

eVALUE

ICT-based Safety Systems



The main focus of project eVALUE (Testing and Evaluation Methods for ICT-based Safety Systems) is to define objective methods for the assessment of ICT-based, preventive road safety systems.

At a Glance

Project:

While the testing and rating of the passive safety of vehicles are based on established and accepted methods and programs, no such are available today for the active (ICT-based) safety of cars or trucks. eVALUE will fill this gap in defining objective methods for the assessment of the concerned safety systems.

Project coordinator:

The project is coordinated by the *Institute for Automotive Engineering (ika)* of *RWTH Aachen University*, Germany.

Partners from:

Partners come from both research organisations and industry, including vehicle OEMs, headquartered in Germany, Italy, Spain and Sweden.

Duration:

Running from 2008 to 2010, the project has a duration of three years.

Total cost:

The total budget is approx. EUR 3.8 million of which 62% are funded by the European Commission.

Programme:

As a collaborative project, eVALUE receives funding under objective "ICT for Intelligent Vehicles and Mobility Services" of the 7th Framework Programme.

Further information:

For further information please go to www.evalue-project.eu or contact the coordinator at info@evalue-project.eu.

Motivation

When moving towards the vision of accident free traffic, the evaluation of and standardised testing methods for active safety systems are essential. The main focus of the European research project "Testing and Evaluation Methods for ICT-based Safety Systems (eVALUE)" is to define objective methods for the assessment of active safety systems.

Performance test results presented to the public will help promote the use of such systems. The project is focusing on selected safety systems and will investigate future upcoming ICT-based systems. Objectives are to identify evaluation and testing methods, especially for primary safety systems, with respect to user needs, the environment and economic aspects.

Today, a number of passive and active safety systems as well as intelligent driver support systems are already on the market. A trend towards more pro-active and increasingly integrated safety systems is apparent. The performance of all these systems is affected substantially by the properties of the vehicle itself. For instance, such vehicle properties include tyre characteristics, vehicle dynamics and friction potential in road-tyre contact. Also the control strategy and algorithm quality of the active safety systems can improve the performance towards accident free traffic.

Scope of the project

The average car buyer cannot assess the performance of ICT-based safety systems in vehicles, nor their impact on traffic safety. Today, there are no publicly accepted test methods and no established ways to communicate test results. The situation is quite different for passive safety systems, where test programs like Euro NCAP have established impact test methods and ways to explain test results at different levels of detail. While car buyers may compare star ratings for passive safety between different cars, the professional safety engineer can compare broader measurement data from the tests.

In the development of automotive ICT-based safety systems, no generally accepted standards are available today. Manufacturers of systems, components or vehicles all need to develop their own testing procedures in order to provide both development goals and means to evaluate the systems' performance. Large R&D efforts are carried out in parallel by various companies in order to provide the technological background for the development of testing procedures.

Due to this situation of inhomogeneous testing practice throughout the industry, test results produced by different manufacturers tests cannot be compared by customers and authorities. In addition, manufacturers have no means to assess their systems in a generally accepted way.

For further information:

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Consortium

eVALUE is publicly-funded by the European Commission. It has a total budget of EUR 3.8 million. The project started on 1 January 2008 and is expected to end on 31 December 2010.

The *Institute of Automotive Engineering (ika)* of *RWTH Aachen University* is the coordinator of the project. Partners come from both research organisations and industry, including vehicle OEMs. In particular, *Centro Ricerche FIAT* (Italy) and *Volvo Technology Corporation* (Sweden) contribute as OEMs while Germany's *Ibeo Automobile Sensor* is a supplier of laser scanners. *SP Technical Research Institute* and *Statens Väg- och Transportforskningsinstitut (VTI)* are research organisations from Sweden. Last but not least, *Fundación Robotiker* and *IDIADA Automotive Technology* from Spain are well-known as research and testing suppliers.