



Meeting Minutes

1st web meeting concerning modification of the legform test procedure (practical issue and general observation decreasing legform test areas for type- approved vehicles)

4 September 2012

* * *

12.30 – 14.30 hours (Brussels time)

Web Conference attendees (in alphabetical order):

Peter Broertjes / European Commission
James Ellway / Euro NCAP
Dirk-Uwe Gehring / BGS Boehme & Gehring
Olaf Insel / Volkswagen
Thomas Kinsky / General Motors Europe/Opel
Christoph Knotz / Concept Tech
Dr. Atsuhiko Konosu / JARI
Peter Lessmann / BGS Boehme & Gehring
Dr. Oskar Ries / Volkswagen
Franz Roth / Audi
Winfried Schmitt / BMW
Shunsuke Takagi / NTSEL
Bart Thedinga / TÜV Rheinland Japan
Mary Versailles / NHTSA
Oliver Zander / BAST

1. Opening of the phone conference and web meeting

Mr Broertjes opened the discussion and welcomed the attendees (see above). He explained that a kick-off meeting had taken place in Osaka/Japan one day before the 3rd meeting of the Informal Group on gtr No 9 – Phase 2 (IG GTR9-PH2). The minutes of this meeting had been shared in advance. They were reviewed and slightly amended; a revised version will be shared.

2. Proposed EC study and Terms of Reference (TRL)

Mr Carroll presented the proposed EC study: The objective is to investigate whether the definition of the bumper corners, currently using 60° planes, can be redefined to put the corners closer to the side of the vehicle. He pointed out that the item had already been discussed in the past and that Euro NCAP has already found a new solution for this, using the underlying structure as additional criterion.

Mr Carroll requested all attendees to provide information that could be helpful:

- From earlier discussion, especially the rationale of using the 60° planes;
- From vehicle geometries, assessing where the bumper corners of the vehicles are.

The project foresees to also test vehicles preferably with both, the EEVC LFI and the FlexPLI. The test results will allow an evaluation of existing vehicles and an assessment of a future change to the procedure. Finally, TRL proposes to assess the benefit of the changes with respect to accident data.

Mr Zander commented that the presentation is focused on the re-definition of the bumper corners but that it may be possible to use a different approach. Mr Broertjes replied that the procedure used in Euro NCAP seems to be a bit subjective and that this therefore might not work in the type-approval process since it may allow interpretations. The Commission is in favour of a clearer procedure that the bumper corner may provide best but of course other suggestions are welcome and will be assessed carefully.

Mr Kinsky commented that both impactors have limited abilities regarding the possible bending since they are more two-dimensionally designed. So, it needs to be assessed whether a modified bumper corner can be assessed with the impactor. However, it may also be an opportunity to modify the test procedure at all. Mr Carroll commented that this is a valuable comment and that TRL will consider this in their work. Dr. Ries added that especially for an oblique impact this needs to be considered. Are test results in such cases indeed assessing pedestrian friendliness?

Mr Broertjes wondered how Euro NCAP did solve this issue. Mr Ellway explained that Euro NCAP was concerned with vehicles using design elements to limit the test area. He showed some examples underlining this. For some vehicles even compliance with legislation may be questionable. Mr Roth added here that not all vehicles tested at Euro NCAP may need to already comply with EU legislation on pedestrian protection due to the definition of the scope and the resulting transitional provisions and introduction dates. Mr Ellway went on explaining that the Euro NCAP pedestrian working group finally concluded with the approach to also assess the underlying structure: Finally, whatever represents the wider area, the bumper corners defined via the 60° planes or the underlying structure, usually covered by the bumper fascia, is used for testing.

On request Mr Ellway confirmed that he can provide the information discussed in the Euro NCAP pedestrian working group as well as test results that may be helpful for the study of TRL. Attendees who wish to get further data may feel free to contact Mr Ellway directly.

Mr Broertjes explained that also the European Commission is concerned with the decrease of bumper test areas.

Dr. Konosu wondered whether the changes discussed here are for the phase 2 of gtr No 9 or whether it may also affect phase 1. Mr Broertjes replied that it is his understanding that changes may also affect vehicles designed to comply with phase 1 (and therefore tested with the EEVC LFI), as this was agreed by the informal working group on phase 2 (FlexPLI) of pedestrian safety, notably by OICA as confirmed by the chairman of the informal group. However, manufacturers simply using the current legal provisions in order to comply with the legislation should not be blamed or penalized and this will be considered in the discussion.

3. Cooperation with stakeholders:

- Exchange of data and test results (e.g. with EuroNCAP)
- List of vehicles with comparison of zones vs. width of car (at front axle)
- EEVC legform testing and FlexPLI testing
- Proposed test vehicles, possible availability of stakeholder vehicles, etc;

Mr Broertjes noted that some discussion had already been covered under the previous agenda item. Regarding the vehicles geometries, he requested industry to provide some data on this. Mr Kinsky promised to bring this up with European manufacturers but he also pointed out that the design elements that are in question here are often just design elements without any influence. However, Mr Kinsky also suggested contacting the OICA secretariat to get the information above also from other regions.

Dr. Konosu pointed that he has concerns with high loads into the impactor outside the bumper corners and also with the injury levels outside today's test zones. Do they indeed provide for the need to increase the test zones? Mr Broertjes replied that this is a valuable question and that the result of the study may also be that no changes to the test areas are needed. However, for the time being TRL will consider these questions during their work.

Mr Kinsky added again that the physical abilities of the impactors are limited. Those limitations need to be considered for the test procedure since they may limit manufacturers' abilities to reliably design their vehicles towards changed/new requirements. This was also a reason why, in the IG GTR9-PH2 discussion, the proposal of BAST to test the whole vehicle width (just excluding the mirrors) was rejected by industry. Mr Zander replied that their proposal was just to assess the whole width but not necessarily to test the whole width.

Mr Broertjes expressed the need to check the relevance of test results on oblique surfaces.

Mr Thedinga stated that J NCAP is already using the FlexPLI. He asked whether J NCAP is using the increased test zone in line with Euro NCAP.

Dr. Konosu confirmed this testing outside the bumper corners and offered on request to contact NASVAC, the organisation conducting the J-NCAP testing, whether they can provide respective data. He added that the decision on testing outside the bumper corners would be a subjective one. Mr Zander replied that testing outside the bumper corners can be seen as objective or as subjective as any other test within the area just limited by the bumper corners.

Mr Broertjes suggested when discussing the bumper test area then to first consider the EEVC legform impactor and the FlexPLI afterwards. Mr Zander wondered why not to start directly with the FlexPLI.

Mr Broertjes replied that this would be mainly a question of availability of the impactors. Besides, the European Commission perhaps will take the decision to make both impactors co-existing for a while.

Dr. Konosu added that within Euro NCAP lots of test data with EEVC impactor are available. Therefore, it could be faster to think about how to make progress on this issue with this data at first.

Mr Broertjes also wondered whether US government and manufacturers could also contribute to the discussion. Ms Versailles confirmed that NHTSA is currently conducting legform testing and promised to double-check, also with the Alliance, which contribution may be possible.

Mr Broertjes finally promised that the discussion above will be considered in the EC study.

4. Action list

Who	What
Industry	Provide geometries of vehicles regarding the bumper design elements
Mr Broertjes	Contact OICA secretariat to request information on vehicle geometries from non-European vehicles
All	Provide information from past discussion regarding the rational of using the 60° planes (Please note: Mr Zander pointed out afterwards that some of the information had already been provided with document GTR9-2-03)
All	Provide information on injury risks caused by impacts outside the bumper corners
Euro NCAP (via James Ellway)	Provide information from Euro NCAP's testing of test points outside the bumper corners
J NCAP (via Dr. Konosu)	Provide data from testing with the FlexPLI outside the bumper corners
Ms Versailles	Check whether information on vehicles with oblique surfaces can be provided by NHTSA

5. Miscellaneous items

It is suggested that the next meeting should take place together with the IG GTR9-PH2 meeting in early December. However, details may be fixed during the Washington DC meeting of the IG GTR9-PH2.

6. Conclusion of the meeting