Submitted by the delegate from China

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Proposals to the activities related to automated/autonomous driving within the framework of WP.29 and GRVA

As regards the working progress made WP.29 and GRVA in automated/autonomous driving field, China would like to propose or reiterate comments and suggestions as below:

1. China appreciates WP.29 for its positive attitude towards harmonization on automated/autonomous driving regulations, in particular for the approach of consolidating the former GRRF and ITS/AD Informal Working Group into GRVA, a new special working group for the harmonization of automated/autonomous driving regulations. China is willing to play an active role in the discussion and harmonization of regulations on automated/autonomous driving, and to take responsibilities in GRVA and in the harmonization activities with a responsible manner.

2. China reiterates that the research, discussion and harmonization of technical contents of automated/autonomous driving regulations shall not be limited to the framework of either 1958 Agreement or 1998 Agreement. All the CPs or interest parties shall be invited to join these activities. Once the technical contents are totally harmonized, decisions to develop a UN Regulation or a UN GTR or both can be made at the real need.

3. China suggests that WP.29 strengthen the top-level planning. It is imperative to develop an overall planning and roadmap for the harmonization of automated/autonomous driving regulations. At present, several automated/autonomous driving topics and relevant regulations are being discussed under WP.29 and its subsidiary bodies. However, these activities are initiated within the former GRRF focusing on active safety or the former ITS/AD informal group highlighting general discussions instead of regulation harmonization, and lack of systematic planning. Those items involves not only the future certification for automated/autonomous vehicles which should be at upper level, but also some specific systems and functions which should be at lower level. Without an overall plan and working principle, the discussion of regulations of different levels at the same time may lead to unharmonious or even contradictory results. Therefore, it is necessary to develop the plan for promoting the discussion of topics of different levels, such as audit/certification system, general requirements, whole vehicle assessment, and requirements for systems and vehicle performance. If necessary, a specific meeting could be organized for discussion on this issue, and China is willing to provide necessary support to organize such meeting, if requested.

4. China suggest that WP29 should resort and reorganize sub-structure of GRVA based on overall plan of future projects. The scopes and boundaries existing IWGs, TFs and their SGs, which were set up under the former GRRF or ITS/AD Informal Working Group, are not clearly defined and may cause some overlap or contradiction among each other. In order to promote the harmonization of automated/autonomous driving regulation in an orderly way, WP 29 and its GRVA is suggested to reorganize GRVA's structure and clarify responsibilities and relations of its sub-branches such as IWGs, TFs and SGs.

5. Projects with high and medium priorities are suggested in the table and other projects with low priority can be discussed in future.

Table-China's comments on automated/autonomous driving projects

Project title	Project Scope	Comments
Framework Regulation on automated/autonomous vehicles	All AD vehicles	1. Top-level design with highest priority. 2. Basic and fundamental item for AD vehicles with automation at all levels. 3. Evaluation approaches for AD vehicles and the role of each approach to be clarified in this project.
Longitudinal control functions	AD with automation below level 3.	1. Coordinate and compatible with lateral control. 2. Focus on vehicles with automation below level 3.
Lateral control functions	AD vehicles with automation below level 3	1. Coordinate and compatible with Longitudinal control. 2. Focus on vehicles with automation below level 3. 3. Achievements in ACSF to be considered.
Human Machine Interface (HMI))	AD vehicles allowing interchange control between the AD system and human	1. Focusing on transition demand and respond for AD vehicles at level 3 and level 4. 2. Consider AD vehicles with automation below level 3
Functional safety	All AD vehicles with complex electronic system	1. Important for all AD vehicles with complex electronic system. 2. Achievements in former GRRF to be considered.
Cyber Security	All vehicles with connectivity	1. A complex issue involving technical factors and administrative ones 2. Focus on technical aspects.
Software (incl. Over-the-Air) updates	Vehicles allowing updates of software	1. Not only technical issues but also administrative ones. 2. Cover the administration of vehicle in the whole life span.
Data Storage System for Automated/autonomous driving (DSSAD)	AD vehicles with automation at level 3,4 and 5	1. Important for AD vehicle, especially in accidents. 2. Relationship with EDR to be clarified.