
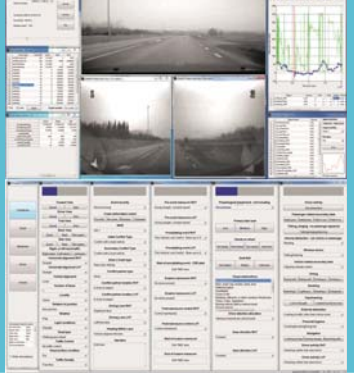
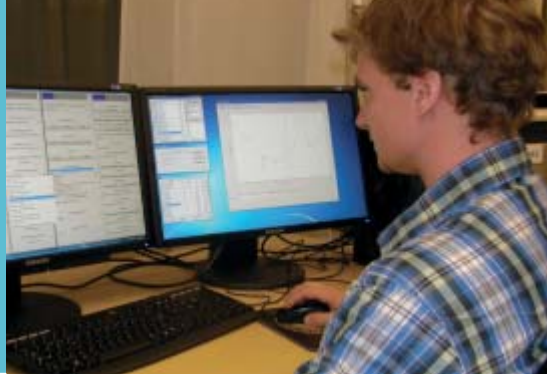

SAFER SUCCESS STORY: Naturalistic data platform

"SAFERs platform for naturalistic driving data is used in our global projects in Sweden, US and China. The platform plays an important role when analysing and understanding driver behaviour, and is used in the development of our active safety systems."

John-Fredrik Grönvall, Senior Research Manager, Field data
Volvo Car Corporation

- **Common world class infrastructure for naturalistic data (ND) collection, secure data storage and analysis**
- **SAFER chosen as Central Data Centre in the largest ND study in Europe**
- **Cross-Atlantic Connected Analysis Centres with remote access developed and tested at SAFER and UMTRI**
- **The platform almost self-financed through projects since the start**
- **Data Protection Concept developed for all stages in data handling**
- **Tools for collection of naturalistic data from vulnerable road users (pedestrians and bicyclists)**

The objective was to develop a secure, world-class, platform for handling naturalistic data from data collection over data storage and processing to analysis to gain control of the quality of data and results, and to maintain the world-class level over the years. SAFER was technically challenged by being the first in Europe to develop such a platform, and administratively challenged on how to finance the platform over the years.

Benefit to the project partners and impact on society:

- Common robust data collection system, vehicle adaptation, and vehicle monitoring services, used in numerous projects
- Common data processing principles, using High Performance Computing
- Common data storage structures and data processes facilitating data sharing and re-use
- Common analysis tool, FOTWare and NatWare
- Platform includes communication capabilities for cooperative applications
- Infrastructure developed together, reducing the cost for partners
- Remote access facilities
- The ND platform and its data as a facilitator for project consortium invitations

The challenge was approached using eight key strategies:

Develop our own infrastructure from data collection over data storage to data analysis to learn the process, gain control of the quality and understand the challenges; Collaborate with UMTRI, to learn from their expertise in naturalistic data handling; Develop a strategy for the financing of the platform over time; Investigate data protection issues due to personal privacy and Immaterial Property Rights together with the four Swedish OEMs; Capitalise on the knowledge among the SAFER partners for the development of the ND platform; Implement support for a variety of ND data types (continuous and event based, and cooperative systems data); Develop a remote access method, where researchers can access data globally, using remote desktop.

Measurable results:

- SAFER has developed a set of common data management principles, hardware and tools, supporting the complete chain from collecting data in vehicles, to analysis of data.
- SAFER has established good relations with many data providers, and access to several important ND databases globally.

(See also SAFER Success Story Naturalistic Driving Data)

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

Funding: 11 MSEK SAFER internal (cash and inkind) and over 113 MSEK external

Partners: AB Volvo, Autoliv, Chalmers, City of Gothenburg, If, Lindholmen Science Park, Saab Automobile, Scania, SP, Swedish Transport Administration, TÖI, University of Gothenburg, Viktoria Swedish ICT, Volvo Cars, VTI, ÅF

Funders: Chalmers (SOT), EU, National Academy of Sciences, Swedish Transport Administration, VINNOVA, VR

Period: 2007 - ongoing

Oct 2015