

FOT-Net Data Publishable Summary

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

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. The communication can provide information, for example, on nearby car accidents or approaching emergency vehicles. Field test projects have evaluated the impact of these technologies and contributed to their introduction. Drivers' behaviour whilst using the systems has been monitored for continuous periods of up to more than a year, collecting valuable information from traffic.

The Commission recognises 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 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 project FOT-Net Data is a continuation of FOT-Net's activities. FOT-Net is a networking platform open to all stakeholders interested in FOTs. It 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 21 research organisations and companies have joined the network as associated partners, including several from outside Europe.

Project content and objectives

The main objectives of FOT-Net Data are 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.



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

Bringing stakeholders together

FOT-Net is 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 regularly meet 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 keeps the momentum of the FOT network and delivers new perspectives with regard to sharing and re-use of globally available FOT and Naturalistic Driving Study (NDS) datasets. FOT-Net offers a series of in-depth seminars and webinars to promote the use of a common FOT methodology and to address issues which require further attention and come up when organising a FOT. Through its dissemination channels and newsletters, FOT-Net keeps the community informed about all FOT developments in Europe and beyond.

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 is compiling further details regarding available FOT research datasets and tools related to them. This will provide more details on collected data and information on the possibilities and options to access data.

FOT-Net Data project is setting up a new Data Catalogue and updating the existing Tools Catalogue in the FOT-Net Wiki to facilitate data re-use. These catalogues will support potential data re-users in identifying interesting, suitable datasets, as well as tools for their research. The target is to make the catalogues easy-to-use.

Data Sharing Framework

FOT-Net Data compiles a framework and a set of guidelines to assist FOT organizers in practicalities of data sharing. The framework will address 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. The framework will provide guidance on financial aspects such as data release costs and arranging support for new analysts. The framework will complement the FESTA Methodology.

Promoting the FESTA Methodology

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 organises webinars and workshops disseminating the methodology.

Work performed during the first project year

One of the first objectives of FOT-Net Data was to create a smooth transition from the previous support action FOT-Net 2 and take over the operation of the FOT network. FOT-Net Data and FOT-Net 2 convened in a joint event, starting a new period. Considering the numerous associated partners of FOT-Net, most organisations that had participated in the network previously, soon became associated partners to FOT-Net Data. In addition, five new associated partners have joined since the beginning of FOT-Net Data.

FOT-Net Data has collaborated also beyond European borders. During the first year we established contacts with the USDOT's Research Data Exchange (RDE) activities. The RDE is a core part of USDOT's Data Capture and Management Program. FOT-Net and USDOT collaborated to organise an international workshop on the opening day of ITS World Congress 2014 in Detroit. In the international workshop we received participants also from Japan, Australia, etc.

FOT-Net Data also co-operated with EUDAT (European Data Infrastructure) EU project, which provides data sharing and catalogue services for various scientific communities. FOT-Net Data and EUDAT organised a workshop together in December 2014.

FOT-Net organises several workshops, events and webinars yearly, most of which are open to public. There is no participation fee. During the first year, all our events highlighted data sharing from some aspect. Although there were less ongoing EU FOT projects during the first project period than during some past years of FOT-Net operation, we were happy to attract many participants. Now that the Horizon 2020 is starting, new large-scale testing projects are likely to collaborate with us and each other. Automated driving FOTs are a new uprising topic as well.

During the first year, FOT-Net Data started collecting best data management practices from previous and ongoing FOT projects to form a basis for the upcoming Data Sharing Framework. FOT-Net Data conducted a number of interviews to collect opinions related to data sharing from the FOT network and international experts. Most of these 1–2 hour interviews were made during the ITS European and ITS World Congresses. In the end of the first year, FOT-Net Data compiled draft reports on data protection and data documentation, supporting future FESTA updates and FOT Data Catalogue development. The project also

identified the parts in FESTA, which should be updated to give more details on data management and sharing.

FOT-Net is creating the first European FOT Data Catalogue and extending the current FOT and FOT Tools catalogues. During the first year, FOT-Net listed key datasets to be contacted for data sharing. Internal piloting of the FOT Data Catalogue started in the end of 2014.

FOT-Net Data released two newsletters during the first year, disseminating FOT news as well as data management topics.

Expected final results and their potential impact and use

FOT-Net Data develops the Data Sharing Framework to facilitate data sharing globally. The project creates the framework in collaboration with its wide network of members, to cover various topics and to build acceptance for the framework. The framework complements the FESTA methodology. FOT-Net Data disseminates the framework and FESTA methodology by organising workshops and webinars.

FOT-Net Data publishes the first European catalogue for FOT and NDS datasets, promoting efficient re-use of these resources. The FOT Community is invited to provide information to the catalogue of their datasets and licensing models. The datasets included in the catalogue will be available for further research work and described in reasonable detail for potential re-users. Functionalities to provide input and update previously provided information are made so easy that FOT/NDS data owners are able to keep the information up to date after the FOT-Net Data project has ended.

FOT-Net Data updates and maintains the FOT Catalogue and FOT Tools Catalogue built during previous project phases of FOT-Net. They facilitate further exploitation of FOT results.

FOT-Net Data promotes FOT results and international collaboration. FOT-Net Data organises a series of workshops, stakeholder meetings and public events. These events enable transfer of information and prepare organisations for adopting new practices of handling research data. The material is available also for independent e-learning.

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, 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: Currently 21 associated partners, see <http://fot-net.eu/join-us/>

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