

Progress report on activities related to Automated Driving Systems and Advanced Driver Assistant Systems

I. Recent GRVA activities under the Framework Document on Automated/Autonomous Vehicles¹

1. The IWG on Functional Requirements for Automated Vehicles (FRAV) gave a presentation at the February 2021 session of the Working Party on Automated/Autonomous and Connected Vehicles (GRVA), reporting on the status of the group on definitions and on the development of a structure for Automated Driving Systems safety requirements. The Group's work follows a top-down approach, based on 5 main aspects of ADS performance. From these five categories, the group derived 40 inter-related safety topics. The group is collecting data. It is elaborating safety requirements and ADS description requirements.
2. The IWG on Validation Method for Automated Driving (VMAD) reported, at the February 2021 session of GRVA, on the completion of the Master Document on New Assessment/Test Method, submitted to WP.29 for review at its March 2021 session.
3. The IWG on Event Data Recorder (EDR) / Data Storage System for Automated Driving (DSSAD) drafted DSSAD provisions for the UN Regulation No. 157 and then worked within GRSG on the development of Event Data Recorder provisions tabled for adoption at the March 2021 sessions of WP.29 and AC.1. It organized a session, held on 2 March 2021, to develop its updated workplan, focusing specifically on DSSAD within GRVA.
4. The IWG on Cyber Security and OTA issues (CS/OTA) finalized the work started before the drafting of the framework document: it drafted UN Regulations Nos. 155 and 156 and the corresponding interpretation documents. The group consulted GRVA on whether it should develop a guidance document on cyber security that would be useful for the purpose of the contracting parties to the 1958 and 1998 Agreements. GRVA supported the proposal. The IWG will present a draft of the updated workplan at the next session of GRVA.

II. Maintenance of existing regulatory provisions

5. UN Regulation No. 157 (Automated Lane Keeping System (ALKS)) is the first UN Regulation in the area of Automated Driving Systems. It entered into force in January 2021. Following discussions at AC.2, WP.29 and GRVA, the Special Interest Group on UN Regulation No. 157 is working on amendment proposals covering matters such as higher speeds, other vehicle categories and lane changes. Following AC.2 recommendation, GRVA agreed that this work should not diverge from the outcome of the activities at the IWGs on FRAV and VMAD, and that if these two groups needed more time than the Special Interest Group on UN Regulation No. 157, then the outcome of these two IWGs would be the basis to further amend the ALKS regulation, as needed.
6. UN Regulation No. 79 is currently the basis for the type approval of Advanced Driver Assistant Systems (ADAS) functions, which assist the driver in keeping the vehicle within the chosen lane (ACSF of Category B1), and ADAS functions, which are initiated/activated by the driver and which can perform a single lateral manoeuvre (e.g. lane change) (ACSF of Category C), when commanded by the driver, on specific roads profiles (motorways). GRVA is divided on the way to update the Regulation.

(a) On the one hand, GRVA received presentations and supporting statements of Countries willing to remove provisions that they consider to be design restrictions, as highlighted by the representatives of AVERE, CLEPA and OICA.

¹ ECE/TRANS/WP.29/2019/34/Rev.2

(b) On the other hand, GRVA also received presentations and positions statements highlighting the potential risk posed by a wide generic approach for Level 2 technologies that could have a negative impact on road safety. These countries do have concerns with updates of the Regulation in this way as well as with any amendments to the Regulation that could potentially lead in overreliance by drivers. These countries are proposing to amend the UN Regulation No. 157 (ALKS) instead of UN Regulation No. 79. The discussion is also covering the possibility of a new UN Regulation for ADAS.

7. Following discussions, GRVA agreed to establish a Task Force on Advanced Driver Assistance System (ADAS) to make progress on this issue and adopted its Terms of Reference.

III. Other activities

8. GRSG exchanged views on Automated Shuttles. France provided information on their national activities regarding these types of vehicles.

9. GRE worked on Light-Signalling considerations for autonomous vehicles. AC.2 agreed that the coordinating function would be provided by the IWG on FRAV.

10. The representative of China invited the contracting parties to consider collaborating on provisions for some systems e.g. driver attention monitoring system; rear cross traffic alert system; door open warning system; intelligent speed limit warning and control system; surround view monitoring system etc.
