Legal issues addressed in the EU funded AdaptIVe project
Potentials for automated driving

Drivers are supported in demanding or repetitive tasks. Travel comfort increases.

Vehicles dynamically adapt the level of automation according to the current situation.

Vehicles react more effectively to external threats.

Vehicles are resilient to different types of system and human failure.
## Motivation for automated driving functions

| **Zero emission** | Reduction of fuel consumption & CO$_2$ emission  
Optimization of traffic flow |
|-------------------|--------------------------------------------------------------------------------------------------|
| **Demographic change** | Support unconfident drivers  
Enhance mobility for elderly people |
| **Vision zero** | Potential for more driver support by avoiding human driving errors |
The integrated project AdaptIVe
Legal issues - Response 4
Response 4 partners
Levels of driving automation

Driver in the loop
- No significant change with respect to existing driver assistance systems

Driver out of the loop
- Not in accordance with regulatory law (Vienna Convention of 1968, national road law)
- Shared responsibility for control between driver and system
  ➔ need for action

Source: SAE document J3016, “Taxonomy and Definitions for Terms Related to On-Road Automated Motor Vehicles”, issued 2014-01-16, see also http://standards.sae.org/j3016_201401/
### Challenges

<table>
<thead>
<tr>
<th>Discuss need for action from an industry perspective</th>
<th>Pave road to market introduction of automated vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current legal situation does not allow automated vehicles on public roads.</td>
<td>Assess law and identify needed adaption</td>
</tr>
<tr>
<td>National laws can be different with respect to automated driving</td>
<td>Analyze main markets - project partners will contribute for their countries</td>
</tr>
<tr>
<td>When can a vehicle be considered safe?</td>
<td>Interpretation of existing law. Liability risks?</td>
</tr>
</tbody>
</table>
System classification: Group categories of automated driving functions

Legal difficulties for market introduction of automated driving functions:

- What are the new risks for the manufacturer from product liability
- Usage and protection of data collected by automated driving functions
- Protection against corruption and fraud of vehicle data and V2X data
System classification

Systematic derivation of relevant system parameters for:

- Vehicle
- Driver
- Environment

Available to public as Deliverable 2.1 on the AdaptlVe website.
Scenarios

Representative scenarios for assessment on a case by case basis, needed e.g. for product liability.

Based on system classification.
Legal evaluation - road traffic law

Vienna Convention on Road traffic (1968)
- What means “to control” a vehicle from a legal perspective?
- Different adoptions of the Vienna Convention into national law

UNECE- Rules
- Area of conflict: Automated steering system (R 79: steering equipment)
- Driver have to remain at all times in primary control
- Automated commanded steering function only applicable in low speed or maneuvering operation

Changes in Road Traffic Law and Technical Admission Law are necessary
Legal evaluation - liability

• Liability:

The condition of being liable or answerable by law or equity
  – Distinction between the areas of law
    - Civil liability
    - Criminal liability
  – Distinction between the liable parties:
    - Driver
    - Owner/registered keeper
    - Manufacturer

• Challenges in context
  – Burden of proof
  – Insurance law

Legal uncertainties
Legal evaluation - privacy and security

Motivation
Technical function
Other purpose

Source of data
Internal sensor
External source

Classification of Data
Recorded/used
Sensitive/non-sensitive

Analysis of legal framework
European level
Data privacy
Data security
National level
Data privacy
Data security

I2V System
Summary

Hurdles to overcome:
- Changes necessary in Regulatory and Technical approval law
- Uncertainties in liability law
- Open legal issues in data privacy law and data protection law

Response 4
Will point out key legal issues that are currently preventing market introduction of automated driving systems.
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Thank you.