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Working Party on Automated/Autonomous and Connected Vehicles

Thirteenth session

Geneva, 23-27 May 2022

Chair's notes on the Working Party on Automated/Autonomous and Connected Vehicles meeting in lieu of its thirteenth session

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I. Attendance

1. The Working Party on Automated/Autonomous and Connected Vehicles (GRVA) met from 23 to 27 May 2022, hosted from Geneva. No simultaneous interpretation was provided for that meeting, which was conducted in English only, with the agreement of the delegations. The meeting was chaired by Ms. Chunmei Chen (China) on 23 May 2022 (morning session) and by Mr. R. Damm (Germany) the rest of the week. Accredited experts from the following countries participated in the work, following Rule 1 of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690/Rev.2): Australia, Austria, Brazil, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Ireland, Italy, Japan, Luxembourg, Malaysia, Netherlands, Norway, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Singapore, Slovakia, South Africa, Spain, Sweden, Switzerland, the United Kingdom of Great Britain and Northern Ireland (UK) and the United States of America (USA). An expert from the European Commission (EC) also participated.

2. Experts from the following non-governmental organizations (NGOs) and international organizations participated: the American Automotive Policy Council (AAPC), Association for Emissions Control by Catalyst (AECC), Automotive Open System Architecture (AUTOSAR), European Association for Electric Mobility (AVERE), European Agricultural Machinery Organization (CEMA), International Motor Vehicle Inspection Committee (CITA), European Association of Automotive Suppliers (CLEPA/MEMA/JAPIA), European Garage Equipment Association (EGEA), The European Association of Internal Combustion Engine Manufacturers (EUROMOT), European Tyre and Rim Manufacturer Association (ETRMA), European Transport Safety Council (ETSC), European Association of Internal Combustion Engine Manufacturers (EUROMOT), Federation of European Manufacturers of Friction Materials (FEMFM), Fédération Internationale de Motocyclisme (FIM), International Automobile Federation (FIA), International Federation of Automotive Distributors (FIGIEFA), International Motorcycle Manufacturers Association (IMMA), International Organization for Standardization (ISO), International Telecommunication Union (ITU), International Organization of Motor Vehicle Manufacturers (OICA), SAE International, Securing America's Future Energy (SAFE), Self-Driving Coalition for Safer Streets and World Bicycle Industry Association (WBIA). Two experts participated upon invitation by the Chair and the secretariat, one from Amazon and one from Einride.

3. The Chair opened the meeting welcoming the 50 delegates present in the meeting room and those connected remotely.

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRVA/2022/13
Informal documents GRVA-13-01/Rev.1 and GRVA-13-02

4. GRVA considered the provisional agenda prepared for this session (ECE/TRANS/WP.29/GRVA/2022/13). GRVA adopted it with the deletion of the reference to ECE/TRANS/WP.29/2022/56, as reproduced in GRVA-13-02, a version that included the reference to all informal documents received until 23 May 2022. (All informal documents submitted are listed in Annex I of this report. Annex II provides the list of Informal Working Groups (IWG) reporting to GRVA).

5. GRVA noted the efforts made by the secretariat to find arrangements to accommodate as much as possible the different time zones from experts attending. GRVA also agreed on the running order for the session (GRVA-13-01/Rev.1).

III. Highlights of the March 2022 session of WP.29 (agenda item 2)

Documentation: (ECE/TRANS/WP.29/1164)
Informal document GRVA-13-03

6. The Secretary presented GRVA-13-03 with some highlights of the WP.29 session in March 2022, having relevance for GRVA. He referred to the session report ECE/TRANS/WP.29/1164 for more details. GRVA noted the report from the secretariat.

IV. Artificial Intelligence in vehicles (agenda item 3)

Documentation: Informal document GRVA-13-04

7. The Secretary introduced GRVA-13-04, a document summarizing the outcome of the two workshops on Artificial Intelligence (AI) and Vehicle Regulations, held by GRVA in March and May 2022. He explained that the document contained relevant definitions, AI use cases in automotive and a proposal by industry on possible ways to extend the New Assessment / Test Method (NATM), developed by IWG on Validation Method for Automated Driving (VMAD). The expert from CLEPA detailed the content of industry's proposal.

8. The expert from OICA informed that his delegation would provide further wording and amendment proposals to the document, for consideration at the September 2022 session.

9. GRVA agreed to continue the development of GRVA-13-04 until its September 2022 session and agreed that, even though not yet envisaged, a third workshop on this topic could be organized in September 2022, if necessary.

10. GRVA invited the secretariat to inform AC.2 in June 2022 on the current activities (GRVA-13-04) on this matter.

V. Automated/autonomous and connected vehicles (agenda item 4)

A. Deliverables of the Informal Working Group on Functional Requirements for Automated and Autonomous Vehicles

Documentation: Informal documents GRVA-13-36 and GRVA-13-37

11. The expert from the United States of America, Co-Chair of the IWG on FRAV, presented (GRVA-13-37) the progress made so far. He recalled the holistic approach developed by the Group. He detailed the activities of the group on Operational Design Domain (ODD)-based approach to verifiable criteria, on the development of non-prescriptive Dynamic Driving Tasks (DDT) performance requirements, on the consideration of safety models as basis for determining fulfilment of requirements, on the review of Other Road Users (ORU) safety needs and risk/benefit of external signalling, on the Object and Event Detection and Response (OEDR)-based approach to address ORU interactions, on ADS configurations, use cases and user roles context for Human Machine Interface (HMI) and user-safety requirements as well as on the completion of data collection input to the IWG on Event Data Recorder / Data Storage System for Automated Driving (EDR/DSSAD).

12. GRVA requested the secretariat to provide GRVA-13-36 (the current draft guidelines and recommendations concerning safety requirements for Automated Driving System) to WP.29 at its June 2022 session, for information.

13. GRVA discussed the mandate extension of the IWG on FRAV until June 2024.

14. GRVA also discussed possible deliverables and agreed that the group would finalize its current tasks during the first 12 months of the mandate extension. GRVA requested the Chair and the Secretary to draft an amendment proposal to the Framework Document on

Automated/Autonomous Vehicles (FDAV), detailing the envisaged milestones of FRAV for the extended mandate including a preview for the time beyond.

15. GRVA discussed and agreed to request AC.2 and WP.29 at their June 2022 sessions to extend the mandate of the IWG on FRAV until June 2024.

B. Deliverables of the Informal Working Group on Validation Methods for Automated Driving

Documentation: ECE/TRANS/WP.29/2022/57
ECE/TRANS/WP.29/2022/58
Informal documents GRVA-13-35 and GRVA-13-38

16. The expert from Canada, Co-Chair of the IWG on Validation Methods for Automated Driving (VMAD), briefed GRVA on the progress made by the group (GRVA-13-38). He informed GRVA on the nomination of a new VMAD Co-Chair and expressed gratitude to Mr. T. Onoda, the former Co-Chair from Japan. He detailed the status of the VMAD work and deliverables. He reported on the collaboration between FRAV and VMAD and on the Co-Chairs' proposal for the next steps of the group.

17. GRVA reviewed GRVA-13-35 (New Assessment/Test Method for Automated Driving (NATM) Guidelines for Validating Automated Driving System (ADS) in ECE/TRANS/WP.29/2022/58). The expert from Canada explained that final updates to the document would be needed and discussed a potential process in order to include last minute modifications. GRVA noted that delegations would try to accommodate last minute modifications to allow a voting during the WP.29 session in June 2022.

18. GRVA endorsed in principle GRVA-13-35 and requested the secretariat to submit GRVA-13-35 (and subsequent editorial corrections, if available) to WP.29 for endorsement at its June 2022 session.

19. GRVA discussed the potential future activities of the group and agreed that the group would finalize its current tasks during the first 12 months of the mandate.

20. GRVA requested the Chair and the Secretary to draft an amendment proposal to the FDAV, detailing the envisaged milestones of VMAD for the extended mandate including a preview for the time beyond.

21. GRVA agreed to request AC.2 and WP.29 at their June 2022 sessions to extend the mandate of the IWG on VMAD until June 2024.

22. GRVA reconfirmed the document ECE/TRANS/WP.29/2022/57 without modification for consideration and endorsement at the June 2022 session of WP.29.

C. Deliverables of the Informal Working Group on Event Data Recorder / Data Storage Systems for Automated Driving

Documentation: Informal documents GRVA-13-06 and GRVA-13-21

23. The expert from the United States of America, Co-Chair of the IWG on EDR/DSSAD, updated GRVA on the recent achievements of the group (GRVA-13-21). She recalled the mandate of the group (ECE/TRANS/WP.29/1147, Annex VII) and the distinction made between EDR and DSSAD. She mentioned that the group had had 56 meetings since its inception in 2019.

24. She recalled that the group produced WP.29-179-19 (in November 2019), clarifying the purpose of EDR and DSSAD and explained that the group would consider revising it. She reported that the group collected the national positions, reproduced in GRVA-13-06, and compiling best practices. She highlighted that the group was still reflecting on the purpose of DSSAD, some experts preferring to focus on the performance of the system itself, others having additional purposes in mind, such as crash reconstruction and liability determination.

25. The expert from OICA noted that some Contracting Parties were envisaging to require additional data points. He stated that the work was still ongoing and that it would be preferable to further discuss and develop a harmonized approach.

26. The expert from France clarified that their national input would likely need to be revised and based on experience gathered while implementing UN Regulations Nos. 157 and 160.

27. GRVA noted with thanks the status report of the IWG on Event Data Recorder / Data Storage System for Automated Driving (EDR/DSSAD).

D. UN Regulation on Automated Lane Keeping System

Documentation: ECE/TRANS/WP.29/2022/59
Informal documents GRVA-13-43/Rev.2, GRVA-13-44,
GRVA-13-48/Rev.1 and GRVA-13-49

28. The expert from the United Kingdom of Great Britain and Northern Ireland reported on the outcome of the Special Interest Group on UN Regulation No. 157 (GRVA-13-44). He explained that the group addressed open issues in ECE/TRANS/WP.29/2022/59: the scope and requirements for lane change capability for systems operating above 60km/h, the provisions for intentional lane crossing and evasive lane crossing, the additional DSSAD elements to be recorded related to lane changes, transitional provisions, the final review of the annex including the testing provisions and further clarification of text, as reflected in GRVA-13-43. He also highlighted potential future activities of the group, such as developing an interpretation document for UN Regulation No. 157 on the model of those developed for UN Regulations Nos. 155 and 156.

29. The expert from the United States of America, Co-Chair of the IWG on EDR/DSSAD, mentioned that the group reviewed the DSSAD provisions in the document and proposed amendments.

30. The expert from OICA welcomed the updates developed by the group. He mentioned that his delegation had still a few minor points, that would need to be addressed.

31. The expert from the United States of America advised to address the last remaining points during the week.

32. GRVA further exchanged on clarifications to the proposed text for a new series of amendments to UN Regulation No. 157 and reviewed GRVA-13-43, GRVA-13-43/Rev.1 and GRVA-13-43/Rev.2 during the week. The secretariat produced a consolidated version (GRVA-13-48 and GRVA-13-48/Rev.1) which was amended by the group on the last day.

33. GRVA adopted GRVA-13-49 and requested the secretariat to submit it, as ECE/TRANS/WP.29/2022/59/Rev.1, to WP.29 and AC.1 for consideration and vote at their June 2022 sessions.

E. Coordination of work on automation between working parties (GRs)

Documentation: Informal document GRVA-13-18

34. GRVA noted the information provided by the Secretary concerning the recommendations of AC.2 and the corresponding decisions of WP.29 concerning external signalling for automated vehicles provided under agenda item 2.

35. GRVA discussed details on ways to organize the review of UN Regulations and UN GTRs with regards to ADS in response to WP.29 request (ECE/TRANS/WP.29/1164, para. 30)

36. The expert from OICA offered considerations as well as a template (in GRVA-13-18) that could be used to perform this review.

37. The expert from France volunteered to lead and coordinate the work regarding the screening of UN Regulations, UN Global Technical Regulations and UN Rules of relevance

for Automated Driving Systems, supported by China, who stated their willingness for active involvement and contribution.

38. GRVA agreed to share the draft roadmap on Automated Driving proposed by OICA and CLEPA, contained in GRVA-13-18, with AC.2 and WP.29, as it could inform the discussion on the mandates' extensions for FRAV and VMAD.

F. Other business

Documentation: Informal documents GRVA-13-07, GRVA-13-18 and GRVA-13-34

39. The expert from OICA presented GRVA-13-18. He explained that the technological development was such that Automated Driving Systems were now close to market introduction. He mentioned on the one hand the ongoing national activities being a possibility for trials, in order to gain experience with ADS but also, on the other hand, the risk for disharmonization. He called for the establishment of a certification scheme for ADS. He mentioned that the lack of legal certainty would result in delays in market introduction. He proposed that GRVA targeted end of 2025 as the date by which a global ADS certification scheme would be available. He explained the benefits of developing harmonized requirements at the United Nations level and mentioned the importance of developing a strategy, in order to avoid regulatory fragmentation.

40. The expert from Canada asked OICA if the objective proposed (end of 2025) was a consensus amongst its members, or if it was only proposed by a few members from a specific region.

41. The expert from OICA recalled that OICA had 37 members on all continents and confirmed that the objective proposed was a consensus position of all its members around the world. He proposed to present this objective to WP.29 and to anchor this target.

42. GRVA concluded that AC.2 would be informed during the June 2022 session about the proposal tabled by OICA and CLEPA for a future schedule and that this would be reflected during the discussion of the updated of the FDAV.

43. The expert from ISO provided copies of two of their standards (GRVA-13-07 as well as GRVA-13-11, GRVA-13-12, GRVA-13-13 and GRVA-13-14 submitted under agenda item 5(c)) at the request of some GRVA delegates. GRVA thanked ISO for this effort in keeping GRVA up to date, regarding their activities.

44. The expert from ITU, Chair of the Focus Group on Artificial Intelligence for Assisted and Automated Driving, presented the status of the activities of the group. He presented the report on automated driving safety data protocol – ethical and legal considerations of continual monitoring (GRVA-13-34). GRVA welcomed the update provided and recalled that the status report of the IWG on VMAD included the information concerning the collaboration between the Focus Group and the Subgroup 3 of the IWG on VMAD. The expert from OICA noted the section of the report on the interpretation of Art. 34 bis of the 1968 Vienna Convention on Road traffic, which argues that this new Art. 34 bis could lead to undesirable outcomes and would influence the expectations one might have concerning automated vehicles. The expert from OICA clarified that their members had a different view on this topic. The expert from ITU clarified that the interpretation of Art. 34 bis was not an ITU position but the view of the focus group meeting participants.

VI. Connected vehicles (agenda item 5)

A. Cyber security and data protection

Documentation: Informal documents GRVA-13-16, GRVA-13-26, GRVA-13-27, GRVA-13-28/Rev.1, GRVA-13-29 and GRVA-13-31

45. The expert from Japan, co-organizer (together with the secretariat) of 10 workshops on the implementation of UN Regulation No. 155, reported on recent activities

(GRVA-13-16). He highlighted one of the key elements discussed during the workshops related to CSMS in the case of collaborations between two manufacturers or in the case of a product sold under several brands. GRVA thanked Japan and the Secretary for these efforts to build capacity and support uniform application of the Regulation.

46. GRVA noted the importance of these activities, supporting the uniform application of UN Regulations by the Contracting Parties and allowing exchange among the type approval authorities. GRVA noted the limit of virtual meetings for such activities and encouraged the organizers to consider some in-person sessions. GRVA also noted that the outcome of this work could form the basis for future amendments to the Interpretation document of UN Regulation No. 155.

47. The expert from OICA welcomed these activities and offered potential contributions of the industry if some sessions would be open for participation by industry. GRVA agreed to consider the organization model used during the first session, held on 8 July 2021.

48. The expert from China introduced GRVA-13-31, explaining the activities performed in China regarding the elaboration of a national standard on the basis of UN Regulation No.155, the difficulty related to the lack of pass/fail criteria in the Regulation and mentioning the difficulty for China to perform the peer review as prescribed in para. 5.3. to the regulation, in the absence of access to the Database for Exchange of Type Approval documentation (DETA).

49. The expert from the United States of America pointed out at ECE/TRANS/WP.29/2022/60 and suggested to develop that document further, if needed, to address China's concern.

50. GRVA agreed to address China's request and decided to organize, before the summer break, a technical workshop on the implementation of Cyber Security provisions under the 1958 and 1998 Agreements, on the model of those already organized for the implementation of UN Regulation No. 155. GRVA invited Japan and the Secretary to organize it as a virtual meeting in English only. GRVA hoped to receive a report on this workstream at the September 2022 session of GRVA.

51. The expert from SAE International presented GRVA-13-28/Rev.1, introducing GRVA-13-26 and GRVA-13-29, proposing updates to references to ISO/SAE 21343 in the interpretation document for UN Regulation No. 155 and proposing clarifications in UN Regulation No. 155 regarding the authentication of Global Navigation Satellite System (GNSS) messages. GRVA requested the secretariat to distribute GRVA-13-26 and GRVA-13-29 with official symbols at the next session with the necessary changes to produce: (i) an amendment proposal to UN Regulation No. 155 and (ii) an amendment proposal to the interpretation document.

52. GRVA noted that CEMA would present a roadmap proposal concerning the vehicle categories S, R, T with regards to the scopes of UN Regulations Nos. 155 and 156. The expert from CEMA detailed that CEMA had taken necessary steps to organize the work from the industry side, divided over different groups with CEMA being the steering committee, the Agricultural industry Electronics Foundation (AEF) taking the lead in the content development, and the German Mechanical Engineering Industry Association (VDMA) being in charge of the standardization actions within the subcommittee 19 of the technical committee 23 of ISO.

B. Software updates and over-the-air issues

Documentation: (Informal document GRVA-12-05)

53. GRVA recalled the purpose of GRVA-12-05 tabled by the expert from CEMA and dealt with this item together with item 5(a). The expert from CEMA clarified that their activities, reported above under item 5(a), were also relevant under agenda item 5(b).

C. Data and vehicle communications

Documentation: (Informal documents GRVA-13-11, GRVA-13-12, GRVA-13-13 and GRVA-13-14)

Informal documents GRVA-13-41 and GRVA-13-42

54. The expert from CITA presented GRVA-13-42 (introducing GRVA-13-41), proposing the establishment of a new informal working group to develop a harmonized way to deal with in-vehicle data for sovereign tasks.

55. The expert from Canada felt that the proposal was to regulate the commercialization of in-vehicle data. He stated that the proposal by CITA was confusing, as GRVA already had established an IWG dealing with data, namely the IWG on EDR/DSSAD. He highlighted that the focus should be on data related to safety and that there was no need to regulate infotainment.

56. The expert from CITA clarified that their proposal focused on the transmission of data, not the collection of data points as developed by the group on EDR/DSSAD.

57. The expert from Canada asked whether there would be a value to have a separate group dealing with this point.

58. The expert from AAPC shared the views of Canada. He recalled that national laws existed and wondered how this would fit in the mandate of WP.29. The expert from ITU felt that this proposal was aimed to use WP.29 to get access to vehicle data for the purpose of CITA members.

59. The expert from CLEPA pointed at the activities of the IWG on DETA.

60. The expert from FIA stated that the priority should not be the commercialization of data. He suggested to remove blockages created by UN Regulation No. 155, instead.

61. The expert from FIGIEFA preferred to address this concern at the European Union level.

62. The expert from CITA clarified that the use case envisaged was only related to sovereign use cases such as periodic technical inspection, as defined in the 1997 Agreement.

63. The expert from the United States of America, Co-Chair of the IWG on EDR/DSSAD, invited the expert from CITA to join the meetings of the IWG on EDR/DSSAD.

64. GRVA agreed to resume consideration of this matter, based on a revised proposal from CITA to clarify their position.

65. GRVA thanked ISO for the copies of the standard “Road vehicles — Extended vehicle (ExVe) web services” provided at the request of some GRVA delegates (see GRVA-13-11, GRVA-13-12, GRVA-13-13 and GRVA-13-14). The expert from CEN stated that ISO should promote other standards developed by the ISO Technical Committee 204.

D. Other business

Documentation: Informal documents GRVA-13-32 and GRVA-13-46

66. The expert from China presented GRVA-13-32 containing a proposal to launch a dedicated task force to carry out preliminary research on the feasibility and necessity of globally harmonized common guidance of data security at WP.29 level. The expert detailed the activities in China related to this topic, including the Framework of Data Security Standards in China, as well as similar activities in other countries and regions.

67. The expert from the United States of America did not support the establishment of an additional GRVA subgroup and proposed that the IWG on Cyber Security and OTA issues should look at the issue. Some experts raised questions for clarification and asked about the potential outcome of such an activity.

68. GRVA requested the IWG on Cyber Security and OTA issues to organize a meeting to discuss possibilities of working on data security and data protection, as well as to define

concrete actions that the group could envisage, if applicable. GRVA hoped to receive feedback from the group in September 2022, if possible.

69. The expert from AUTOSAR introduced his organization (GRVA-13-46), in line with the decision of AC.2 at its June 2021 session.

VII. Advanced Driver Assistance Systems and UN Regulation No. 79 (agenda item 6)

A. Advanced Driver Assistance Systems

Documentation: Informal document GRVA-13-45

70. The expert from the Russian Federation, Co-Chair of the Task Force on Advanced Driver Assistant Systems (ADAS), presented a progress report (GRVA-13-45) of the group. He detailed that the group established a drafting group that developed parts of a new UN Regulation on Dynamic Control Assistance System (DCAS). He highlighted that the group completed the drafting of DCAS key principles and developed a method for reviewing the Master Document, proposed by the technical secretary of the task force. He detailed the three stages envisaged for developing this new UN Regulation.

71. The expert from the European Commission Joint Research Center announced that his organization would perform market surveillance activities in June and July 2022 regarding ADAS and would present the corresponding results to GRVA in September 2022, if possible.

B. UN Regulation No. 79 (Steering equipment)

Documentation: (ECE/TRANS/WP.29/GRVA/2021/9,
ECE/TRANS/WP.29/GRVA/2021/10)

72. GRVA agreed to keep ECE/TRANS/WP.29/GRVA/2021/9 and ECE/TRANS/WP.29/GRVA/2021/10 on the agenda for the September 2022 session.

C. Other business

73. No document was submitted under this agenda item.

VIII. Advanced Emergency Braking System (agenda item 7)

Documentation: (Informal document GRVA-12-10)
Informal documents GRVA-13-08, GRVA-13-09 and GRVA-13-10,
GRVA-13-30, GRVA-13-33 and GRVA-13-40/Rev.1

74. GRVA received the final report (GRVA-13-40/Rev.1) from the expert from Germany, Co-Chair of the IWG on Advanced Emergency Braking Systems (AEBS) for heavy duty vehicles, on the progress made by the group to upgrade and align UN Regulations Nos. 131 and 152. He introduced GRVA-13-09 and GRVA-13-10 and also referred to GRVA-10-33 tabled by the expert from OICA.

75. The expert from the European Commission, Co-Chair of the IWG on AEBS for M₁ and N₁, introduced GRVA-13-08 and GRVA-13-30.

76. GRVA requested the secretariat to distribute GRVA-13-08, GRVA-13-09 and GRVA-13-10 with official symbols at the next GRVA session in September 2022.

77. GRVA agreed that the expert from EC would submit a revised proposal, or a working document based on GRVA-13-30, potentially merged with GRVA-13-08, for consideration at the next GRVA session in September 2022.

78. The expert from OICA introduced GRVA-13-33 concerning the interpretation of the wording “new engine start/run cycle”. GRVA supported the interpretation 1 referred to in that document and requested that proper attention is given to the French translation of the corresponding text in the Regulation.

79. GRVA thanked the IWG for their work and contributions to finalise the work to update the requirements on AEBS for heavy duty vehicles.

IX. UN Regulations Nos. 13, 13-H, 139 and 140 and UN GTR No. 8 (agenda item 8)

A. Electronic Stability Control

Documentation: ECE/TRANS/WP.29/GRVA/2022/14
(ECE/TRANS/WP.29/2020/99)
Informal documents GRVA-13-20, GRVA-13-23 and GRVA-13-39

80. GRVA agreed to resume consideration of potential amendment proposals to UN Global Technical Regulation (UN GTR) No. 8 (ECE/TRANS/WP.29/2020/99) at the next session.

81. The expert from France introduced ECE/TRANS/WP.29/GRVA/2022/14 as amended by GRVA-13-39, aimed to require the fitment of four axles commercial vehicles over 25 tons with vehicle stability function. The expert from OICA introduced GRVA-13-23 containing an alternative proposal addressing the concern raised by the expert from France and based on their statistical review of the configuration of four axle vehicles. He presented GRVA-13-20 containing elements justifying their alternative proposal.

82. GRVA agreed to keep GRVA-13-23 and GRVA-13-39 on the agenda for the session in September 2022.

B. Electromechanical brakes

Documentation: (ECE/TRANS/WP.29/GRVA/2022/8)
Informal documents GRVA-13-05, GRVA-13-19 and GRVA-13-47

83. The expert from CLEPA presented GRVA-13-47, reflecting the ongoing discussions regarding the development of provisions for the type approval of electromechanical brakes (see current status in GRVA-13-05, amending ECE/TRANS/WP.29/GRVA/2022/8).

84. The expert from the United Kingdom of Great Britain and Northern Ireland introduced GRVA-13-19 proposing amendments to Annex XVIII on the assessment of complex electronic systems, based on the most recent provisions introduced in UN Regulation No. 157. He recalled that the review of the complex electronic assessment provisions was initiated when introducing Automatically Commanded Steering Functions of categories A and B in UN Regulation No. 79 and that it was agreed at that time, that UN Regulations Nos. 13 and 13-H would need to be updated, too.

85. The expert from OICA inquired the reason why the provisions in UN Regulation No. 157 were used as a reference and why not simpler versions such as the one in UN Regulation No. 79. He recalled that the complexity of systems covered by UN Regulation No. 79 (i.e. Levels 0 to 2) differed from those in UN Regulation No. 157 (i.e. Level 3). He stated that the assessment for a power steering, an anti-lock braking system or an electronic stability function would not necessarily need to be as extensive as for ALKS.

86. The expert from CLEPA supported that Annex XVIII is updated in the context of the activities related to electro-mechanical brakes.

87. GRVA noted CLEPA’s intention to submit an official document, on the basis of GRVA-13-05 for consideration at the September 2022 session of GRVA. GRVA noted the

proposal by United Kingdom of Great Britain and Northern Ireland to upgrade Annex XVIII of UN Regulation No. 13 and discussed whether or not to merge it with CLEPA's document, mentioned above.

C. Clarifications

Documentation: Informal documents GRVA-13-22/Rev.1, GRVA-13-24 and GRVA-13-25

88. GRVA resumed its discussion on park brake warning requirements in the case of electric parking brakes, based on a revised proposal in GRVA-13-22 and the supporting material in the presentation GRVA-13-25. Following discussion, GRVA developed a revised proposal.

89. GRVA adopted GRVA-13-22/Rev.1 (based on ECE/TRANS/WP.29/GRVA/2022/11 and reproduced in Annex III) and requested the secretariat to submit it, as supplements to the 11 and 12 series of amendments to UN Regulation No. 13, to WP.29 and AC.1 for consideration and vote at their November 2022 sessions.

90. The expert from OICA introduced GRVA-13-24 proposing an update for the measurement of the Peak Braking Coefficient (PBC) in UN Regulation No. 140, by introducing a reference to the new American Society for Testing and Materials (ASTM) Standard Reference Test Tyre F2493. The expert from Canada mentioned that the proposal was consistent with similar work done in other jurisdictions and supported it.

91. GRVA requested the secretariat to distribute GRVA-13-24 with an official symbol at the next GRVA session (in September 2022).

X. Motorcycle braking (agenda item 9)

A. UN Global Technical Regulation No. 3

Documentation: (Informal document GRVA-12-15)
Informal document GRVA-13-17

92. The expert from Italy recalled the purpose of GRVA-12-15 and presented GRVA-13-17 superseding it. He detailed the proposed harmonization of UN GTR No.3 with UN Regulation No. 78.

93. The expert from Canada explained that the technical requirements applicable in his country do not impose a deceleration threshold when a brake lamp must be lit. He noted that adding such a threshold in UN GTR No. 3 would require to provide justifications for such an amendment that would highlight the safety benefit associated to it, as well as details on the costs it would generate. He asked whether some background information regarding some definitions could be provided so that it would become clearer what systems fall in the scope of the definitions.

94. GRVA invited delegations to share information on the safety benefits and costs considerations related to the 1.3 m/s² threshold for the brake light activation and on the genesis of the new definition proposed.

B. UN Regulation No. 78

Documentation: Informal document GRVA-13-15

95. The expert from IMMA presented informal document GRVA-13-15, proposing further alignment of the stop lamp signal provisions in UN Regulation No. 78 with UN Regulation No. 13-H, to keep a consistent stop lamp behaviour across different vehicle categories and therefore avoid confusion to road users driving behind a braking vehicle, regardless of its category.

96. GRVA welcomed IMMA's intention to submit an official document, developed on the basis of GRVA-13-15, for consideration at the September 2022 session of GRVA.

XI. UN Regulation No. 90 (agenda item 10)

97. No document was submitted under this agenda item.

XII. Exchange of views on guidelines and relevant national activities (agenda item 11)

98. No document was submitted under this agenda item.

XIII. Revision 3 of the 1958 Agreement (agenda item 12)

A. Implementation of relevant provisions in Revision 3 to the 1958 Agreement

Documentation: (Informal document GRVA-12-28)

99. GRVA reviewed GRVA-12-28, containing a list of UN Regulations prepared by the secretariat in consultation with the experts from OICA, for which the use of Unique Identifier should be prevented.

100. GRVA requested the secretariat to provide a revised preliminary draft version of GRVA-12-28, including the modification proposed by the United Kingdom of Great Britain and Northern Ireland for UN Regulation No. 157 ("No*") in square brackets, for further discussions at its September 2022 session. GRVA also agreed to forward this preliminary draft document to the IWG on Database for the Exchange of Type Approval (DETA).

B. International Whole Vehicle Type Approval

101. No document was submitted under this agenda item.

XIV. Other business (agenda item 13)

A. Arrangement of meetings

102. GRVA discussed the modalities of a collaboration with the Global Forum for Road Traffic Safety (WP.1). The Chair recalled that he had been invited by WP.1, together with the Secretary, to report on GRVA activities during the last sessions of the Global Forum. The expert from Canada stated that exchange was important but that such exchange did not constitute a collaboration by itself. He called for a clear mandate for an effective collaboration. He invited the group to focus on commonalities. The expert from OICA noted the difference between the groups and highlighted the impact of traffic rules on the design of ADS. The expert from FIA stated his willingness to support this collaboration. The expert from AAPC suggested that the collaboration focused on common terms and definitions. He stressed that the outcome of the two groups should be compatible.

103. GRVA decided to consult WP.29 regarding the collaboration with WP.1.

104. The Chair recalled the ambition to organize a meeting outside of Geneva. GRVA discussed modalities for such meeting. GRVA noted that this thirteenth session was organized in English only. GRVA discussed that the two ordinary sessions with interpretation remain in Geneva, and that an additional session outside of Geneva could be organized with more flexibility as it was done for this session in lieu of the thirteenth session of GRVA.

105. The Secretary explained that specific documents provide information on how to organize such meetings outside of Geneva. He mentioned the importance of developing a host country agreement. He also mentioned his commitment to strengthen multilingualism and recommended to consider meetings with simultaneous interpretation in French, Russian and English as per the rules of procedures.

106. The expert from the United States of America encouraged to explore whether another duty station could host such a meeting, e.g., other regional commissions, or the Headquarters in New York.

107. GRVA agreed to investigate, with the support of the secretariat possibilities for 2023, also for holding a meeting outside Geneva.

108. GRVA requested the secretariat to organize the September 2022 session as hybrid session, allowing participation both in person and remotely.

B. Any other business

109. GRVA noted that the Terms of Reference of the Inland Transport Committee (ITC) had been revised following the adoption of the UN ECOSOC resolution 2022/2.

C. Tributes

110. GRVA was informed that Mr. T. Onoda (Vice-Chair of GRVA, Head of Delegation of Japan) would no longer attend GRVA sessions. GRVA acknowledged the great contributions of Mr. Onoda since the inception of GRVA and wished him great success in his career.

Annex I

[English only]

List of informal documents (GRVA-13-...) considered during the session

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
1/Rev.1	(Chair) Running order of the thirteenth GRVA session	A
2	(Secretariat) Updated and consolidated agenda for the 13th GRVA session (incl. informal documents received until 20 May 2022 COB)	A
3	(Secretariat) Highlights of the (Hybrid) March 2022 session of WP.29	C
4	(Secretariat) Outcome of the GRVA workshops on Artificial Intelligence and Vehicle Regulations	C
5	(CLEPA) Proposal for a supplement to the 11 series of amendments to UN Regulation No. 13 (Heavy vehicle braking)	C
6	(EDR/DSSAD) Review of the existing national / regional activities and a proposed way forward for DSSAD	C
7	(ISO) Copy of ISO/DIS 23374-1	C
8	(AEBS HDV) Proposal for amendments to UN Regulation No. 152 (AEBS for M ₁ /N ₁)	B
9	(AEBS HDV) Proposal for amendments to the 02 series of amendments to UN Regulation No. 131 (AEBS for heavy vehicles)	B
10	(AEBS HDV) Proposal for amendments to the 01 series of amendments to UN Regulation No. 131 (AEBS for heavy vehicles)	B
11	(ISO) Copy of ISO 20078-1	C
12	(ISO) Copy of ISO 20078-2	C
13	(ISO) Copy of ISO 20078-3	C
14	(ISO) Copy of ISO 20078-4	C
15	(IMMA) Proposal for a new Supplement to the 05 series of amendments to UN Regulation No. 78	C
16	(Japan) Report of the workshop on the implementation of UN Regulation No. 155	C
17	(Italy) Proposal for Amendment 4 to Global Technical Regulation No. 3 (Motorcycle braking)	C
18	(CLEPA, OICA) Vision of an ADS road map and related future activities at UNECE/GRVA	C
19	(United Kingdom) Proposal for amendments to UN Regulation No. 13	D
20	(CLEPA, OICA) Mandatory ESC on 4 axles concrete mixer vehicles	C
21	(EDR/DSSAD) Activities/Deliverables of IWG on EDR/DSSAD	C
22/Rev.1	(CLEPA, OICA) Proposal for amendments to document ECE/TRANS/WP29/GRVA/2022/11 - Electric park brake warning	C
23	(CLEPA, OICA) Proposal for amendments to document ECE/TRANS/WP29/GRVA/2022/14 - Electronic Stability Control	D
24	(OICA) Proposal for amendments to UN Regulation No. 140	B
25	(CLEPA, OICA) Proposal for amending UN R13 Electric Park Brake warning	C
26	(SAE) Proposal for amendments to the Interpretation Document ECE/TRANS/WP.29/2022/61 for UN Regulation No. 155 (Cyber security and cyber security management system)	B
27	(SAE) Proposal for amendments to the Interpretation Document ECE/TRANS/WP.29/2021/59 for UN Regulation No. 155 (Cyber security	C

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
	and cyber security management system)	
28/Rev.1	(SAE) Cybersecurity and OTA Software Updates	C
29	(SAE) Proposal for amendment to UN Regulation No. 155	B
30	(EC) Proposal for amendments to UN Regulation No. 152	C
31	(China) Proposal for Vehicle Cyber Security	C
32	(China) Proposal for Data Security of Intelligent and Connected Vehicles	C
33	(OICA) AEBS Regulation - Common interpretation of “new engine start/run cycle”	C
34	(ITU / FG on AI4AD) Copy of ITU-T Technical Report FGAI4AD-02 "Automated driving safety data protocol – Ethical and legal considerations of continual monitoring"	C
35	(VMAD) Update to the NATM Guidelines for Validating ADS (proposal for amendments to ECE/TRANS/WP.29/2022/58)	C
36	(FRAV) Current draft of the guidelines and recommendations concerning safety requirements for ADS	C
37	(FRAV) Status report	C
38	(VMAD) Status report	C
39	(France) Proposal for amendments to UN Regulation No. 13 (Braking)	D
40/Rev.1	(AEBS HDV) Final status report	C
41	(CITA) Handling access to in-vehicle data at GRVA	C
42	(CITA) Presentation of document GRVA-13-41	C
43/Rev.2	(SIG R157) Revised proposal for amendments to ECE/TRANS/WP.29/GRVA/2022/59	C
44	(SIG R157) Progress report from the Special Interest Group on UN Regulation 157	C
45	(TF ADAS) Status report	C
46	(AUTOSAR) Standardization of future mobility technologies	C
47	(CLEPA) UN Regulation No. 13 and Electro Mechanical Brakes	C
48/Rev.1	(SIG R157) Revised consolidated proposal for the 01 series of amendments to UN Regulation No. 157	C
49	(Secretariat) Modifications to ECE/TRANS/WP.29/2022/59	C

Notes:

Administrative follow-up, for the secretariat, with the informal documents:

- A Adopted;
- B Distribute with an official symbol at the next session;
- C Consideration completed;
- D Resume consideration at the next session.

Annex II

List of Informal Working Groups reporting to GRVA (as of May 2022)

<i>Informal Working Group</i>	<i>Chair/Co-Chairs</i>	<i>Country</i>	<i>Mandate until</i>
Functional Requirements for Automated and Autonomous Vehicles (FRAV)	Ms. C. Chen ¹ Mr. R. Damm ¹ Mr. E. Wondimneh ¹	China Germany USA	July [2024]
Validation Method for Automated Driving (VMAD)	Mr. I. Sow ¹ Mr. Nonaka ¹ Mr. P. Striekwold ¹	Canada Japan Netherlands	[July 2024]
Cyber Security and Over-The-Air software updates (CS/OTA)	Mr. T. Niikuni ¹ Mr. D. Handley ¹ Ms. M. Versailles ¹	Japan UK USA	November 2022
Event Data Recorder / Data Storage System for Automated Driving (EDR/DSSAD)	Mr. T. Guiting ¹ Mr. T. Nonaka ¹ Mrs. J. Doherty ¹	Netherlands Japan USA	June 2024

¹ IWG Co-Chairs

Annex III

Adopted amendments to ECE/TRANS/WP.29/GRVA/2022/11

Adopted on the basis of GRVA-13-22/Rev.1 (see para. 89)

Insert new paragraph 5.2.1.26.5., to read:

“5.2.1.26.5. If the parking braking system detects a request (generated automatically or by the driver):

- (a) To fully apply the parking brake (i.e. to reach the mechanically locked position of the parking brake), or
- (b) To gradually control the parking brake action,

The actuation of the warning as required in paragraph 2.6. of Annex 8 may be delayed until the parking brake system has detected the correct clamping of the parking brake. The yellow warning signal specified in paragraph 5.2.1.29.1.2. shall be displayed at the latest 10s after the request for a full parking brake application, in the case the stable state is not reached.”
