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World Forum for Harmonization of Vehicle Regulations

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Item 14.2.1 of the provisional agenda

**Consideration and vote by AC.3 of draft UN GTRs and/or
draft amendments to established UN GTRs, if any:**

Proposal for amendment to a UN GTR, if any

Proposal for Final Status Report on the Development of Amendment 3 to UN Global Technical Regulation No. 9 (Pedestrian safety) on Deployable Pedestrian Protection Systems.

Submitted by the Working Party on Passive Safety*

The text reproduced below was adopted by the Working Party on Passive Safety (GRSP) at its seventy-fourth session (ECE/TRANS/WP.29/GRSP/74, para. 5). It is based on GRSP-74-11-Rev.1 as reproduced by Annex II to the report. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Executive Committee of the 1998 Agreement (AC.3) for consideration at their June 2024 sessions.

* In accordance with the programme of work of the Inland Transport Committee for 2024 as outlined in proposed programme budget for 2024 (A/78/6 (Sect. 20), table 20.5), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



Final Status Report on the Development of Amendment 3 to UN Global Technical Regulation No. 9 (Pedestrian safety) on Deployable Pedestrian Protection Systems

I. Introduction

1. The Republic of Korea requested GRSP, as well as WP.29 and AC.3, to transform TF-DPPS into an Informal Working Group on Deployable Pedestrian Protection Systems (IWG-DPPS). WP.29 and AC.3 approved this request at their 174th and fifty-second sessions in March 2018.
2. At the 184th, 187th and 190th sessions of WP.29, WP.29 and AC.3 endorsed the extension of the mandate until November 2022, then November 2023 and recently until May 2024.

II. Objectives of the Informal Working Group

3. The objective of IWG-DPPS was to develop proposals for test procedures for DPPS. However, IWG also agreed to develop new and more detailed requirements, where needed, so that the new procedure guarantees that deployable systems are correctly activated as designed to protect pedestrians and other vulnerable road users, and to provide at minimum the same level of protection to pedestrians and other vulnerable road users as non-deployable systems. Consequently, a proposal for the amendment to the relevant sections of UN GTR No. 9 was proposed.

III. Summary of the Informal Working Group Activities

4. The organization of IWG was confirmed as:
Chair: Jinseop PARK (Republic of Korea/ Korea Testing and Research Institute (KATRI))
Secretary:
 - 1st IWG meeting and 2nd IWG meeting: Thomas Kinsky (Opel/ International Organization of Motor Vehicle Manufacturers (OICA))
 - 3rd IWG meeting to 26th IWG meeting: Irina Dausse (Renault / International Organization of Motor Vehicle Manufacturers (OICA))

Several subgroups formed to facilitate the in-depth technical discussions on verification impactor, specific headform testing, detection test area, HBM qualification and simulation procedure, etc.

5. Current Generic Vehicle (GV) Models and new Human Body Models (HBM) qualification procedure are available in M.R.1., Addendum 5, and are subject to updates, pending on software versions and agreement from GRSP.
6. A future phase of DPPS might consider the following activities:
 - HIT determination through a generic approach and/or through physical pedestrian dummies testing;
 - other explorations (e.g. non-contact sensors, pedestrian body loading, protection at higher vehicle speeds).
7. Twenty-six meetings were held in Europe (Brussels, Frankfurt, Geneva, London, Paris, as well as a majority of virtual web-meetings).
8. The meetings were attended by representatives of Austria, European Commission, France, Germany, Italy, Japan, Republic of Korea, Netherlands, Spain, United Kingdom, United States of America, European Association of Automotive Suppliers (CLEPA), International Organization of Motor Vehicle Manufacturers (OICA) and independent experts.

9. IWG submitted the following reports or proposals to GRSP:

<i>Reference</i>	<i>Title</i>
IWG-DPPS-1-03	Terms of Reference for the informal working group of DPPS of GTR No.9, Pedestrian Protection
GRSP-71-26	Intermediate Status report
GRSP-72-11	2nd status report
ECE/TRANS/WP.29/GRSP/2023/31	Proposal for Amendment 3 to Global Technical Regulation No. 9 (Pedestrian Safety)
ECE/TRANS/WP.29/GRSP/2023/33	Proposal for Amendment 4 of the Mutual Resolution No. 1 (M.R.1) of the 1958 and the 1998 Agreements
GRSP-74-22	GTR9-03 informal document complement
GRSP-74-23	MR1 informal document complement
GRSP-74-11	IWG-DPPS final status report on the development of Amendment 3 to UN Global Technical Regulation No. 9 (Pedestrian Safety)