



Submitted by the experts from  
the IWG on AEBS-HDV

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Provisional agenda item 7

# Final status report from IWG AEBS-HDV

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## Overview and Agenda

- ➔ “Check feasibility of a marker to trigger AEBS intervention”  
→ see next slides
- ➔ Transfer improvements from R131-02 to Regulation 152  
→ GRVA-13-08
- ➔ Improve R131-01 with a supplement to allow earlier braking if needed  
→ GRVA-13-10
- ➔ Improve clearness of R131-02  
→ GRVA-13-09



- ➔ ToR (*GRVA-09-32*): “Investigate the feasibility of a generic marker triggering AEBS reaction with the purpose to increase safety in road servicing areas and at railroad crossings.”
- ➔ A study provided by the Netherlands investigated different options and came to the conclusion that such a marker in principle is possible (*AEBS-HDV-10-02, AEBS-HDV-10-03*)
- ➔ Several options were presented, the feasibility in principle was verified with a marker placed on the road (a target is nothing else than a marker to trigger AEBS intervention)
- ➔ The group concluded that the actual development of such a marker does not fall under the mandate of AEBS-HDV nor the WP.29
- ➔ Industry committed to follow this item



## Transfer improvements to R152

- ➔ Most items were easy to transfer to R152 (clarification and alignment of wording, no new requirements)
- ➔ Central question for the remaining items
  - Supplement to R152, existing series of amendments?
  - New series of amendments?
- ➔ The group agreed to submit informal documents for a supplement
- ➔ There was no consensus on the following item (see next slide) from paragraphs 5.2.1.4, 5.2.2.4 and (only in R152) 5.2.3.4, the reason being that an additional reference to the test section might change the possible test procedure, thus possibly requiring a new series of amendments



## 5.2.1.4. Speed Reduction by Braking Demand

In absence of driver's input which would lead to interruption according to Paragraph 5.3.2., the AEBS shall be able to achieve a relative impact speed that is less or equal to the maximum relative impact speed as shown in the following table, **provided:**

- (a) **Vehicle external influences allow for the required deceleration, i.e.:**  
[...]
- (b) **The vehicle state itself allows for the required deceleration, e.g.:**  
[...]
- (c) **There are no external influences affecting the physical sensing capabilities, i.e.:**  
[...]
- (d) **The situation is unambiguous, i.e.:**  
[...]

**When conditions deviate from those listed above, the system shall not deactivate or unreasonably switch the control strategy. This shall be demonstrated in accordance with [paragraph 6 and] Annex 3 of this Regulation.”**



Improve R131-01 by simply removing requirement to have a limited speed reduction in warning phase:

➔ *Paragraph 6.4.*, amend to read:

➔ ~~6.4.2.3. Any speed reduction during the warning phase, shall not exceed either 15 km/h or 30 per cent of the total subject vehicle speed reduction, whichever is higher.~~

➔ *Paragraph 6.5*, amend to read:

➔ ~~6.5.2.3. Any speed reduction during the warning phase shall not exceed either 15 km/h or 30 per cent of the total subject vehicle speed reduction, whichever is higher.~~



➔ *Paragraph 5.4.1.1.*, amend to read:

- “5.4.1.1. The AEBS function shall be automatically reinstated at the initiation of each new ~~ignition~~ **engine start/run** cycle. **This requirement does not apply when a new engine start/run cycle is performed automatically, e.g. the operation of a stop/start system.**”

➔ *Paragraph 6.9*, amend to read (insert a reference to a new footnote 5 and a new footnote 5):

- (b) 10.0 per cent of the performed test runs for the Vehicle to Pedestrian tests<sup>5</sup>.
- <sup>5</sup> **In case the total number of test runs within a category would still be less than 10, additional test runs of that category may be performed, including but not limited to the failed test scenario, to reach a total number of test runs at least equal to 10.**



## Next Steps

- ➔ GRVA-13-08, R152: Further discussions expected by interested parties (not within this group)
- ➔ The agreed informal documents should become official documents for GRVA-14 then sent to March 2023 session of WP.29
- ➔ The mandate of AEBS-HDV is completed, the group believes it is terminated
- ➔ The board would like to thank all participants for the efficient and proactive spirit