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### Inland Transport Committee

### Global Forum for Road Traffic Safety

### Group of Experts on drafting a new legal instrument on the use of automated vehicles in traffic

#### Fifth session

Geneva, 12 December 2022

## Report of the Group of Experts on drafting a new legal instrument on the use of automated vehicles in traffic on its fifth session

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## I. Attendance

1. The Group of Experts (GoE) on drafting a new Legal Instrument on the use of Automated Vehicles in traffic (LIAV) met on 12 December 2022 in Geneva.
2. The meeting was chaired by the Vice-Chair Ms. M. Molina (France) and was conducted in a hybrid format.
3. Accredited experts from the following countries participated in the work in accordance with para. 10 of the Terms of Reference (ECE/TRANS/2021/6, annex III): Australia, Albania, Austria, Belgium, Brazil, Cambodia, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India, Italy, Japan, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom of Great Britain and Northern Ireland.
4. Experts from the following non-governmental organizations (NGOs) and academia participated upon invitation by the Chair: the International Organization of Motor Vehicle Manufacturers (OICA), and the University of South Carolina.

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

*Documentation:* ECE/TRANS/WP.1/GE.3/2022/9

5. The Group considered the provisional agenda prepared for this session and adopted it (ECE/TRANS/WP.1/GE.3/2022/9).

## III. Highlights from the September 2022 session of WP.1 (agenda item 2)

6. The Secretary informed the Group about the highlights from the September 2022 session of the Global Forum for Road Traffic Safety (WP.1), having relevance for the Group of Experts. He reported that the Chair of the Group of Experts provided information on the Group's progress made during the May and September 2022 sessions, the activities in between the formal sessions and the efforts made by Canada, France and Sweden for organizing the informal meetings. He further reported that the Chair of the Group informed WP.1 that while Sweden, Canada and the United States of America had preferred to continue to elaborate on scoping papers, the Group's decision was to start preparing a first draft in a "convention format" for the creation of a new legal instrument on the use of automated vehicles in traffic. He informed the Group that during this WP.1 session, Canada and the United States of America had raised a series of questions including, what specifically would be addressed by the new convention and how the Group had determined that a convention was the appropriate legal instrument. He reported that WP.1 agreed to the Group's request to extend its mandate for additional two years. He referred to the session report ECE/TRANS/WP.1/181, paragraphs 21-23 for more details. The Group of Experts noted the report from the secretariat.

## IV. Substantive activities (agenda item 3)

*Documentation:* Informal documents Nos. 1 and 2  
Presentation No. 1

7. The experts from Finland and the Netherlands, on behalf of the drafting volunteers, introduced the "Skeleton / zero version – new legal instrument (Convention)" (informal document No.1, GE.3-05-01), using Presentation No. 1. The expert from the Netherlands reported that the drafting volunteers organized seven meetings in between the formal session in September and December 2022. She explained that this skeleton/zero version was drafted during these meetings. She informed the Group that the draft included a possible structure of the Convention, being comparable to the existing Geneva and Vienna Conventions, and possible chapters and articles. She further explained that these articles contained

requirements, addressing various roles and responsibilities that the user of an Automated Driving Systems (ADS) should fulfil, and that the Convention would not cover Advanced Driver Assistance Systems (ADAS) but rather ADS without differentiating between levels of automation. She stated that further elaborations were needed and welcomed input and suggestions.

8. The expert from Finland continued the introduction of the skeleton/zero version by presenting the chapters' content of the draft Convention prepared by the drafting volunteers (informal document No. 1). She stated that these chapters aimed at identifying various players as well as their duties and responsibilities concerning ADS. She informed the Group that draft Chapter I included general provisions; Chapter II provided general functional requirements for ADS; Chapter III considered additional functional requirements for ADS that issue transition demands; Chapter IV identified roles and responsibilities of the human being inside the vehicle in various situations; Chapter V was titled "Operational duties for entities responsible to ensure the safe behaviour of the automated vehicle while the ADS is engaged" and addressed questions of responsibility and accountability in situations where ADS is engaged; Chapter VI was titled "Additional requirements for remote management, concerning automated passenger and freight transport services" and aimed at clarifying the term "remote management", the definition of the service provider or human being acting on behalf of a service provider and their roles and responsibilities as well as cases, when there is no responsible human inside of the vehicle; Chapter VII titled "Other provisions", was reserved for various issues, and Chapter VIII, "Final provisions".

9. The expert from Germany expressed support for the Group. He stressed the need for a legally binding, international instrument, as only an internationally harmonized legal landscape could enable the safe introduction of Automated Vehicles (AVs) worldwide and ensure safe driving. He expressed views on the skeleton/zero version, he proposed to use existing definitions, and to base the work on technical requirements from the World Forum for Harmonization of Vehicle Regulations (WP.29) and its subgroups to ensure consistency for automated driving. He stated that including firm definitions of the scope of the Convention was paramount for clarification and ensured that the Convention would only deal with issues that fall within the mandate of WP.1. He suggested that the Convention should only include chapters that were relevant for level 3 vehicles and higher levels and pointed out that only level 3 had a fallback human driver within this scope. He proposed to further monitor the situation regarding audible and visible signs. He concluded by addressing data handling aspects and stated that these aspects would neither fall in the scope of the Group nor WP.1.

10. The expert from Sweden stressed the importance to focus on the challenges and general questions that need to be addressed and solved by the Convention, e.g. to obtain safe international traffic but also to improve road safety for vulnerable road users. He agreed with the expert from Germany on the need for finding a balance between the mandates of WP.1 and WP.29 and that this Convention should not hinder technical developments.

11. The expert from the United Kingdom of Great Britain and Northern Ireland supported the statements made by Germany and Sweden regarding the efforts and the continuation of work of the drafting volunteers and being mindful of the mandate of WP.1.

12. The expert from Canada recommended the Group to coordinate the harmonization of definitions and recognizability of ADS engagement with the Informal Working Group on Functional Requirements for Automated and Autonomous Vehicles (IWG on FRAV), subgroup of the Working Party on Automated/Autonomous and Connected Vehicles (GRVA) under WP.29, to streamline the uniformity between the groups. She suggested that the draft and the Convention in question remained flexible, so that it could align with domestic circumstances of various countries.

13. The expert from Italy, Chair of WP.1, praised the drafting volunteers for the efforts made and the outcome achieved in a short time. She asked about the basis and the vision of the skeleton/zero version.

14. The experts from Finland and the Netherlands, focal points of the drafting volunteers, answered that the work was based on the requirement that the new legal instrument should complement the existing conventions, which were addressing the rules of the road. They explained that the roles of the human changed when considering ADS and that therefore, the

Group needed to identify and define all players involved as well as their roles and responsibilities in the new Convention, also considering the work that had been done already.

15. The Secretary asked the Chair of WP.1 on guidance how to proceed with informal document No. 1 and if it should be presented at the WP.1 March 2023 session. The expert from Italy, Chair of WP.1, stated that it was too premature and would not contribute to the excellent work done by GE.3. She recommended the Group to continue the work and that rather some aspects and/or doubts, if any, could be shared with WP.1 at its next session.

16. The expert from the United Kingdom and Great Britain presented informal document No. 2 (GE.3-05-02), prepared in consultation with the drafting volunteers and aimed at addressing the questions raised by the United States of America, supported by Canada, at the September 2022 meeting of WP.1.

17. The experts from Finland, Germany and Sweden supported the document.

18. The expert from Italy, Chair of WP.1, recalled the mandate of the Group which was to prepare a draft new legal instrument on the use of automated vehicles in domestic and international traffic.

19. The expert from the United Kingdom of Great Britain and Northern Ireland stated that the Convention was not aiming at fully harmonized road traffic rules, as there was also flexibility in the existing instruments regarding domestic circumstances. He stated that the new legal instrument would rather include common general principles about the functionality of AVs, rules and responsibilities for the use of AVs and could require contracting parties to provide easy access to their road traffic rules.

20. The expert from Canada welcomed the document and stated that it answered the questions raised so far. She appreciated the clarification regarding harmonization from the expert from the United Kingdom of Great Britain and Northern Ireland and stated that uniformity may not be applicable, depending on the domestic circumstances in different regions and on the jurisdictional authorities.

21. The experts from Canada and Italy suggested that the parallel track of the Group to conduct further assessments, as raised by Canada, Sweden and the United States of America at the WP.1 September 2022 session, should be mirrored as a still standing issue.

22. The Group took note of the proposal for the further assessments to draft a legal text and of informal document No. 2, which addressed the need for the further assessments.

23. The Secretary informed the Group that the expert from Poland submitted a document for information, titled “D6.8 – Policy Recommendations to Facilitate the Adoption of CAD Vehicles in Europe”, which was available on the dedicated ECE website of this session.

## **V. Current and next steps (agenda item 4)**

*Documentation:* (ECE/EX/2/Rev.1, ECE/TRANS/WP.1/GE.3/2022/3)  
ECE/TRANS/WP.1/GE.3/2022/11

24. The Secretary introduced the report on the accomplishments of the Group since its establishment (ECE/TRANS/WP.1/GE.3/2022/11), including the activities in between the sessions and pointed out that paragraph 20 needed to be defined during the session. He explained that this report was required according to the guidelines (ECE/EX/2/Rev.1) and the Programme of Work (ECE/TRANS/WP.1/GE.3/2022/3) and could be used to inform the discussion about the mandate extension at the ITC meeting in March 2023.

25. The Group drafted paragraph 20 of ECE/TRANS/WP.1/GE.3/2022/11, endorsed it as amended (reproduced in Annex I), and requested the WP.1 Chair to present it to ITC at its 2023 session.

## **VI. Election of officers (agenda item 5)**

*Documentation:* (ECE/EX/2/Rev.1, TRANS/WP.1/100/Add.1)

26. The Group elected by acclamation Ms. B. Rudolph (Germany) as Chair.

27. In the absence of agreement on the positions of Vice-Chairs for 2023 and 2024, GE.3 proceeded with the election among the three nominated candidates, Ms. M. Molina (France), Mr. H. Berg (Sweden) and Mr. V. Lugovenko (Russian Federation). A vote was taken by secret ballot and in compliance with Chapter II of the EXCOM guidelines, with Chapter V Rule 12, Chapter VII Rule 25, Chapter VIII Rule 27, 28 and 29 of the WP.1 Rules of Procedure (ECE/TRANS/WP.1/100/Add.1), Rule 25 of the Inland Transport Committee Rules of Procedure as well as with Rule 38 of the ECE Rules of Procedure (E/ECE/778/Rev.5):

Number of ballot papers: 21

Number of invalid ballots: 0

Number of valid ballots: 21

Number of abstentions: 0

Number of participants (member States) present and voting: 21

Required majority: 19

Number of votes obtained:

Ms. M. Molina (France): 20

Mr. H. Berg (Sweden): 20

Mr. V. Lugovenko (Russian Federation): 1

28. Having obtained the required majority and the larger number of votes, Ms. M. Molina (France) was re-elected Vice-Chair, and Mr. H. Berg (Sweden) was elected Vice-Chair for the year 2023 and 2024.

## **VII. Other business (agenda item 6)**

29. The Group agreed that the drafting volunteers may continue their work and invited delegations to join them to further develop the zero draft.

30. The Group invited the experts, who wished to work on the assessment work item, to proceed.

## **VIII. Adoption of the list of decisions (agenda item 7)**

*Documentation:* Decisions for silence procedure

31. The Secretary briefly presented the draft list of decision concerning agenda items 1 to 6, based on his notes during the session.

32. The Group reviewed this document and endorsed it. The Group discussed items 8 and 9, as follows.

## **IX. Adoption of the report of the fourth session (agenda item 8)**

*Documentation:* ECE/TRANS/WP.1/GE.3/2022/5

33. The Chair consulted the Group on the adoption of the report of the fourth session. The Group of Experts adopted the report, noting the possibility to come back to the French and/or Russian version, if necessary.

## **X. Next session (agenda item 9)**

34. The Secretary informed the Group that the next session of the Group was scheduled to take place on 4-5 May 2023.

35. He informed the Group that the seventh session of the Group was scheduled to take place on 30 November 2023.

## Annex I

### **Report on the accomplishments of the Group of Experts on drafting a new legal instrument on the use of automated vehicles in traffic since its establishment**

The present document reflects the accomplishments of the Group of Experts (GoE) on drafting a new Legal Instrument on the use of Automated Vehicles in traffic (LIAV) since its establishment. It addresses the outcome of the five formal sessions as well as the four informal sessions that took place until the end of September 2022.

1. During the first session of the Group, which took place on 1 September 2021, the Group elected its officers and elaborated the programme of work for the period of which it was established. The Group agreed to further prepare the programme of work during an informal meeting, organized by France, and to review it at the next session.
2. WP.1 at its eighty-third session in September 2021 acknowledged the work done during the Group's inaugural session and stressed the need to focus the discussions and outputs of the Group on its mandate (as per Annex III of ECE/TRANS/2021/6).
3. The second session of the Group took place in December 2021, during which the Group adopted the programme of work, clearly defining its objectives and activities and making a schedule for their implementation. In order to accelerate the work, the Group agreed to organized two informal sessions before the next formal session in May 2022.
4. The aforementioned activities of the Group aimed at increasing the relevance of the future legal instrument, whose drafting, according to the Group's Terms of reference (as per Annex III of ECE/TRANS/2021/6) is the Group's main output.
5. The Chair of the Group reported to WP.1 at its eighty-fourth session in March 2022. The WP.1 Chair emphasized the need to start focusing at the same time on the planned structure of the new instrument based on the current work on assessing safety considerations.
6. At the third formal session on 16 May 2022, the Group received a summary report of the informal meetings co-organized by Canada and Sweden, that took place in January and March 2022. The expert from Canada explained that the Group had informally exchanged views on road safety concerns that could be addressed by a new legal instrument, based on the outcome of the second survey distributed by the secretariat after the second formal session. He explained that Canada and Sweden proposed to develop a list of core road safety risks as well as a series of brief scoping papers on each of the core safety risks.
7. GE.3 noted the value of the exchange on road safety risks and requested the secretariat to provide information about activities of other working parties and relevant groups related to automated vehicles.
8. The expert from France made a presentation supporting their view that the new legal instrument should be a new convention. She stated that a new convention would be the best suited legal instrument to complement the existing 1949 and 1968 Conventions on Road Traffic as it would bring the advantage of high-level compliance and a uniform implementation of rules. She proposed to host an informal meeting before the 4<sup>th</sup> session of the GoE. The expert from the United States of America stated that the Group should focus its discussions on the content of a new legal instrument rather than its format. The expert from Italy, Chair of WP.1, recalled that the envisaged main deliverable of the Group, mandated by the Inland Transport Committee (ECE/TRANS/2021/6, Annex III, paragraph 4), was a new legal instrument, expected to complement the 1949 and 1969 Conventions and specifically aimed at ensuring road traffic safety, including vulnerable road users. She pointed out that due to this mandate the new legal instrument could not be an amendment to the existing Conventions. The expert from Australia suggested to work in parallel on analyzing the existing Conventions to elaborate the necessary changes as well as on defining and scoping safety risks related to automated vehicles to elaborate the input for the legal instrument, to make it future proof.

9. The Group had invited three experts from NGOs, one from the industry, one from a road safety NGO, and one from academia, who each had been invited to prepare a document with considerations of relevance to the Group.

10. The expert from OICA presented the challenges of the industry with regards to the introduction of Automated Driving Systems (ADS) in traffic. They explained the paradigm shift due to the fact that manufacturers of such products have the obligation to translate human-oriented driving rules into technical algorithms of the ADS. He proposed to the Group to focus on the harmonization of traffic laws as well as on the identification of existing requirements for humans that are not transferable to a machine.

11. The expert from academia (University of South Carolina) presented initial thoughts on “road safety challenges posed by the use of automated vehicles in traffic that an international legal instrument could adequately address”, explaining that he had focused on possible instruments, both legally binding and non-binding, and on the domestic as well as the international level.

12. The expert from ETSC presented elements that should be addressed at UNECE level regarding the lack of commonality in terms of Human Machine Interface, mode confusion, over trust or over reliance and driver monitoring. He called for the establishment of a system of robust oversight and investigation. The expert from Austria expressed his assumption that many of the problems listed should rather be addressed on a technical basis and therefore by the World Forum for Harmonization of Vehicle Regulations (WP.29) and its subgroups.

13. The Group concluded that any delegation could at any point in time prepare working documents for the Group’s next sessions, contributing to item (a) of the Group’s programme of work (as per ECE/TRANS/WP.1/GE.3/2022/3), and in parallel, could start defining the skeleton of the new legal instrument, including its key aspects, to prepare for item (b) of the Group’s programme of work.

14. The fourth meeting of the Group, an additional meeting thanks to UNECE and UNOG, took place on 1-2 September 2022. During this two-day session the Group reviewed the input prepared by France for the informal meeting that took place in July 2022. This input reviewed article by article the content of the 1949 and 1968 Conventions on Road Traffic and included suggestions for each of the articles that could be addressed by a new convention.

15. The secretariat informed the Group on the activities of other Working Parties and relevant Groups of the United Nations related to autonomous vehicles, provided information on the historical background of the Conventions related to road traffic and traffic safety, and on the types of legal instruments within the United Nations. The Group welcomed the secretariat’s presentations. The one on other Working Parties’ activities was helpful to identify some technical aspects that are already addressed by GRVA, one of the sub-groups of WP.29, which could be of potential interest to GE.3. The presentation on the history of the previous conventions was useful to identify the necessary process, the amount of work and material needed to draft a new convention, and the presentation providing an overview of legal instruments within the United Nations complemented the presentation made by France at the Group’s third session in May 2022.

16. The Group discussed, on the basis of the input prepared and presented by the expert from France, which included a summary of the comments received by France on their presentation at the Group’s informal meeting in July 2022. The Group agreed to proceed as follows:

(a) To start drafting text (through short drafts) for a new legal instrument in the style of a new convention, complementing the existing 1949 and 1968 Conventions on Road Traffic.

(b) To keep the scope rather broad at a first stage, including definitions and systems that may not finally be part of the new convention. It was agreed that the scope would be streamlined over time as the drafting, the technical progress and knowledge would advance.

17. In order to make progress along those lines, the Group decided on a different format for activities undertaken in between sessions. There will be no informal meeting hosted by



an expert delegation. Instead, a number of experts of the Group volunteered to meet and to start writing text that could be included in the first draft of a new convention.

18. A series of four virtual meetings is expected to take place between the fourth session of the Group in September 2022 and before the fifth session of the Group in December 2022.

19. The Chair of the Group and the secretariat reported to WP.1 at its eighty-fifth session in September 2022. The Chair informed WP.1 about the aforementioned modalities in between sessions, chosen in order to start preparing a first draft in a “convention format” for the creation of a new legal instrument on the use of automated vehicles in traffic. She explained that these activities were supported by volunteers from a number of countries while three countries still expressed concerns and reservations regarding the drafting as they considered the need to accomplish preliminary activities before drafting. WP.1 noted that the Group intends, at its forthcoming December 2022 session, to begin the initial review of the first draft of the text prepared by the volunteering experts. WP.1 agreed to the Group’s request to extend its mandate for additional two years.

20. The Group of Experts, at its fifth session, received a presentation of the zero draft (informal document No. 1, GE.3-05-01), a document submitted by the experts from Finland and the Netherlands on behalf of the drafting volunteers of the Group and prepared during seven informal meetings.

21. The Group also took note of the proposal for the further assessments to draft a legal text as raised by Canada, Sweden and United States of America at the WP.1 September 2022 session. The Group took note of informal document No. 2 GE.3-05-02, prepared by the expert from the United Kingdom in consultation with the drafting volunteers, which addresses the need for the further assessments.

22. The Group re-elected Ms. B. Rudolph (Germany) as Chair of GE.3 for the sessions in 2023 and 2024. The group also re-elected Ms. M. Molina (France) and elected Mr. H. Berg (Sweden) as Vice-Chairs for the sessions in 2023 and 2024.

23. The Group endorsed ECE/TRANS/WP.1/GE.3/2022/11 as amended and requested the WP.1 Chair to present it to ITC at its 2023 session.

24. The Group at its fifth meeting on 12 December 2022 discussed the present report on its accomplishments to date and requested the secretariat to submit the report to WP.1, the Group’s parent body, in order to share the achievements and conclusions of its work to the wider UNECE membership.

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