Joint Workshop of European Projects on Automated Road Transport

The EU project interACT
Project consortium

Designing cooperative interaction of automated vehicles with other road users – the EU project interACT
# Project consortium

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<th>Partners location</th>
<th>DLR</th>
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Designing cooperative interaction of automated vehicles with other road users – the EU project interACT
Integrating automated vehicles in mixed traffic

Situation Today

On-board driver

interact

Other traffic participants

Future situation: Automated vehicles in mixed traffic environments

On-board user

interact

Vehicle automation

interact

Other traffic participants

Designing cooperative interaction of automated vehicles with other road users – the EU project interACT

Thursday, December 6, 2018
The challenge

Achieve a safe, highly accepted and efficient integration of Automated Vehicles in mixed traffic environment

1st Enabler
Psychological models

2nd Enabler
Intention recognition & behavioural predictions

3rd Enabler
CCPU & safety layer

4th Enabler
Novel HMI elements

5th Enabler
Methodology for assessing the quality of interaction

Designing cooperative interaction of automated vehicles with other road users – the EU project interACT
Use cases and Scenarios
interACT

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Definition

Use Case – Scenario – Scene

- Persists only several seconds
- Snapshot of the environment including
  - Scenery (Lane network, stationary elements, traffic lights, obstacles)
  - Dynamic elements (cars, road users)
  - All including agents
**Scenario**

- Temporal development between several scenes
- A sequence of scenes connected by actions & events
- Includes goals of the agents
- Spans a certain amount of time
Use Case

- Description of the functional range and the desired behaviour
- Specification of system boundaries
- Definition of one or several scenarios
Must have use cases in interACT

1. React to crossing non-motorised TP at crossings without traffic lights
2. React to an ambiguous situation at an unsignalised intersection
3. React to non-motorised TP at a parking space
4. React to vehicles at a parking space
React to crossing non-motorised TP at crossings without traffic lights
React to an ambiguous situation at an unsignalised intersection
React to non-motorised TP at a parking space
React to vehicles at a parking space