

1 Project Content and Objectives

1.1 Background and Objectives of the Project

FOT-Net Data was a Coordination and Support Action in the EU 7th Framework Programme for Research. The project's full name was 'Field Operational Test Networking and Data Sharing Support'. It was a three-year project (2014–2016), whose main aim was to make data collected in Field Operational Tests (FOTs) more widely available to researchers, public authorities and industry.

In general terms, FOTs are large-scale user tests where, for example, a hundred participants are recruited to try out a system that is in the late prototype phase or just entering the markets. The period of testing commonly varies between a few months and two years. During this testing period, questionnaires, measurements and observations are made to find out how the system potentially changes the participants' driving and travelling behaviour or take-up and user acceptance. FOTs also study the effects on other road users and wider impacts on transport system and society.

The project FOT-Net Data was a continuation of FOT-Net's activities. FOT-Net is a networking platform open to all stakeholders interested in Field Operational Tests. The network was established in 2008 as a European support action to let FOT experts benefit from each other's experiences as well as to give an international dimension to local activities. It organizes international workshops, publishes a series of newsletters and promotes FESTA – a European handbook on FOT methodology. So far, 23 research organisations and companies have joined the network as associated partners, including several from outside Europe.

Since 2008, the EU has supported a number of projects enabling testing of latest vehicle information technology in large-scale field trials. Thousands of drivers have been able to test the most promising prototypes or products just entering the markets. The drivers have been testing systems such as the adaptive cruise control, forward collision warning, navigators and most recently, warning systems based on short-range wireless communication between vehicles (C-ITS). The communication can provide information, for example, on nearby car accidents or approaching emergency vehicles. Field test projects have evaluated the impacts of these technologies and contributed to their introduction. Driver behaviour whilst using the systems has been monitored for continuous periods of up to more than a year, collecting valuable information from the field.

The Commission and the FOT community recognise the importance of making the collected data more widely available. Although the data has already been analysed in the projects that collected it, there is much potential for re-using it in new studies that may focus on different research questions. Sharing the collected valuable datasets from the recent years will yield further research results, support education at high levels and contribute to market introduction of improved vehicle ICT.

The main objectives of FOT-Net Data were to:

- Support efficient sharing and re-use of FOT datasets
- Develop and promote a framework for sharing data

- Build a detailed catalogue of available data and tools
- Operate an international networking platform for FOT activities.

The Figure 1 visualizes the central objectives of FOT-Net Data: networking, methodology, FOTs, data, re-use and sharing.



Figure 1. FOT-Net Data's central topics.

1.2 Bringing Stakeholders Together

FOT-Net has been the point of reference for anyone interested in Field Operational Tests, their set-up and results. It is open to all stakeholders from public and private sectors. FOT-Net members meet regularly at European and international workshops to identify working items and address common experiences related to running FOTs.

The issues discussed reflect the stakeholders' priorities with respect to FOT activities, for example methodology, planning and preparation, operation, analysis, evaluation and the link between FOTs and deployment.

The FOT-Net Data project kept the momentum of the FOT network and delivered new perspectives with regard to sharing and re-use of globally available FOT and Naturalistic Driving Study (NDS) datasets. FOT-Net Data offered a series of in-depth seminars and webinars to promote the use of a common FOT methodology and to address issues that require further attention and come up when organising an FOT. Through its dissemination channels and newsletters, FOT-Net has kept the community informed about the FOT developments in Europe and beyond.

FOT-Net organised several workshops, networking events and webinars yearly, all of which were open to public. There was no participation fee. The events have featured relevant topics in the community:

- Data sharing guidelines and re-use of data
- Anonymisation of personal data
- C-ITS deployment pilots
- Upcoming H2020 testing activities on automated driving and methodology related to them.

1.3 FOT-Net Wiki and Catalogues

The FOT Catalogue – set up as a wiki tool maintained by the FOT community – serves as a reference for all FOT organisers. The wiki is a growing source of information on FOT projects across the world. Visit <http://wiki.fot-net.eu>.

While the FOT Catalogue already includes a comprehensive catalogue of field trials and naturalistic driving studies carried out in the recent years, FOT-Net Data has compiled further details regarding available FOT research datasets and tools related to them.

FOT-Net Data project has set up a new Data Catalogue and updated the Tool Catalogue in the FOT-Net Wiki to facilitate data re-use. These catalogues support potential data re-users in identifying interesting, suitable datasets, as well as tools for their research. The target has been to make the catalogues easy-to-use.

1.4 Data Sharing Framework

FOT-Net Data project compiled the first version of the Data Sharing Framework (DSF), a set of guidelines and procedures to assist FOT organizers in practicalities of data sharing. The framework addresses several areas: It discusses legal topics such as test user consent forms, participants' privacy and topics to include in data sharing agreements. It also addresses documentation of key information from FOT execution and collected datasets, ensuring that the datasets can be re-used. It gives hands-on recommendations for how to protect personal and confidential commercial data. It provides guidance on financial models to cover data management costs. Finally, an overview is given on the suggested content in data application procedures and the support services related to data sharing. The framework complements the FESTA Methodology.

1.5 Promoting the FESTA Handbook

To improve comparability and significance of FOT results at national and European levels, the FESTA project, funded by the European Commission, originally developed a handbook on FOT methodology. The methodology is now owned by the FOT community. It is promoted and it has been periodically updated by FOT-Net. FOT-Net has organised webinars and workshops disseminating the methodology.

FOT-Net Data project revised FESTA Handbook with a focus in data sharing, collecting feedback from several organisations.

1.6 International Collaboration

FOT-Net Data project collaborated beyond European borders. Already in the beginning of the project, FOT-Net Data established contacts with the U.S. Department of Transportation's (DOT) Research Data Exchange (RDE) activities. This collaboration resulted in exchange of data sharing guidelines and getting American speakers to present in several FOT-Net events.

The DOT, Japan's MLIT (Ministry of Land, Infrastructure, Transport and Tourism) and FOT-Net have collaborated in organising large yearly workshops at ITS World congresses: 2014 in Detroit, 2015 in Bordeaux and last, 2016 in Melbourne. These workshops have attracted participants from all around the world.

1.7 FOT-Net Data at a Glance

Duration: 36 months, January 2014 – December 2016

Budget: €1.8m, EU funding €1.4m

Consortium: VTT Technical Research Centre of Finland Ltd, ERTICO – ITS Europe, SAFER Vehicle and Traffic Safety Centre at Chalmers University of Technology, Institut für Kraftfahrzeuge (ika) at RWTH Aachen University, Galician Automotive Technology Centre CTAG, University of Leeds, the European centre of studies on safety and risk analysis CEESAR and the automotive company Daimler.

Associated partners: 23 associated partners, see <http://fot-net.eu/join-us/>

Coordinator: Sami Koskinen, VTT

EC Project Officer: Myriam Coulon-Cantuer, DG CONNECT

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