

Assessment of the gaps in the Conventions and Resolutions under the auspices of WP.1 and identification of the issues to be addressed

- A scoping draft approach

Paradigm shift

- Existing Conventions and national legislation stemming from those Conventions are based on the concept of "driver responsibility"
 - The core responsibilities have been centred on the driver, who is responsible for ensuring the safe behaviour of a vehicle in traffic
- This has to change when the ADS has the dynamic control, as the driver can not affect on how the vehicle behaves
- Conclusion: The assessment of needs and the issues to be addressed can not be found simply by examining the existing Conventions. An alternative approach is needed

Tool for discussion

Aim of the Scoping Draft: To be a tool for discussion, which can help to:

- Assess the gaps in the existing conventions and resolutions under WP.1 auspices (ITC decision a)(i)), and
- Identify the issues to be addressed (ITC decision a)(ii))

Previous GE.3 work on the assessment of the needs

The survey conducted by Canada and Sweden amongst the GE.3 members identified the following top three road safety risks related to automated vehicles:

1. Risks related to the lack of clarity on roles and responsibilities;
2. Risks related to take over requests, fallback user expectations during transition demands; and
3. Risks related to technical performance and skill of the vehicle automation, risks related to mode awareness, and risks related to data protection and hacking.

Comparing the risks and questions identified

1. Risks related to the lack of clarity on roles and responsibilities

- How can it be determined who has or had responsibility for the dynamic control of the automated vehicle at any given time?
- What are the role and responsibilities of the driver when the ADS is engaged, if there still is a driver in the vehicle?
- If some or all of the responsibilities normally attributed to the driver are not borne by the driver anymore, then who should bear these responsibilities as the ADS does not have legal personhood?
- How do we support the determination of liabilities in an accident involving an automated vehicle on national level?
- Is there a need to define new concepts/terms?
- How to support international cooperation and data sharing especially between relevant authorities?

Comparing the risks and questions identified

2. Risks related to take over requests, fallback user expectations during transition demands

- What are the role and responsibilities of the driver when the ADS is engaged, if there is still a driver in the vehicle?
- Compare with at least Articles 2(e), 5(2), 6(1)(d), 10, 11, 12, 13, 14, 15, 16 of the Scoping Draft

Comparing the risks and questions identified

3. Risks related to technical performance and skill of the vehicle automation, risks related to mode awareness, and risks related to data protection and hacking.

- Are there any conditions for when the driver can delegate the dynamic control to the Automated Driving System (ADS)?
- What are the role and responsibilities of the driver when the ADS is engaged, if there still is a driver in the vehicle?
- How do we identify possible new entities which bear responsibilities normally attributed to the driver?
- How do we make the necessary information about these entities available between different jurisdictions to enable enforcement of traffic rules?
- Who has responsibilities for vehicles where there is no driver in the vehicle? How can their safety in operation be ensured?

Contents of the scoping draft

- Chapter I: General provisions
- Chapter II: Safe behaviour of automated vehicles in road traffic
- Chapter III: Automated vehicles with a driver in the vehicle
- Chapter IV: Entities responsible for automated driving
- Chapter V: Automated vehicles without the driver in the vehicle
- Chapter VI: Final provisions

Possible next steps

- First step in the verification phase: Informal document (including the scoping draft) could be scrutinized to develop our common understanding of the gaps and issues to be addressed and to develop consensus on how they should be addressed
- This scrutiny could be carried out in a format of a survey (questionnaire) that would engage all the GE.3 members
 - The survey could be conducted following the example set by Canada and Sweden earlier on
 - The survey would offer a possibility for all the GE.3 members to express their views and hence work collectively together

Possible next steps

- Second step in the verifications phase: The scoping draft could be scrutinised closer in order to have a better understanding of the issues to be addressed
- This scrutiny could be carried out by organising interviews amongst the GE.3 members, industry and academia and by asking for written comments from these parties
- Third step in the verification phase: Organising a series of informal on-line meetings/discussions that are open to all GE.3 members to build the common understanding and to discuss the proposals