

### **Economic and Social Council**

Distr.: General 23 December 2022

Original: English

### **Economic Commission for Europe**

**Inland Transport Committee** 

**World Forum for Harmonization of Vehicle Regulations** 

**Working Party on Passive Safety** 

**Seventy-second session** 

Geneva, 5–9 December 2022 (hybrid)

# Report of the Working Party on Passive Safety on its seventy-second session

### Contents

|       |   | Paragraphs | Page |
|-------|---|------------|------|
| I.    | Attendance  | 1–2        | 3    |
| II.   | Adoption of the Agenda (agenda item 1)  | 3          | 3    |
| III.  | UN Global Technical Regulation No. 9 (Pedestrian safety) (agenda item 2)                | 4–6        | 3    |
|       | A. Proposal for Amendment 3   | 4          | 3    |
|       | B. Proposal for Amendment 4   | 5–6        | 3    |
| IV.   | UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cell Vehicles) (agenda item 3) | 7–8        | 4    |
| V.    | UN Global Technical Regulation No. 20 (Electric vehicle safety) (agenda item 4)         | 9          | 4    |
| VI.   | UN Regulation No. 16 (Safety-belts) (agenda item 5)                                     | 10-19      | 4    |
| VII.  | UN Regulation No. 17 (Strength of seats) (agenda item 6)                                | 20-21      | 5    |
| VIII. | UN Regulation No. 95 (Lateral impact) (agenda item 7)                                   | 22         | 6    |
| IX.   | UN Regulation No. 100 (Electric power trained vehicles) (agenda item 8)                 | 23-24      | 6    |
| X.    | UN Regulation No. 127 (Pedestrian safety) (agenda item 9)                               | 25–26      | 6    |
| XI.   | UN Regulation No. 129 (Enhanced Child Restraint Systems) (agenda item 10)               | 27–31      | 7    |
| XII.  | UN Regulation No. 134 (Hydrogen and Fuel Cells Vehicles) (agenda item 11)               | 32–34      | 7    |
| XIII. | UN Regulation No. 135 (Pole Side Impact) (agenda item 12)                               | 35         | 8    |
| XIV.  | UN Regulation No. 136 (Electric vehicle L) (agenda item 13)                             | 36         | 8    |
| XV.   | UN Regulation No. 137 (Frontal impact with focus on restraint systems) (agenda item 14) | 37–38      | 8    |



| XVI.    | UN Regulation No. 145 (ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size) (agenda item 15)   |       |    |  |  |  |  |
|---------|--|-------|----|--|--|--|--|
| XVII.   | UN Regulation No. 153 (Fuel system integrity and electric power train safety at rear-end collision) (agenda item 16)                                     |       |    |  |  |  |  |
| XVIII.  | Collective Amendments to UN Regulations Nos. 94, 95, 135 and 137 (agenda   |       |    |  |  |  |  |
|         | item 17)   | 42–43 | 9  |  |  |  |  |
| XIX.    | Mutual Resolution No. 1 (agenda item 18)   | 44    | 9  |  |  |  |  |
| XX.     | Equitable Occupant Protection (agenda item 19)   | 45–46 | 9  |  |  |  |  |
| XXI.    | Securing of Children in Buses and Coaches (agenda item 20)   | 47–48 | 10 |  |  |  |  |
| XXII.   | Exchange of Views on Vehicle Automation (agenda item 21)   | 49–51 | 10 |  |  |  |  |
| XXIII.  | Strategy of the Inland Transport Committee (agenda item 22)  | 52    | 10 |  |  |  |  |
| XXIV.   | Election of officers (agenda item 23)  | 53    | 11 |  |  |  |  |
| XXV.    | Other business (agenda item 24)  | 54–66 | 11 |  |  |  |  |
|         | A. Exchange of information on national and international requirements on passive safety  | 54–55 | 11 |  |  |  |  |
|         | B. UN Regulation No. 0 (International Whole Vehicle Type Approval)   | 56–57 | 11 |  |  |  |  |
|         | C. Highlights of the June and November 2022 Sessions of the World Forum for Harmonization of Vehicle Regulations   | 58    | 11 |  |  |  |  |
|         | D. Three-dimensional H-point machine   | 59    | 12 |  |  |  |  |
|         | E. Intelligent Transport Systems   | 60    | 12 |  |  |  |  |
|         | F. Children Left in Cars   | 61    | 12 |  |  |  |  |
|         | G. Exchange of Views on the Future Work of the Working Party on Passive Safety   | 62    | 12 |  |  |  |  |
|         | H. UN Regulation No. 14 (Safety-belt anchorages)   | 63    | 12 |  |  |  |  |
|         | I. UN Regulation No. 94 (Frontal impact)   | 64    | 12 |  |  |  |  |
|         | J. Decisions Submitted to the Silence Procedure  | 65    | 12 |  |  |  |  |
|         | K. Provisional agenda for the next session   | 66    | 13 |  |  |  |  |
| Annexes |  |       |    |  |  |  |  |
| I.      | List of informal documents (GRSP-72) distributed without an official symbol during the session   |       | 14 |  |  |  |  |
| II.     | Draft amendments to UN GTR No. 13 (Hydrogen and Fuel Cell Vehicles)  |       | 17 |  |  |  |  |
| III.    | Draft amendments to UN Regulation No. 16 (Safety-belts)  |       | 18 |  |  |  |  |
| IV.     | Draft amendments to UN Regulation No. 127 (Pedestrian safety)  |       |    |  |  |  |  |
| V.      | Draft amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)   |       |    |  |  |  |  |
| VI.     | Draft amendments to UN Regulation No. 153 (Fuel system integrity and electric power train safety at rear-end collision)                                  |       |    |  |  |  |  |
| VII.    | Draft collective amendments to UN Regulations Nos. 94, 95, 135 and 137   |       |    |  |  |  |  |
| VIII.   | Draft Terms of Reference for the Informal Working Group on Equitable Occupant Protection   |       |    |  |  |  |  |
| IX.     | List of informal working groups  |       | 30 |  |  |  |  |
| X.      | Decisions submitted to the silence procedure following formal meetings with remote participation of the Working Party on Passive Safety, 9 December 2022 |       |    |  |  |  |  |

#### I. Attendance

- The Working Party on Passive Safety (GRSP) held its seventy-second session from 5 to 9 December 2022 in Geneva. The meeting was chaired by Mr. M. Koubek (United States of America). Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (ECE/TRANS/WP.29/690/Rev.1): Australia, Austria, Canada, China, Czechia, Finland, France, Germany, India, Italy, Japan, Netherlands, Norway, Poland, Republic of Korea, Russian Federation, South Africa, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, United States of America. The European Commission (EC) participated. Experts from the following non-governmental organizations participated: American Automotive Policy Council (AAPC), Consumers International (CI), EuroMed Transport Support Project, European Association for Electro mobility (AVERE), European Association of Automotive Suppliers (CLEPA), Federation International de l'Automobile (FIA), Federation of European Motorcyclists Associations (FEMA), International Association of the Body and Trailer Building Industry (CLCCR), International Motor Vehicle Inspection Committee (CITA), International Motorcycle Manufacturers Association (IMMA). International Organization of Motor Vehicle Manufacturers (OICA).
- 2. Annex I of this report lists the informal documents distributed during the session.

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

Documentation: ECE/TRANS/WP.29/GRSP/2022/11

Informal documents GRSP-72-04 and GRSP-72-24-Rev.1

3. GRSP considered and adopted the agenda (ECE/TRANS/WP.29/GRSP/2022/11) proposed for the seventy-second session, the running order (GRSP-72-04) and the annotations (GRSP-72-24-Rev.1). GRSP informal working groups are listed in annex IX of this report.

### III. UN Global Technical Regulation No. 9 (Pedestrian safety) (agenda item 2)

#### A. Proposal for Amendment 3

Documentation: ECE/TRANS/WP.29/2021/53

ECE/TRANS/WP.29/2021/54 ECE/TRANS/WP.29/AC.3/31/Add.1

Informal documents GRSP-70-33 and GRSP-70-36

4. Referring to the decision of the Executive Committee to the 1998 Agreement (AC.3) at its November 2022 session (ECE/TRANS/WP.29/1168, paragraph 157), GRSP agreed to suspend discussion on Amendment 3 to UN GTR No. 9 (Head form test) and to reengage as the new Amendment 4 when further information was available from the experts.

### B. Proposal for Amendment 4

Documentation: ECE/TRANS/WP.29/GRSP/2022/2

Informal documents GRSP-72-08, GRSP-72-09 and GRSP-72-11

5. The expert from the Republic of Korea introduced the progress report (GRSP-72-11) of Informal Working Group on Deployable Pedestrian Protection Systems (IWG DPPS). He informed GRSP that the following issues had been resolved by IWG: (a) detection area definition, (b) numerical simulation for Head Impact Time (HIT) against Wrap Around

3

<sup>&</sup>lt;sup>1</sup> The meeting was conducted in a hybrid format with simultaneous interpretation into the official ECE languages from 5 to 9 December 2022.

Distance (WAD) information (linear regression), (c) head test area marking with un-deployed DPPS and (c) overshooting phase (dynamic testing). He added that discussion was ongoing on a new wording in the preamble and a final agreement on HIT. He introduced the text of the proposed amendment to the preamble (GRSP-72-08) and the amendment to the text of the regulation (GRP-72-09 amending ECE/TRANS/WP.29/GRSP/2022/2). Finally, he informed GRSP that the final report of IWG would be submitted to the May 2023 session of GRSP.

6. GRSP agreed to resume discussion on the draft Amendment 3 to UN GTR No. 9 on DPPS at its May 2023 session, based on a consolidated text of the amendments (preamble and text of the regulation combined) and on a final report of IWG on DPPS. GRSP requested its experts to provide feedback on GRSP-72-08 and GRSP-72-09 to the expert from the Republic of Korea before the deadline for submission of official documents (20 February 2023) of its May 2023 session.

# IV. UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cell Vehicles) (agenda item 3)

Documentation: ECE/TRANS/WP.29/GRSP/2022/16

ECE/TRANS/WP.29/GRSP/2022/17 Informal document GRSP-72-21

- 7. The IWG Chair, on behalf of the co-sponsors (Japan, Republic of Korea, United States of America and European Commission) informed GRSP about an overview of the outcome of work of the Hydrogen and Fuel Cell Vehicles (HFCV) IWG on UN GTR No. 13, Phase 2 (IWG UN GTR13 PH2) by referring to GRSP-72-21. Finally, he introduced the proposal of amendments (ECE/TRANS/WP.29/GRSP/2022/16) and the final report of the IWG (ECE/TRANS/WP.29/GRSP/2022/17).
- 8. GRSP recommended the proposal of amendment to UN GTR No. 13 (ECE/TRANS/WP.29/GRSP/2022/16) and the final report (ECE/TRANS/WP.29/GRSP/2022/17), of the IWG GTR13 PH2, as amended by annex II to this report. The secretariat was requested to submit the proposal and the final report as draft Amendment 1 to UN GTR No. 13 for consideration and vote to AC.3 at its June 2023 session.

# V. UN Global Technical Regulation No. 20 (Electric vehicle safety) (agenda item 4)

Documentation: Informal document GRSP-72-37-Rev.1

9. The IWG Chair, on behalf of the co-sponsors (China, Japan, United States of America and the European Commission) and the members of IWG GTR No. 20, Phase 2 reported on the progress of the IWG meeting by referring to GRSP-72-37-Rev.1.

### VI. UN Regulation No. 16 (Safety-belts) (agenda item 5)

Documentation: ECE/TRANS/WP.29/GRSP/2021/20

ECE/TRANS/WP.29/GRSP/2021/25 ECE/TRANS/WP.29/GRSP/2022/3 ECE/TRANS/WP.29/GRSP/2022/12 ECE/TRANS/WP.29/GRSP/2022/13

Informal documents GRSP-72-13, GRSP-72-22, GRSP-72-23,

GRSP-72-36 and GRSP-72-39

10. GRSP resumed discussion on ECE/TRANS/WP.29/GRSP/2021/20, tabled by the expert from Spain, which provides updates of drawings of fixtures ISO/B2 and B3 (for assessing the external dimensions of an Enhanced Child Restraint System (ECRS)) for booster seats volumes to allow the possibility of a support leg. The expert from CLEPA provided more evidence from impact tests and simulations to justify the proposal (GRSP-72-36 and item 10, para. 28).

- 11. GRSP adopted ECE/TRANS/WP.29/GRSP/2021/20, amended by annex III to this report. The secretariat was requested to submit the proposal as draft Supplement 4 to the 08 series of UN Regulation No. 16 (Safety-belts) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.
- 12. GRSP resumed discussion on ECE/TRANS/WP.29/GRSP/2021/25 (UN Regulation No.16), tabled by the expert from CLEPA to improve the compatibility between the support leg volume and the fixtures to assess the volume of an ECRS. GRSP noted the justifications for this proposal in GRSP-72-36.
- 13. GRSP adopted ECE/TRANS/WP.29/GRSP/2021/25, not amended. The secretariat was requested to submit the proposal as part of (see paragraph 11 above) draft Supplement 4 to the 08 series of UN Regulation No. 16 (Safety-belts) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.
- 14. GRSP agreed to defer discussion to its May 2023 session on ECE/TRANS/WP.29/GRSP/2022/3 (safety-belts of seat positions equipped with the lower ISOFIX anchorages) while waiting for the follow-up to a meeting (January or February 2023) of a group of interested parties that would be coordinated by the expert from Japan.
- 15. GRSP agreed to defer discussion to its May 2023 session on ECE/TRANS/WP.29/GRSP/2022/12, tabled by the expert from OICA on rearward-facing CRS in rear seats that were combined with a frontal airbag.
- 16. GRSP resumed discussion on a proposal (ECE/TRANS/WP.29/GRSP/2022/13) tabled by the expert from France on clarifying the assessment of the connection of the Safety-Belt Reminder (SBR) system in the case of removable seats. GRSP also noted a presentation (GRSP-72-23) to introduce a proposal for a new series of amendments (GRSP-72-22). The expert from France explained that the proposal would clarify the requirements for SBR systems on test procedure (first- and second-level warning), visual warning and requirements for SBR in the rear seat row(s).
- 17. GRSP agreed to resume discussion at its May 2023 session on a revised document combining GRSP-72-22 and ECE/TRANS/WP.29/GRSP/2022/13, as a new series of amendments. GRSP requested its experts to provide feedback on GRSP-72-22 and ECE/TRANS/WP.29/GRSP/2022/13 to the expert from France before the deadline for submission of official documents for the May 2023 session.
- 18. The expert from the Republic of Korea introduced a presentation (GRSP-72-13), that sought clarification on three issues with SBR: (a) exemption of the presence of SBR on folding seats, (b) first level of warning tests with transmission in neutral position, and (c) interference of devices for remote starting of vehicles with SBR. GRSP agreed to establish an ad hoc group led by the expert from Republic of Korea with participation by the experts from France, Germany, Japan, the Netherlands, Spain, CLEPA and OICA, on solving the three SBR issues.
- 19. GRSP discussed GRSP-72-39 under agenda item 24(b) (see paragrap 53).

### VII. UN Regulation No. 17 (Strength of seats) (agenda item 6)

Documentation: ECE/TRANS/WP.29/GRSP/2022/20 ECE/TRANS/WP.29/GRSP/2022/21

20. The expert from Germany introduced ECE/TRANS/WP.29/GRSP/2022/20 to ensure that only safe head restraints would be fitted to seats of any seating position in all vehicle categories that were in the scope. He introduced ECE/TRANS/WP.29/GRSP/2022/21 that covers the same provisions of ECE/TRANS/WP.29/GRSP/2022/20 in a new series of amendments, and also extends the test performance of paragraph 5.7.4 (height retention of head restraints) to non-adjustable head restraint with only one position of use. The expert from CLEPA argued that the proposed deletion of the reference to UN Regulation No. 25 in both proposals would introduce unclarity when head restraint would be type approved as separate technical units. The expert from Germany stated that UN Regulation No. 25 was not updated to the technical progress. He added that the aftermarket was regulated by national law while the type approval of vehicles should be regulated by UN Regulation No. 17.

21. Finally, GRSP agreed to resume discussion on ECE/TRANS/WP.29/GRSP/2022/20 and ECE/TRANS/WP.29/GRSP/2022/21 at its May 2023 session. Moreover, GRSP agreed as a general principle that: "Not only head restraints on seats, mandatory to be fitted with head restraints according to paragraphs 5.4.1. and 5.4.2. of UN Regulation No. 17, have to be approved. All head restraints fitted on seats under the scope of UN Regulation No. 17 shall be approved." GRSP agreed that a group of interested experts would cooperate on a solution, led by the expert from Germany.

### VIII. UN Regulation No. 95 (Lateral impact) (agenda item 7)

Documentation: Informal document GRSP-72-29

22. The expert from the OICA introduced GRSP-72-29 to incorporate provisions on hydrogen fuelled vehicles into UN Regulation No. 95, to harmonize this UN Regulation with UN GTR No. 13, Amendment 1. GRSP requested its experts to provide feedback on GRSP-72-29 to the expert from OICA before the deadline for submission of official documents for its May 2023 session.

### IX. UN Regulation No. 100 (Electric power trained vehicles) (agenda item 8)

Documentation: ECE/TRANS/WP.29/GRSP/2022/14

Informal documents GRSP-71-05, GRSP-72-18 and GRSP-72-27

- 23. GRSP resumed discussion on GRSP-71-05 (tabled by the expert from France) on the interpretation of "mechanical integrity" when testing electric batteries. GRSP agreed to resume discussion at its May 2023 session based on a proposal of amendment that would be tabled by the expert from France (with possible contribution of interested parties) to UN Regulation No. 100 clarifying that the Rechargeable Electric Energy Storage System (REESS) should be tested in two different directions: (a) direction of travel of the vehicle and (b) perpendicular to the direction of travel of the REESS.
- 24. GRSP resumed discussion on a proposal of amendment to UN Regulation No. 100, tabled by the expert from CLCCR that would introduce provisions for a type of electric axle in a trailer (ECE/TRANS/WP.29/GRSP/2022/14 and GRSP-72-18 amending it). The expert from France presented GRSP-72-27, introducing some comments and amendments to the proposal. GRSP agreed to resume discussion on a revised proposal introducing provisions for a type of electric axle tabled by the expert from CLCCR in cooperation with the expert from France at its May 2023 session.

### X. UN Regulation No. 127 (Pedestrian safety) (agenda item 9)

Documentation: ECE/TRANS/WP.29/GRSP/2022/18

ECE/TRANS/WP.29/GRSP/2022/19

Informal documents GRSP-72-41 and GRSP-72-44

- 25. The experts from France introduced ECE/TRANS/WP.29/GRSP/2022/18 and ECE/TRANS/WP.29/GRSP/2022/19, on behalf of the ad hoc group to develop an amendment that clarifies the definitions of the cowl monitoring and windscreen areas, as well as of the jerk area. The expert from the Netherlands recommended that a specific symbol in the type-approval marking should be added for vehicles approved using the specific provisions related to bonnet rear reference line. Accordingly, the experts from France and OICA introduced GRSP-72-41 and GRSP-72-44 amending respectively ECE/TRANS/WP.29/GRSP/2022/18 and ECE/TRANS/WP.29/GRSP/2022/19.
- 26. GRSP adopted ECE/TRANS/WP.29/GRSP/2022/18 and ECE/TRANS/WP.29/GRSP/2022/19, both as amended by annex IV. The secretariat was requested to submit the proposals as Supplement 2 to the 03 Series of Amendments (ECE/TRANS/WP.29/GRSP/2022/18) and as Supplement 1 to the 04 Series of Amendments (ECE/TRANS/WP.29/GRSP/2022/19) to UN Regulation No. 127 (Pedestrian safety) to the June 2023 sessions of WP.29 and AC.1.

### XI. UN Regulation No. 129 (Enhanced Child Restraint Systems) (agenda item 10)

Documentation: ECE/TRANS/WP.29/GRSP/2021/26

ECE/TRANS/WP.29/GRSP/2022/25

Informal documents GRSP-72-01, GRSP-72-05-Rev.1, GRSP-72-16,

GRSP-72-28, GRSP-72-35 and GRSP-72-36

- 27. The expert from Spain introduced GRSP-72-01, on behalf of the Technical Service Group, aiming to clarify the approach of the production qualification testing phase. At the same time, the expert from CLEPA introduced GRSP-72-16 to update the references to EN Standards for toxicity and flammability. GRSP adopted GRSP-72-01 and GRSP-72-16 as reproduced in annex V to this report. The secretariat was requested to submit both proposals as draft Supplement 9 to the 03 series of amendments to UN Regulation No. 129 on ECRS for consideration and vote at the June 2023 sessions of WP.29 and AC.1. It was also agreed that if further discussion was needed, the official document to the June 2023 session would be re-discussed at the May 2023 session of GRSP.
- 28. Referring to the decision taken under agenda item 5 (see paragraphs 10 to 13 above) GRSP considered GRSP-72-36 and resumed discussion on ECE/TRANS/WP.29/GRSP/2021/26 as a parallel proposal to the UN Regulation submitted by the expert from CLEPA. Finally, GRSP adopted ECE/TRANS/WP.29/GRSP/2021/26 as amended by annex V to this report. The secretariat was requested to submit the proposal as part of (see paragraph 27 above) draft Supplement 9 to the 03 series of UN Regulation No. 129 (ECRS) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.
- 29. The expert from CLEPA introduced ECE/TRANS/WP.29/GRSP/2022/25 that correct previous editing mistakes and harmonizes the vertical excursion of limit for Q3 and Q6 dummies. GRSP adopted ECE/TRANS/WP.29/GRSP/2022/25, not amended. The secretariat was requested to submit the proposal as part of (see paragraphs 27 and 28 above) draft Supplement 9 to the 03 series of amendments, to UN Regulation No. 129 ECRS for consideration and vote at the June 2023 sessions of WP.29 and AC.1.
- 30. The expert from the Netherlands, on behalf of the ad hoc group on Child Restraint Systems (CRS) introduced GRSP-72-28, aimed at explaining the current situation concerning inconsistency of requirements on lower tether anchorages and for the use of a support leg for other situations than i-Size seating positions in UN Regulations Nos. 129 and 145. GRSP referred discussion to agenda item 24 (g) on priorities identified by GRSP-72-28 (see paragraph 60 below).
- 31. GRSP considered GRSP-72-05-Rev.1 on prevention of green indicators suggesting a belt route outside the remit of the type approval. GRSP requested the secretariat to distribute GRSP-72-05-Rev.1 with an official symbol at its May 2023 session.

# XII. UN Regulation No. 134 (Hydrogen and Fuel Cells Vehicles) (agenda item 11)

Documentation: ECE/TRANS/WP.29/GRSP/2022/15

Informal document GRSP-72-17

- The expert from France introduced ECE/TRANS/WP.29/GRSP/2022/15, to clarify the procedure and the characteristics of the measuring device used for the compliance test for the vehicle exhaust system. Moreover, she explained that the proposal was based on the work of UN GTR No. 13. Phase 2. GRSP ECE/TRANS/WP.29/GRSP/2022/15, not amended. The secretariat was requested to submit the proposals as draft Supplement 5 to the original version and Supplement 2 to the 01 series of UN Regulation No. 134 (Hydrogen and Fuel Cells Vehicles) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.
- 33. The secretary of the Task Force to transpose Amendment 1 of UN GTR No. 13 into UN Regulation No. 134, introduced GRSP-72-17. GRSP noted that material compatibility, the remote Thermal Pressure Relief Device (TPRD), conformity of production and other elements proposed by GRSP-72-17 were still under discussion in the Task Force.

34. GRSP agreed to resume consideration on the transposition of UN GTR No. 13, Phase 2 into UN Regulation No. 134 on a reviewed proposal drafted by the Task Force at its May 2023 session. The proposal was expected to be submitted as an official document by 20 February 2023.

### XIII. UN Regulation No. 135 (Pole Side Impact) (agenda item 12)

Documentation: Informal document GRSP-72-30

35. Under agenda item 7 (see paragraph 22), the expert from OICA introduced GRSP-72-30 to harmonize already existing provisions on hydrogen fuelled vehicles of UN Regulation No. 135 to the provisions of UN GTR No. 13, Amendment 1. GRSP requested its experts to provide feedback on GRSP-72-30 to the expert from OICA before the deadline for submission of official documents for its May 2023 session.

### XIV. UN Regulation No. 136 (Electric vehicle L) (agenda item 13)

36. GRSP agreed to receive and share the information from contracting parties on the approval of removable REESS that does not cover replacement units.

# XV. UN Regulation No. 137 (Frontal impact with focus on restraint systems) (agenda item 14)

Documentation: Informal documents GRSP-72-06 and GRSP-72-31

- 37. As per agenda items 7 and 12 (see paras. 22 and 35), the expert from the OICA introduced GRSP-72-31 to incorporate provisions on hydrogen fuelled vehicles into UN Regulation No. 137 to harmonize this UN Regulation to UN GTR No. 13 Amendment 1. GRSP requested its experts to provide feedback on GRSP-72-31 to the expert from OICA before the deadline for submission of official documents of its May 2023 session.
- 38. The expert from Japan introduced GRSP-72-06 to amend the requirement on the Thorax Compression Criterion (ThCC) of  $5^{th}$  female dummy in the case of vehicles of category  $N_1$  with a maximum permissible mass not exceeding 2,800 kg. He explained that the proposal would extend the protection of elderly people to this category of vehicles which currently applies to vehicle category  $M_1$ . The expert from Italy expressed concerns that the proposal would entail a cost increase for vehicles that are generally not used by elderly people. The expert from OICA expressed a study reservation. GRSP agreed to discuss GRSP-72-06 in an ad hoc group led by the expert from Japan with the participation of the experts from France, Italy and OICA, and resume discussion at its May 2023 session, unless the ad hoc group provided an updated document for that session. In the meantime the expert from Japan was requested to provide crash data to justify the proposal.

# XVI. UN Regulation No. 145 (ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size) (agenda item 15)

39. GRSP referred discussion under agenda item 10.

# XVII. UN Regulation No. 153 (Fuel system integrity and electric power train safety at rear-end collision) (agenda item 16)

Documentation: ECE/TRANS/WP.29/GRSP/2021/29
Informal document GRSP-72-32

40. GRSP resumed consideration of ECE/TRANS/WP.29/GRSP/2021/29, tabled by the expert from Germany aimed at extending the condition of the necessity of an influence on the test results of the impact test to all criteria. GRSP adopted ECE/TRANS/WP.29/GRSP/2021/29, amended by annex VI to this report. The secretariat

was requested to submit the proposal as draft Supplement 3 to UN Regulation No. 153 for consideration and vote at the June 2023 sessions of WP.29 and AC.1.

41. Under agenda items 7, 12 and 14 (see paragraphs 22, 35 and 37), the expert from OICA introduced GRSP-72-32 to harmonize already existing provisions on hydrogen fuelled vehicles of UN Regulation No. 153 to the provisions of UN GTR No. 13, Amendment 1. GRSP requested its experts to provide feedback on GRSP-72-32 to the expert from OICA before the deadline for submission of official documents for its May 2023 session.

# XVIII. Collective Amendments to UN Regulations Nos. 94, 95, 135 and 137 (agenda item 17)

Documentation: ECE/TRANS/WP.29/GRSP/2022/22

ECE/TRANS/WP.29/GRSP/2022/23 ECE/TRANS/WP.29/GRSP/2022/24 Informal document GRSP-72-46

- 42. The expert from Germany introduced ECE/TRANS/WP.29/GRSP/2022/22, ECE/TRANS/WP.29/GRSP/2022/23 and ECE/TRANS/WP.29/GRSP/2022/24 to reintroduce a text that allows tolerances of the vehicle mass and simplified testing into UN Regulations Nos. 94, 95 and 137. Moreover, GRSP noted GRSP-72-46, jointly prepared by the experts from Germany and the Netherlands, to re-introduce the same provisions into UN Regulation No. 135.
- 43. GRSP adopted ECE/TRANS/WP.29/GRSP/2022/22, ECE/TRANS/WP.29/GRSP/2022/23 and ECE/TRANS/WP.29/GRSP/2022/24, all not amended, and GRSP-72-46, as reproduced in annex VII to this report. The secretariat was requested to submit the proposals as draft Supplement 2 to the 04 series of amendments to UN Regulation No. 94 (ECE/TRANS/WP.29/GRSP/2022/22), draft Supplement 3 to the 05 series of amendments to UN Regulation No. 95 (ECE/TRANS/WP.29/GRSP/2022/23), draft Supplement 3 to the 02 series of amendments to UN Regulation No. 137 (ECE/TRANS/WP.29/GRSP/2022/24), and draft Supplement 1 to the 02 series of amendment to UN Regulation No. 135 (GRSP-72-46) to the June 2023 sessions of WP.29 and AC.1.

### XIX. Mutual Resolution No. 1 (agenda item 18)

Documentation: Informal document GRSP-72-40

44. The expert from Germany introduced the status report (GRSP-72-40) of the Task Force for the implementation of Q UN-Dummies (TF-QUN) into the Mutual Resolution No.1 (M.R.1). GRSP noted that TF-QUN was expected to deliver drawings and specifications during 2023 for Q0, Q1 and Q1,5, possibly also Q3 dummies. However, he clarified that work would not be completed for all Q-dummies in that year. Moreover, the expert from OICA announced that at the May 2023 session of GRSP, he would provide a first draft proposal of amendment to M.R.1 to incorporate drawings and specifications of the World Side Impact Dummy.

### XX. Equitable Occupant Protection (agenda item 19)

Documentation: Informal documents GRSP-72-10, GRSP-72-42 and GRSP-72-45-Rev.1

45. GRSP considered a presentation (GRSP-72-42) on the status report and a draft proposal of terms of reference for an IWG (GRSP-72-10), on the informal evaluation by the ad hoc group of experts (on Equitable Occupant Protection) on the technical merits of a study from Sweden on female occupants. The expert from Sweden, Chair of the ad hoc group, affirmed that the conclusions of her group provided the basis for establishing an IWG. Following the request of some contracting parties, she introduced the terms of reference (GRSP-72-45-Rev.1, stemming from GRSP-72-10) of an IWG possibly without specific

reference to the 1958 or 1998 Agreements. The experts from Austria, France, Germany, India, Japan, the Netherlands, Republic of Korea, Spain, Sweden, United States of America, and the United Kingdom supported the establishment of an IWG.

46. GRSP agreed to establish the IWG on Equitable Protection of Occupants (former ad hoc group) and adopted GRSP-72-45-Rev.1 as reproduced in annex VIII to this report. Therefore, GRSP requested its Chair to seek the endorsement of WP.29 and AC.3 at their March 2023 sessions to the establishment of IWG.

### XXI. Securing of children in buses and coaches (agenda item 20)

Documentation: Informal documents GRSP-72-02 and GRSP-72-03

- 47. The expert from Spain, Chair of the IWG on safer transport of children in buses and coaches informed GRSP about the progress (GRSP-72-03). She confirmed that the group was developing a first phase on the use of ECRS that were approved according to UN Regulation No. 129 with 3-point safety-belts and or ISOFIX built-in systems. In Phase 2, she added that IWG would assess ECRS in combination with the 2-point belt. She then introduced GRSP-72-02 as a first draft of the new UN Regulation.
- 48. GRSP agreed to resume discussion on a revised document (based on GRSP-72-02), resolving the remaining issues in square brackets, submitted by the expert from Spain as an official document to the May 2023 session of GRSP.

### XXII. Exchange of views on vehicle automation (agenda item 21)

Documentation: Informal documents GRSP-72-12 and GRSP-72-43

- 49. The expert from the Republic of Korea introduced GRSP-72-12, indicating issues on the level of impact safety performance of bumper systems with autonomous driving systems. GRSP agreed to discuss the issues (GRSP-72-12) in the framework of activities of the Task Force Autonomous Vehicle Regulatory Screening (TF AVRS).
- 50. The expert from Germany introduced GRSP-72-43 on the outcome of TF AVRS work. He explained that at the first meeting of TF, it was clarified the way forward among the leaders of the Task Forces on AVRS of the other Working Parties. He added that excel files with the result of the screening the UN Regulations and UN GTRs under the responsibility of GRSP would be available for further discussion on the UN wikipage of GRSP TF AVRS (https://wiki.unece.org/pages/viewpage.action?pageId=188285257). However, he indicated that endorsement of the outcome of work of TF at the May 2023 session of GRSP, would require a postponement of the deadline indicated by WP.29 (March 2023 session of WP.29).
- 51. GRSP agreed that its Chair, through its highlights of the session, would seek endorsement of WP.29 to postpone the outcome of results of TF-AVRS to the June 2023 session of WP.29.

# XXIII. Strategy of the Inland Transport Committee (agenda item 22)

52. No new information was provided under this agenda item.

### XXIV. Election of Officers (agenda item 23)

53. The representatives of the contracting parties, present and voting, unanimously elected Mr. M. Koubek (United States of America) as Chair and Mr. H. G. Kim (Republic of Korea) as Vice-Chair for the sessions of GRSP scheduled in the year 2023.

### XXV. Other business (agenda item 24)

### A. Exchange of information on national and international requirements on passive safety

- 54. The expert from Japan reminded GRSP of the twenty-seventh International Conference on Enhanced Safety of Vehicles, planned for May 2023 in Yokohoma, Japan, (https://www.27esv.org/) during which a panel devoted to road safety equality issues would convene
- 55. The expert from CLEPA informed GRSP about the activities of the International Conference Protection of Children in Cars, held from 30 November to 2 December in Munich, Germany. He underlined that the conference is held every year and would provide a source of data for GRSP experts to make evidence-based decisions and for researchers to ensure their work is relevant to protect children in cars.

#### B. UN Regulation No. 0 (International Whole Vehicle Type Approval)

Documentation: Informal documents GRSP-72-07-Rev.1, GRSP-72-14, GRSP-72-15, GRSP-72-38 and GRSP-72-39

- 56. The expert from Japan, Ambassador of IWVTA, informed GRSP that the 05 series of amendments to UN Regulation No. 0 had been adopted at the November 2022 session of WP.29. He added that this new series reflected the latest series of amendments to UN Regulations Nos. 100, 94, 95 and 137, which had entered into force in June 2021. He also informed GRSP that the question-and-answer document on Revision 3 to the 1958 Agreement and IWVTA had been posted on the WP.29 website on the page dedicated to the 1958 Agreement. GRSP also noted the response of IWVTA-IWG in GRSP-72-07-Rev.1 on the interpretation of the preceding series of amendments (singular or plural) mentioned in the transitional provisions of UN Regulations. The expert from OICA suggested that the interpretation laid out in the document was intended to be general and was to be applied with flexibility in specific cases. Finally, GRSP agreed to provide feedback to the expert from Japan on GRSP-72-07-Rev.1 by the end of January 2023.
- 57. The expert from Finland, on behalf of the informal working group on the Database for Exchange of Approval documentation (DETA) introduced GRSP-72-14 following a request of IWG DETA to Working Groups to clarify the UN Regulations in which the Unique Identifier (UI) marking applies. He also introduced GRSP-72-15 that provides a table for the list of UN Regulations under the responsibility of GRSP, that can be completed with the required information. The expert from CLEPA introduced GRSP-72-38 with an initial assessment of the requested list of UN Regulations. He clarified that UN Regulation No. 16 (Safety-belts) would prohibit the use of UI, because additional symbols to identify the type of safety-belt, energy absorber and retractor would be needed. He thus introduced a proposal of amendment to UN Regulation No. 16 (Safety-belts) prohibiting UI use (GRSP-72-39). GRSP requested the secretariat to distribute GRSP-72-39 with an official symbol at its May 2023 session. At the same time GRSP agreed to resume discussion on GRSP-72-15 at its May 2023 session based on the feedback provided by the expert from OICA.

### C. Highlights of the June and November 2022 Sessions of the World Forum for Harmonization of Vehicle Regulations

Documentation: Informal document GRSP-72-20

58. The Secretary reported on the highlights (GRSP-72-20) of the 187<sup>th</sup> and 188<sup>th</sup> sessions of WP.29 (ECE/TRANS/WP.29/1166 and ECE/TRANS/WP.29/1168).

#### D. Three-dimensional H-point machine

Documentation: Informal document GRSP-72-33

59. The expert from the Netherlands introduced GRSP-72-33 on a possible solution to harmonize the three-dimensional H-Point Machine (3D HPM). He informed GRSP that the Working Party on General Safety Provisions already begun work with an ad hoc group supported by the expert from Spain. GRSP agreed to resume consideration on GRSP-72-33 and on the outcome of discussion of a group of interested experts (China, the Netherlands, Spain CLEPA and OICA) at its May 2023 session.

### E. Intelligent transport systems

60. No new information was provided under this agenda item.

#### F. Children left in cars

Documentation: Informal document GRSP-72-26

61. GRSP noted the presentation of the expert from Australia (GRSP-72-26) which provides Australian specific data on children left unattended in a vehicle. The expert from CI suggested that the issue should be included in the programme of work of GRSP (see paragraph 62. below). Following the request of WP.29 at its 187th session, GRSP would continue to gather information and statistics on global extent at its next sessions as a first step (see ECE/TRANS/WP.29/1166, paragraph 76).

### G. Exchange of Views on the Future Work of the Working Party on Passive Safety

Documentation: Informal document GRSP-72-19-Rev.4.

62. GRSP adopted its revised status of priorities (GRSP-72-19-Rev.4) for the year 2023 and requested the secretariat to submit it to WP.29 for consideration at its March 2023 session.

#### H. UN Regulation No. 14 (Safety-belt anchorages)

Documentation: Informal document GRSP-72-25

63. GRSP noted GRSP-72-25 tabled by the expert from OICA, introducing an overall proposal that enables alternative seating positions during driving. GRSP noted that interested parties would convene at the beginning of year 2023 to start discussion on this subject.

#### I. UN Regulation No. 94 (Frontal impact)

Documentation: Informal document GRSP-72-25

64. Under agenda items 7, 12, 14 and 16 (see paragraphs 22, 35, 37 and 41), the expert from OICA introduced GRSP-72-25 to incorporate provisions on hydrogen fuelled vehicles into UN Regulation No. 94 and to harmonize this UN Regulation with UN GTR No. 13, Amendment 1. GRSP requested its experts to provide feedback on GRSP-72-25 to the expert from OICA before the deadline for submission of official documents for its May 2023 session.

#### J. Decisions Submitted to the Silence Procedure

Documentation: Informal document GRSP-72-47-Rev.1

65. GRSP agreed on the main list of decisions in GRSP-72-47-Rev.1, as reproduced in annex X to this report, taken during the session for approval under the silence procedure of

72 hours by the participating delegations to the session, as part of the special procedures established for the COVID-19 pandemic period (ECE/EX/2020/L.12).

#### K. Provisional agenda for the next session

- 66. GRSP noted that its seventy-third session was scheduled to be held in Geneva from 15 May (2.30 p.m.) to 19 May (12.30 p.m.) 2023. GRSP noted that the deadline for the submission of official documents to the secretariat is 20 February 2023, twelve weeks prior to the session. GRSP is expected, based on the list of decisions taken (GRSP-72-47-Rev.1), to follow the provisional agenda as reproduced below:
- 1. Adoption of the Agenda.
- UN Global Technical Regulation No. 9 (Pedestrian safety):
   Proposal for Amendment 3 (Deployable Pedestrian Protection Systems);
- 3. UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cell Vehicles).
- 4. UN Global Technical Regulation No. 20 (Electric vehicle safety).
- 5. UN Regulation No. 14 (Safety-belts anchorages).
- 6. UN Regulation No. 16 (Safety-belts).
- 7. UN Regulation No. 17 (Strength of seats).
- 8. UN Regulation No. 100 (Electric power trained vehicles).
- 9. UN Regulation No. 127 (Pedestrian safety).
- 10. UN Regulation No. 129 (Enhanced Child Restraint Systems).
- 11. UN Regulation No. 134 (Hydrogen and Fuel Cells Vehicles)
- 12. UN Regulation No. 136 (Electric vehicle L).
- 13. UN Regulation No. 137 (Frontal impact with focus on restraint systems).
- 14. UN Regulation No. 145 (ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size).
- 15. Collective Amendments to UN Regulations Nos. 94, 95, 135, 137 and 153.
- 16. Mutual Resolution No. 1.
- 17. Equitable Occupant Protection.
- 18. Securing Children in Buses and Coaches.
- 19. Exchange of Views on Vehicle Automation.
- 20. Strategy of the Inland Transport Committee.
- 21. Other Business:
  - (a) Exchange of Information on National and International Requirements on Passive Safety;
  - (b) UN Regulation No. 0 (International Whole Vehicle Type Approval);
  - (c) Highlights of the March 2023 Session of the World Forum for Harmonization of Vehicle Regulations;
  - (d) Three-dimensional H-point Machine;
  - (e) Intelligent Transport Systems;
  - (f) Children Left in Cars.

### Annex I

[English only]

# List of informal documents (GRSP-72-...) distributed without an official symbol during the session

| No.          | Transmitted by         | Agenda<br>item | Language | Title  | Follow-<br>up |
|--------------|------------------------|----------------|----------|--|---------------|
| 01           | Spain                  | 10             | Е        | Proposal for Supplement 9 to the 03 serie of amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)        |               |
| 02           | Spain                  | 20             | Е        | Proposal for a new UN Regulation concerning the Safer Transport of Children in Buses and Coaches.                          |               |
| 03           | IWG-STBC               | 20             | Е        | Status Report of the Informal Working<br>Group on Safer Transport of Children in<br>Buses and Coaches (IWG-STCBC)          | (a)           |
| 04           | GRSP Chair             | 1              | Е        | Proposal for Supplement 1 to the 03 serie of amendments to UN Regulation No. 12  |               |
| 05/<br>Rev.1 | ANEC/CI                | 10             | E        | Proposal for Supplement 9 to the 03 serie of amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)        |               |
| 06           | Japan                  | 14             | E        | Proposal for the 03 series of amendments of UN Regulation No. 137 (Frontal collision with focus on restraint systems)      | (c)           |
| 07/<br>Rev.1 | IWVTA IWG              | 5              | Е        | IWVTA IWG Response to GRSP on issues related to Transitional Provisions  | (c)           |
| 08           | Rep. of Korea          | 2(b)           | Е        | Proposal for Amendment 3 to UN GTR<br>No. 9 (Pedestrian safety) - I. Statement of<br>Technical Rationale and Justification | (b)           |
| 09           | Rep. of Korea          | 2(b)           | Е        | Proposal for Amendment 3 to UN GTF<br>No. 9 (Pedestrian safety) - II. Text of the<br>Regulation                            |               |
| 10           | GRSP DEOP ad hoc group | 19             | Е        | Status report and a drafted proposal as a basis to discuss the next step   | a (a)         |
| 11           | Rep. of Korea          | 2(b)           | Е        | Status of Informal Working Group of<br>Deployable Pedestrian Protection System<br>(IWG-DPPS)                               |               |
| 12           | Rep. of Korea          | 21             | E        | Bumper Issue (UN Regulation No. 42)  | (a)           |
| 13           | Rep. of Korea          | 5              | E        | SBR issues (UN Regulation No. 16)  | (a)           |
| 14           | IWG DETA               | 24(b)          | Е        | Request of the IWG on DETA to GRs to provide clarity on the UN Regulations for with the UI marking may be applied          | (a)           |
| 15           | IWG DETA               | 24(b)          | Е        | 1958 Agreement - Unique Identifier<br>Proposed actions for the IWG on DETA,<br>GRs and WP.29                               | (c)           |
| 16           | CLEPA                  | 10             | Е        | Proposal for Supplement 9 to the 03 serie of amendments to Regulation No. 129 (Enhanced Child Restraint Systems)           | s (d)         |

| No.          | Transmitted by         | Agenda<br>item | Language | Title   | Follow-<br>up |
|--------------|------------------------|----------------|----------|---|---------------|
| 17           | TF UN R134             | 11             | Е        | Proposal for the 02 series of amendments to the UN Regulation No.134 (HFCV) $-$ consolidated text   | (b)           |
| 18           | CLCCR                  | 8              | Е        | Proposal for Supplement 3 to the 03<br>Series of Amendments to UN Regulation<br>No. 100 (Electric power trained vehicles)   | (a)           |
| 19/<br>Rev.4 | Secretariat            | 24(g)          | E        | GRSP 2023 programme of work   | (d)           |
| 20           | Secretariat            | 24(c)          | E        | Highlights of the June and November 2022 Sessions of WP.29  | (a)           |
| 21           | IWG GTR13-<br>Phase 2  | 3              | E        | Overview of Hydrogen Fuelled Vehicle<br>Phase 2 Project Global Technical<br>Regulations No.13 GRSP 72nd Meeting   | (a)           |
| 22           | France                 | 5              | Е        | Proposal for the 09 series of amendments to UN Regulation No. 16 (Safety-belts)   | (a)           |
| 23           | France                 | 5              | Е        | Proposal for the 09 series of amendments to UN Regulation No. 16 (Safety-belts)   | (a)           |
| 24/<br>Rev.1 | Secretariat            | 1              | Е        | Annotated provisional agenda of 72nd session of GRSP  | (a)           |
| 25           | OICA                   | 24(h)          | E        | UN Regulation No. 14: Proposal on Alternative Seating Positions   | (a)           |
| 26           | Australia              | 24(f)          | Е        | Child Presence Detection  | (a)           |
| 27           | France                 | 8              | E        | France comments to GRSP-71-06   | (a)           |
| 28           | Ad-Hoc-group<br>on CRS | 10             | Е        | Status update GRSP-Ad-Hoc-group on CRS  | (a)           |
| 29           | OICA                   | 7              | Е        | Proposal for the 06 series of amendments to UN Regulation No. 95 (Lateral impact)   |               |
| 30           | OICA                   | 12             | Е        | Proposal for the supplement 3 to the original version, the supplement 4 to the 0 series of amendments and the supplement 1 to the 02 series of amendments to UN Regulation No. 135 (Pole side impact) | 1<br>t        |
| 31           | OICA                   | 14             | Е        | Proposal for the 03 series of amendment to UN Regulation No. 137 (Frontal impact with focus on restraint systems)   |               |
| 32           | OICA                   | 16             | E        | Proposal for the supplement 3 to the original version of UN Regulation No. 153 (Fuel system integrity and electric power train safety at rear-end collision)  | 3             |
| 33           | Netherlands            | 24(d)          | E        | Three dimensional H-point machine State of Play   | (c)           |
| 34           | OICA                   | 24(i)          | E        | Proposal for the 05 series of amendments to UN Regulation No. 94 (Frontal collision)  | (b)           |
| 35           | CLEPA                  | 10             | E        | Explanatory presentation to/GRSP/2022/25: Section B of Justification - Harmonising UN R129 vertical head excursion limit  | f             |

| No.          | Transmitted by                            | Agenda<br>item | Language | Title   | Follow- |
|--------------|---|----------------|----------|---|---------|
| 36           | CLEPA                                     | 5&10           | Е        | Further justification of UN R16 and UN R129 proposals on ECRS support legs  | (a)     |
| 37/<br>Rev.1 | Chair IWG<br>GTR20 PH2                    | 4              | Е        | Status Report by Chair of IWG for GTR 20 (Electrical Vehicle Safety) to the 72nd Meeting of Group of Experts on Passive Safety, December 07, 2022 | (a)     |
| 38           | CLEPA                                     | 24(b)          | E        | Unique Identifier - Assessment of UN<br>Regulations under the purview of GRSI<br>with regards to UI   |         |
| 39           | CLEPA                                     | 5&24(b)        | Е        | Proposal for Supplement 4 to the 08 serie of amendments to Regulation No. 16 (Safety-belts)   |         |
| 40           | Germany                                   | 18             | Е        | Status Report Task Force for the implementation of Q UN-Dummies into M.R.1 (TF-QUN)   | . ()    |
| 41           | OICA,<br>Netherlands,<br>France & Japan   | 9<br>n         | Е        | Proposal for Supplement 2 to the 03 serie of amendments to UN Regulation No. 12' – rev.1  |         |
| 42           | Ad-hoc group<br>DEOP                      | 19             | Е        | Report from DEOP seventy-second session of GRSP 5-9 December 2022   | d (a)   |
| 43           | TF-AVRS                                   | 21             | Е        | Status Report Task Forc<br>AutomatedVehicles–RegulatoryScreening<br>(TF-AVRS) ofUN RegulationsandGTR<br>underresponsibilityof GRSP                | 3       |
| 44           | France, Japan,<br>Netherlands<br>and OICA | 9              | Е        | Proposal for Supplement 1 to the 04 Serie of Amendments to UN Regulation No. 12 (Pedestrian safety)   |         |
| 45/<br>Rev.1 | Ad-hoc group<br>DEOP                      | 19             | E        | Informal Working Group on Equitable Occupant Protection Terms of Reference Proposal   |         |
| 46           | Germany & Netherlands                     | 17             | Е        | Proposal for supplement 1 to the 02 serie of amendments to UN Regulation No. 13 (Pole side impact)  |         |
| 47/<br>Rev.1 | Secretariat                               | 24(j)          | Е        | List of decisions to be adopted unde silence procedure  | r (d)   |

### Notes:

- (a) Consideration completed or superseded.
- (b) Continue consideration at the next session with an official symbol.
- (c) Continue consideration at the next session as an informal document.
- (d) Adopted and to be submitted to WP.29.

### **Annex II**

# Draft amendments to UN GTR No. 13 (Hydrogen and Fuel Cell Vehicles))

### Amendments adopted to ECE/TRANS/WP.29/GRSP/2022/16 (see paragraph 8 of this report)

Part I, statement of technical rationale and justification, section A, paragraph 6, amend to read:

"6. The representatives of Japan, .... The mandate was extended until **June 2023** by WP.29 and AC.3. at their November 2020, March **and November 2022** sessions."

### Amendments adopted to ECE/TRANS/WP.29/GRSP/2022/17 (see paragraph 8 of this report)

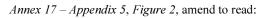
Section I, paragraph 3, amend to read:

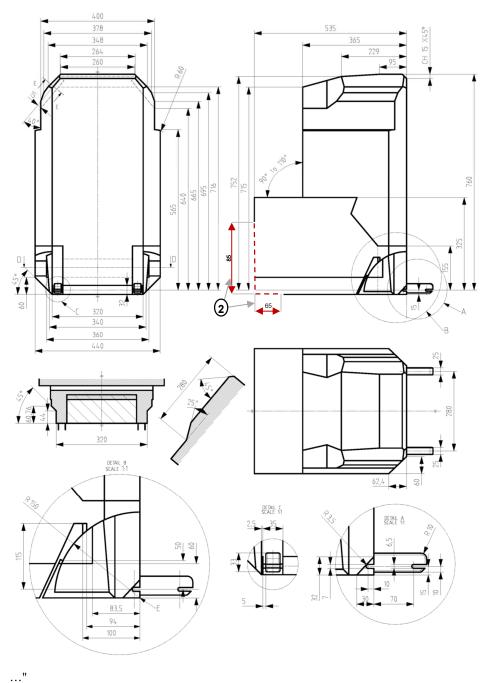
"3. The mandate was extended until June 2023 by WP.29 and AC.3. at their November 2020, March and November 2022 sessions."

### **Annex III**

### Draft amendments to UN Regulation No. 16 (Safety-belts)

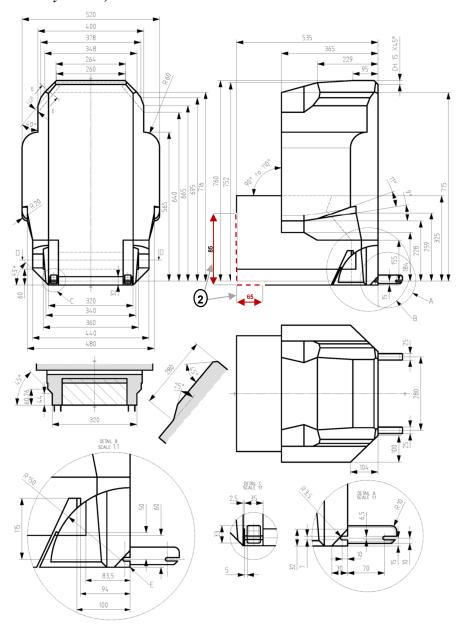
## Amendments adopted to ECE/TRANS/WP.29/GRSP/2021/20 (see paragraph 11 of this report)





*Annex 17 – Appendix 5, Figure 3,* amend to read:

"Figure 3 ISO/B3 - Envelope dimensions for booster seat, full width 520 mm - without ISOFIX, or with connectors removed or stowed within the body of the fixture (behind line E, as defined by detail B)



(all dimensions in millimetres)

#### Annex IV

## Draft amendments to UN Regulation No. 127 (Pedestrian safety)

### Amendments adopted to ECE/TRANS/WP.29/GRSP/2022/18 (see paragraph 26 of this report)

Paragraph 4.2., amend to read:

"4.2. An approval number shall be assigned to each type approved in accordance with Schedule 4 of the ...

... supplement 1, using the specific provisions related to WAD 2,100 boundary;

E11\*127R03/01/T\*2439\*01.

(c) the letter "F" for vehicles approved using the specific provisions related to BRRL in accordance with paragraphs 11.12. and 11.13.

#### **Example:**

Example of the first extension to the 2439th type approval issued by the United Kingdom of Great Britain and Northern Ireland for a vehicle approval according to UN Regulation No. 127, third series of amendments and its supplement 2, using the specific provisions related to BRRL boundary;

E11\*127R03/02/F\*2439\*01."

### Amendments adopted to ECE/TRANS/WP.29/GRSP/2022/19 (see paragraph 11 of this report)

Paragraph 2.1., amend to read:

"2.1. "Adult headform ...

...

(b) At the rear, by a WAD 2,500<sup>1</sup> ... reference line<sup>2</sup>, whichever is most forward at a given lateral position, and

..."

. . .

Paragraph 2.45., insert Figures 14 and 15 and amend to read:

"2.45. "Cowl monitoring area" ...

• •

(b) At the rear, by a WAD  $2,500^3$  or ...

..."

. . .

<sup>&</sup>lt;sup>1</sup> or WAD 2,100 in accordance with paragraphs 11.19. to 11.21.

In the case where the BRRL is not on the bonnet and the line 82.5 mm forward of the BRRL is rearward of WAD 2100, then the rear physical edge of the bonnet shall be used as BRRL, in accordance with paragraphs 11.22. and 11.23.

 $<sup>^3</sup>$  from WAD 2,100 boundary, if applicable, in accordance with paragraphs 11.19. to 11.21.

Paragraph 4.2., amend to read:

- "4.2. An approval number ...:
  - (a) the letter "T" for vehicles approved using the specific provisions related to WAD 2,100 boundary in accordance with paragraph 11.19.; or
  - (b) the letter ...

...

E11\*127R03/01/T\*2439\*01.

(c) the letter "F" for vehicles approved using the specific provisions related to BRRL in accordance with paragraphs 11.22. and 11.23.

#### Example:

Example of the first extension to the 2439th type approval issued by the United Kingdom of Great Britain and Northern Ireland for a vehicle approval according to UN Regulation No. 127, fourth series of amendments and its supplement 1, using the specific provisions related to BRRL boundary;

E11\*127R04/01/F\*2439\*01."

. . .

Insert new paragraphs 11.22. and 11.23., to read:

"11.22. Notwithstanding paragraph 11.19., until ...

11.23. Notwithstanding paragraphs 11.20. and 11.21., until ..."

Paragraphs 11.20. to 11.21. (former), renumber as paragraphs 11.24. to 11.25.

...

#### Annex V

## **Draft amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)**

### Adopted text based on GRSP-72-01 (see paragraph 27 of this report)

Paragraph 9.2., amend to read:

"9.2. Qualifying the production of Enhanced Child Restraint Systems.

The production of each new approved type of Enhanced Child Restraint System shall be subjected to production qualification tests. Where the type approval consists of different modules, product qualification tests will be conducted with each module of the ECRS.

Additional qualifications of production may be prescribed following paragraph 11.4.

..."

#### Adopted text based on GRSP-72-16 (see paragraph 27 of this report)

Paragraph 6.3.1.1., amend to read:

"6.3.1.1. The Enhanced Child Restraint System ... of EN 71-3:2019+A1:2021, ..."

Paragraph 6.3.1.2., amend to read:

"6.3.1.2. The flammability of Enhanced Child Restraint Systems submitted for approval shall be assessed by one of the following methods:

... of EN 71-2:2021 with a maximum rate ..."

### Amendments adopted to ECE/TRANS/WP.29/GRSP/2021/26 (see paragraph 28 of this report)

Paragraph 6.3.5.1., amend to read:

"6.3.5.1. Support-leg and support-leg foot geometrical requirements

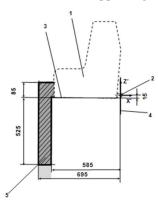
..

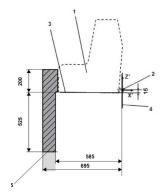
(c) In height by a ... above the origin for forward-facing ECRS or 185 mm above the origin for rear-facing ECRS and in each case measured perpendicular to the X'-Y' plane.

..."

Annex 19., Figure 1, amend to read:

"Figure 1 Side view of the support leg dimension assessment volume





Forward-facing ECRS

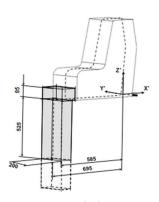
Rearward-facing ECRS

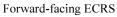
"

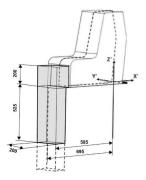
Annex 19., Figure 2, amend to read:

"Figure 2

### 3D view of the support leg dimension assessment volume







Rearward-facing ECRS

..."

#### Annex VI

### Draft amendments to UN Regulation No. 153 (Fuel system integrity and electric power train safety at rear-end collision)

### Amendments adopted to ECE/TRANS/WP.29/GRSP/2021/29 (See paragraph 40)

Paragraphs 2. to 2.1.9., amend to read:

### "2. Definitions

For the purpose of this Regulation:

- 2.1. "Vehicle type" ...
- 2.1.1. The length and width of the vehicle in so far as they have an **adverse** effect on the results of the impact test prescribed in this Regulation.
- 2.1.2. The structure, ... an **adverse** effect on the results of the impact test prescribed in this Regulation.
- 2.1.3. The lines ... have an **adverse** effect on the results of the impact test prescribed in this Regulation.
- 2.1.4. The siting ... have an adverse effect on the result of the impact test procedure as prescribed in this Regulation.
- 2.1.5. The ... an adverse effect on the result of the impact test prescribed in this Regulation.
- 2.1.6. The ... an adverse effect on the result of the impact test prescribed in this Regulation.
- 2.1.7. The structure, ... an **adverse** effect on the results of the impact test prescribed in this Regulation.
- 2.1.8. The position ... an adverse effect on the requirements of paragraph 5.2.1.
- 2.1.9. The characteristics ... an **adverse** effect on the results of the impact test prescribed in this UN Regulation."

#### **Annex VII**

### Draft collective amendments to UN Regulations Nos. 94, 95, 135 and 137

### Adopted text based on GRSP-72-46 (see paragraph 43 of this report)

Paragraphs 6.1.2., amend to read:

#### "6.1.2. Extension

The modification shall be designated an "extension" if, in addition to the change of the particulars recorded in the information folder:

- (a) Further inspections or tests are required; or
- (b) Any information on the communication document (with the exception of its attachments) has changed; or
- (c) Approval to a later series of amendments is requested after its entry into force-; **or**
- (d) to cover all the other variants of the vehicle type for which the sum of the unladen vehicle mass and the rated cargo and luggage mass is not more than 8 per cent greater than that of the vehicle used in the approval test, provided there is no conflict with the provisions of paragraph 6.1. above."

#### **Annex VIII**

### **Draft Terms of Reference for the Informal Working Group on Equitable Occupant Protection**

### Adopted text based on GRSP-72-45-Rev.1 (see paragraph 46 of this report)

#### A. Introduction

- 1. An ad-hoc group on equitable occupant protection (founded by Canada, France, Germany, Japan, the Netherlands, Spain, and Sweden after the seventieth session of GRSP) started to review relevant data regarding equity of men and women in occupant protection, in early 2022.
- 2. Today, crash tests are carried out with dummies that represent a man which is 176 cm tall and weighs 70 kg and in frontal crashed additionally with a dummy that is a 5th percentile female is a downscaled man who is 151cm tall weighing 48 kg. Both sit very straight in their cars with their seats perfectly adjusted.
- 3. The presented data indicate that the injury risk is higher for women than for men regarding several types of injuries and all types of crashes. The specific difference in fatality risk between female and male occupants has decreased with newer vehicle types but is still visible. Non-fatal injuries, which may lead to long-term consequences, e.g., neck injuries and injuries to extremities, remain a concern. The group has had a particular focus on neck injuries, including permanent disability, because there is evidence of significant differences in risk of injury between male and female occupants. Furthermore, the presented data give reason to assume that similar differences in risk occur for other significant diversity aspects, such as age, weight, and height. In conclusion, there is a larger equity issue. Further review is needed to be able to explain the injury differences that can be seen in crash statistics, (such as more likely to have lower leg injuries, abdomen, arms and necks), and it will be required to review other relevant data, in particular data from both physical and virtual crash tests, with the view to better understand equitability. Nonetheless, the visible inequitable outcomes so far underscore a need to start reviewing the current regulatory requirements.
- 4. The potential of virtual crash testing as one way to improve equitable occupant protection has also been considered. Virtual crash testing will make it possible to test vehicles for a wider range of occupants in different crash scenarios, including both the pre-crash event (including emergency braking and evasive steering) and the in-crash event (including occupants of different size and sex, different seating positions, impact severities and impact angles, etc.). Virtual testing will most likely become the most cost-effective procedure for society to evaluate crash safety; and also reviewing possibilities to implement advanced crash test dummies existing today but there will be a need for a regulatory framework, standards and guidelines.
- 5. When numerical models (of vehicles, safety systems and humans) are developed and considered for regulation, it is crucial to ensure that they meet certain standards to ensure comparable and reliable results, for instance that a particular virtual testing leads to a similar level of safety performance regardless of which numerical human body model a vehicle has been assessed with.
- 6. In this regard, the ad-hoc group on equitable occupant protection has identified the following points to follow up on:
- (a) Continue to collect and review relevant field accident data to further understand the reasons for the varying injury risks of different occupants. For the same reason, collect and review other relevant and available data, in particular data from the virtual testing performed today in research. The reason is to be able to separate the issues which current concerned

regulations under GRSP could address directly (if upgraded) from the gaps where more research is needed.

- (b) Explore and advance the current state-of-the-art of virtual crash testing to determine and increase its capability as a tool and process to evaluate equitability, including a specific assessment of the state-of-the art virtual human body models, i.e., virtual models of humans, particularly the possibilities for a safety performance evaluation at a higher level of detail.
- (c) Review the concerned UN regulations for crashworthiness and occupant protection (passive safety), and related regulations, with a view to identify opportunities for improvement of concerned UN regulations regarding equity; NB, equity in its expanded definition.
- (d) Assess whether existing regulations are sufficiently flexible to allow new technical developments regarding occupant safety resulting from new assessment possibilities of particularly virtual crash testing.

### B. Objective of the Informal Working Group

The informal working group shall:

- (a) Identify and present a map of issues which should be addressed by regulatory upgrades directly vs gaps where more research is needed regarding equitable occupant protection. Review previous work done in WP.29 regarding a female 50th percentile crash test dummy.
- (b) Determine how greater diversity in terms of representation of crashes and occupants should be implemented in concerned crash safety regulations, and if needed, propose well defined changes to those regulations and further activities in GRSP.
- (c) Assess virtual crash testing as a method in concerned regulations to improve equity in occupant protection further, through:
  - mapping the gaps in terms of equity in the concerned regulations that virtual crash testing could potentially fill,
  - (ii) assessing the current state-of-the-art of virtual crash testing tools and processes, e.g., understand the readiness of virtual human body models regarding their validation level of occupant kinematic and potential to predict injury,
  - (iii) Review existing anthropomorphic test devices (ATDs) and other tools (incl. injury risk curves and test conditions) and the possibilities they provide to more diverse crash testing.
  - (iv) drafting preliminary global guidelines for virtual models to ensure that they are inclusive.
  - reaching a common understanding of basic requirements that virtual crash testing models should fulfil, particularly regarding car occupants of different gender and size,
  - (vi) reviewing whether current regulations are sufficiently flexible to allow the new technical developments resulting from the new assessment possibilities created by virtual crash testing, for example for advanced adaptive protective systems,
  - (vii) assessing the possibilities, and shortcomings, of virtual crash testing when it comes to:
    - a. different kind of injuries for example:
      - i. neck injuries, including the soft tissues of the head, neck, and spine,
      - ii. thoracic injuries,
      - iii. injuries to the extremities

- the value of new types of crash test, e.g., low-speed rear impact sled tests.
- c. increased protection of vulnerable road users (if identified as an equity issue),
- d. preventing misapplication of crash test protocols,
- advanced human body models that enable the assessment of all types of crashes in greater detail (omni-directional crash impacts; different seat configurations and seat positions; all types of occupants from child to senior, from short to tall, women and men, etc.).
- Definition of requirements for simulation models and procedures to enable virtual testing;
  - Requirements to ensure comparability of simulation results (by standardizing requirements for human models, which can be used for virtual assessments)
  - b. Definition of Anthropometry Catalogues for future safety assessments
  - Definition of validation procedures for virtual models of relevant vehicle parts
  - d. Definition of procedures to ensure integrity of virtual assessments
- (d) Identify any shortcomings of existing regulations and related standards, such as whether the current test protocols can be misapplied to optimise crash performance for the specific test conditions and test dummies in a narrow way that is detrimental to the protection of a diverse population.

### C. Operating Principles

- (a) The informal working group on equitable occupant protection is open to all Contracting Parties and Non-Governmental Organisations.
- (b) A Chair, a Vice Chair and a Secretary, will manage the informal working group.
- (c) The working language of the informal working group will be English.
- (d) An agenda and related documents shall be made available on the website of WP.29 by the Secretary of the group in advance of all scheduled meetings.
- (d) All documents and/or proposals shall be submitted to the Secretary of the group in a suitable electronic format in advance of the meetings. The group may postpone discussion on any item or proposal which has not been circulated five working days in advance of the scheduled meeting.
- (e) The Secretary of the group will distribute the meeting minutes to the informal group members within 15 working days after the meeting of the group.
- (f) Decisions and proposals of the group shall be reached by consensus within the participating contracting parties. When consensus cannot be reached, the Chair of the group shall present the different points of view to GRSP. The Chair may seek guidance from GRSP as appropriate.
- (g) Sessions shall be held in agreement with most of the participants after the group has been established in a constitutional meeting. Sessions may be in person or virtual using web-based technology.
- (h) A provisional agenda shall be drawn up by the Secretariat in accordance with the participants of the group. The first item upon the provisional agenda for each session shall be the adoption of the agenda.
- (i) The second item on the provisional agenda will be discussion, matters arising and adoption of the minutes of the previous session.

(j) The Chair of the group or his/her representative will report back to GRSP on the progress of work on regular basis.

#### D. Work Plan and Time Schedule until December 2027

- (a) Task 1 Identify and present a map of issues which should be addressed by regulatory upgrades directly vs gaps where more research is needed regarding equitable protection – Report to GRSP in December 2023.
- (b) Task 2 Determine how greater diversity in terms of representation of crashes and occupants should be implemented in concerned crash safety regulations, and if needed, propose well defined changes to those regulations and further activities in GRSP. Report to GRSP in May 2025. Report out in two phases:
  - In order to benefit female populations as soon as possible with available tools, the IWG should first provide a recommendation on the usage of existing ATDs (together with options for related injury assessment and test conditions) - by December 2023.
  - (ii) Full report on attaining equity in crash safety regulations to GRSP in May 2025.
- (c) Task 3 Assess virtual crash testing as a method in concerned regulations to improve equity in occupant protection further and define related requirements for the models and procedures, including how virtual testing can be validated with existing ATDs. Report to GRSP in December 2027.
- (d) Task 4 Identify any shortcomings of existing regulations and related standards, such as whether the current test protocols can be misapplied to optimise crash performance for the specific test conditions and test dummies in a narrow way that is detrimental to the protection of a diverse population. Report to GRSP in December 2027.
- (e) The IWG will report to the GRSP continuously until December 2027 in the following task:
  - (i) Continue to collect and review relevant field accident data to further understand the reasons for the varying injury risks of different occupants. For the same reason, collect and review other relevant and available data, in particular data from virtual testing. The reason is to be able to separate the issues which current concerned regulations under GRSP could address directly (if upgraded) from the gaps where more research is needed.
  - (ii) Explore and advance the current state-of-the-art of virtual crash testing to determine and increase its capability as a tool and process to evaluate equitability, including a specific assessment of the state-of-the art virtual human body models, i.e., virtual models of humans, particularly the possibilities for a safety performance evaluation at a higher level of detail considering diversity.
  - (iii) Review the concerned UN regulations for crashworthiness and occupant protection (passive safety), and related regulations, with a view to identify opportunities for improvement of concerned UN regulations regarding equity; NB, equity in its expanded definition.
  - (iv) Assess whether existing regulations are sufficiently flexible to allow new technical developments regarding occupant safety resulting from new assessment possibilities of particularly virtual crash testing.

### **Annex IX**

### [English only]

### List of informal working groups

| Informal working group  | Chair  | Expiry date of the mandate [pending WP.29 decision] | Secretary |
|---|--|---|-----------|
| UN GTR No. 9 on<br>Pedestrian Safety<br>Deployable – Pedestrian<br>Protection Systems<br>(DPPS) | Mr. Jin Seop PARK (Republic of Korea) Email: jspark@kotsa.or.kr  | November 2023                                       | OICA      |
| UN GTR No. 20 (EVS) – Phase 2   | chaired by EC, China and Japan<br>Phone: +1 202 366 4026   | December 2023                                       | Japan     |
| Three-dimensional H-point machine   | Email: martin.koubek@dot.gov  Mr. Luis MARTINEZ (Spain)  Phone: +34 91 336 53 00  Fax: +34 91 336 53 02  Email: luis.martinez@upm.es | []  |           |
| UN GTR No. 13 (HFCV) – Phase 2  | by Japan and vice-chaired by China and th<br>Republic of Korea)  Phone: +1 202 366 4026  | June 2023<br>e                                      | []        |
| Protective helmets  | Email: martin.koubek@dot.gov  Mr. Luca ROCCO Phone: +39 06 4158 3268 Fax: +39 06 4158 3253 Email: luca.rocco@mit.gov.it              | Suspended   |           |
| Securing children in buses and coaches  | Ms. Marta ANGLES Phone: +34 977 166 020 Fax: ++34 977 166 009 Email: mangles@idiada.com  | March 2024  |           |

### Annex X

[English only]

# Decisions submitted to the silence procedure following formal meetings with remote participation of the Working Party on Passive Safety, 9 December 2022

### Adopted text based on GRSP-72-47-Rev.1 (see paragraph 65 of this report)

| Decision |    |  |  |  |
|----------|----|--|--|--|
| No.      |    | Decision   |  |  |
| 1        | 1  | In accordance with Chapter III, Rule 7 of the Rules of Procedure (TRANS/WP.29/690/Rev.1) of the World Forum for Harmonization of Vehicle Regulations (WP.29), GRSP considered and adopted the agenda (ECE/TRANS/WP.29/GRSP/2022/11) proposed for the seventy-second session, the running order (GRSP-72-04) and the annotations (GRSP-72-24-Rev.1).  |  |  |
| 2        | 13 | GRSP agreed to receive and share more information from contracting parties to reflect if removable Rechargeable Electric Energy Storage System (REESS) approval do not cover replacement units.  |  |  |
| 3        | 10 | GRSP adopted GRSP-72-01 and GRSP-72-16 and requested the secretariat to submit both proposals, as a full package, as draft Supplement 9 to the 03 series of amendments to UN Regulation No. 129 (Enhanced Child Restraint systems) for consideration and vote at the June 2023 sessions of WP.29 and to the AC.1. It was further agreed if further discussion would be needed, the official document to the June 2023 session would be re-discussed at the May 2023 session of GRSP. |  |  |
| 4        | 20 | GRSP agreed to resume discussion on a revised document (based on GRSP-72-02), solving the remaining lingering issues in square brackets, submitted by the expert from Spain as an official document to the May 2023 session of GRSP.   |  |  |
| 5        | 16 | GRSP adopted ECE/TRANS/WP.29/GRSP/2021/29, amended (insertion of adverse effect all along the text of the proposal). The secretariat was requested to submit the proposal as draft Supplement 3 to UN Regulation No. 153 (Fuel system integrity and electric power train safety at rear-end collision) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.   |  |  |
| 6        | 8  | GRSP agreed to resume discussion on a revised proposal introducing provisions for a type of electric axle tabled by the expert from CLCCR in cooperation with the expert from France at its May 2023 session.  |  |  |
| 7        | 3  | GRSP recommended the proposal of amendment to UN GTR No. 13 (ECE/TRANS/WP.29/GRSP/2022/16) and the final report (ECE/TRANS/WP.29/GRSP/2022/17) of the IWG GTR13 Phase 2 both amended (insertion of the last extension of the mandate of the IWG). The secretariat was requested to submit the proposal and the final report as draft Amendment 1 to UN GTR No. 13 for consideration and vote to the Executive Committee of the 1998 Agreement (AC.3) June 2023 session.              |  |  |

| Decisio<br>No. | n                              | Decision   |
|----------------|--------------------------------|--|
| 8              | 11                             | GRSP adopted ECE/TRANS/WP.29/GRSP/2022/15, not amended. The secretariat was requested to submit the proposals as draft Supplement 5 to the original version and Supplement 2 to the 01 series of UN Regulation No. 134 (Hydrogen and Fuel Cells Vehicles) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.  |
| 9              | 11                             | GRSP agreed to resume consideration on the transposition of UN GTR Phase 2 into UN Regulation No. 134 based on a reviewed proposal drafted by the Task Force on this subject at its May 2023 session.  |
| 10             | 10                             | GRSP adopted ECE/TRANS/WP.29/GRSP/2022/25, not amended. The secretariat was requested to submit the proposal as part of (see decision 3 above) draft Supplement 9 to the 03 series of UN Regulation No. 129 (Enhanced Child Restraint Systems) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.   |
| 11             | 8                              | Referring to GRSP-71-05, GRSP agreed to resume discussion at its May 2023 session based on a proposal of amendment tabled by the expert from France (with possible contribution of interested parties) to UN Regulation No. 100 clarifying that the REESS should be tested in two different directions: a) direction of travel of the vehicle and 2) perpendicular to the direction of travel of the REESS   |
| 12             | 2(a)                           | As a follow up of discussion of AC.3 at its November 2022 session, GRSP agreed to suspend discussion on Amendment 3 to UN GTR No. 9 (Head form test) and to reengage in the discussion on the test as the new Amendment 4 when new information would be made available by experts.   |
| 13             | 2(b)                           | GRSP agreed to resume discussion on the draft Amendment 3 to UN GTR No. 9 on deployable pedestrian protection systems (DPPS) at its May 2023 session, based on a consolidated text of the amendments (preamble and text of the regulation combined together) and on a final report of the IWG on DPPS. GRSP requested its expert to provide feedback on GRSP-72-08 and GRSP-72-09 to the expert from the Rep. of Korea before the deadline for submission of official documents (February 20, 2023) of its May 2023 session.                       |
| 14             | 7, 12,<br>14, 16<br>&<br>24(i) | GRSP considered amendments to UN Regulations Nos. 94, 95 and 137 (GRSP-72-34, GRSP-72-29, GRSP-72-31) to incorporate provisions on hydrogen fuelled vehicles and to UN Regulations Nos. 135 and 153 (GRSP-72-30 and GRSP-72-32) to update already existing provisions to harmonize these UN Regulations to the provisions of UN GTR No. 13 Amendment 1. GRSP requested its experts to provide feedback on the above- mentioned documents to the expert from OICA before the deadline for submission of official documents of its May 2023 session. |
| 15             | 5                              | GRSP agreed to defer discussion to its May 2023 session on ECE/TRANS/WP.29/GRSP/2022/3 waiting the follow-up of a group of interested parties meeting (that would be held in January or February 2023) coordinated by the expert from Japan.   |
| 16             | 10                             | GRSP adopted ECE/TRANS/WP.29/GRSP/2021/26, amended (6.3.5.1(c)for forward-facing ECRS or 185 mm above the origin for rear-facing ECRS and in each case). The secretariat was requested to submit the proposal as part of (see decision 3 and 10 above) draft Supplement 9 to the 03 series of UN Regulation No. 129 (Enhanced  |

| Decision |    |  |
|----------|----|--|
| No.      |    | Decision   |
|          |    | Child Restraint Systems) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.   |
| 17       | 10 | GRSP requested the secretariat to distribute GRSP-72-05-Rev.1 with an official symbol at its May 2023 session.   |
| 18       | 5  | GRSP adopted ECE/TRANS/WP.29/GRSP/2021/25, not amended. The secretariat was requested to submit the proposal as draft Supplement 4 to the 08 series of UN Regulation No. 16 (Safety-belts) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.   |
| 19       | 5  | GRSP adopted ECE/TRANS/WP.29/GRSP/2021/20, amended (dashed lines mark the area where an anti-rotation device, or similar is allowed to protrude: from 200 to 85 mm). The secretariat was requested to submit the proposal as part of (see decision 18 above) draft Supplement 4 to the 08 series of UN Regulation No. 16 (Safety-belts) for consideration and vote at the June 2023 sessions of WP.29 and AC.1.  |
| 20       | 5  | GRSP agreed to defer discussion to its May 2023 session on ECE/TRANS/WP.29/GRSP/2022/12.   |
| 21       | 5  | GRSP agreed to resume discussion at its May 2023 session on a revised document combining GRSP-72-22 and ECE/TRANS/WP.29/GRSP/2022/13, as a new series of amendments. GRSP requested its experts to provide feedback on GRSP-72-22 and ECE/TRANS/WP.29/GRSP/2022/13 to the expert from France before the deadline for submission of official documents of the May 2023 session.   |
| 22       | 5  | GRSP agreed to establish an Ad-hoc group led by the expert from Rep. of Korea, with the participation of the experts from France, Germany, Japan, the Netherlands, Spain, OICA and CLEPA to solve the three issues on seat-belt reminders indicated in GRSP-72-13.   |
| 23       | 6  | GRSP agreed to resume discussion on ECE/TRANS/WP.29/GRSP/2022/20 and ECE/TRANS/WP.29/GRSP/2022/21 at its May 2023 session. Moreover, GRSP agreed as a general principle that: "Not only head restraints on seats, mandatory to be fitted with head restraints according to paragraphs 5.4.1. and 5.4.2. of UN Regulation No. 17, have to be approved. All head restraints fitted on seats under the scope of UN Regulation No. 17 shall be approved." GRSP agreed that a group of interested experts would cooperate to devise a solution steered by Germany |
| 24       | 21 | On the issues indicated in GRSP-72-12 (level of impact safety performance of bumper systems with autonomous driving systems), GRSP agreed to discuss them in the framework of activities of the Task Force Autonomous Vehicle Regulatory Screening (TF AVRS).  |
| 25       | 14 | GRSP agreed to discuss GRSP-72-06 within an ad-hoc group lead by the expert from Japan with the participation of the experts from France, Italy and OICA and resume discussion at its May 2023 session, unless the adhoc group would provide an updated document for that session. In the mean time the expert from Japan was requested to provide crash data to justify the proposal.   |
| 26       | 17 | GRSP adopted ECE/TRANS/WP.29/GRSP/2022/22, ECE/TRANS/WP.29/GRSP/2022/23 and ECE/TRANS/WP.29/GRSP/2022/24 not amended. The secretariat was requested to submit the proposals as draft Supplement 2 to the 04 series of amendments to UN Regulation No. 94   |

| Decision |       |   |
|----------|-------|---|
| No.      |       | Decision  |
|          |       | (ECE/TRANS/WP.29/GRSP/2022/22), draft Supplement 3 to the 05 series of amendments to UN Regulation No. 95 (ECE/TRANS/WP.29/GRSP/2022/23) and as Supplement 3 to the 02 series of amendments to UN Regulation No. 137 (ECE/TRANS/WP.29/GRSP/2022/24) to the June 2023 sessions of WP.29 and AC.1.  |
| 27       | 21    | GRSP agreed that its Chair, through its highlights of the session, would ask WP.29 to postpone the outcome of results of the TF-AVRS at the June 2023 session of WP.29.   |
| 28       | 19    | GRSP agreed to establish the IWG on Equitable Protection of Occupants (former ad-hoc group) and adopted GRSP-72-45-Rev.1 (Terms of Reference of the IWG) that would be reproduced as an annex to the report. Therefore, GRSP requested its Chair to seek endorsement of WP.29 and AC.3 at their March 2023 sessions to the establishment of the IWG.  |
| 29       | 9     | GRSP adopted ECE/TRANS/WP.29/GRSP/2022/18, as amended by GRSP-72-41, and ECE/TRANS/WP.29/GRSP/2022/19 as amended by GRSP-72-44. The secretariat was requested to submit the proposals as Supplement 2 to the 03 Series of Amendments (ECE/TRANS/WP.29/GRSP/2022/18) and as Supplement 1 to the 04 Series of Amendments (ECE/TRANS/WP.29/GRSP/2022/19) to UN Regulation No. 127 (Pedestrian safety) to the June 2023 sessions of WP.29 and AC.1. |
| 30       | 24(d) | GRSP agreed to resume consideration on GRSP-72-33 and on the outcome of discussion of a group of interested experts (China, NL, Spain CLEPA and OICA) at its May 2023 session.  |
| 31       | 24(g) | GRSP adopted GRSP-72-19-Rev.4 and requested the secretariat to submit it to WP.29 for consideration at its March 2023 session.  |
| 32       | 24(b) | GRSP agreed to provide feedback to the expert from Japan (Ambassador of IWVTA) on GRSP-72-07-Rev.1 by the end of January 2023.  |
| 33       | 24(b) | GRSP agreed to resume discussion on GRSP-72-15 at its May 2023 session on the basis of the feedback provided by the expert from OICA.   |
| 34       | 24(b) | GRSP requested the secretariat to distribute GRSP-72-39 with an official symbol at its May 2023 session.  |
| 35       | 23    | The representatives of the contracting parties, present and voting, unanimously elected Mr. M. Koubek (United States of America) as Chair and Mr. H. G. Kim (Republic of Korea) as Vice-Chair for the sessions of GRSP scheduled in the year 2023.  |
| 36       | 17    | GRSP adopted GRSP-72-46. The secretariat was requested to submit the proposal as draft Supplement 1 to the 02 series of amendment to UN Regulation No. 135 (Pole side impact) to the June 2023 sessions of WP.29 and AC.1.  |