



providing extensive information about the state of the vehicle. Additionally, several vehicle centres are using video cameras and extra sensors such as radars, microphones, and others, to enable better data mining and analysis.

All the DAS are connected wirelessly using GPRS and UMTS to transmit status reports and CAN-bus data. On the other hand, full video data will be stored on hard drives and picked up manually by the vehicle centre's crews whenever necessary.

In all, the size of the data storage planned will approach 140 TeraBytes, which will require rigorous data mining and analysis tools using state-of-the-art database engines. In addition to the collected data, an enrichment tool will add specific environmental and road feature information such as traffic density information, road works, legal speed limits and other ADAS Horizon features from digital maps (next intersection, road curvature, slope, etc). At the moment, the use of hardware and software components is limited to the euroFOT partners. However, the knowledge built in this project (requirements' specifications and procedures) will be widely shared with the whole FOT community.

A COMPLEX STRUCTURE

The euroFOT operations are organised in four vehicle management centres in Germany, Sweden, France and Italy. The vehicle management centres play a key role in collecting the data from more than 1,000 vehicles with a total mileage expected to be over 18 million kilometres. They provide an operational platform for the entire project where practical details are treated in line with the methodological recommendations during FOT preparation and piloting.

The vehicle management centres are

divided in five operation centres and a series of operation sites. The operations centres are responsible for the acquisition of the vehicles, the purchase and installation of the data acquisition systems, the relations with the drivers and the data quality monitoring. The operation sites address the practical details such as vehicle handling, installation of the DAS, driver interaction, and pick-up of the data. In total, there will be 11 operation sites across Europe.

EVALUATING & ASSESSING

Three main results are expected for the data analysis. First the defined hypotheses will be verified on the effects of the functions. Then the global impacts on safety, traffic efficiency and environment will be analysed. Finally, the socio-economic costs and benefits of the functions will be compared.

This means that the collected data need to be carefully analysed and studied, in order to evaluate the real impact of the functions under test. During the test itself, the incoming data quality will be monitored to provide early warnings if data seems erroneous. Thanks to this data quality check, researchers will be able to judge if field intervention is needed by the operation site crews.

All user-related aspects concerning driver behaviour and performance will be studied such as workload and user acceptance and how these behaviours develop through the tests. The impacts of the selected functions on traffic and driving safety, traffic efficiency and environment will also be identified.

The final results of this field test are expected for 2011. Many countries, functions, brands and interests are combined into this unique project: This might be one of the most challenging European-wide field operational tests for some time.

