Safe intersections
EU research initiative presents new vehicle assistance systems to increase traffic safety

Brussels, 15/06/2011 - An innovative vehicle and infrastructure technology has the potential for a substantial reduction of accidents at intersections. Three Automotive Manufacturers together with eight partners from industry and research have collaborated together to work on the necessary assistance and safety applications within the European research initiative “INTERSAFE 2”. The demo vehicles and a demo intersection were presented at the Final Event on 17 - 18 May 2011 in Wolfsburg so that they could be experienced at first hand.

43 percent of all European traffic accidents that result in injuries take place at intersections. This is why the INTERSAFE 2 partners focused on the topic of safety at road junctions and technically implemented four assistance and safety applications that anticipate typical traffic situations. The assistance and safety applications are intended to assist drivers in critical situations. The aim is to considerably reduce the effects of an accident or, ideally, completely prevent it. The applications are based on sensors installed at the intersections and in vehicles and that are linked in a cooperative system. Information is exchanged between the intersection and the vehicle via a special radio connection and then evaluated in the vehicle so that the necessary measures can be undertaken if necessary. All the applications initially warn the driver with a visual and acoustic signal and, if the warning is ignored, the driver’s attention is gained by means of a brief brake jerk.

The following applications were presented at the Final Event:

**Right-turn Assistant**
When turning right at an intersection, the Right-turn Assistant monitors the turning path and, in order to prevent an accident, triggers a warning when a pedestrian or cyclist approaches.

**Left-turn Assistant**
The Left-turn Assistant analyzes the oncoming traffic and evaluates the turning situation. The system warns the driver if it detects danger. If the vehicle is standing ready in the intersection and waiting for a gap in the oncoming traffic, the vehicle only releases the brakes when a suitable gap appears – in order to prevent any collision with oncoming traffic.

**Intersection Assistant**
This support function monitors the transverse and crossing traffic, triggering a warning in critical situations. This is of particular assistance to the driver when a direct view of the transverse traffic is blocked by other vehicles or buildings. This is enabled by the use of laser scanners at the intersection that detect the positions of the other road users and transfer this information to the vehicle via wireless communication.

**Red light violation / ignoring right of way**
If a driver appears to be about to ignore a red light or a stop sign he or she initially receives a warning. If the driver fails to react, a brief brake jerk is activated in order to increase the driver’s attention level and prevent an accident or dangerous situation.
About the INTERSAFE 2 research initiative
The INTERSAFE 2 research initiative supported by the European Commission DG-ICT stands for ‘intersection safety’ and has been funded with a total budget of EUR 6.5 million. The European Commission has contributed EUR 3.5 million, while industry has provided EUR 3 million. Eleven partners from industry and science, located in six European countries, are participating. The aim of this research cooperation, planned to last three years, is to increase the safety of traffic at intersections.

The INTERSAFE 2 partners are: the BMW Group, IKA, Inria, NEC, Swarco, TRW, Conekt, VTT, SICK (project coordination), the Cluj-Napoca Technical University, Volvo AB, VIT and Volkswagen AG.

Event details:
The INTERSAFE-2 Final Event took place on 17 May 2011 at Volkswagen AG’s Autovision Forum. The results were presented to representatives of the press and invited guests from 1.30 p.m., to be followed by discussions. The test vehicles were presented in a driving demonstration at the Brandenburger Platz in Wolfsburg from 9.00 a.m. on 18 May 2011.

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Further information is available at:
http://www.intersafe-2.eu

About EUCAR
EUCAR is the European Council for Automotive R&D from the major European passenger car and commercial vehicle manufacturers. EUCAR facilitates and coordinates pre-competitive research and development projects and its members participate in a wide range of collaborative European R&D programmes. The European automobile manufacturers are the largest private investors in R&D in Europe with over €26 billion investment per annum, or about 5% of turnover. EUCAR members are BMW, DAF, Daimler, Fiat, Ford Europe, GM/Opel, Jaguar Land Rover, Porsche, PSA Peugeot Citroën, Renault, Scania, Volkswagen Group, Volvo Car and Volvo Group. EUCAR is closely connected to ACEA, the European Automobile Manufacturers Association.
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