

Draft Final Report on the Development of Amendment 3 to UN Global Technical Regulation No. 9 (PEDESTRIAN SAFETY)

Submitted by the Informal Working Group on Deployable Pedestrian Protection System, UN Global Technical Regulation No. 9 (PEDESTRIAN SAFETY) *

The text reproduced below was prepared by the experts of the Informal Working Group (IWG) on Deployable Pedestrian Protection System (DPPS), UN Global Technical Regulation No. 9 pursuant to article 6, paragraph 6.2.7. of the Agreement.

* In accordance with the programme of work of the Inland Transport Committee for 2022 as outlined in the proposed programme budget for 2022 (A/76/6, part V, sect. 20, para. 20.76), 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 DPPS

I. Introduction

1. The Republic of Korea requested GRSP, as well as WP.29 and AC.3, to transform the TF-DPPS into an Informal Working Group on Deployable Pedestrian Protection Systems (IWG-DPPS). WP.29 and AC.3 approved this request during their 174th and fifty-second sessions in March 2018.

2. During the 184th session of WP.29 in June 2021, 187th session of WP.29, and 190th session of WP.29, WP.29 and AC.3 endorsed the extension of the mandate respectively until November 2022 and November 2023, and [May 2024](#).

II. Objectives of the Informal Working Group

3. The objective of the IWG-DPPS was to develop proposals for test procedures for DPPS. However, the 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 provide at least 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 provided.

III. Summary of the Informal Working Group Activities

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

Several subgroups were formed to facilitate the in-depth technical discussion 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 stored in MR1 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. There were 26 meetings held in Europe (Brussels, Frankfurt, Geneva, London, Paris, and a majority of virtual web-meetings).

8. The meetings were attended by representatives of Austria, European Commission, France, Germany, Italy, Japan, Korea, the Netherlands, Spain, United Kingdom, United States of America, European Association of Automotive Suppliers (CLEPA) and 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)