

Preliminary suggestions to the framework document on automated/autonomous driving

To foster the development of the automated/autonomous driving technology, lots of regulatory activities will be expected to be launched under GRVA in the near future. It would be a big challenge for GRVA to deal with so many existing and new regulatory activities in an efficient way at the same time.

The GRVA, as a newly established working group for automated/autonomous driving under WP.29, has requested by WP29 to review a working document which lists the priority activities including the framework document relevant to automated/autonomous driving (ECE/TRANS/WP29/2019/2). The preliminary suggestions to facilitate the discussions on the framework document are listed as followed.

1. Background

To provide such information about the activities and discussions relevant to technical provisions on automated/autonomous driving.

(To be detailed)

2. Purpose

To describe the purpose of the framework document, for example:

The framework document will draw a full picture of automated/autonomous driving activities which may be dealt with under WP.29 in the next few years and provide guidance for the current and future regulatory activities as well as the timelines.

(To be improved)

3. Principles

To list the major principles which have been agreed by the industry and the contracting parties during the previous discussion or will be endorsed in the future. It may include but not limited to the following points:

- 1) The development and harmonization of technical provisions and resolutions for Automated/Autonomous Vehicles shall ensure the collective and equal participation of the contracting parties to 1958 agreement or 1998 agreement.
- 2) The technical provisions and resolutions for automated/autonomous driving vehicle shall be technically neutral.
- 3) The technical provisions and resolutions for automated/autonomous driving vehicle shall be based on the current development of the industry, but avoid restriction on new technologies in the future at the same time.

4)

4. Main contents

1) Key elements or factors for automated/autonomous driving

The framework document shall try to list all the key elements or factors which have significant influence or strong connection with automated/autonomous driving. These key elements or factors shall cover such technical segments as sensing, decision and action of vehicles and the whole procedure from certification to in-use management.

The informal document GRVA-02-17 could be the first step for identifying most of these key elements or factors by comparing guidelines highlighted by different countries and may work as one of the base documents for this purpose.

2) Regulatory activities and expected objectives to be achieved

The framework document shall identify which elements or factors mentioned above fall into the work scope of WP.29, and then consider clarification and possible update of the “Priority topics for automated and connected vehicles (ECE/TRANS/WP.29/2019/2)” by further selecting elements or factors which are suitable for its regulatory activities. It is also necessary to describe the expected objective of each activity by sorting their relation and connection.

Although it is not the main responsibility of WP.29 to work on guidelines and other types of documents for recommendation, the framework document shall also consider the possibility to issue some guidelines or other types of documents with potential to be future regulations in response to the rapid developments of automated/autonomous driving technologies and demands from the industry and the contracting parties.

The framework may also include the key elements or factors which are important for automated/autonomous driving and not in the work scope of WP.29, and communicate the relevant information with other organizations such as ITU, ISO and etc.

Activities within the scope of WP.29	Activities for technical provisions	To define priority, target, responsibility and timeline.
	Activities for guidelines or other types of documents	
Activities out of the scope of WP.29	Communicate with other organizations such as ITU, ISO, and etc.	To be reference.

3) Responsibility distribution among regulatory activities

The framework document shall mention the responsibility distribution among WP.29, GRs and IWGs in order to show the bodies which may deal with the relevant activities. For

example, WP.29 would consider the upper level philosophy such as safety objectives or concepts. The GRs may ask the support and coordination from WP29 to share the responsibilities and cooperate with other GRs. If applicable, the framework document will propose proper GR responsible for specific activity while listing all these regulatory activities.

The framework document shall also propose the specific sub-branches, which may be existing IWGs such as ACSF IWG, VMAD IWG or newly established ones, for each activity and clarify their responsibilities to ensure that all the work are covered without overlap or contradiction. For the activities involving more than one sub-branches (IWGs of a GR) to work together, the principles of technical coordination between different sub-branches shall be made by the GR to which the sub-branches belong, and shall be applied to ensure the efficient cooperation between the different sub-branches.

4) Priority and plan for the key activities

The framework document shall set further detailed priorities to each activity regarding work priorities identified in the “Priority topics for automated and connected vehicles (ECE/TRANS/WP.29/2019/2)” including technical provisions and resolutions on the basis of evaluation of importance and feasibility which considering the opinions of the industry and the contracting parties. A general timeline for development of these activities shall be proposed in the framework document to facilitate the technical research and the development of the industry.

5. Utilization

The framework document will be prepared by a group of CPs from GRVA, and should be approved by WP.29. It will be circulated and worked as a guiding document for automated/autonomous driving activities among GRs and IWGs of WP.29.

6. Remarks

The framework document will be improved with the request from WP.29 taking into consideration of the development of AD technology and demands from both industry and government. It may be modified by GRVA following the guidance of WP.29 or requests of Contracting Parties.