

BMW Group

Corporate and Governmental Affairs

Media Information
18 September 2009

"One step closer to accident-free mobility" **BMW Group experts involved in Ko-FAS support project to research into cooperative sensor technologies for improving road safety.**

Munich. The road-safety visions of society, politics, business and science haven't now been clearly defined as "Vision Zero (Accident-Free Mobility)" and "Safety for All". The "Ko-FAS" (Cooperative Vehicle Safety) research initiative has set itself the goal of implementing these visions. It wants to make a contribution towards making accident-free mobility a reality. "In the future, maintaining safe conditions on the road will require extensive cooperation between road users. This interplay is bringing the Ko-FAS initiative one step closer to achieving its aim of accident-free mobility," says Dr. Ralph Raschofer, member for the BMW Group in the steering committee of the Ko-FAS initiative.

The best-possible accident protection that an automobile manufacturer could provide motor vehicle drivers with is active safety. According to official statistics, less than two percent of accidents are caused by technical malfunctioning, while the vast majority occur as a result of human error. This means that it is important that the driver is afforded a maximum level of support behind the wheel, to prevent the circumstances that cause accidents from even occurring.

It is against this background that the Federal Ministry of Economics and Technology launched the Ko-FAS research initiative on September 18, 2009. Its aim is to achieve a significant increase in road safety and an accompanying reduction in road accidents and motoring fatalities. This will necessitate finding ways of reliably mapping out the driving environment, with the aid of cooperative sensory and perceptive systems, conducting a comprehensive situational appraisal to draw up a precise assessment of collision risks, culminating in the activation of appropriate preventive protection measures.

The joint project involves 19 partners, comprising reputable vehicle manufacturers and parts suppliers, universities and institutes of applied sciences,

Company
Bayerische
Motoren Werke
Aktiengesellschaft

Postal Address
BMW AG
80788 München

Telephone
+49-89-382-27797

Internet
www.bmwgroup.com



BMW Group

Corporate and Governmental Affairs

Media Information

Date 18 September 2009

Subject "One step closer to accident-free mobility"

Page 2

as well as research institutes throughout the whole of Germany. A total budget of 25.5 million euros has been made available to the project partners for the duration of the project, which is scheduled to continue for just under four years.

Three joint projects – one common goal

The Ko-FAS initiative comprises three joint projects, known as Ko-TAG, Ko-PER and Ko-KOMP. The research and technology department of the BMW Group is heading the Ko-TAG and Ko-PER projects.

The specialists involved in the Ko-TAG project will be conducting research in the field of Car2Tag communication, which employs a network of transponders whose function it is to precisely locate and classify objects using cooperative sensory systems. The aim in future is to employ this technology to protect particularly vulnerable road users, such as pedestrians and cyclists but it is also to be used in the area of vehicle-vehicle safety.

Employees of BMW Group Research and Technology successfully developed the first pedestrian protection system to be based on this kind of technology during the AMULETT project, which preceded the current one. It involved a test vehicle which exchanged wireless data with an active module, similar to RFID, which can be integrated into a child's schoolbag, for example. This cooperative sensor technology would make it possible to locate such individuals and classify them as vulnerable road users who are not visible to the driver at the moment in which the risk situation occurs.

Ko-TAG will take the findings of the AMULETT project as its starting point and subject them to further studies. Researchers are now particularly interested in such questions as how this radio technology can be employed in more intense situations, such as those in which many people are involved. "In future, this radio technology will allow us to draw extremely precise and highly reliable assumptions from the sensory data. This will in turn provide us with a means of effecting yet another considerable improvement in road safety," explains Daniel



BMW Group

Corporate and Governmental Affairs

Media Information

Date 18 September 2009

Subject "One step closer to accident-free mobility"

Page 3

Schwarz of BMW Group Research and Technology, and project spokesman for Ko-TAG.

The Ko-PER project is responsible for conducting research into processes of cooperative perception in longitudinal traffic and at intersection areas. "For this project, we are supported by the findings of the successfully concluded EU research 'PReVENT' project, but what we are now also looking for is an active exchange with the national 'simTD' (Safe Intelligent Mobility Test Field for Germany) support project. The various research activities all lead towards the same joint goal – to increase the level of safety on the roads," says Dr. Reiner Wertheimer, Ko-PER project spokesman for BMW Group Research and Technology. The researchers from the BMW Group involved in the Ko-PER project are looking into ways of utilising cooperative sensory networks for mapping out the traffic environment. The aim is to create an overall picture of the immediate traffic environment by exchanging and merging information from various sensors, employed to gather data in both vehicle environments and transport infrastructures. What researchers are aiming at in particular is to create a way of revealing hidden road users and identifying the dynamic chronology of road events. This will make it possible to conduct a constant and comprehensive assessment of existing collision risks.

The members of the Ko-KOMP project will be researching into protection systems for vehicles which are activated prior to an impending collision and whose aim it is to prevent an accident from occurring or at least tempering the consequences of the accident. In particular, the project will be involved in examining systems for expanding the external vehicle shell and effecting the timely activation of autonomous emergency-brake functions. Also planned is a virtual test field for simulating communications channels for diverse road traffic scenarios.



BMW Group

Corporate and Governmental Affairs

Media Information

Date 18 September 2009

Subject "One step closer to accident-free mobility"

Page 4

BMW Research and Technology (BMW Forschung und Technik GmbH)

is a wholly-owned subsidiary of the BMW Group and has, since 2003, been responsible for researching into such fields as VehicleTechnology, CleanEnergy (hydrogen technology), EfficientDynamics (intelligent energy management/alternative drive systems), ConnectedDrive (driver assistance/active safety) and ITDrive (IT architecture and communications technology). The legal independence of the limited company (GmbH) guarantees the operation's creative freedom and maximises its flexibility. Its access to worldwide trends and technologies is ensured by an international network of bases, at Palo Alto and Clemson (USA) and Tokyo (Japan), as well as liaison offices with Eurécom (Sophia Antipolis, France) and the German Research Centre for Artificial Intelligence (DFKI GmbH, Saarbrücken).

For questions please contact:

Katharina Singer, Technology Communications, Spokesperson Innovations and Science
Telephone: +49-89-382-11491, Fax: +49-89-382-28567

Media Website: www.press.bmwgroup.com
E-mail: presse@bmw.de

