

## Editorial

One of the goals of the ICT Programme of the European Commission is achieving more sustainable mobility of people and goods by providing accessible and reliable information and analysis about the impact of ICT applications for transport efficiency, security and safety.

A large number of ICT-based transport applications have been successfully developed and demonstrated in collaborative research projects throughout Europe. Today, there is a growing need to understand several questions which are crucial for market introduction and penetration of these systems: How does the driver use the system? What are the short and long term effects? How can the systems performance be further improved?

Previous experience in Europe, US, and Japan has shown that Field Operational Tests are an excellent way to raise awareness, collect real data, and enhance the take-up of ICT solutions. FOTs have also proved to be a powerful tool to gain insight into the way new functions and systems suit the user when operated in the real context and for a sufficient long time to have statistically sound data.

Taking into account the growing importance of bringing Field Operational Tests into a common framework, The European Commission is proud to launch the first Field Operational Networking Platform: FOT-Net.

FOT-Net is the point of reference for anyone interested in Field Operational Tests, their organisation, their set up and their results. The primary aim of this network is to gather all national, European and international FOT stakeholders around one table to discuss organisational, methodological and political questions. FOT-Net will also spread and feed-in the common FESTA methodology which has been developed for Field Operational Tests - a comprehensive manual which described the various steps to be taken when organising a FOT. FOT-Net aims not only to spread this methodology, but also to further explore the FESTA recommendations, and debate about issues which will need further attention.

FOT-Net is open to all stakeholders from public and private sectors willing to exchange experiences and benefit from each others' learning experiences. We strongly encourage you to get involved in this important initiative!

Fabrizio Minarini  
European Commission



## Stakeholder Meetings

*All stakeholder groups that play or will play an active and relevant role in existing and future National, European and Global FOTs should participate in FOT-Net meetings. Their input, contribution and experience will be beneficial for all FOTs around the world!*

### First Stakeholder Workshop – Brussels, 25 September 2008

The first FOT-Net workshop presents the FOT-net project activities, explains how you can take active part in it and provides an overview of the existing FOT activities throughout Europe.

Moreover, the workshop aims at presenting the common “FESTA” methodology, and identifying the open issues arising when organising an FOT.

All presentations will be available after the meeting at [www.fot-net.eu](http://www.fot-net.eu).

### FOT-Net International Workshop I – New York, 20 November 2008

This workshop will focus on current challenges and needs of US-Asia-Pacific and Europe regions active for FOTs and needs for international cooperation.

More information and registration at [www.fot-net.eu](http://www.fot-net.eu).

**Where?** Jacob Javits Centre  
New-York (USA)

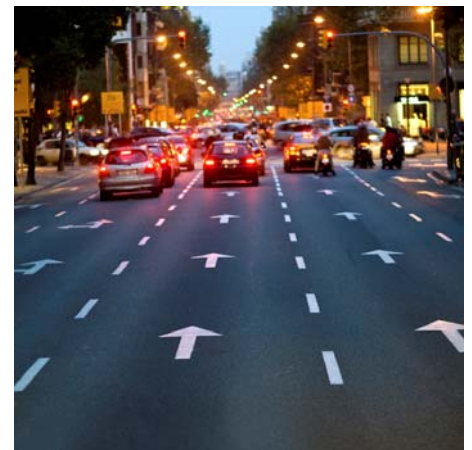
**When?** 20 November 2008 (17.00 – 20.00)

### FOT-Net International Workshop II – Japan

This workshop will build on the outcomes of the New York workshop.

More information will be available soon at [www.fot-net.eu](http://www.fot-net.eu).

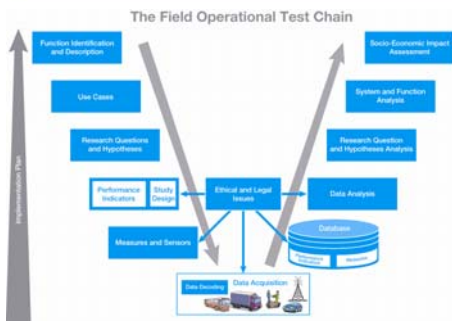
**Date and location to be confirmed**



## FESTA methodology and seminars

To improve significance, visibility, comparability and transferability of available FOT results at the national and European level, a common European FOT methodology has been developed in the FESTA project. In this project a handbook on FOT methodology has been made, which gives general guidance on organisational issues, methodology and procedures, data acquisition and storage, and evaluation ([www.festaproject.eu](http://www.festaproject.eu)).

The FESTA methodology will be explained and discussed during seven FOT-Net seminars. The seminars are directed at specialists participating in (future) FOTs.



## FOT-Net seminars 1 and 2

23 & 24 October - Brussels

The first two FOT-Net seminars have an interactive program that covers the following issues:

- Seminar 1: Starting a FOT – legal and ethical aspects, creating hypotheses, use cases and research questions, prioritising hypotheses
- Seminar 2: Implementing a FOT – the overall staging of FOTs, milestones, allowing for difficulties and delays, and study design: how to organise a vehicle fleet, user specification, participants selection, and experimental environment

**Where?** Hotel Bloom, Rue Royale 250, Brussels (Belgium)

**When?** 23 & 24 October 2008

More information and registration for these two consecutive seminars are available at [www.fot-net.eu](http://www.fot-net.eu).

## FOT-Net seminars in 2009 & 2010

Five more seminars are planned in 2009 and 2010. They will cover the following issues:

- Equipment – vehicle integration, specification of data logging equipment, installation, electrical testing, road testing, and sensors.
- Consumer relations and marketing – relations with research sponsors, the media, end-of-project seminars, and press handling.

- Data handling – database design, data acquisition, data storage, data export for analysis, data weighting, data aggregation, statistical analysis procedures, and significance testing.
- Assessment and policy making support – relevant methods to assess the socio-economic impact of the tested systems beyond the technical aspects and provide the key information needed by the different stakeholders. EC and national policy making aspects, cost-benefit analysis, and stakeholder analysis.
- Cooperative systems – communication, data provision and fusion, and (roadside) infrastructure equipment and its organisation.



## News from FOT projects

The FOT projects carried out around the world are an inestimable source of scientific data. FOT-Net promotes and facilitates the exchange of knowledge. In this section we report regularly about objectives and results of ongoing FOTs.

*Currently two pan-European FOTs are co-funded by the European Commission under the Seventh Framework Programme for R&D: euroFOT and TeleFOT.*

*November 2009 will see a call for proposals for FOTs for integrated safety systems and cooperative systems.*

## euroFOT

euroFOT is one of the two first pan-European Field Operational Tests. As an integrated project, euroFOT will establish a comprehensive, technical, and socio/economic assessment programme for evaluating in real traffic conditions the impact of eight technically mature advanced driver assistance systems (ADAS).



Bringing intelligent vehicles to the road

28 organisations ranging from car manufacturers, suppliers, universities, research institutes and other organisations have joined forces across Europe with the aim of testing near-market ADAS technologies. The technologies tested include both longitudinal control functions such as Forward Collision Warning, Adaptive Cruise Control, Speed Limiter, as well as lateral control functions such as Blind Spot Monitoring, Lane Departure Warning/ Impairment Warning. In addition, more advanced applications will also be tested, such as safe HMI, fuel efficiency advisor and advanced generations of curve speed warning.

During a time span of approximately one year, more than 1500 equipped cars and trucks will be driving on European roads across France, Germany, Italy and Sweden. 4 vehicle management centres will trial the various systems. The operations will be organised in 8 operation centres led by major OEMs such as Ford, Daimler/Mercedes, BMW, MAN, INRETS/Renault, Volvo Cars, Volkswagen/Audi and Fiat/Lancia.

Currently, the fleets are being prepared for the trials. In 2009-2010, all the formal and technical test requirements will be in place and the test phase will get underway.

Once the trials have been completed, the analysis of the data are expected to significantly support the decision processes in the deployment of mature ADAS systems for safer and more efficient road transport across Europe.

More information will soon be available at [www.eurofot-ip.eu/](http://www.eurofot-ip.eu/).

## TeleFOT

The market for the Nomadic Devices, such as on-board navigation devices and smart phones, integrated to road vehicles is increasing rapidly today. These devices can provide different types of driver support functions and almost nothing is known about their safety and traffic impacts yet. TeleFOT (Field Operational Tests of Aftermarket and Nomadic Devices in Vehicles), is a European Commission co-funded 'large scale collaborative project' aiming to assess the impacts of aftermarket and nomadic devices used in vehicles for driver support and to raise wide awareness of the functions and potential these devices offer, by implementing Field Operational Tests.



The market penetration of portable navigators and smart phones are exploding today. The functions that TeleFOT aims to test cover two broad areas:

- Functions promoting safe driving;
- functions promoting economic and fuel efficient driving.

Examples of this kind of functionalities are:

- Speed information;
- traffic information;
- road weather information;
- green driving support.

Attention will also be paid to issues related to fixing and positioning of the nomadic devices in the vehicle cockpit.

The project also aims at speeding up the penetration of systems able to "see" beyond drivers' field vision in conditions where good situation awareness is needed. TeleFOT provides opportunities to test the impacts of similar functions, future cooperative systems will provide after their development challenges have been solved in the coming years.



Due to the fact that the traffic behaviour and the reactions to safety measures vary in Europe, it is considered essential to build, mobilise and integrate Test Communities from South to North. Therefore the concept of TeleFOT comprises of creating three European Test Communities, the Northern, the Central and the Southern, while it is estimated that around 3,000 drivers will participate in the tests.

More information: [www.telefot.eu](http://www.telefot.eu).

*More FOTs are ongoing on the national level, producing data and results of relevance beyond the borders. In this issue we present just 4 of them. Future issues will see more! Contribute with news on your FOT to knowledge exchange in the FOT-Net community – and use FOT-Net for your dissemination activities!*

## SeMiFOT - Sweden Michigan Naturalistic Field Operational Test

SeMiFOT will further develop the Naturalistic Field Operational Test (FOT) method into a powerful tool in traffic safety research. The naturalistic method involves collecting data continuously from a suite of vehicle sensors in order to assess safety in the interactions of driver, vehicle and environment. Environment sensing and video are essential for identifying near-collisions and other incidents, and for validating if those

intelligent vehicle systems (e.g. collision warning, lane departure warning and intelligent speed adaptation) perform as expected.

# SeMiFOT

A SAFER PROJECT

SeMiFOT will focus on the tools in the methodology chain (data acquisition-data storage-data analysis) needed to perform a Naturalistic FOT. These tools will be evaluated on a number of selected in-vehicle and cooperative systems.

Sweden has a concentration of automotive industry world renowned for vehicle safety, well reputed research organisations and a road administration dedicated to traffic safety. These organisations are cooperating at SAFER Vehicle and Traffic Safety Centre at Chalmers and have joined forces with the University of Michigan Transport Research Institute (UMTRI). UMTRI has pioneered Field Operational Testing methodology and is today a world leader in naturalistic FOTs. A total of 15 partners are cooperating in the SeMiFOT project.

The project includes more than 20 vehicles. Sweden will have a test fleet consisting of 18 vehicles: 11 cars and 7 trucks. SeMiFOT is a 2 million EUR project and will run during 15 months, starting January 2008 through March 2009.



Picture: SeMiFOT

The vehicles are now being equipped, and the data collection will start in October and continue for 6 months.

More information: [www.chalmers.se/safer](http://www.chalmers.se/safer).

## Accident Prevention Systems for lorries (AOS) - Netherlands

At the beginning of July, the Dutch Ministry of Transport, Connekt/ITS Netherlands, TNO and Buck Consultants International started a comprehensive FOT on accident prevention systems for lorries, aimed at reducing accidents, improving safety and positively affecting traffic circulation. This is the most comprehensive FOT ever conducted with accident prevention systems.

The FOT will test five different driver assistance systems that can help to prevent accidents involving lorries. A separate registration system that record the driver's behaviour while driving, will also be tested. The FOT will address the three most common types of accidents: rear-end collisions, side collisions and single-vehicle accidents. The effects of these advanced systems will be measured for a period of eight months. The FOT will involve approximately 3,000 vehicles owned by more than 70 hauliers. The tests will also be supplemented by parallel FOTs such as:

- Test track measurements with anti-tilting sensors;
- random checks with behaviour observation;
- monitoring large groups of lorries already equipped with accident prevention systems and/or specific target groups (e.g. tanker lorries).

The practical experiences with the various systems can be instrumental in future policy-making in the Netherlands and the EU.

More information: Dutch Ministry of Transport's Directorate General of Transport and Aviation, robbert.verweij@minvenw.nl.



Picture: AOS

## The FOT in France

The French Field Operation Test (FOT) proposal focuses on the development and marketing of Intelligent Transport Systems (ITS). Its purpose is to bring together almost 30 ITS stakeholders (including public authorities, private companies and research institutions) in a forum where partners can network, collaborate and develop projects for the large-scale testing of ITS solutions.

Initiated by ITS Bretagne and its partners, the project includes a consortium of key organisations in the ITS network. The conditions for a successful FOT are present: strong political support and a highly cooperative industry.

The tests are expected to take place between Paris and Brest in various transport infrastructures (such as highways, local roads, ring roads...), and to involve different types of fleets, vehicles and drivers, both in personal transportation and in the field of logistics.

The FOT will experiment the concept of "safe and green corridors"; test ways to optimise traffic management; and is also expected to achieve significant improvement in safety through better information to users.

Last but not least, it will include individual behaviour analysis and acceptability of ITS systems for users. The impact analysis will be made through a "systemic approach" (not just "technological"), and will include ergonomics, environmental criteria, and human behaviour.

More information:  
lucas.asfora@itsbretagne.net

## isa - UK - FOT results published!

This project investigated how drivers would behave when using a Voluntary Intelligent Speed Adaption (ISA) system in everyday car driving. Important issues covered were how different types of drivers would be affected in terms of speed choice, and how their attitudes to the system would evolve over time.

Trials with cars and trucks were conducted and analysed. The car trials

show that the voluntary or overridable ISA reduced the amount of speeding among every category of drivers on every road category. However, ISA was overridden most on motorways and in built-up areas, thus in urban environments where it would be needed most. Moreover, there is tendency for ISA to be overridden by those drivers who in safety terms stand to benefit most from using it (male drivers and young drivers: they drove faster and had a higher percentage of distance travelled over the speed limit).

All results are available here:  
<http://www.dft.gov.uk/pgr/roads/vehicles/intelligentspeedadaptation/>.

## Related events

### FOTs at ITS New York Congress

On 18th November (8.30 – 10.00) ITS New York will host a session (SS12) dedicated to "Evaluating the effectiveness of Active Safety Systems" organised by the U.S Department of Transportation. This session will discuss the need for FOTs, innovations in designing and conducting FOTs, alternative testing and evaluation methods, and the merits of international cooperation to coordinate FOT activities to better use limited resources.

On 19th November (10.30 – 12.00) another session on FOTs will be organised by the European Commission in New York (SS37). It will provide an overview on the current status of FOT work worldwide and address program strategies, the structure and conduct of the tests, and the expected results.

For more information and registration, visit <http://www.itsworldcongress.org>.

## Contact us

<http://www.fot-net.eu>

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