

**Draft report of the 27th Session of the
GRSG Informal Working Group on
awareness of Vulnerable Road Users proximity
in low speed manoeuvres (VRU-Proxi)**

Dates: 18th and 19th of January 2023
Venue: Webex meeting
Chair: Mr. Romain Ladret Piciorus (European Commission)
Secretary: Mr. Johan Broeders (OICA)

1. Welcome and introduction

The Chair kindly welcomed the group and informed the members about his intention to leave EC DG-Grow by the 16th of February 2023. The EC is now looking for a successor and a new Chair for this IWG. At this moment there is no further information.

2. Adoption of the agenda

Document: [VRU-Proxi-27-01 \(Chair\)](#)

The group adopted the agenda and the revised running order.

3. Adoption of the report of the 26th VRU-Proxi session (online meeting)

Document: [VRU-Proxi-26-08 Rev1 \(Chair\)](#)

The expert from J mentioned an incorrectness in section 10. “Component Approval”. According to the expert there is no need for J to discuss this subject now. However, J is open to consider it if other members wish to discuss it in the future. The report has been changed accordingly and a revision of the report will be uploaded to the UNECE Wiki. After this change the report was adopted by the group.

4. Reversing Motion (R158)

Document: [VRU-Proxi-27-02 \(CLEPA\)](#)
[VRU-Proxi-27-03 \(CLEPA\)](#)
[VRU-Proxi-27-08 \(Secretary\)](#)
[ECE/TRANS/WP.29/2022/123/Rev.1](#)

The expert from CLEPA introduced document VRU-Proxi-26-02 (tracked changes) and 03 (clean version) with the changes proposed in the previous meeting embedded into document VRU-Proxi-26-02 Rev2. The expert suggested to remove the requirement for “Temporarily modified view” from paragraph 16.1.1.3 and to make a main change of paragraph 16.1.1.4 including the requirement for temporarily modified view based on a similar requirement as defined in Regulation No. 46. In paragraph 16.1.3.1 the temporary obstruction is now restricted to only the required field of vision.

Comments from the group:

- The Chair indicated that the wording “should” must be replaced by “shall” for making it an obligation instead of an advice.
- The expert from J indicated that the de-activation of the temporarily modified view should be indicated in the de-activation requirement. Other experts agreed with the view from J and suggested to also keep the text on the de-activation in the temporarily modified view for the understanding of the requirement.
- The expert from FR mentioned that the last part of 16.1.3.1 in the proposal means that in case of an obstruction of the field of vision the vehicle shall be equipped with a certified detection system. In this case the mandatory approval of the camera monitor system would be superfluous and the manufacturer can install a not certified system with dimensions, field of vision and positioning not according this regulation.
- The expert from OICA stated that paragraph 1.3.3.5 of Annex 9 aiming for allowing only a head movement gives not much freedom for the Industry. Furthermore, it was questioned what the definition was of “normal reversing motion conditions”. Does this include turning? According to the other experts this also includes turning manoeuvres in reverse direction.
- The expert from DE welcomed the proposal in paragraph 1.3.3.5 of Annex 9 as a head movement would increase the view for driver as it is similar to the situation with conventional mirrors. He also mentioned that “obstacle” shall be replaced in this paragraph by “obstruction” for uniformity reasons.
- The expert from the UK suggested to provide a warning for the driver in case of temporary obstruction. The expert indicated to accept the proposal if the legal view can be seen by moving the head.

Conclusions:

The Chair proposed to continue with current adapted text as noted in VRU-Proxi-27-06 as an Informal Document (header to be modified) for discussion in the GSRG March 2023 session as an amendment to the already adopted Working Document in WP.29 November 2022 session (ECE/TRANS/WP.29/2022/123/Rev.1). A new Working Document containing this proposal shall be prepared for the GRSG October 2023 session.

5. Direct Vision

5.1. Continuation of discussion on proposals for amendments

Document: [VRU-Proxi-27-04 \(Germany\)](#)
[VRU-Proxi-27-05 \(Germany\)](#)

The expert from DE presented a new proposal concerning an Emergency Motion Inhibit System (EMIS) as a replacement for the previously presented Urban Emergency Braking System (UEBS) by Germany to GRSG and GRVA. With this new proposal there is no demand for an active braking anymore and is more like an upgraded version of the Moving Off

Information System (MOIS+), hence it can be handled by the experts of GRSG. This proposal is currently written as an annex to the Direct Vision regulation and, according to the expert of DE, may be used to motivate different requirements for specific cases or vehicle configurations. This would give the Industry more flexibility without affecting road safety for VRUs. No specific test scenarios are defined as technology evolves according to the expert from DE. De-activation of the system would not be allowed.

- The Chair stated that the basis should be direct vision, but this proposal can be considered as way to solve the issue of vehicles with competing objectives.
- The expert from SE stated to have sympathy for the proposal as safety can also be gained by active safety systems and not with direct vision only. This system is beneficial and an effective solution in general, not only for the high-capacity vehicles in Scandinavia. Such systems would be beneficial for level 1 vehicles in case these vehicles are driving in dense city areas.
- The expert from Apollo welcomed the proposal and mentioned that investigations in the past did prove that moving-off inhibit systems are a very good and effective solution for moving-off accidents. The expert questioned the feasibility and maturity of these systems. The expert from ACEA mentioned that this cannot be said now and first the support of CPs may be needed before start working in this direction.
- The expert from DE mentioned that the proposal can be considered as an annex to the Direct Vision regulation or as a separate regulation in GRSG. For the latter there is no request or wish from GRSG for such a regulations and CPs could decide to make it mandatory for all vehicles. The expert indicated to prefer the option of an annex to the Direct Vision regulation.
- The expert from J said that they want to check the proposal more deeply and that more time is needed for further consideration.
- The expert from FR mentioned to be not really supportive to the proposal at this moment but FR may be open to discuss it and to consider the potential of it for specific vehicles e.g. SAE automation level 4/5 vehicles.
- The expert from UK stated to be strongly in favor of direct vision as direct eye contact is very important. The expert questioned if it would be better to organize a separated Taskforce for this topic.
- The expert from ACEA pointed out that if CPs are opposed to it, it is not likely that the proposal would be fruitful and suggested to make sure that there is an agreement between CPs if a system could be taken into account with adapted requirements for Direct Vision.

Conclusion:

As discussed and indicated by some CPs the Chair proposed to continue this discussion in the Taskforce for Direct vision.

5.2. Direct Vision Regulation Phase 2

Document: [ECE/TRANS/WP.29/GRSG/2023/10](#)
[VRU-Proxi-27-07 Rev1 \(LDS\)](#)

Regarding the alternative testing method for innovative vehicle designs IWG VRU-Proxi has submitted Working Document ECE/TRANS/WP.29/GRSG/2023/10 to GRSG March 2023 session. The intention was to continue the discussion and make decisions about the final proposal for an amendment to this Working Document in particular regarding the text in between square brackets.

The expert from LDS presented VRU-Proxi-27-07 Rev1 and the evolution of the direct vision requirements from the London Direct Vision Standard towards the UNECE Direct Vision Regulation. Issues found with the proposed new method for UNECE with both options 3 and 4 were explained to the group. It would not be a reason to withdraw the current Working Document, but some special attention would be needed for definition of the requirements of the new method. The new proposed methods are now not equivalent with the currently regulated method as with both methods more vision from the sides at vehicle front could be gained.

- The Chair mentioned that it is important to have corresponding methods and recalled that in the previous meeting option 3 received the most consensus in the group.
- The expert from ACEA mentioned that a solution for the issue raised by the expert from LDS could be found in the threshold that still needs to be determined. Also, the improvement of the vision through the side windows as indicated by the expert from LDS is very limited as the structure in the doors is needed to meet other regulations (Cab Strength Regulation No. 29) and cab integrity for crash worthiness (occupant protection).
- The expert from UK mentioned the importance of this discussion and that development time needed for the Industry was recognized in the GSR discussions by moving the introductions for direct vision regulations to the 2026/2029 timeframe. In addition, this IWG addressed the importance of direct vision to the front and moved to separated vision requirements for the side and the front. The objective is to provide an equivalent for the current method and the expert indicated to be willing to participate in the Taskforce for further discussion on how to achieve this.
- The expert from Volvo explained that the impression that was given by the expert from LDS concerning the door improvement on an existing cab for more direct vision is not correct. The reason for changing the Volvo FM was to update the cab by adopting the complete cab structure from the FH range and not a change of the door only specific for direct vision reasons.
- The expert from FR stated that it would be acceptable to keep the current regulation and replace 5.3 with option 3 including safeguarding meaning only for new designs and specific cases that needs to be defined in the regulation.
- The expert from LDS mentioned the possibilities for the way forward: retain current test as implemented in paragraph 5.3 or choose one of the options and define additional volumes for the extensions to the left and right side of the vehicle. Otherwise, a completely new method needs to be defined.

- The expert from Apollo stated that the current regulation already considers to some extent vision from the side. With the new method this vision from the side would increase and it is inevitable that there is no full equivalence with the current regulation.

Conclusions:

The Chair suggested to progress with option 3 and find a way to get equivalent requirements as currently defined in paragraph 5.3. The discussion and further work shall be continued in the Taskforce Direct Vision.

5.3. Direct Vision Regulation Phase 2 – Vehicles with competing objectives

This subject has not been discussed in this meeting and has been postponed to the next meeting.

6. Moving-Off Information System (R159)

As there were no proposals submitted, this subject has not been discussed during this meeting.

7. Blind Spot Information System (R151)

As there were no proposals submitted, this subject has not been discussed during this meeting.

8. Frontal and Lateral Driver's Awareness M1/N1

As there were no proposals submitted, this subject has not been discussed during this meeting.

9. Component approval

This subject has not been discussed in detail, the expert from the EC will take this up with CLEPA offline.

10. Next meeting

28th meeting: meeting to be planned in the first half of February 2023, exact dates to be determined by a Doodle poll, web meeting.

11. Any Other Item

No other items were discussed in this meeting.