



UDRIVE

European Naturalistic
Driving Study

UDRIVE: Naturalistic Driving in Europe

Agenda

10:00

- Welcome
- Overview

10:15

- Makes & Models
- Clarifications
- Video view examples

10:30

- Questions

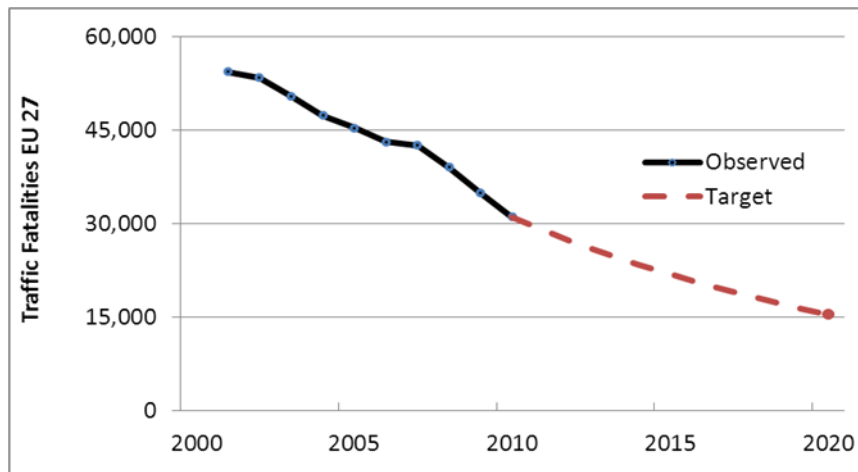
UDRIVE

Overview

2013.06.26 Supplier Conference call

UDRIVE: towards safer road transport

- Around 30,000 road fatalities on EU roads, many more injuries each year
- EU target: minus 50% fatalities between 2011 and 2020
- Challenge: Identify a new generation of effective road safety measures



UDRIVE: towards greener road transport

- Severe burden on the environment: climate change, air quality, non-renewable fossil fuels
- EU target: reduction of carbon emissions of person cars to 130 g/km in 2015 and 95 g/km in 2020
- Challenge: identify and use driving style-related factors to reduce fuel consumption and emissions

UDRIVE aims to:

Increase our understanding of road user behaviour

and

Contribute to meeting the European road safety and environmental targets

by

Conducting a large-scale Naturalistic Driving study in Europe

The added value of ND

- No experimental interventions
- 'Natural' behaviour in natural surroundings
- Direct observation of conflicts and (near) crashes
 - Exact and detailed information what preceded
 - No bias by post-hoc reporting

More traditional research methods:



Laboratory study



Driving simulator study



Instrumented car study

UDRIVE: some facts and figures

Full name: eUropean naturalistic Driving and Riding for Infrastructure & Vehicle safety and Environment

Programme: 7th EU Framework Programme

Project type: Collaborative project, large-scale integrating

Coordinator: SWOV Institute for Road Safety Research (NL)

Consortium: 19 partners, 10 countries

Duration: October 2012 - September 2016

Budget: € 10.5 million

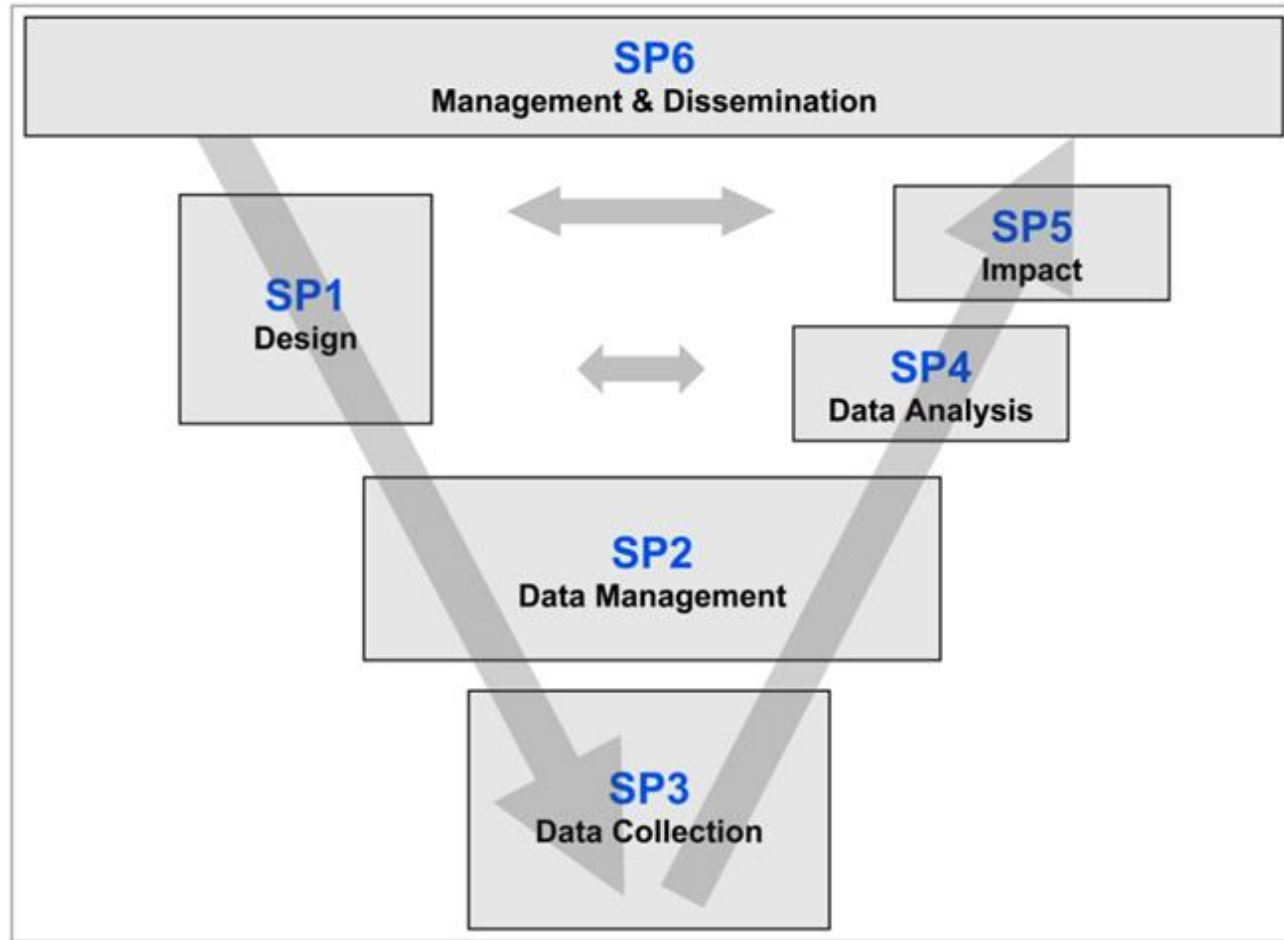
EU funding: € 8 million



The consortium: research, industry, interest groups

Country	Partners
Austria	KFV
Czech Republic	CDV
Germany	BASt, DLR, TU Chemnitz
France	CEESAR, IFSTTAR, LAB
Israel	Or Yarok
Netherlands	SWOV (Coordinator), TNO
Poland	IBDiM
Spain	CIDAUT
Sweden	SAFER, VOLVO
UK	Universities of Leeds and Loughborough
International	ERTICO, FIA

The UDRIVE approach: based on FESTA-V



Data collection: seven operation sites:

- France
- Germany
- Poland
- UK

Person cars

- Austria
- Spain

Powered two-wheelers

- Netherlands } Long and short haul trucks



Beyond UDRIVE

- UDRIVE will produce a wealth of data
 - Not all can be analysed and exploited within UDRIVE
 - But the database will remain for analyses after the project
 - By UDRIVE partners
 - By other experts
- Taking into account legal and ethical restrictions

Makes & Models

- Cars
 - Clio III - Sure
 - Megane III (and Scenic) - Sure
 - Volvo S60 - Most likely
- Trucks
 - Volvo FH - Most likely
 - Volvo FE - Most likely
- PTW
 - BWM Liberty - Sure
 - Piaggio R1200 GS - Sure

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Clarifications

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Clarifications - General

- DAS stands for **Data Acquisition System**
- It is different than DATALOGGER
- DAS is the complete system, including all peripherals
- Some requirement concerns DATALOGGER, other full DAS

Clarifications - DataLogger

- Status reports
 - **Remote & live** access to sensors and cameras is not required
 - Live video feeds while installing (cable connexion) and 'regularly' remote snapshots from the cameras must be available
 - **See if cameras are still plugged and with a correct framing**
- Configuration file
 - A suggested configuration file, with all parameters that need to be tuneable, will be sent to potential
- Video synchronization
 - Synchronization of the **actual images** is really required
 - Synchronization of any stream after image acquisition (e.g. post compression) is likely insufficient (fluctuating latencies with advanced codecs)
- Internal & External transfer
 - Follow the RfP (e.g. no hot plug)

Clarifications - Signals logging

- CAN
 - In case of a modular architecture (external CAN interface), CAN ports could be adapted per vehicle type
 - 4 ports may not be necessary for all vehicles
 - This will be refined further, but may allow saving money
- OBD II
 - CAN message descriptions from OEM for trucks, cars and maybe for some PTW will be available
 - OBD II decrypting is not necessary

Clarifications - Hardware

- Inertial unit
 - Sensor which collects accelerations and angular speed in an acceptable and cost efficient way are required
- HDD
 - Industrial grade HDD for the removable/external storage is no more required
 - More HDD than DAS is required

Video views examples



Questions

MobilEye: it is up to the supplier to choose MobilEye or not. Other solutions are welcomed. If the supplier decide to go with MobilEye, the consortium will negotiate the price and the supplier will buy it.