

UDRIVE

European naturalistic Driving and Riding for Infrastructure & Vehicle safety and Environment



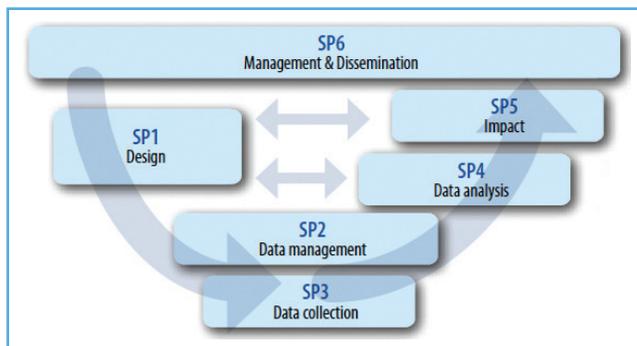
MOTIVATION AND OBJECTIVES

Naturalistic Driving is a research approach that provides insight into driver behaviour during everyday trips by recording details on the driver, the vehicle and the surroundings through unobtrusive data gathering equipment and without experimental control. Special equipment allows to gather information about vehicle movements (acceleration, deceleration, position on the road, driving speed), the driver (eye, head and hand movements) and the direct surroundings (traffic densities, time headway, road and weather conditions). This allows to assess the link between driver/rider, vehicle, road and traffic in normal situations, in near crashes and in actual collisions.

PROJECT PLAN, MILESTONES AND DELIVERABLES

The work plan follows five steps: Study Design, Data Management, Data Collection, Data Analysis, and Impact Analysis.

The design of the naturalistic driving study includes the definition of research questions, driving performance indicators and the establishment of procedures for complying with relevant legal regulations. Data collection will take place in six EU Member States: France, Germany, Poland, Spain, the Netherlands, and the United Kingdom.



TECHNICAL APPROACH

The collected data includes Controller-Area Network (CAN) data, vehicle data, seven camera views inside and outside the vehicle and a smart camera (MobilEye).

All data will be collected continuously to bring knowledge in the various research areas beyond the current state-of-the-art.



UDRIVE is collecting naturalistic data on passenger cars, trucks, and scooters.

ACHIEVEMENTS

After a piloting phase, UDRIVE Operational Sites are ramping up to start data collection. Some are recruiting more participants but most vehicles across the Operational Sites are already on the road and will collect data for a period of 12 months.

The collected data will be used to gain new insights in driving behaviour in relation to crash causation factors, distraction, interaction with cyclists and pedestrians and eco-driving.

The overall objective of these analyses is to gain understanding of where, when and why drivers fail to perform the driving task safely.

Based on the new insights, UDRIVE aims to provide recommendations for safety and sustainability measures related to regulation, enforcement, driver awareness, driver training and road design.

The UDRIVE results may lead to improved driver behaviour models and risk functions which can be used for traffic simulations. After it is concluded, the project will offer access (within the bounds of legal and ethical restrictions) to the collected data. This will enable the exploitation of the data beyond the scope of the UDRIVE project.

Budget	10.5 M€	Funding	8 M€
Duration	48 months	Start	October 2012
DG	Research & Innovation	Contract n°	314050
Coordinator	Nicole van Nes, SWOV	Contact	nicole.van.nes@swov.nl
Partners	19 partners, among them Volvo, PSA, Renault		
Website	www.udrive.eu		

