Partner Network

The FOT-Net Consortium consists of 8 project partners and 23 associated partners

Interested to join the FOT-Net Community, become an Associated Partner

Besides the Consortium, relevant experts and stakeholders from all around the world can become an Associated Partner of CARTRE project and actively contribute to the networking. Associated Partners are required to sign a letter of intent, specifying their contribution to the project.

By joining this project, decision makers from the public or private sector, technical experts involved in FOTs, managers or owners of data or researchers will learn:

- How to design and execute future FOTs

- How to re-use existing FOT data to answer new questions

- How to prepare data collection, storage and documentation so that they can be re-used later

More information on FOT-Net Data

- Visit the FOT-Net Data website www.fot-net.eu

- Contact us at info@fot-net.eu

- Follow-up our new activities in CARTRE

Groups/FOTNet

FOT-NET DATA

Final brochure
December 2016

Field Operational Test Networking and Data Sharing Support

www.fot-net.eu

About FOT-Net

FOT-Net Data, Field Operational Test Networking and Data Sharing Support, is a 3-year support action project (2014–2016) to support sharing and re-use of available Field Operational Test (FOT) datasets and Naturalistic Driving Studies (NDS). It has developed a **Data Sharing Framework** to support FOTs in their data management, built a detailed **Wiki catalogue** of available datasets and tools, and operated a networking platform for the FOT community. FOT-Net Data is the continuation of FOT-Net 1 and 2 projects.

Story so far…

FOT-Net is a community, originally established in 2008, where experts and stakeholders are encouraged to share their knowledge, test new ideas and reach consensus on new knowledge. FOT-Net gathers **European and international stakeholders** in a strategic networking platform to present results of Field Operational Tests (FOTs), identify and discuss common working items and promote a common approachfor FOTs – the FESTA methodology.

The FOT-Net Data project has continued FOT-Net activities and delivered new perspectives with regard to data sharing and re-use. Sharing collected valuable datasets from the recent FOTs can yield further research results, support education at high levels and contribute to market introduction of improved vehicle ICT.

Collaboration

FOT-Net Data collaborates beyond European borders. Already in the beginning of the project, FOT-Net established contacts with the USDOT's Research Data Exchange (RDE) activities. This collaboration has so far resulted in exchange of data sharing guidelines and getting US speakers to present in several FOT-Net events. USDOT and FOT-Net have also collaborated in organising a large yearly workshop at ITS World congresses, 2014 in Detroit, 2015 in Bordeaux and 2016 in Melbourne.

FOT-Net Data activities on methodology have contributed to support several EU-funded projects such as DRIVEC2X, UDRIVE, Cloud LSVA, FOTsis etc.

FOT-Net Data also co-operates with EUDAT (European Data Infrastructure) EU project, which provides data sharing and catalogue services for various scientific communities.

FOT-Net Data periodically features ongoing FOTs in its newsletters and public workshops, offering possibilities for FOTs to promote their results.

Next steps: CARTRE

The recently launched **CARTRE (Coordination of Automated Road Transport Deployment for Europe)** support action will continue FOT-Net's key activities from October 2016 onwards.

CARTRE is a Coordination and Support Action funded under the H2020 programme to accelerate the **development and deployment of automated road transport (ART)** by increasing market and policy certainties. By supporting the development of clearer and more consistent policies of the EU Member States in collaboration with industry players, CARTRE aims to ensure that ART systems and services are compatible at European level and deployed in a coherent way. CARTRE involves more than 60 organisations to consolidate the current industry and policy fragmentation surrounding the development of ART.

The objectives of WP4 – **Data Exchange and Common Evaluation Framework** are to facilitate exchange of data, experience and knowledge for comparing and deploying results from pilots and to foster a common evaluation framework across ART projects. The main stakeholders for these objectives are the staff preparing pilots and Field Operational Tests. The outcomes of this work package make preparing such tests more efficient and the outcomes more comparable.

Besides organising a number of conferences, workshops, webinars and demonstration challenges such as the annual EC conference on automated and connected vehicles on 3-4 April 2017 in Brussels, CARTRE will also continue the FOT-Net series of international workshops at the ITS World Congresses.

Visit www.fot-net.eu

FOT-Net WIKI

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.

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 collected further details regarding available FOT research datasets and tools related to them including information on the possibilities to access them.

FOT-Net Data project has set up a new **Data Catalogue** describing datasets collected in FOTs and NDSs including conditions for availability for re-use and contact persons. FOT-Net Data also updated the **Tools Catalogue** in the FOT-Net Wiki to facilitate data re-use. The Tool Catalogue is an inventory of special tools required in conducting a FOT or a NDS. 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.

The FOT-Net Wiki can be accessed and modified freely by the FOT network. All experts and stakeholders are invited to share their FOT knowledge by contributing to the Wiki.

Visit wiki.fot-net.eu

FOT-Net Data Achievements

FOT-Net Data has published a Data Sharing Framework that provides guidelines for FOTs, addressing:

- Legal topics such as test user consent forms, participants' privacy and topics to include in data sharing agreements
- Documentation of key information from FOT execution and collected datasets, ensuring that the datasets can be reused
- Financial models for upkeeping datasets and arranging support for new analysts
- Recommendations for data protection

FOT-Net Support:
- Networking Platform
- Data Sharing Framework
- Catalogue of Data and Tools
- FESTA Methodology

FOT-Net Data has also provided information on available FOT data and tools through:

- New FOT Data Catalogue to promote available datasets
- Updated FOT and tools catalogues at wiki.fot-net.eu

FOT-Net Data established a network operation through:

- A series of international meetings, workshops and webinars on topics such as big data, C-ITS and automated driving
- Events organized in collaboration with USDOT, Japanese ministry, big data project EUDAT and our 31 partners
- A series of international meetings, workshops and webinars on topics such as data sharing, big data, C-ITS and automated driving
- Update of FESTA methodology by the end of 2016

Data Sharing Framework

During the last decade, a large number of **FOT and NDS datasets** have been collected. These datasets provide a **huge resource for answering research questions** and the interest in data re-use is increasing along with the awareness of the substantial effort and funding needed to do these FOT and NDS. When the data was collected, the needs to better understand the benefits of safety systems and the factors behind the occurrence of incidents and accidents were the main driving forces. The new field of automation makes these datasets interesting in another way, as they give insights into what is normal driving.

FOT-Net Data has published a **Data Sharing Framework** to facilitate data sharing of FOT data both within and after a project. The framework is based on knowledge and experiences gained in FOT and NDS projects during the last decade and has been collected in the consecutive FOT-Net projects through activities at various conferences and through **discussions with a variety of stakeholders from Europe, the US, Japan, Australia and China.**

The Data Sharing Framework consists of **7 topics**, each addressing an essential subject to permit and facilitate data sharing.

- Data sharing aspects included in the different **project agreements**, such as funding agreement, consortium agreement, participant agreements and agreements with third party data providers. Possibly the most important topic, as if data sharing is not included in the agreements, the data cannot be shared.

- **Documentation of valid data and metadata**, including a recommended "standard" description of the documentation.

- **Data protection requirements** based on legal topics such as participants´ privacy and intellectual property rights.

- **Security and personal integrity training** for all personnel involved.

- **Support and research services**, to facilitate the understanding and the re-use of the data and potential tools, and to offer research capabilities.

- **Financial models** that could be used to enable funding for the data to be maintained and accessible, and for access provision personnel to be available.

- **Application procedure** and data sharing agreement content to provide a smooth data access process.

The Data Sharing Framework has been **implemented in the European project UDRIVE** and the knowledge gained through that process has been incorporated into the final version of the Data Sharing Framework.

FOT-Net Data has arranged two annual Anonymization Workshops, to address and focus on the main issue of sharing FOT data, the driver video and external video, and the GPS signal. The workshops have been a success with state-of-the-art presenters and a large number of participants discussing key issues. The topic is most relevant also to automation.

The framework **complements the FESTA Handbook** and has been incorporated in part into the handbook.

FESTA Handbook

Over the past decade a large number of Field Operational Tests has been conducted. The FOTs have as an objective **to assess the impacts of ICT systems on driver behaviour**, both in terms of benefits for drivers (e.g. more comfort and increased safety) and **of larger scale socio-economic benefits** (e.g. less congestion and fewer accidents). In order to provide guidance to the FOTs, the **FESTA consortium**, consisting of a large number of stakeholders from industry, research, public authorities, and user and network organisations, developed a methodology and produced a handbook.

Since 2008, this methodology has not only been adopted by FOTs funded by the European Commission but also by many nationally (or otherwise) funded projects, and has influenced FOTs outside Europe. The methodology has been regularly updated by the FOT-Net support actions, taking into account the lessons learned. The latest update by FOT-Net Data provides recommendations on how data sharing and data re-use should be taken into account throughout the lifecycle of a FOT.

A **common FOT methodology** ensures that a **systematic and scientific approach** is adopted by the FOTs. Providing a common general approach and a common vocabulary makes it easier to compare studies on similar systems, to gain a better understanding of the changes in road-users' behaviour, and to interpret outcomes. To perform FOTs, a wide range of expertise is needed, such as on technical, legal and ethical, human factors, statistical, computer science, political, and organizational aspects.

By organising workshops, webinars and seminars, and providing documentation and the FOT-Net wiki, the exchange of experiences and lessons learned makes the methodology a living one. The **FESTA Handbook** is more than a theoretical and practical document, it is the focal point of an international community involved in performing Field Operational Tests and using their outcomes.

The next steps in the development of FESTA will be taken in the frame of the CARTRE coordination and support action, focussing on field trials for road automation.