euroFOT

Bringing intelligent vehicles to the road

Measures and Sensors

A comprehensive set of measures is necessary to compute the performance indicators used to evaluate the systems, as well as the situational variables which characterise the driving context. Several data sources, including questionnaires and geographical database are used, but the most important knowledge comes from all the measures that have been continuously recorded, on the field, by instrumented vehicles. These measures bring direct insight about the actual driving behaviour and use of assistance systems by ordinary drivers. Using CAN data, GPS, video cameras and additional sensors such as RADARs and eye trackers, a comprehensive overview of the situation - including vehicles' dynamics, systems' state, driver's actions and the surroundings' characteristics - is collected continuously in each vehicle during the execution of the FOT. In-vehicle integration of data acquisition systems and sensors meeting requirements, such as discreetness, autonomy, reliability and cost efficiency, bring challenges which have never before been successfully addressed in Europe on such a large scale.