



interactive at a glance.

Started in 2010, the European research project interactive takes the next step towards our vision of accident-free traffic, thanks to active intervention technologies in intelligent vehicles. Systems developed by interactive provide safer and more effective driving by introducing safety systems that are able to autonomously brake and steer the vehicle. These systems can not only react to dangerous driving situations, but are also able to actively intervene in order to protect occupants and vulnerable road users.

The mission: next generation assistance systems.

The goal of interactive is to develop the next generation of driver assistance systems. Built on its predecessor project PReVENT, interactive will extend the concept of an electronic safety zone surrounding a vehicle and enhance the performance of these Advanced Driver Assistance Systems (ADAS) to the next level. In this way, interactive paves the way for accident-free traffic for all vehicle classes, realised by means of affordable integrated safety systems.

Facts

Duration	January 1 st 2010 - June 30 th 2013
Coordinator	Ford Research & Advanced Engineering Europe
Consortium	29 partners from ten countries - Czech Republic, Finland, France, Germany, Greece, Italy, Spain, Sweden, The Netherlands, United Kingdom OEMs - Ford, BMW Group Research and Technology, Centro Ricerche Fiat, Daimler, Volvo Car Corporation, Volvo Technology Corporation, Volkswagen AG Suppliers - Autoliv, Continental, Delphi Delco Electronics, Navteq, TRW Research institutions - Federal Highway Research Institute (BASt), Galician Automotive Technological Centre (CTAG), German National Research Center for Aeronautics and Space (DLR), Institute of Communication and Computer Sciences (ICCS), Institut für Kraftfahrzeuge - RWTH Aachen University (ika), Netherlands Organisation for Applied Scientific Research (TNO), Technical Research Centre of Finland (VTT), Lund University, Université Joseph Fourier Grenoble, Chalmers University of Technology, University of Passau, Czech Technical University in Prague, University of Trento SMEs - Allround Team, Alcor, European Center for Information and Communication Technologies EICT
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The objective: Enhancing system intelligence.

Extend the range of possible scenarios and the usability of ADAS:

- Focus on joint steering and braking activation.
- Investigate continuous driving support and emergency interventions.
- Increase the effectiveness of collision mitigation systems.

Improve decision strategies for Active Safety and Driver-Vehicle-Interaction:

- New techniques for the dynamic prediction of a safe trajectory ahead.
- Decision strategies able to balance human and system interventions.
- Advanced human machine interface (HMI) concepts integrated with primary driving controls.

Develop solutions for collision mitigation with market potential for lower segments:

- Further develop ADAS concepts for reducing accident severity.
- Pay special attention to vehicle architectures in the low to medium segment of passenger cars.
- Focus on cost effective sensors in combination with relevant accident scenarios.

Create an innovative platform for enhancing the perception of the driving situation:

- Integrate the environment sensing information as a part of the perception layer.
- Include inertial sensors, digital maps, and vehicle-to-vehicle and vehicle-to-infrastructure communication.

Advance the application of standard methodologies for the evaluation of ADAS:

- Continue the work of PReVENT and other European projects using structured methods for the evaluation of safety functions.
- Define a modular evaluation framework for all developed systems of this project.



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