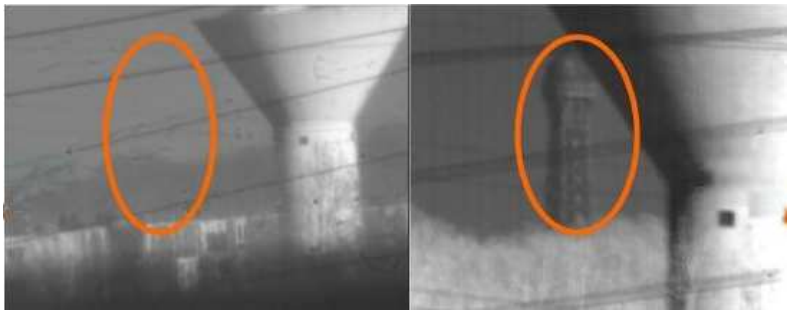
- Alcatel Thales III-V Lab, France
- Centro Ricerche Fiat S.C.p.A., Italy
- New Imaging Technologies, France
- Raptor Photonics Ltd, UK
- Optec, Italy
- Adasens GmbH, Germany
- University of Parma, VisLab, Italy




The key of this project is the development and use of innovative sensor technologies that allow to acquire multispectral images and test them with known applications such as Traffic Sign Recognition (TSR, day and night), Vulnerable Road Users (VRU, during the night), Road Conditions, Lane Departure Warning, and Vehicle Detection.

The new cameras will be tested on vehicle prototypes and their performance compared to current sensors. An enhanced perception is expected thanks to the fusion of visible perception and technologies enabling the invisible perception (infrared technology, also named SWIR).

To illustrate the benefits of infrared technology on visible, here are the two pictures below. The difference in magnification comes from the difference in sensor sizes.
The images below show the difference between visible (left) and SWIR (right) spectra: both have been taken at a distance of 20km from the Eiffel Tower, through the haze.



The left picture was taken by a commercial camera and shows details that the human eye is able to see.
On the right picture, made with a special infrared camera, the details are different: trees (dark zone on the left picture) are more detailed, and the Eiffel Tower we can't see through the haze on the left picture is now perfectly visible thanks to the infrared camera.

For further media contacts regarding the 2WIDE-SENSE European Project please refer to:

**Prof. Alberto Broggi**, responsible for scientific dissemination, at:
Phone: +39 0521 905707 (direct) or +39 0521 905800 (secretary)
Email: broggi@ce.unipr.it Web: www.ce.unipr.it/broggi
Postal Address: *VisLab*, Dipartimento di Ingegneria dell'Informazione,
Università di Parma, I-43100 - PARMA, Italy

**About ADASENS**

ADASENS Automotive GmbH is a company dedicated to the development, production and commercialisation of ADAS (Advanced Driver Assistance Systems) technologies for the automotive sector worldwide.
ADASENS was born officially in April 2009 as a result of the cooperation between the multinational Spanish automotive systems and components, FICOSA, and the multinational Japanese automotive electronics manufacturer, OMRON, combining the experience of both companies in the field of ADAS functions and technologies.

ADASENS is located in Lindau, Germany, with a subsidiary in Barcelona, Spain. Thanks to the FICOSA and OMRON background, ADASENS has an extensive automotive sector know-how, knowledge and experience in integrating systems and components in the vehicle, as well as a wide know-how in areas such as electronic, sensors and the technology of vision cameras. In addition, it has the advantage of its global network of technical and production centres in Europe, Asia, South America and the NAFTA area, to provide integrated global service to customers in innovation, development, production and commercialization of the ADAS products.

The core know-how and outstanding technology of ADASENS provides solutions for driver assistance and comfort systems in order to improve the vehicle and roadway safety dramatically, as well as increasing the comfort of driving and keeping the driver highly productive during the whole travel. The scalable product range, from simple single applications like rain-sensing or lane departure warning up to the multipurpose camera applications, fulfilling the NCAP requirements, combined with functional and handsome design integration, underlines the outstanding know-how and technology provided by ADASENS. Functions like forward collision warning (FCW), traffic sign memory (TSM), lane departure warning (LDW), auto light and wiper system (ALWS), start up warning (SUW), and integrated rain-sensing, as well as intelligent parking aid and blind spot warning (BSW) with integrated LDW, are part of the 360° decentralised environmental detection and interpretation approach achieved by the multipurpose camera. ADASENS technology is applicable to bus, truck and passenger car platforms.
Nowadays ADASENS is already working with global OEMs to integrate in the future models their advanced technologies in integration and ADAS systems.