Pressemitteilung **Press Release**

interactIVe demonstrates the next generation of Advanced Driver Assistance Systems for safer and more efficient driving

The interactIVe consortium unveiled the results of a four-year research project on the development of intelligent systems that autonomously brake and steer around vehicles, and could help avoid pedestrians at a conference on November 20th.

The main achievement of the interactIVe project – which stands for *Accident avoidance by active intervention for Intelligent Vehicles* – has been the creation and evaluation of integrated driver assistance systems, characterised by an outstanding capacity to support drivers in a variety of traffic scenarios and, specifically, to avoid a collision if the driver fails to react to warnings.

The €28.4 million large-scale, integrated project - which began in January 2010 and involved 30 companies, organisations and research institutes - was led by Ford's European Research Centre in Aachen, Germany (originally by Aria Etemad and then by Christoph Kessler).

Key Findings and Results:

A set of new assistance functions were built and evaluated in six passenger cars and one truck by a cross-functional team, using both simulator and test track studies in three key areas: continuous driver support, collision avoidance and collision mitigation. In this context, the driver is continuously supported by the interactIVe systems, which not only monitor the situation but can also react in all driving situations, using active braking or steering in order to protect occupants of vehicles and vulnerable road users.

interactIVe covered a wide range of Advanced Driver Assistance scenarios in a usercentric approach where the system plays the role of a senseful co-driver, making near real-time assessments of the situation based on the dynamic environment perception provided by a commonly shared Perception Layer. This integrates multisensor data fusion modules combining digital map communication and sensor data with advanced information-processing algorithms. Special attention has been paid to developing affordable solutions for all types of vehicle.

The support functions featured include Safe Cruise, Curve Speed Control, Enhanced Dynamic Pass predictor, Lane Change Collision Avoidance, Oncoming Vehicle Collision Avoidance/Mitigation, Side Impact Avoidance, Run-Off Road Prevention, Emergency Steer Assist and Cost-efficient Collision Mitigation. Their development has been supported by research on vehicle dynamics, path prediction and path stability control algorithms, coupled with extensive research on human factors which led to the definition of information, warning and intervention strategies for each function.

In the final phase of the project, interactIVe demonstrator vehicles underwent a comprehensive evaluation on test tracks and in the field combined with driving simulator experiments. In general, users found the interactive functions useful and were very willing to use them.

The project also identified potential legal barriers that might hinder the market introduction of these functions, highlighting the need to review the European legal framework.

[www.ika.rwth-aachen.de]

[www.interactive-ip.eu]

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