Sub-project 1

Behavioural Effects and

Driver-Vehicle-Environment Modelling

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Sub-project 1: Behavioural Effects and Driver-Vehicle-Environment Modelling

SP1's main objectives:

- To create a model for Driver, Vehicle and Environment (DVE) aimed at predicting Drivers' behaviour according to different driver, vehicle and environment conditions
- To experimentally study short term and long term behavioral effects when using ADAS and IVIS, to include them in the design process of the system and its interface
- To implement and validate a computerized numerical simulation of the DVE (SSDrive)

Key activities:

- Empirical studies on behavioral effects of ADAS/IVIS (learning, behavioral adaptation etc.)
- Modeling and simulation of the DVE system

Who worked on these ideas: SP1 partners

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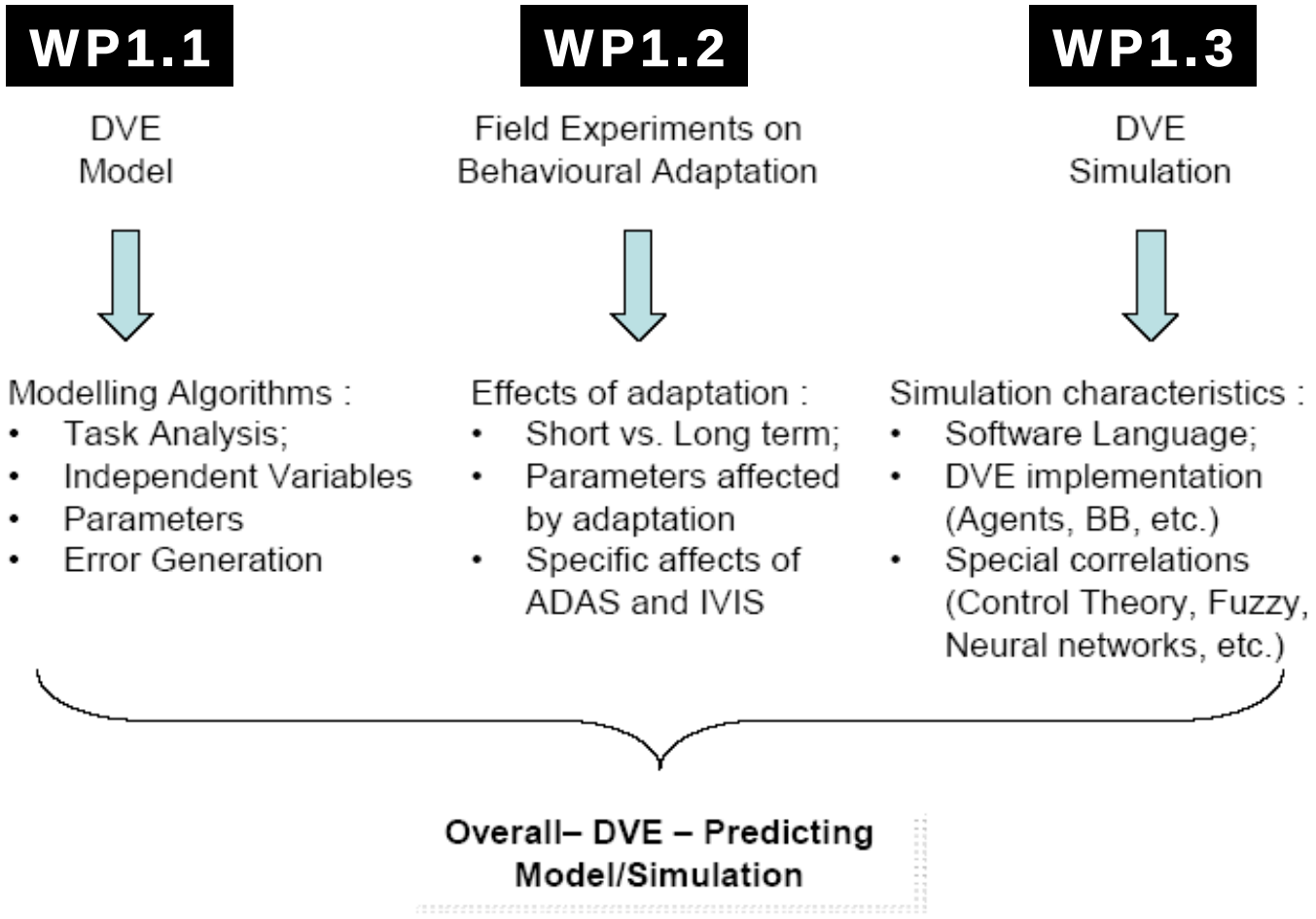
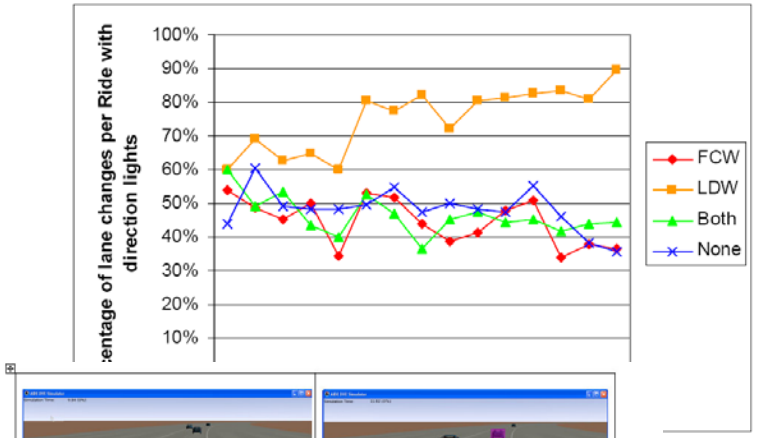
How we worked: SP1 Work Packages

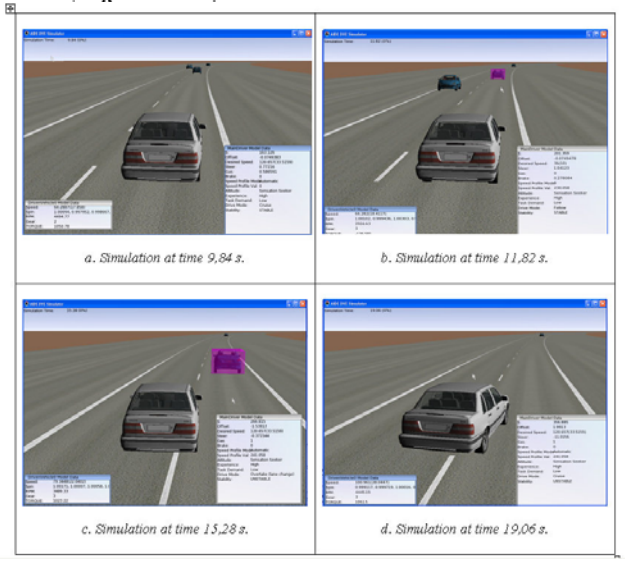


SP1 Parallel Session structure

1. Behavioural effects of Driver Assistance Systems

2. Driver - Vehicle Environment Modelling and Simulation





a. Simulation at time 9,84 s.

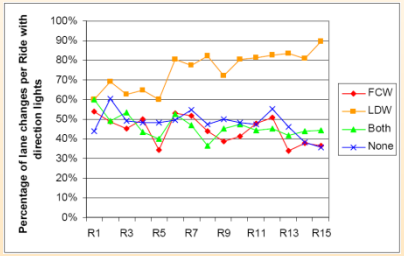
b. Simulation at time 11,82 s.

c. Simulation at time 15,28 s.

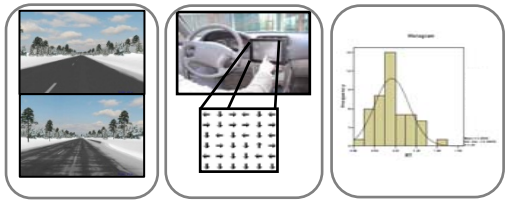
d. Simulation at time 19,06 s.

Behavioural effects of Driver assistance Systems

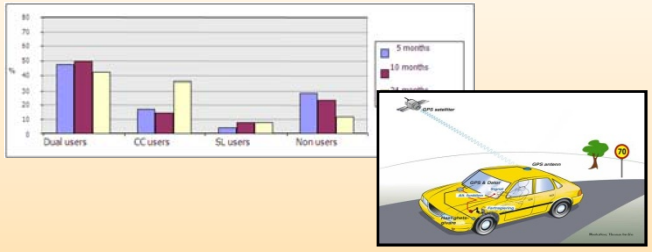
- **Introduction on objectives and overview of experiments** (Farida Saad, INRETS)



- **Short Term results** (Magnus Hjälmdahl, VTI)



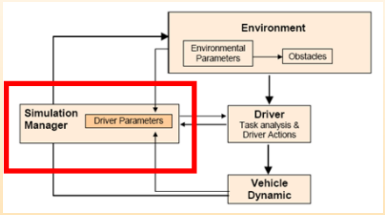
- **Long Term results** (Frank Lay, University of Leeds)



Behavioural effects of Driver assistance Systems

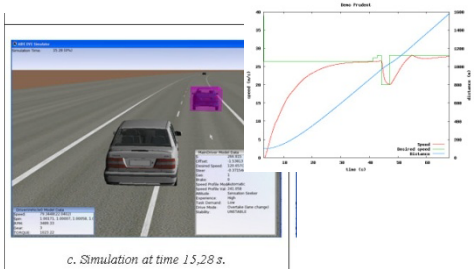
- **Driver- Vehicle Environment model**

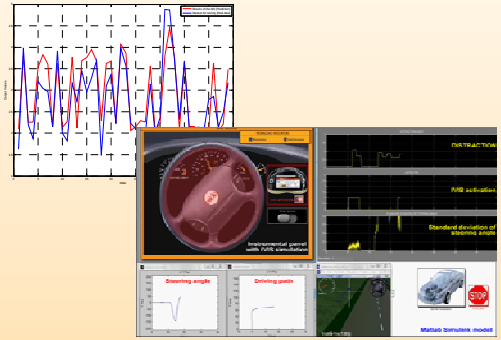
  (Oliver Carsteen, University of Leeds)



- **Driver - Vehicle Environment simulation**

  (Mauro Marchitto, KITE Solutions)


c. Simulation at time 15,28 s.

- **Tuning and validation of Driver model**

  (Fabio Tango, Centro Ricerche FIAT; Luca Minin, University of Modena and Reggio Emilia