Legal Barriers and opportunities for experimenting and deploying AD systems in Europe

Technical Workshop

Athens, Greece
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Content / Questions and Answers

- What do we mean by „Legal Aspects“?
- Can we conduct open road experiments with automated vehicles?
- Can we deploy, by law, automated vehicles onto the market? Now? Tomorrow?
- What are the liabilities in case of a crash involving an automated vehicle?
  - Civil Liability
  - Criminal Liability
- Does AD have an impact on insurance laws and data privacy issues and reversely?
- Conclusions - Take away
What do we mean by „Legal Aspects“

- Regulations for experimenting AD
- Traffic Rules (national and international such as international conventions)
- Technical Vehicle Regulations
- Civil and criminal laws (do they apply « like this » to AD or are changes needed?)
- Insurance code (does it apply « like this » to AD or are changes needed?)
- Data privacy issues
- Standards and norms
- Ethical aspects
Can we conduct (open roads) experiments with automated vehicles?

- **Yes, we can.** There is even a big momentum for this (but there are also some restrictions. Everything is not permitted by public authorities)
  - France, Sweden, Finland, the Netherlands, the UK, Greece, etc. have introduced special legal modalities to encourage real-world testing
  - Mcity in the US
  - Law in preparation in Germany
  - Let’s benefit from this!
Can we deploy automated vehicles onto the market? Now? Tomorrow?

- This is controversial today. Compliance with international treaties is required.

- The new amendment of the Vienna Convention is the following:

**Amendment of Article 8:**

A new paragraph 5bis shall be inserted into Article 8. The paragraph 5bis shall read as follows: Every driver shall at all times be able to control his vehicle or to guide his animals.
13-1. Every driver of a vehicle shall in all circumstances have his vehicle under control so as to be able to exercise due and proper care and to be at all times in a position to perform all manoeuvres required of him. He shall, when adjusting the speed of his vehicle, pay constant regard to the circumstances, in particular the lie of the land, the state of the road, the condition and load of his vehicle, the weather conditions and the density of traffic, so as to be able to stop his vehicle within his range of forward vision and short of any foreseeable obstruction. He shall slow down and if necessary stop whenever circumstances so require, and particularly when visibility is not good.
//Can we deploy automated vehicles onto the market? Now? Tomorrow?

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Can we deploy automated vehicles onto the market? Now? Tomorrow?

• The spirit of the Vienna convention is
Can we deploy automated vehicles onto the market? Now? Tomorrow?

- Some others think this way

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Levels of automation:

- **Level 0**: Driver Only
- **Level 1**: Assisted
- **Level 2**: Partial Automation
- **Level 3**: Conditional Automation
- **Level 4**: High Automation
- **Level 5**: Full Automation

### Automation Levels

- **Driver Only**
  - Driver is not required during defined use case.
  - System performs the lateral and longitudinal dynamic driving task in all situations encountered during the entire journey. No driver required.
  - Autonomous Vehicle

- **Assisted**
  - The other driving task is performed by the system.
  - System performs longitudinal and lateral driving task in a defined use case.

- **Partial Automation**
  - System performs longitudinal and lateral driving task in a defined use case. Recognizes its performance limits and requests driver to resume the dynamic driving task with sufficient time margin.

- **Conditional Automation**
  - System performs longitudinal and lateral driving task in all situations in a defined use case.

- **High Automation**
  - System performs the lateral and longitudinal dynamic driving task in all situations encountered during the entire journey. No driver required.

- **Full Automation**
  - System performs the lateral and longitudinal dynamic driving task in all situations encountered during the entire journey. No driver required.

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- ....or even this way
Can we deploy automated vehicles onto the market? Now? Tomorrow?

- This is controversial today
- The new amendment of the Vienna Convention is the following:

Amendment of Article 8:

A new paragraph (i.e., paragraph 5bis) is to be inserted into Article 8. The paragraph 5bis shall read as follows:

5bis. Vehicle systems which influence the way the vehicle is driven shall be deemed to be in conformity with paragraph 5 of this Article, if they are in conformity with the conditions of construction and parts which can be fitted and/or be used on wheeled vehicles according to international legal instruments concerning such systems and parts which can be fitted and/or be used on wheeled vehicles.

Vehicle systems which influence the way the vehicle is driven shall be deemed to be in conformity with paragraph 5 of this Article, if they are in conformity with the aforementioned conditions of construction and parts which can be fitted and/or be used on wheeled vehicles according to international legal instruments concerning such systems and parts which can be fitted and/or be used on wheeled vehicles.