## Proposals from the Informal Working Group on AEBS

Series and Supplement amendment of UN Regulation GRVA-2019-16 (New series)
GRVA-2019-17 (Supplement)

### Informal Working Group on AEBS for Light Vehicles

 $2^{nd}$  GRVA in January 2019: Working document (GRVA-2019-05)  $\rightarrow$  WP29 in June 2019 (WP29-2019-61) Requirement of  $2^{nd}$  step of Car to Pedestrian (C2P) Informal document (GRVA-02-22)



IWG meetings 8<sup>th</sup> meeting in Tokyo (15-16 May 2019) 9<sup>th</sup> meeting in Brussels (3-4 July 2019)



We proposed two documents in this GRVA Requirement of  $2^{nd}$  step of C2P  $\rightarrow$  **4<sup>th</sup> GRVA (GRVA-2019-16)** Informal document (GRVA-02-22)  $\rightarrow$  **4<sup>th</sup> GRVA (GRVA-2019-17)** 

### Informal Working Group on AEBS for Light Vehicles

This presentation show the proposal for Series and Supplement amendment of Regulation (GRVA-2019-16 and 17)

Series: Upgrade the requirement of Car to Pedestrian based on the discussion of 2<sup>nd</sup> GRVA
Supplement: Based on the proposal of OICA (GRVA-02-22)

**Documents:** 

**Series: GRVA-2019-16** 

Supplement: GRVA-2019-17 and GRVA-04-11(OICA)

## Supplement amendment of regulation

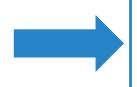
(GRVA-2019-17)

## Informal Working Group on AEBS for Light Vehicles Supplement amendment of regulation

- ➤ As requested by GRVA, the IWG on AEBS considered clarifications of the original version of the regulation proposed by OICA in GRVA-02-22.
- ➤ This document is the outcome of this discussion and it is proposed to include these changes as a supplement to the original version of the Regulation.
- ➤ However there is some text that needs particular consideration by GRVA and which is shown in square brackets. This concerns paragraph 6.10. (new statistical approach for tests) and Appendix 2 to Annex 3 (false reaction scenarios in Annex 3).

## Informal Working Group on AEBS for Light Vehicles Supplement amendment of regulation

- [6.10. Repeatability of test runs
- 6.10.1. [Any of the above test scenarios [,where a scenario describes one test setup at one subject vehicle speed at one load condition] shall be performed two times. If one of the two test runs fails to meet the required performance, the test may be repeated once. A test scenario shall be accounted as passed if the required performance is met in two test runs. [The total number of failed test runs shall not exceed [10%] of all performed test runs of all Car to Car and Car to Pedestrian scenarios in all load conditions.]]
- **6.10.2.** The root cause of any failed test run shall be analysed.
- 6.10.3. During the assessment per Annex 3, the manufacturer shall demonstrate via appropriate documentation that the system is capable of reliably delivering the required performances.]



OICA propose "Repeatability of test runs" in this GRVA (GRVA-04-11)

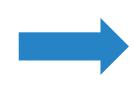
## Informal Working Group on AEBS for Light Vehicles Supplement amendment of regulation

#### **Annex 3 - Appendix 2**

False Reaction scenarios for Vehicle Target and Pedestrian Target

#### **Detail of discussion in IWG:**

- ➤ The scenario was developed in the context of the R131 (trucks in highways), it does not fit this new R152.
- > The test provisions (curve, speed, etc.) should be added



## False reaction scenario for V2V and V2P are discussion issues in this GRVA

## Series amendment of regulation

(GRVA-2019-16)

### Informal Working Group on AEBS for Light Vehicles Series amendment of regulation

- 2<sup>nd</sup> GRVA agreed that the requirements of car to pedestrian will apply 42 km/h collision avoidance same as car to car requirements.
- GRVA also agreed to remove the particular provisions for small N<sub>1</sub> full cab vehicles.

## Informal Working Group on AEBS for Light Vehicles Series amendment of regulation

#### Details of proposal:

Car to Car requirements (Maximum relative Impact Speed) for N1 vehicles in Paragraph 5.2.1.4.

> Remove the requirement of N1 full cab vehicles

Car to Pedestrian requirements for M1 and N1 vehicles in Paragraph 5.2.2.4.

- > The requirements are applied 42 km/h as collision avoidance speed in condition of mass in running order.
- > Remove the requirement of N1 full cab vehicles

Proposal for transitional provisions of new series amendment:

➤ The text also includes necessary transitional provisions. They envisage the possibility for contracting parties to mandate improved performance requirements as from 1 May 2024 for new type approvals and from 1 May 2026 for the approval existing vehicle types. The proposed transitional provisions are derived from the guidelines for transitional provisions laid down in document ECE/TRANS/WP.29/1044/Rev.2

### Informal Working Group on AEBS for Light Vehicles

### Car to Bicycle scenario

## Informal Working Group on AEBS for Light Vehicles Specifications - Car to Bicycle scenario

The group still faces difficulty in agreeing on performance requirements for the car to bicycle collision given the lack of vehicles with this technology on the market. Consequently, the informal working group agreed to consider car-to-bicycle at a later stage, when more data is available.

### **Proposal to GRVA**

GRVA agreed the extension of regulatory schedule about Car to Bicycle (e.g. 6<sup>th</sup> GRVA: September 2020), when more data is available.

# Thank you for your attention

IWG meetings 10<sup>th</sup> meeting in Brussels (28-29 November 2019)