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### World Forum for Harmonization of Vehicle Regulations

### Working Party on Automated/Autonomous and Connected Vehicles

#### Nineteenth session

Geneva, 25 June 2024

## Report of the Working Party on Automated/Autonomous and Connected Vehicles on its nineteenth session

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## I. Attendance

1. The Working Party on Automated/Autonomous and Connected Vehicles (GRVA) met on 25 June 2024 in Geneva following consultations during an informal meeting hosted by SAE International in Troy, Michigan, United States of America in May 2024. The meeting was chaired by Mr. R. Damm (Germany). 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) (ECE/TRANS/WP.29/690/Rev.2): Australia, Canada, China, Czech Republic, Denmark, Finland, France, Germany, India, Italy, Japan, Luxembourg, Kingdom of the Netherlands, Norway, Republic of Korea, Russian Federation, Slovakia, Spain, Sweden, Switzerland, the United Kingdom of Great Britain and Northern Ireland (UK), the United States of America (USA) and Zimbabwe. The European Commission also participated. The experts from Uber Technologies, the University of Warwick and the Canadian Vehicle Manufacturers' Association, participated upon invitation by the Chair and the secretariat.

2. Experts of the following non-governmental organizations (NGOs) and international organizations participated: the American Automotive Policy Council (AAPC), Association for Standardization of Automation and Measuring Systems (ASAM e.V.), Automotive Coalition for Traffic Safety, 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 Tyre and Rubber Manufacturers Association (ETRMA), International Council on Environmental Economics and Development (ICEED), European Garage Equipment Association (EGEA), European Association of Internal Combustion Engine Manufacturers (EUROMOT), Institute of Electrical and Electronics Engineers (IEEE), International Automobile Federation (FIA), International Motorcycle Manufacturers Association (IMMA), International Road Federation (IRF), International Road Transport Union (IRU), International Telecommunication Union (ITU), International Organization of Motor Vehicle Manufacturers (OICA), SAE International and Secure America Future Energy (SAFE).

## II. Adoption of the agenda (agenda item 1)

*Documentation:* ECE/TRANS/WP.29/GRVA/2024/15  
Informal documents GRVA-19-01, GRVA-19-02 and  
GRVA-19-37/Rev.1

3. GRVA considered the provisional agenda prepared for its nineteenth session (ECE/TRANS/WP.29/GRVA/2024/15). GRVA adopted it (without modifications), as reproduced in GRVA-19-02, which is a version that includes reference to all informal documents received until 24 May 2024. (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.)

4. GRVA also agreed on the running order prepared for the session (GRVA-19-01).

5. The Chair recalled the special format of the nineteenth session held on 25 June 2024, preceded by informal consultations held from 20-24 May 2024 in Troy, USA). He reflected on the success of this informal meeting held in Troy, Michigan (USA). GRVA recalled that the meeting was opened by Mr. C. Cuika and Mr. D. Nicholson (SAE International), and that a warm welcome was extended to GRVA by Ms. S. Schulman, Deputy Administrator of the National Highway Traffic Safety Administration. She stressed the value of UNECE on vehicle regulations and of WP.29/GRVA as a trusted source. A keynote speech was delivered by John Caap, the Director of Vehicle Safety at General Motors (GRVA-19-37/Rev.1). GRVA appreciated the opportunity for demonstrations and expositions facilitated by the flexible format of the Troy meeting and thanked all those who made it possible. Several delegations called on the United Nations to facilitate participation in official meetings via web conferencing as it was done during the COVID-19 pandemic time.

6. Agenda items 2 to 13 below were discussed in detail during the consultation meeting held in Troy (USA). During the consultations, the secretariat prepared a draft list of proposed

decisions for formal adoption during the formal part of the nineteenth session, under agenda item 14. This report mentions what was discussed during the consultations and the decisions made during the nineteenth session on 25 June 2024.

### **III. Highlights of the March 2024 session of WP.29 (agenda item 2)**

*Documentation:* (ECE/TRANS/WP.29/1177)  
Informal document GRVA-19-03

7. During the consultations, the secretariat presented GRVA-19-03, with highlights from the WP.29 session in March 2024, which had relevance for GRVA. He referred to the session report ECE/TRANS/WP.29/1177 for more details.

8. GRVA noted the report from the secretariat (GRVA-19-03) on the highlights of the last session of WP.29 in March 2024.

### **IV. Artificial Intelligence in vehicles (agenda item 3)**

*Documentation:* (ECE/TRANS/WP.29/2024/34  
ECE/TRANS/WP.29/GRVA/2023/17  
Informal document GRVA-18-04)  
Informal document GRVA-19-32

9. During the consultations:

(a) The experts recalled the GRVA submission (ECE/TRANS/WP.29/GRVA/2023/17) to WP.29 (informal document GRVA-18-04 superseding ECE/TRANS/WP.29/2024/34) and noted the discussions during the WP.29 session in March 2024 and noted that WP.29 would organize a Workshop on Artificial Intelligence (AI).

(b) They received a presentation (GRVA-19-32) of the activities launched by SAE International on Artificial Intelligence for ground vehicles.

(c) The experts from IEEE and SAE International looked forward to the opportunity to contribute to the WP.29 activities on AI.

10. GRVA noted the information (GRVA-19-32) provided by the expert from SAE International on their committee activities on AI and agreed that they would provide input on this topic during the next meetings.

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

#### **A. Informal Working Group on Automated Driving System**

*Documentation:* Informal documents GRVA-19-34 and GRVA-19-52

11. During the consultations:

(a) The expert from OICA provided views and considerations for an Automated Driving System (ADS) regulation (GRVA-19-34). The experts advised OICA to provide examples under both the 1958 and the 1998 Agreements and to discuss this document at a future session of the IWG on ADS.

(b) The expert from Canada, Co-Chair of the IWG on ADS updated (GRVA-19-52) GRVA on the recent activities of the IWG on ADS and its organization. He detailed the status of work and provided reference documents. He explained that sections of the regulation under development were assigned to Officers of Principle Interests (OPIs) and detailed their role. He gave an overview of the meetings scheduled in 2024 and 2025. Upon request of the expert from Germany, he assured that all efforts would be made to provide documents in time.

12. GRVA noted GRVA-19-34 and agreed to refer it to the IWG on ADS.
13. GRVA endorsed the status report (GRVA-19-52) from the IWG on ADS.

## **B. GRVA workshops**

14. During the consultations, the expert from Japan, Vice-Chair of GRVA, provided a status update on the GRVA workshops on ADS. He announced that the first workshop would take place on 5 June 2024. He provided information on organizational matters. The secretariat pointed to the UNECE webpage dedicated to this workshop. The expert from China, Vice-Chair of GRVA, invited GRVA to Beijing and offered to host the second workshop tentatively scheduled in September.

15. GRVA noted the arrangements proposed for GRVA workshops on ADS.

## **C. Deliverables of the Informal Working Group on Functional Requirements for Automated and Autonomous Vehicles**

16. GRVA noted the completion of the work by the IWG on Functional Requirements for Automated and Autonomous Vehicles (FRAV) and agreed to remove this item from its agenda.

## **D. Deliverables of the Informal Working Group on Validation Methods for Automated Driving**

*Documentation:* (ECE/TRANS/WP.29/2024/39 based on GRVA-18-50)  
Informal documents GRVA-19-12, GRVA-19-13,  
GRVA-19-15/Rev.1, GRVA-19-18 and GRVA-19-57

17. During the consultations, the expert from the Netherlands, Co-Chair of the IWG on Validation Methods for Automated Driving (VMAD), presented (GRVA-19-18) amendment proposals for Annex 6 (GRVA-19-12) and Annex 8 (GRVA-19-13) to the Guidelines and Recommendations for Automated Driving System safety requirements, assessment and test methods to inform regulatory development (ECE/TRANS/WP.29/2024/39). He also provided a consolidated version with all the proposed amendments. The expert from the United States of America requested to postpone the adoption of the proposed amendments for further internal review. The experts discussed, in order to provide more time for review, the paragraphs that should be removed from the document (GRVA-19-57) and be addressed by the IWG on ADS. They produced GRVA-19-15/Rev.1, with the text that can be supported to date.

18. GRVA endorsed the status report (GRVA-19-18) from the IWG on VMAD. GRVA noted the completion of the work by the IWG and agreed to remove this item from its agenda.

19. GRVA adopted GRVA-19-15/Rev.1 and requested the secretariat to provide it to WP.29 as an update to ECE/TRANS/WP.29/2024/39.

## **E. Deliverables of the Integration Group**

*Documentation:* (ECE/TRANS/WP.29/2024/39)  
Informal document GRVA-19-22

20. During the consultations, the expert from the United Kingdom of Great Britain and Northern Ireland presented an amendment proposal to the Guidelines and Recommendations for Automated Driving System safety requirements, assessment and test methods to inform regulatory development (ECE/TRANS/WP.29/2024/39), aimed to reinsert a missing footnote. GRVA agreed with the proposal.

21. GRVA adopted GRVA-19-22 and incorporated it in GRVA-19-15/Rev.1.

22. GRVA agreed to remove this item from its agenda.

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

*Documentation:* (ECE/TRANS/WP.29/2024/33)  
Informal document GRVA-19-21

23. During the consultations:

(a) The expert from Japan, Co-Chair of the IWG on Event Data Recorder (EDR) / Data Storage Systems for Automated Driving (DSSAD), presented a status report (GRVA-19-21) detailing the progress achieved by the group to date.

(b) The experts agreed with the proposed timeline extension until March 2025 and expected to review a draft DSSAD document at its September 2024 session.

24. GRVA endorsed the status report (GRVA-19-21) about the activities and deliverables of the IWG on Event Data Recorder / Data Storage System for Automated Driving (EDR/DSSAD).

25. GRVA agreed with the proposed new timeline.

## **G. UN Regulation No. 157**

*Documentation:* (ECE/TRANS/WP.29/GRVA/2024/3)  
ECETRANS/WP.29/GRVA/2024/16  
Informal document GRVA-19-54

26. During the consultations:

(a) The expert from France recalled his presentation in January 2024 regarding their proposal for amendments to UN Regulation No. 157 (ECE/TRANS/WP.29/GRVA/2024/3), proposing to align the reference to UN Regulation No. 10 (Electromagnetic Compatibility) with the text adopted in other regulations and clarifying the testing conditions for Automated Lane Keeping Systems (ALKS). Upon a clarification request from OICA, he noted the recent finalization by the Working Party on Lighting and Light-Signalling (GRE) of the new 07 series of amendments to UN Regulation No. 10, which would make some parts of the document obsolete. He provided a revised wording (GRVA-19-54).

(b) The expert from the United Kingdom of Great Britain and Northern Ireland introduced Chapter II of ECE/TRANS/WP.29/GRVA/2024/16, proposing more technology-neutral wording related to the reinstatement of the system after the initiation of the engine, based on the terminology included in Mutual Resolution No. 2 (Vehicle Propulsion System Definitions).

27. GRVA adopted GRVA-19-54 and requested the secretariat to submit it as draft supplements to the original version and the 01 series of amendments to UN Regulation No. 157 to WP.29 and AC.1 for consideration and vote in November 2024.

## **H. Coordination of work on automation between working parties (GRs)**

### **1. Fitness of UN GTRs and UN Regulations for ADS**

*Documentation:* Informal document GRVA-19-49

28. During the consultations, the expert from France, Co-Chair of the Task Force on the Fitness for ADS UN Regulations and UN Global Technical Regulations (TF on FADS), presented the status report of the Group (GRVA-19-49), updating GRVA on the recent achievements and reporting on a special one-hour meeting with experts from the United States of America, organised on 22 May 2024 before the consultations started, where the experts from the United States Department of Transportation's National Highway Traffic

Safety Administration (NHTSA) presented their national activities on ADS considerations for Federal Motor Vehicle Safety Standards (FMVSS), having relevance to FADS activities.

29. GRVA noted the status report in GRVA-19-49.

## 2. Vehicle subcategories for ADS

*Documentation:* (ECE/TRANS/WP.29/GRVA/2023/28)  
Informal document GRVA-19-46

30. During the consultations, the experts from Germany and the United Kingdom of Great Britain and Northern Ireland, Co-Chairs of the Task Force on Automated Vehicle Categorization (TF on AVC), presented (GRVA-19-46) via web conference on the work status on ADS categorization. They mentioned the number of meetings so far and the two phases structuring the work in progress. They gave an overview of the concept for categorization under review. They announced the next meetings scheduled by the Task Force. The expert from France noted the possible impact of ADS categorization on the Task Force on FADS. The expert from the United States of America inquired about the purpose of these activities and the implication of this workstream on the activities of the IWG on ADS. The experts noted the importance of coordination as ADS categorization could influence or be influenced by the work of other groups.

31. GRVA noted the status report (GRVA-19-46).

## 3. Exchange of views on scenarios

*Documentation:* Informal documents GRVA-19-44 and GRVA-19-45

32. During the consultations,

(a) The expert from the University of Warwick gave a presentation on the “Sunrise project” (GRVA-19-45).

(b) The expert from France reported on the discussions (GRVA-19-44) held during the first GRVA workshop on scenarios. He inquired about the structure to further discuss the topic. The expert from Germany welcomed this initial exchange of views. The expert from the United States of America noted that questions related to definitions still needed to be answered. The expert from Canada raised questions on the purpose of this activity. The expert from SAFE asked that their presence and contribution to the workshop be reflected in the report as it was missing in the presentation. The expert from the European Commission welcomed this exchange. The expert from SAE International provided guidance on elements that could be addressed by a second workshop. The experts noted the lack of time to address the open questions in sessions and recommended that a second workshop be organized to continue this exchange.

33. GRVA noted GRVA-19-44 (wrap up - workshop on scenarios) and agreed that a workshop be organized on this topic before the next GRVA session in September.

34. GRVA noted GRVA-19-45.

## I. Other business

*Documentation:* Informal documents GRVA-19-10, GRVA-19-19 and GRVA-19-39

35. During the consultations:

(a) The expert from SAE International presented the ADS Standardization Activity of their On-Road Automated Driving (ORAD) Committee (GRVA-19-19). The expert from France inquired about the results of the standardization effort. The expert from SAE International clarified that the activities had just kicked off. SAE International offered to provide related documents upon request.

(b) The expert from IEA presented (GRVA-19-39) a white paper (GRVA-19-10) containing requirements for Safe in-vehicle Interaction with Driving Automation Systems prepared by their committee on Human Factors in International Regulations for Automated

Driving Systems. The expert from OICA recalled the discussions at the IWG on FRAV meetings on this topic, and the ambition to ensure safety with intuitive Human Machine Interfaces (HMI) that avoid misuse and mode confusion, based on research including users performed before deployment. He referred to UN Regulation No. 121 and a potential new UN GTR on the same topic as useful tools if determined to be needed. The expert from Canada recalled their submission to the Global Forum for Road Traffic Safety (WP.1). He invited GRVA to reflect on the right timing to regulate this and to consider the validity of the points mentioned. The expert from Germany appreciated the presentation. He mentioned that some points advocated for in the white paper were already addressed by UN Regulation No. [171]. He stated that performance-based requirements for HMI were a goal that he could support.

36. GRVA noted GRVA-19-10 (and the corresponding presentation GRVA-19-39).

37. GRVA noted the presentation GRVA-19-19.

## **VI. Connected vehicles (agenda item 5)**

### **A. Cyber security, software updates and over-the-air issues**

*Documentation:* ECE/TRANS/WP.29/GRVA/2024/20  
Informal documents GRVA-19-26, GRVA-19-40 and GRVA-19-51

38. During the consultations:

(a) The expert from Japan, Co-Chair of the IWG on CS/OTA, reported on the recent activities of the group (GRVA-19-40). He highlighted the work done (GRVA-19-26) to update the interpretation document for UN Regulation No. 156 (Software Update and Software Update Management System), the discussion on amendments to Annex 7 to R.E.3, the activities supporting the harmonization of the post-registration software update process, the group's activity on data access and privacy by design, and the follow-up activity on updatable telecommunications technologies. The expert from SAE International welcomed the incorporation of the relevant international standard in the interpretation document for UN Regulation No. 156 and the expert from FIA thanked the experts who supported their activities on authorized data access and privacy by design.

(b) The expert from Japan also informed GRVA on the outcomes of the seventeenth workshop on the implementation of UN Regulations Nos. 155 and 156 held in Geneva on 25 April 2024 (GRVA-19-51). He explained that the group discussed in a closed environment how to better implement some of the administrative procedures in para 7.3 of UN Regulation No. 155. The GRVA experts called on all Contracting Parties to apply all the provisions and invited more authorities to join these workshops. They also called for similar activities including the Contracting Parties to the 1998 Agreement.

(c) The expert from the United Kingdom of Great Britain and Northern Ireland introduced their proposal (ECE/TRANS/WP.29/GRVA/2024/20) for an amendment proposal to Annex VII of the Consolidated Resolution on the construction of vehicles (R.E.3), aimed at clarifying the use of Regulation X Software Identification Number (RxSWIN). The experts agreed to further consider this point until September 2024.

39. GRVA endorsed the status report (GRVA-19-40) of the IWG on CS/OTA and the status report (GRVA-19-51) on the activities of the Workshop on the implementation of UN Regulations Nos. 155 and 156.

40. GRVA endorsed the amendment proposal to the interpretation document on UN Regulation No. 156 (GRVA-19-26) and requested to distribute it with an official symbol at the September 2024 session.

41. GRVA encouraged the organization of further workshops.

42. GRVA also encouraged exchange between the 1958 and 1998 Agreements CPs on this topic.



43. GRVA noted that activities related to ECE/TRANS/WP.29/GRVA/2024/20 were taking place at the IWG on CS/OTA and agreed to keep that document on the agenda or replace it with an updated version.

## **B. Data protection and privacy-by-design**

44. GRVA noted that the members of the IWG on CS/OTA are invited to liaise with the expert from FIA to further develop their proposal related to authorized data access and privacy by design, as mentioned under agenda item 6(a) above.

## **C. Data and vehicle communications**

*Documentation:* Informal document GRVA-19-38

45. During the consultations, the expert from ITU provided insight into ITU's work (GRVA-19-38) on Communication Technology for automated driving at ITU. He recalled the experts that the goal of the Expert Group, co-chaired by the experts from OICA and Nokia, was to elaborate the requirements for such systems with a roadmap focused on applicability for new vehicles that are equipped with DCAS and/or ADS, earliest in 2032. He detailed the structure of this workstream including two recently established working groups, (i) on Requirements for merging automatically into congested lanes and (ii) on requirements for protecting Vulnerable Road Users (VRUs).

46. GRVA noted the information provided by ITU on their expert group on vehicular communication (GRVA-19-38)

## **D. Other business**

*Documentation:* Informal document GRVA-19-43

47. During the consultations, the expert from IEEE presented an overview of their activities on functional safety (GRVA-19-43). She detailed the content of the IEEE 2851 family of standards, ready to be referenced by regulatory bodies such as UNECE.

48. GRVA noted the information provided (GRVA-19-43) by the expert from IEEE on their committee activities on IEEE 2851.

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

## **A. Advanced Driver Assistance Systems**

*Documentation:* ECE/TRANS/WP.29/GRVA/2024/23  
Informal documents GRVA-19-36, GRVA-19-41, and GRVA-19-50

49. During the consultations:

(a) The expert from the Russian Federation, Chair of the Task Force on Advanced Driver Assistance System (TF on ADAS), presented via web conference a brief report on the activities of the TF on ADAS since the eighteenth GRVA session. He recalled the adoption of the draft UN Regulation on DCAS by WP.29 and the Administrative Committee of the 1958 Agreement (AC.1) and detailed the work recently started under phase 2 of the group's activities. Upon request, he introduced ECE/TRANS/WP.29/GRVA/2024/23, containing editorial amendments to the draft regulation. Upon request, the task force produced GRVA-19-50, highlighting the amendments proposed for a Supplement 1 to the UN Regulation on DCAS (ECE/TRANS/WP.29/GRVA/2024/23).

(b) The expert from the Netherlands supported the editorial amendments produced by the task force. He expressed words of caution regarding system-initiated manoeuvre considered

under phase 2. The expert from ETSC welcomed the remarks expressed by the expert from the Netherlands. The Chair of the task force recalled that the group's goal was to convince that the technology is safe enough and can be used. He proposed to organize workshops if needed to discuss the natural behaviour of DCAS and the safeguards proposed. The expert from OICA encouraged the experts to try the technology during the ride and drive demonstration organized on Thursday 23 May 2024. The expert from FIA cautioned that the demos would be performed by experts, but that the persons using these systems would not all be experts. The expert from Norway shared the same concern. The expert from Japan supported that these systems could enhance safety and he called for more discussions.

(c) The expert from the United Kingdom of Great Britain and Northern Ireland presented GRVA-19-41, proposing, similarly to UN Regulations Nos. 152, 79, 13 and 13-H, a technology-neutral wording derived from M.R.2.

50. GRVA adopted ECE/TRANS/WP.29/GRVA/2024/23 with a correction in para. 2.28. below and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their November 2024 sessions.

2.28. "Non-Highway" means a type of road other than a highway as defined in paragraph 2.27.

## B. UN Regulation No. 79 (Steering equipment)

*Documentation:* ECE/TRANS/WP.29/GRVA/2024/16  
ECE/TRANS/WP.29/GRVA/2024/27  
Informal documents GRVA-19-20 and GRVA-19-33/Rev.1

51. During the consultations

(a) The expert from Australia presented the proposal for the 05 series of amendments to UN Regulation No. 79 (ECE/TRANS/WP.29/GRVA/2024/27), intended to facilitate a consistent approach across all Contracting Parties for Emergency Lane Keeping Systems (ELKS), covering vehicles of Categories M<sub>1</sub> and N<sub>1</sub>, already regulated and mandated within the European Union. The experts discussed whether amending the CSF requirements for that purpose was the right solution, if ELKS should be added into UN Regulation No. 79 or in a separate regulation like for AEBS.

(b) The experts reviewed the technology-neutral wording proposed by the United Kingdom of Great Britain and Northern Ireland (ECE/TRANS/WP.29/GRVA/2024/16) for UN Regulation No. 79.

52. GRVA agreed to keep ECE/TRANS/WP.29/GRVA/2024/27 on its agenda.

53. GRVA noted the general support for the proposal to introduce ELKS under the 1958 Agreement and the OICA suggestion to consider a new regulation instead of amending existing UN Regulations.

54. GRVA agreed to keep ECE/TRANS/WP.29/GRVA/2024/16 amended by GRVA-19-20 on its agenda for the next session and requested the secretariat to distribute GRVA-19-33/Rev.1 (item 4(g)) and GRVA-19-41 (Item 6(a)) with official symbols at the September 2024 session.

## C. Acceleration Control for Pedal Error

*Documentation:* ECE/TRANS/WP.29/GRVA/2024/24  
Informal documents GRVA-19-28, GRVA-19-29 and GRVA-19-47

55. During the consultations, the expert from Germany, Co-Chair of the IWG on Acceleration Control for Pedal Error (ACPE), presented a status report of the IWG (GRVA-19-47). He introduced ECE/TRANS/WP.29/GRVA/2024/24 (as amended by GRVA-19-29) proposing a draft UN Regulation on ACPE as well as GRVA-19-28, including a proposal for revised Terms of Reference for the IWG on ACPE.

56. GRVA endorsed the status report (GRVA-19-47) of the IWG on ACPE
57. GRVA adopted the revised terms of reference (GRVA-19-28) of the IWG on ACPE.
58. GRVA adopted ECE/TRANS/WP.29/GRVA/2024/24 as amended by GRVA-19-29 and requested the secretariat to submit the proposal for a new UN Regulation on ACPE to WP.29 and AC.1 for consideration and vote at their November 2024 sessions.

#### **D. Other business**

59. No document was discussed under this agenda item.

### **VIII. Advanced Emergency Braking System (agenda item 7)**

*Documentation:* (ECE/TRANS/WP.29/GRVA/2022/24)  
ECE/TRANS/WP.29/GRVA/2024/18  
ECE/TRANS/WP.29/GRVA/2024/19  
Informal documents GRVA-19-05, GRVA-19-27, GRVA-19-30,  
GRVA-19-31, GRVA-19-42, GRVA-19-55, GRVA-19-56/Rev.1 and  
GRVA-19-59

60. During the consultations:
- (a) The experts noted that GRVA did not receive input on the German proposal for a new UN Regulation on Urban Emergency Braking System (UEBS) as proposed in ECE/TRANS/WP.29/GRVA/2022/24 and recommended removing this document from GRVA's agenda.
- (b) The expert from France presented (GRVA-19-27) their recent considerations on virtual testing in the context of UN Regulation No. 152 during the workshop that they hosted as well as the revised proposal in ECE/TRANS/WP.29/GRVA/2024/19. He also introduced GRVA-19-30 and GRVA-19-31 with the same provisions for the older series of amendments to UN Regulation No. 152. The expert from the United Kingdom of Great Britain and Northern Ireland provided an alternative proposal (GRVA-19-42).
- (c) The expert from Australia presented ECE/TRANS/WP.29/GRVA/2024/18 (as amended by GRVA-19-55 and GRVA-19-56), proposing a supplement to the 02 series of amendments to UN Regulation No. 131 (AEBS for heavy vehicles), aimed at clarifying requirements in the scope requesting for reciprocal recognition with UN Regulation No. 152 (Advanced Emergency Braking System (AEBS) for M<sub>1</sub> and N<sub>1</sub> vehicles). Following discussion, he presented a revised proposal (GRVA-19-56/Rev.1). The expert from the United States of America inquired about the justification of the 8-tonne limit mentioned in the document, which is a figure that is also discussed at the meetings of the IWG on EDR/DSSAD. The expert from AAPC mentioned the issue that this figure could create for some products. The expert from OICA explained that the 8-tonne limit was discussed in the context of UN Regulation No. 131, a decade ago, and was justified due to vehicle dynamics. The Chair invited the experts to prepare for a decision on the documents, if possible, in September 2024.
61. GRVA agreed to remove ECE/TRANS/WP.29/GRVA/2022/24 (UEBS) of the agenda for its next session.
62. GRVA noted GRVA-19-27, GRVA-19-30 and GRVA-19-31 (France) as well as GRVA-19-42 (UK). (GRVA noted GRVA-19-59 summarizing GRVA-19-42).
63. GRVA agreed to keep ECE/TRANS/WP.29/GRVA/2024/19 on its agenda for the September 2024 session.
64. GRVA invited France to liaise with the United Kingdom of Great Britain and Northern Ireland to produce consolidated documents for consideration in September 2024.
65. Australia withdrew ECE/TRANS/WP.29/GRVA/2024/18 and GRVA-19-55.
66. GRVA agreed to resume consideration of GRVA-19-56/Rev.1.

67. GRVA agreed to keep GRVA-19-05 on the agenda for the next session.

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

### **A. Electronic Stability Control**

68. No document was submitted under this agenda item.

### **B. Electromechanical braking**

*Documentation:* (ECE/TRANS/WP.29/GRVA/2023/3, ECE/TRANS/WP.29/GRVA/2023/10), ECE/TRANS/WP.29/GRVA/2024/25 ECE/TRANS/WP.29/GRVA/2024/26 ECE/TRANS/WP.29/GRVA/2024/28 Informal documents GRVA-19-14/Rev.1, GRVA-19-16 and GRVA-19-17, GRVA-19-23, GRVA-19-24, GRVA-19-25, GRVA-19-35 and GRVA-19-48

69. During the consultations:

(a) The expert from the United Kingdom of Great Britain and Northern Ireland, Chair of the Special Interest Group (SIG) on Electromechanical Braking, presented the status report of the group. He presented the two documents ECE/TRANS/WP.29/GRVA/2024/25 (intended to be considered together with ECE/TRANS/WP.29/GRVA/2023/10, which contains updates to the requirements to be applied to the safety aspects of electronic control systems) and ECE/TRANS/WP.29/GRVA/2024/26. He presented the outcome of recent meetings, which produced amendments to ECE/TRANS/WP.29/GRVA/2024/25 and ECE/TRANS/WP.29/GRVA/2024/26 (see informal documents GRVA-19-23 and GRVA-19-24).

(b) The expert from CITA presented (GRVA-19-14/Rev.1) explanations on the rationale for reference values to perform heavy-duty vehicle brake tests in the framework of Periodic Technical Inspections (PTI) and two possible options for PTI brake tests in the case of EMB as well as the corresponding amendment proposals (GRVA-19-16 and GRVA-19-17) to the braking regulations. The expert from Spain stated the need for the possibility to effectively test EMB at PTI and asked for more background information on the two options. The expert from Sweden recalled the difference between UN Regulation No. 13 and 13-H with regard to reference brake values for PTI with a roller brake tester and inquired if a more modern test procedure for testing brakes at PTI could be envisaged.

(c) The experts noted that they did not receive an update concerning ECE/TRANS/WP.29/2023/3. They recommended to keep this agenda item but remove the basis document from the agenda.

70. GRVA adopted ECE/TRANS/WP.29/GRVA/2024/25 (as amended by GRVA-19-23) and requested the secretariat to submit it (as part of draft new 14 series) to WP.29 and AC.1 for consideration and adoption in November 2024.

71. GRVA adopted ECE/TRANS/WP.29/GRVA/2024/26 (as amended by GRVA-19-24) and requested the secretariat to submit it to WP.29 and AC.1 for consideration and adoption in November 2024.

72. GRVA agreed to further discuss the open point on PTI at its September 2024 session.

73. GRVA agreed to resume consideration of ECE/TRANS/WP.29/GRVA/2024/28 in September 2024 session.

74. GRVA adopted ECE/TRANS/WP.29/GRVA/2023/10 (as amended by part II of ECE/TRANS/WP.29/GRVA/2023/25) and requested the secretariat to submit it (as part of draft new 14 series) to WP.29 and AC.1 for consideration and adoption in November 2024

## C. Clarifications

*Documentation:* (ECE/TRANS/WP.29/GRVA/2024/7)  
ECE/TRANS/WP.29/GRVA/2024/17  
ECE/TRANS/WP.29/GRVA/2024/22  
Informal documents GRVA-19-06, GRVA-19-07, GRVA-19-09,  
GRVA-19-09 and GRVA-19-11

75. During the consultations:

(a) The expert from the Netherlands presented a revised proposal (GRVA-19-11) for amendments to UN Regulation No. 13 intended to align the provisions of Annex 15 with those in Annex 4, for the Type II test.

(b) The expert from Germany recalled the discussions at the previous GRVA session and presented GRVA-19-08 based on ECE/TRANS/WP.29/GRVA/2024/7 and ECE/TRANS/WP.29/GRVA/2024/22, aimed at clarifying provisions of the Type-IIA test for the test mass of vehicles authorized to tow trailer(s). He also provided GRVA-19-09 with traffic data supporting his proposal. The expert from Sweden explained that they did not identify specific safety issues with the current text in force. The expert from Czechia confirmed that the revised proposal was clearer and acknowledged that if GRVA wanted to increase the requirement stringency, the German proposal was the right way forward. The expert from Germany recalled their ambition to reduce misinterpretation; he also mentioned that battery electric heavy vehicles could pose an increased safety risk as they can't be used in the context of the transport of dangerous goods and, therefore, wouldn't be designed and tested against the corresponding requirements requirements.

(c) The experts resumed the consideration of the CLEPA proposal to amend the parking brake requirements to allow new locking type parking brakes. The expert from CLEPA mentioned some of the benefits expected from the use of mechanical locks, e.g., in the case of long-duration parking (avoiding corrosion and frozen brakes).

76. GRVA adopted GRVA-19-11 and requested the secretariat to submit it as a supplement to the 11, 12, 13 series of amendments to UN Regulation No. 13 (and incorporate it in the 14 series of amendments to UN Regulation No. 13) to WP.29 and AC.1 for consideration and vote at their November 2024 sessions.

77. GRVA noted that additional proposals were expected for review in September 2024.

78. GRVA agreed to keep ECE/TRANS/WP.29/GRVA/2024/22 on its agenda for the September 2024 session and requested the secretariat to distribute GRVA-19-08 with an official symbol at the September 2024 session.

79. GRVA agreed to keep ECE/TRANS/WP.29/GRVA/2024/17, GRVA-19-06 and GRVA-19-07 on its agenda for the September 2024 session.

## X. Motorcycle braking (agenda item 9)

### A. UN Global Technical Regulation No. 3

80. No document was submitted under this agenda item.

### B. UN Regulation No. 78

*Documentation:* ECE/TRANS/WP.29/GRVA/2024/21

81. During the consultations and in absence of the WBIA expert, the Secretary recalled the WBIA proposal for amendments to UN Regulation No. 78 (aimed at introducing specific deceleration requirements for the Speed Electronically Power Assisted Cycles as they belong to the Category L), already presented with an informal document during the January 2024 session of GRVA. He introduced ECE/TRANS/WP.29/GRVA/2024/21, as agreed with the WBIA expert.

82. GRVA agreed to keep ECE/TRANS/WP.29/GRVA/2024/21 on the agenda for its next session.

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

83. During the consultations, the expert from France noted the adoption of the brakes emission test adopted by the Working Party on Pollution and Energy (GRPE). He inquired about its potential impact on UN Regulation No. 90.

84. GRVA agreed to consult GRPE on the impact of the GRPE test procedure of brake particulate emissions on UN Regulation No. 90 at the June 2024 WP.29 session.

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

*Documentation:* Informal documents GRVA-19-53, and GRVA-19-58

85. During the consultations,

(a) The expert from China provided GRVA with an update on the current capability of Intelligent and Connected Vehicles (ICVs) testing in China (GRVA-19-53), mentioning the comprehensive research and capacity building on ICV performed, listing the 50 test facilities and demonstration zones in the country, and highlighting the intelligent cockpit tests capacity as well as the network and security tests capability.

(b) The expert from the United Kingdom of Great Britain and Northern Ireland provided, via web conferencing, an introduction and an overview of the Automated Vehicles Act 2024 (GRVA-19-58) adopted in her country in May 2024 and addressing liability, safety, marketing and licensing of passenger services.

(c) The experts highlighted the value of the information exchanged under this agenda item. The experts from OICA and SAE International inquired whether this information could be stored in a specific place on the UNECE website or be hosted by SAE International. The expert from Canada felt that it was an unnecessary burden. The Chair invited the secretariat to explore possibilities.

86. GRVA noted with thanks the information provided by the experts from China (GRVA-19-53) and by the expert from the United Kingdom of Great Britain and Northern Ireland (GRVA-19-58) on relevant activities in their respective countries.

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

87. No document was submitted under this agenda item.

## **XIV. Other business (agenda item 13)**

### **A. Inland Transport Committee Climate Change Mitigation Strategy**

*Documentation:* Informal document WP.29-192-10

88. During the consultations, the experts recalled the activities at GRVA and WP.29 supporting the drafting of the Inland Transport Committee Strategy on Reducing Greenhouse Gas Emissions from Inland Transport, adopted by ITC at the February 2024 session.

89. GRVA was informed of the adoption of the ITC Climate Change Mitigation Strategy by ITC in February 2024.

90. GRVA was informed of the first (online) session of the UNECE informal e-mobility task force, 29 May 2024 - 13:00-16:00 CET.

91. GRVA received a brief introduction of WP.29-192-10 and agreed to keep the document on the agenda for its September 2024 session.

## **B. Arrangement of meetings**

92. GRVA noted the current activities performed to organize the May 2025 session of GRVA at ESCAP in Bangkok.

## **C. Programme of Work**

*Documentation:* (Informal documents GRVA-16-28/Rev.2, WP.29-191-31 and WP.29-191-32)

93. GRVA will resume consideration of this agenda item at its September 2024 session.

## **D. Any other business**

94. No document was submitted under this agenda item.

## **E. Tributes**

95. The experts learned, during the consultation meeting in May 2024, about the recent tragic loss of one of the well-known and respected members of the WP.29 family, Mr. Edwin Bastiaensen, Secretary-General of IMMA. The experts observed a minute of silence. Several experts spontaneously took the floor to share memories and highlighted the many valuable experiences they had with Mr. Bastiaensen.

96. The GRVA experts extended their deepest condolences to Mr. E. Bastiaensen's family, children and friends in this difficult time.

## **XV. Adoption of the list of proposed decisions (agenda item 14)**

*Documentation:* Informal document GRVA-19-04/Rev.1

97. GRVA adopted on 25 June 2024 the list of proposed decisions (GRVA-19-04/Rev.1), taken over in this report.

## Annex I

[English only]

**List of informal documents (GRVA-19-...) considered during the session.**

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
1	(Secretariat) - Running order of the 19th session (Change: Room XIX)	A
2	(Secretariat) - Updated and consolidated provisional agenda for the 19th session (incl. informal documents received 17 May COB)	A
3	(Secretariat) - General information and highlights from the March 2024 WP.29 session	A
4	(Secretariat) - List of proposed decisions on the documents reviewed during the consultations - Draft, status 23 May 2024	C
4/Rev.1	(Secretariat) List of proposed decisions on the documents reviewed during the consultations - status 24 June 2024 (subject to confirmation on 25 June 2024)	A
5	(Australia) Proposal for the [01] series of amendments to UN Regulation No. 130 (Lane Departure Warning System)	B
6	(CLEPA/OICA) Proposal for amendments to UN Regulation No. 13	B
7	(CLEPA/OICA) Proposal for amendments to UN Regulation No. 13-H	B
8	(Germany) Proposal for amendments to ECE/TRANS/WP.29/GRVA/2024/7	B
9	(Germany) HGV Traffic data, based on Axle load evaluation 2017	C
10	(IEA) White Paper from HF-IRADS "Requirements for Safe in-Vehicle Interaction with Driving Automation Systems"	A
11	(NL) Proposal for a new supplement to UN Regulation No. 13 (Heavy vehicle braking)	A
12	(VMAD) Proposal for amendments to GRVA-18-50 (Guidelines and recommendations for ADS safety requirements, assessments and test methods to inform regulatory development)	C
13	(VMAD) Proposal for amendments to GRVA-18-50 (Guidelines and recommendations for ADS safety requirements, assessments and test methods to inform regulatory development)	C
14	(CITA) HDV braking system PTI test	C
14/Rev.	(CITA) HDV braking system PTI test (Revision 1)	B
15	(VMAD) Proposal for amendments to ECE/TRANS/WP.29/2024/39	C
15/Rev.1	(VMAD) Proposal for amendments to ECE/TRANS/WP.29/2024/39 (Revision 1)	A
16	(CITA) Proposal for amendments to ECE/TRANS/WP.29/GRVA/2024/25	B
17	(CITA) Proposal for amendments to UN Regulation No. 13 (Heavy vehicle braking)	B
18	(VMAD) Status report of the IWG on VMAD to GRVA	A
19	(SAE International) SAE On-Road Automated Driving (ORAD) Committee - ADS Standardization Activity	A
20	(CLEPA/OICA) Proposal for amendments to ECE/TRANS/WP.29/GRVA/2024/16	B
21	(EDR/DSSAD) Activities/Deliverables of the IWG on EDR/DSSAD	C
22	(UK) Proposal for amendments to ECE/TRANS/WP.29/2024/39	A
23	(EMBSIG Chair, OICA, CLEPA) Proposal to amend document ECE/TRANS/WP.29/GRVA/2024/25	A
24	(EMBSIG Chair, OICA, CLEPA) Proposal to amend document ECE/TRANS/WP.29/GRVA/2024/26	A
25	(EMBSIG) Introduction of electrical transmission braking systems	C
26	(CS/OTA) Proposal for amendments to the Interpretation Document for UN Regulation No. 156 (Software update and software update management system)	A



<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
27	(France) Proposal for Supplement 7 to 00 series of amendments to UN Regulation No. 152 (Advanced Emergency Braking System for M <sub>1</sub> and N <sub>1</sub> vehicles)	C
28	(ACPE) Proposal for revised terms of reference for the Informal Working Group on Acceleration Control for Pedal Error (ACPE)	A
29	(ACPE) Proposal for amendments to ECE/TRANS/WP.29/GRVA/2024/24	A
30	(France) Proposal for a Supplement 05 to 01 series of amendments to UN Regulation No. 152 (Advanced Emergency Braking System for M <sub>1</sub> and N <sub>1</sub> vehicles)	C
31	(France) Proposal for a supplement 04 to 02 series of amendments to UN Regulation No. 152 (Advanced Emergency Braking System for M <sub>1</sub> and N <sub>1</sub> vehicles)	C
32	(SAE International) SAE ground vehicle Artificial Intelligence committee	A
33	(UK) Proposal to amend ECE/TRANS/WP.29/GRVA/2024/16	C
33/Rev.1	(UK) Proposal to amend ECE/TRANS/WP.29/GRVA/2024/16 (revised)	B
34	(CLEPA/OICA) Considerations for an ADS regulation	A
35	(CLEPA/OICA) Status report - introducing ECE/TRANS/WP.29/GRVA/2024/28 (amendment proposal to UN R79)	A
36	(ADAS) Brief report on the activities of the Task Force on Advanced Driver Assistance Systems (TF on ADAS) since the 18th GRVA session	A
37/Rev.1	(OICA) Some OEM perspective on Vehicle Regulations	A
38	(ITU) ITU Expert Group on Communications Technology Supporting Automated Driving	A
39	(IEA) Requirements for Safe in-Vehicle Interaction with Driving Automation Systems (introducing GRVA-19-10)	A
40	(CS/OTA) Status report from the Informal Working Group on Cyber Security and Software Updates	A
41	(UK) Proposal for amendments to GRVA/2024/23	B
42	(UK) Proposal for a supplement to 01 series of amendments to UN Regulation No. 152 (Advanced Emergency Braking System for M <sub>1</sub> and N <sub>1</sub> vehicles)	C
43	(IEEE) IEEE 2851 standards - Functional safety interoperability	A
44	(France) GRVA workshop on scenarios – 6-7 May 2024, Paris (France)	A
45	(University of Warwick) SUNRISE Project: An overview	A
46	(TF-AVC) GRVA Status Report 1	A
47	(ACPE) Report from the Informal Working Group on Acceleration Control for Pedal Error (ACPE)	A
48	(EBSIG) Proposals to amend Regulation 13 and Regulation 13-H	C
49	(TF FADS) Status report	A
50	(TF on ADAS) Informal version of ECE/TRANS/WP.29/GRVA/2024/23 highlighting the amendments included in the draft Supplement 1 to the UN Regulation No. [171]*	C
51	(Japan) Report of the 17th workshop on the implementation of UN Regulations Nos. 155 and 156	A
52	(ADS) IWG on ADS update for the 19th GRVA	A
53	(China) Introduction to current capability of ICV Tests in China	A
54	(France) Proposal for a supplement to UN Regulation No. 157 (ALKS)	A
55	(Australia) Proposal for a supplement to the 02 series of amendments to UN Regulation No. 131 (AEBS)	C
56	(Australia) Proposal for a supplement to the 02 series of amendments to UN Regulation No. 152 (Advanced Emergency Braking System (AEBS) for M <sub>1</sub> and N <sub>1</sub> vehicles)	C
56/Rev.1	Rev.1 (Australia) Proposal for a supplement to the 02 series of amendments to UN	B

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<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
	Regulation No. 152 (Advanced Emergency Braking System (AEBS) for M <sub>1</sub> and N <sub>1</sub> vehicles)	
57	(VMAD) Outcome summary of the VMAD proposals	C
58	(UK) Automated Vehicles Act 2024 - Introduction and overview	A
59	(UK) Virtual Testing for AEBS - Summary of GRVA-19-42	C

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*Notes:*

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

- A Adopted/Endorsed/Agreed/Noted;
- B Distribute with an official symbol at the next session or resume consideration at the next session;
- C Consideration completed;

## Annex II

### List of Informal Working Groups reporting to GRVA (as of 25 June 2024)

<i>Informal working groups</i>	<i>Chair/Co-Chairs Vice-Chair</i>	<i>Country</i>	<i>Expiry date of the mandate</i>
Automated Driving System	Mr. I. Sow <sup>1</sup> Ms. C. Chen <sup>1</sup> Ms. C. Galassi <sup>1</sup> Mr. H. Matsukawa <sup>1</sup> Mr. M. Braisher <sup>1</sup> Mr. E. Wondimneh <sup>1</sup>	Canada China EC Japan UK USA	June 2026
Cyber Security and Over-The-Air software updates (CS/OTA)	Mr. T. Niikuni <sup>1</sup> Mr. D. Hannah <sup>1</sup> Mr. E. Wondimneh <sup>1</sup>	Japan UK USA	November 2024
Event Data Recorder / Data Storage System for Automated Driving (EDR/DSSAD)	Mr. T. Guiting <sup>1</sup> Mr. H. Matsukawa <sup>1</sup> Ms. J. Doherty <sup>1</sup>	Netherlands Japan USA	[June 2025] (DSSAD) [June 2027] (EDR)
Acceleration Control for Pedal Error (ACPE)	Mr. T. Hirose Mr. P. Seiniger	Japan Germany	[March 2025]

<sup>1</sup> IWG Co-Chairs