

euroFOT: ADAS on the road

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TNO Human Factors
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www.eurofot-ip.eu

eur
FOT

Bringing intelligent vehicles to the road

In the next 45 minutes

- Describe the euroFOT project
- Discuss some of the problems facing this project

The consortium



BMW Group
Forschung und Technik



DAIMLER



VOLVO

Volvo Technological
Development Corporation

VOLKSWAGEN
GETTENDRUCKUNG



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DELPHI

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best



ADAS Management-Consulting

Advanced Driver Assistance and Safety

alcor
consulenza innovazione

Allianz

eict European Center for Information
and Communication Technologies
DOT 2014

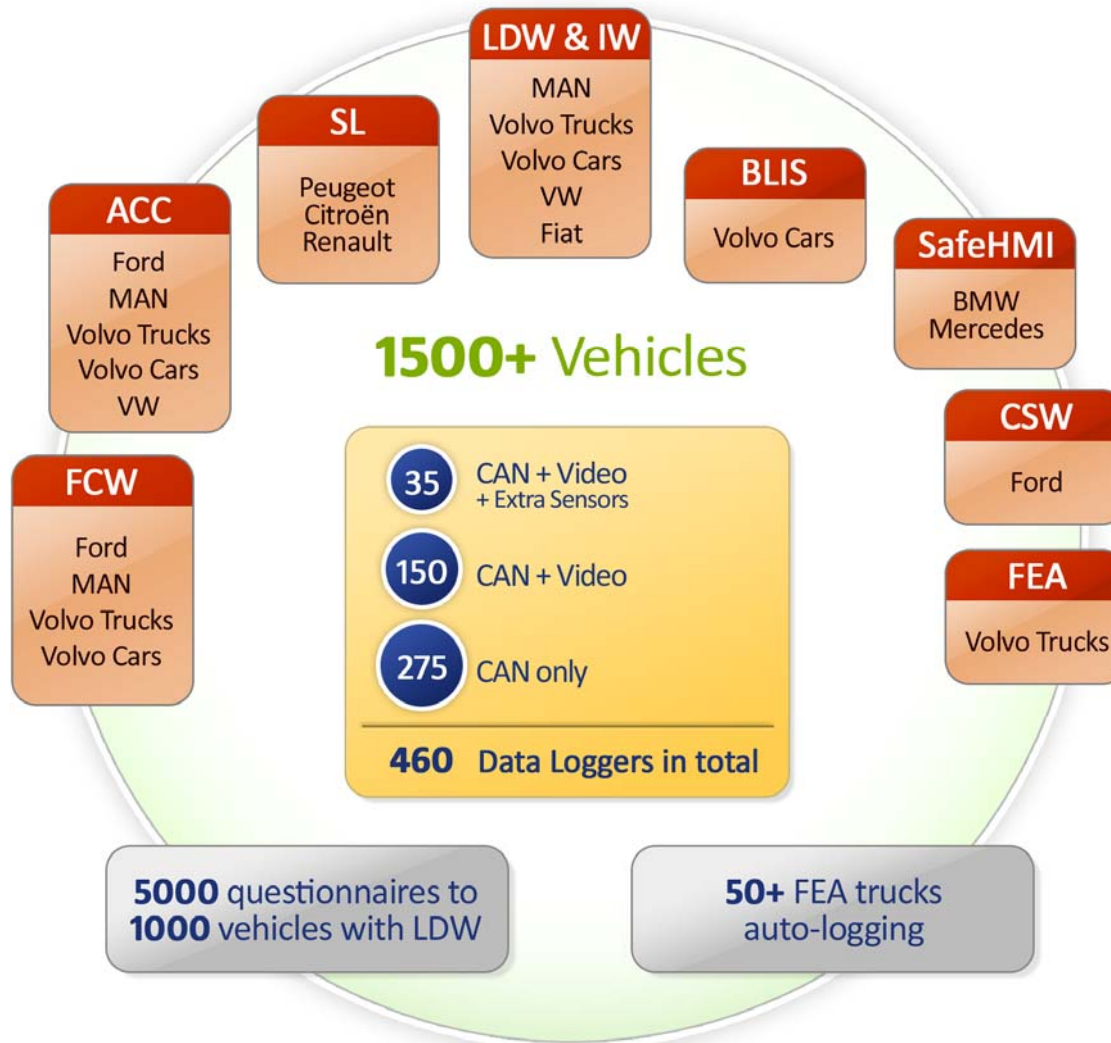


euroFOT Objectives

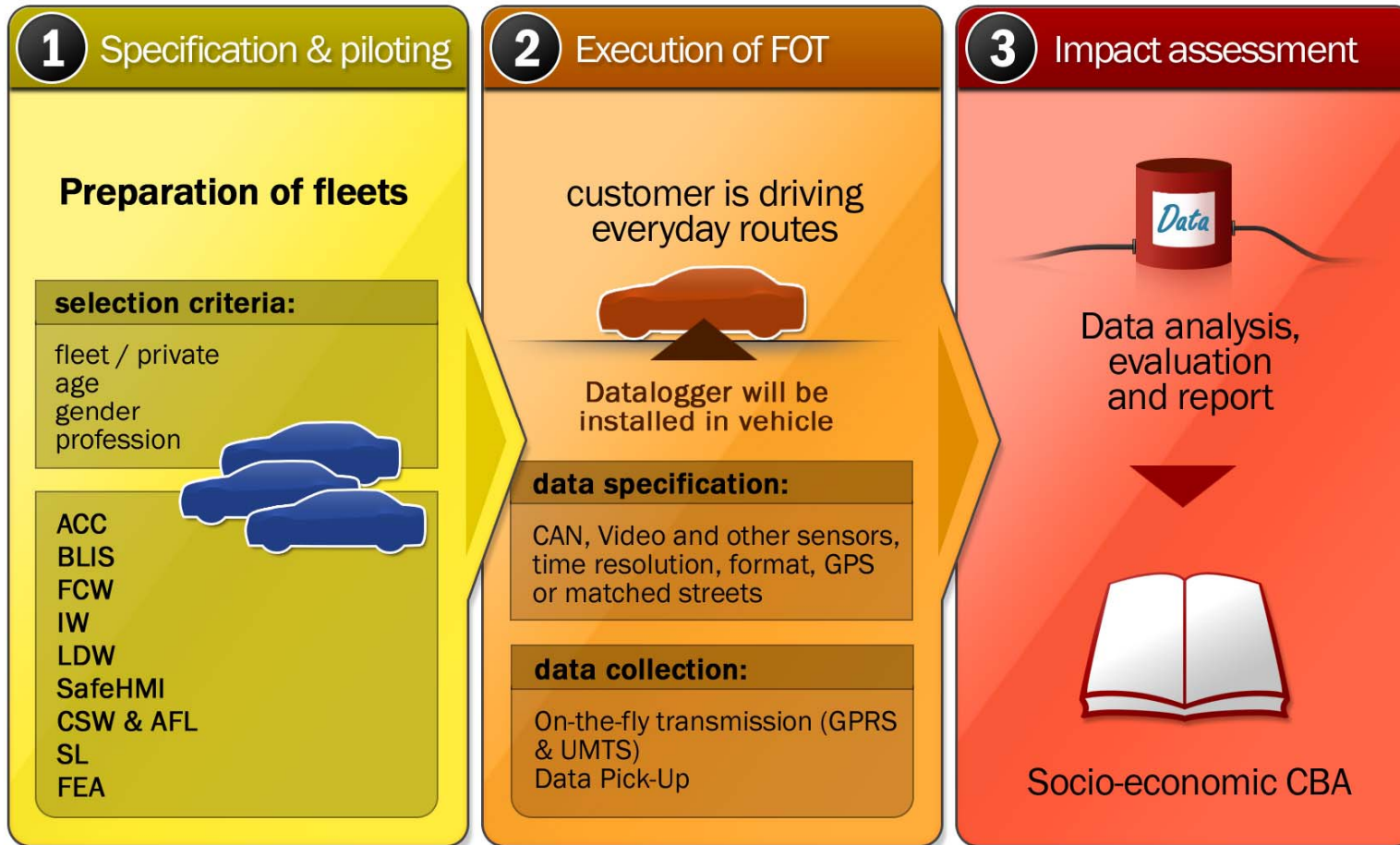
- Perform multiple coordinated tests of Intelligent Vehicle Systems with **ordinary drivers in real traffic**
- Investigate performance, driving behaviour and user acceptance
- Assess the impacts on safety, efficiency and the environment, based on road data



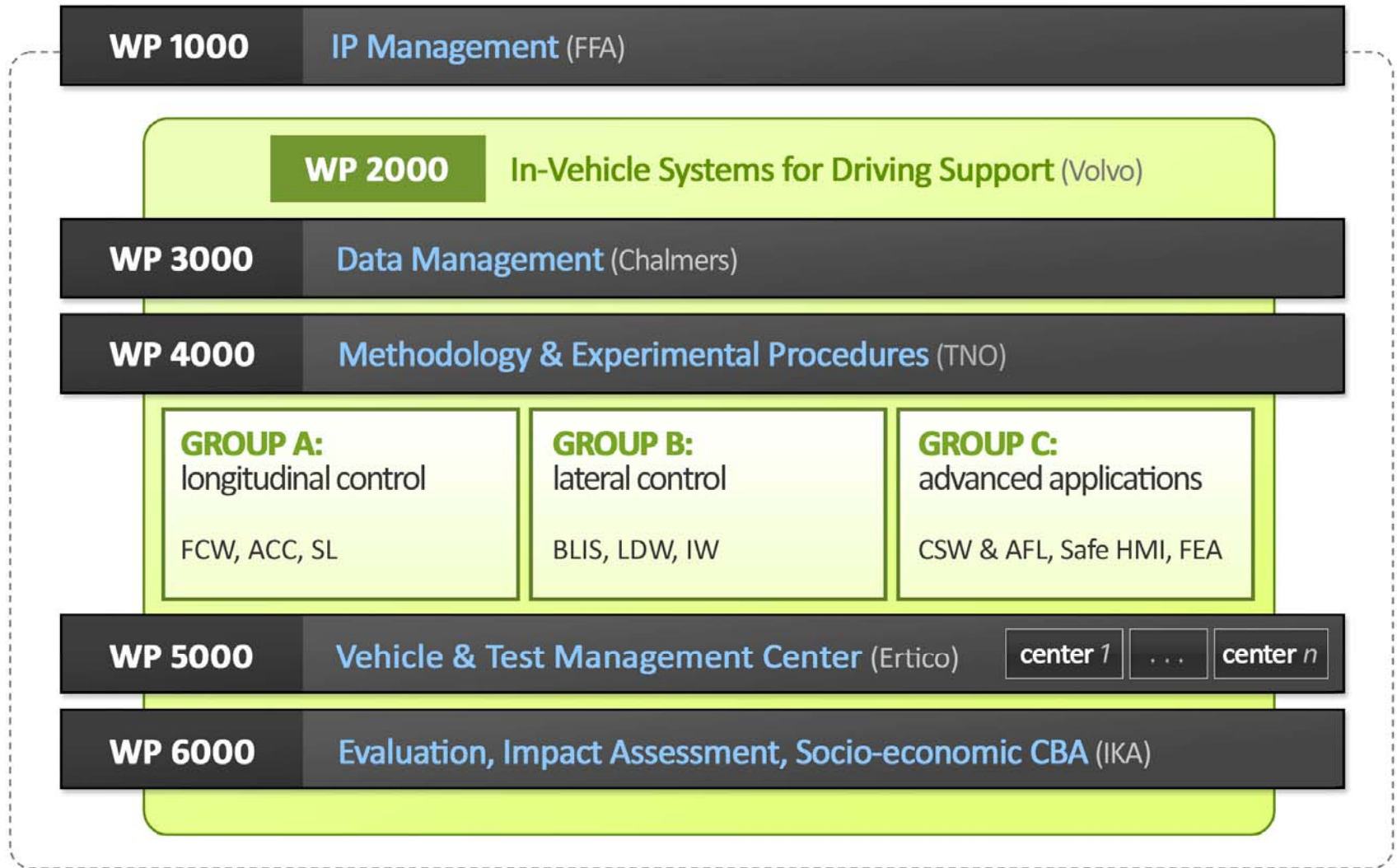
The functions under test



Project plan



Project structure



SP2 In-vehicle Systems for Driving Support

- WP2300 Requirements and specifications
 - identifying the objectives for testing each of the functions (hypotheses)
- WP2400 Adaptation and in-vehicle implementation
 - preparing vehicles for data loggers
- WP2500 Piloting

SP3 Data Management

- WP3300 Data acquisition system requirements, specifications, request for proposal and implementation
 - ⌘ Logger, sensor and data requirements and specification
 - ⌘ Pre-test implementation
 - ⌘ Maintenance during FOT
- WP3400 Data storage - requirements, specification, request for proposal and implementation
 - ⌘ Requirements and specification
 - ⌘ Pre-test implementation
 - ⌘ Management during tests

SP3 Data Management

- WP3500 Data analysis software requirements and implementation
 - ♂ Requirements and specification
 - ♂ Implementation
 - ♂ Management during tests
- WP3600 Small scale testing and validation

SP4 Definition of methodology and experimental procedures

- WP4300: Definition of performance indicators
 - ♂ WP4310: driving performance
 - ♂ WP4320: driver workload
 - ♂ WP4330: system performance and system influence on driving
 - ♂ WP4340: environmental aspects
 - ♂ WP4350: traffic efficiency
 - ♂ WP4360: acceptance and trust
- WP4400: Definition of experimental procedures
 - ♂ WP4410: criteria selection and recruitment participants
 - ♂ WP4420: definition experimental design
 - ♂ WP4430: selection study environment

SP5 Vehicle & Test Management Center

- WP5300 Preparation and Planning - Driver and vehicle acquisition
 - ⌚ Choice and acquisition of drivers, vehicles and supporting dealers and fleets
- WP5400 Preparation and Planning - Data acquisition, upload and quality management
 - ⌚ purchase of systems
- WP 5500 Preparation and Planning - Operational support
 - ⌚ e.g., instruction of drivers
- WP5600 Execution of the FOT



SP6 Evaluation, Impact Assessment, Socio-economic CBA

- WP 6300 User Acceptance and User-related-Aspects Evaluation
 - ⌘ Impact of the selected systems on driver behaviour and workload
 - ⌘ User acceptance and usability
- WP 6400: Impact Assessment
 - ⌘ Impact assessment
 - ▷ safety, traffic efficiency, environment
- WP 6500: Socio-economic Cost-Benefit-Analysis

Several challenges are similar in different FOT projects



- analyzing a wide range of driving conditions in terms of vehicles, drivers, and environments
- identifying key scenarios and indicators – define baselines
- addressing the issues of data collection and data storage, for tests which are essentially unrestricted and unsupervised

Some challenges are more specific for ADAS / euroFOT



- Importance of road / traffic situations all around
- Focus on indicators of dangerous situations
- Some applications for truck drivers
- Possible use of multiple functions

Period

Project start: May 2008

Project ends: August 2011

Problems?
No you challenges!

Non-technical “challenges”

- Organization
- Planning
- System / experiment



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Thank you for staying with me....

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8 Functionalities, 28 Partners, 1500 Vehicles

1 Field Operational Test, 8 Functionalities

28 Partners, 1500 Vehicles, 1 Field Operational Test

8 Functionalities, 28 Partners, 1500 Vehicles

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28 Partners, 1500 Vehicles, 1 Field Operational Test

8 Functionalities, 28 Partners, 1500 Vehicles

1 Field Operational Test

