euroFOT

European Large-Scale Field Operational Tests on In-Vehicle Systems

European Commission
Information Society and Media

euroFOT coordinates a large scale Field Operational Test (FOT) establishing a comprehensive, technical, and socio/economic assessment programme to evaluate the impact of intelligent vehicle systems in terms of safety, mobility, driver behaviour, and the environment. The project assesses 8 technically mature systems across Europe with passenger cars and trucks.

At a Glance

Project acronym:
euroFOT

Project type:
Integrated Project (IP)

Programme:
7th EU Framework Programme

Project coordinator:
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Project partners:
Vehicle manufacturers:
Ford, BMW, Fiat, Daimler, MAN, Volkswagen, Volvo Cars, Volvo Technology;
Automotive suppliers:
Bosch, Continental, DELPHI, Harman;
Universities and research centres:
Allianz, BAST, CHALMERS, CTAG, CEESAR, ICCS, IKA, INRETS, IZVW, Politecnico di Torino, TNO, University of Leeds;
Other organisations:
ADAS, ALCOR, EICT, ERTICO.

Duration:
01/05/2008 – 28/02/2012 (46 months)

Total cost & EU funding:
21 m€ - 14 m€ respectively

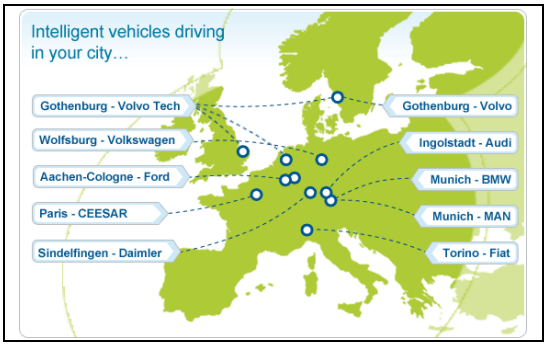
Project website:
www.eurofot-ip.eu

euroFOT in a nutshell

euroFOT is a research project co-funded by the European Commission's DG Information Society and Media. 28 partners have joined forces in an effort to test 8 intelligent vehicle systems (IVS) on European roads.

euroFOT aims to encourage the deployment and increase market penetration of IVS throughout Europe. This is done by evaluating the impact of the systems in terms of safety, efficiency, user behaviour and the environment.

About 1000 vehicles are collecting data on European roads. This is done in 10 operation sites with vehicles that are equipped with a range of intelligent technologies. They are tested in real-traffic conditions by normal drivers and for a period of time that enables the collection and analysis of the data in a statistically sound way.

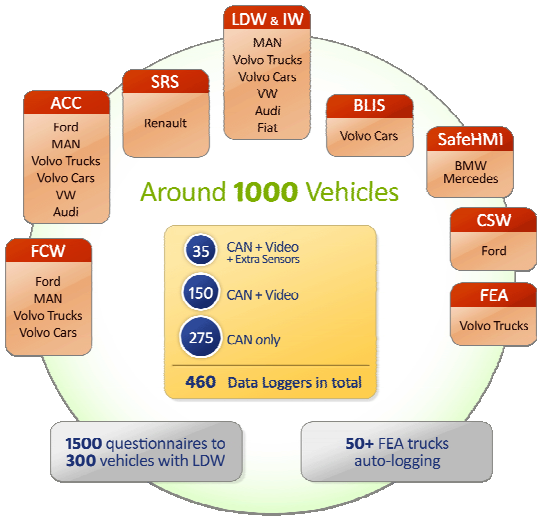


Four countries, ten operation sites

Eight Intelligent Systems

Eight intelligent vehicle systems are tested by euroFOT operation centres in order to assess their impact on traffic safety, mobility, driver behaviour and the environment. These are:

Adaptive Cruise Control (ACC), Forward Collision Warning (FCW), Speed Regulation System (SRS), Blind Spot Information System (BLIS), Lane departure Warning (LDW), Curve Speed Warning (CSW), Safe Human Machine Interaction for Navigation Systems (Safe-HMI), and Fuel Efficiency Advisor (FEA).



8 Intelligent Vehicle Systems tested according to the FESTA methodology

Methodology

In order to achieve valid conclusions a scientific methodology needs to be used by the euroFOT project. Therefore, it applies the common European FOT methodology (FESTA). FESTA provides a step-by-step approach that has been developed to improve the comparability and significance of field test results. euroFOT feeds back the lessons learned to FOT-Net (a strategic networking platform to present results of FOTs), in order to further improve the FOT methodology.

SPECIFICATION AND PILOTING

As a first step the vehicle fleets were prepared for the trials. In parallel euroFOT specified the experimental design and identified proper driving scenarios, relevant hypotheses, and expected results.

EXECUTION

Subsequent steps involved recruitment of test drivers and the installation of data acquisition systems in the vehicles. The recruited drivers were asked to drive under normal conditions while their actions and interactions with the vehicle and its environment were logged.

The operation centres played a crucial role as they were responsible for collecting and managing the data from about 1000 vehicles that will be analysed in the final phase of euroFOT.

SOCIO-ECONOMIC IMPACT ASSESSMENT

In the final phase, euroFOT will analyse both objective and subjective data describing driver behaviour and adaptation, vehicle dynamics and system acceptance. The collected data is representative of ordinary driving conditions on European roads. It thus provides valuable insights into the overall effectiveness of intelligent vehicles systems, and the way drivers use them.

Expected results

The final output of euroFOT will be a comprehensive impact assessment study on the various IVS under test.

The analysis of the data gathered in real-traffic conditions is expected to highlight several crucial aspects of the tested functionalities: their impact on traffic safety, on traffic efficiency and the environment, as well as on driver behaviour, acceptance and comfort.

Vehicle manufacturers and equipment suppliers will use the results of the project to improve the design of the systems, especially the interaction with the users.

Public authorities will be able to motivate and encourage the deployment of these systems with a deeper understanding of their impacts, and consumer's choice for new active safety systems will be facilitated furthermore.

The large body of collected data will be a valuable source for future research.

For further information:

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