

UNECE GRSP IWG Equitable Occupant Protection (EqOP) Task Force 3 – Virtual Crash Testing

Draft minutes of the 6th meeting.
On-line meeting, 22nd November 2024.
30 participants.

Adoption of the agenda & minutes of last meeting

Agenda was approved by the participants.
Minutes of the 5th meeting were discussed and will be uploaded with the proposed changes (see [Link](#)).

Proof of concept

The chair reminded the group on “Proof of concept” as presented on the last general IWG meeting. (see page 22, [EqOP-08-03e - Chair presentation.pdf](#)).

Based on this, the chair explained a proposed workplan for “Proof of concept” (see [EqOP-TF3-06-03e Workplan PoC 22112024](#)). Load cases have been discussed and selected in the workshop in September in Gothenburg: UN R137 and UN R21.

Level 1 is already defined in the regulatory texts, level 2 looking at HBM kinematics is also existing in GTR9 proposals. This means that in principle “testable” load cases are theoretically already part of existing procedures.

Autoliv mentioned that in UN R21 no criteria for validation are defined and it is basically only contact / no contact evaluation. The group agreed that here the definitions are very basic / rough but would be a good starting point to enhance this part of the regulation.

Humanetics also remarked that UN R21 is only using pass/fail criteria and is not reflecting all criteria for EqOP. Here, the chair again clarified that the aim is to use UN R137 (start high) and only if this proves to be not feasible, UN R21 will be considered as a load case.

The chair introduced questions which need to be answered:

- What is needed to make Level 3 possible? (includes also Level 1 / 2).
- If we fail, what is needed to enable Level 2?
- If we fail, what is needed to enable Level 1?

To answer these questions, the group tried at first to define “fail” and “success”:

Autoliv stated that the benefit using VT needs to be large enough. Therefore, level 3 might be too difficult and instead the group should aim to secure robustness of safety for everybody.

OICA remarked that the order of the levels as shown in the diagram is misleading. Based on that remark, the diagram was modified in the meeting (see [TF3-06-04e Workplan Level3-1 Definitions 22112024](#)). It also was clarified that “fail” means “fail of proof of concept”.

Finally, the group agreed on following proposals:

Fail of proof of concept:

- No safety benefit expected (no improvement of equitable protection, no reduction of injury risks expected)
- Objection of contracting party which cannot be technically addressed (e.g. not trustworthy enough)
- Not possible within defined time frame
- Not feasible for parties involved.

Success of proof of concept:

- Safety benefit large enough that is worth the effort (currently difficult to estimate the costs)
- Contracting parties agree that the procedure is trustworthy enough for regulations.

As for feasibility, the group discussed following:

- Demonstrate that industry could follow the procedure
- Demonstrate that technical services could follow the procedure
- Demonstrate quality of simulation models (good enough to predict results)

Based on these proposals, CLEPA requested that the benefit needs a more detailed definition (e.g. which injury risk, ...) and OICA added that more orientation would be helpful for the next steps (landscape for orientation, "golden rules").

The time frame for the proof of concept is according to the ToR of the IWG (GRSP in Q4/2027).

To start with the work the group developed in the meeting a working concept (based on a proposal from the chair) with sequential steps (see [EqOP-TF3-06-5e Concept PoC 22112024](#)). In the next meeting the process to fill the boxes/steps will be discussed and ideally, work on box1 can be started.

Next meeting:

Online meeting on 25th March 2025 12:00 – 14:00 CET.