GRSG TF on FVA – Kick off Meeting

Notes

Date: 08.09.2020 2:00PM

Participants:

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| Olivier Fontaine | OICA |
| David Francis | OICA-SMMT |
| BENOIT MOREAU  | OICA-PSA |
| Akinari Hirao | OICA-JAMA |
| ALEXANDRA-BRIGITTE SCHOLZ  | OICA-PSA |
| Rania Kiesow | Germany-KBA |
| Bruce | Korea-KATRI |
| Hyoung Gu, Kim  | Korea-KATRI |
| Tatsuya Ota | OICA-JAMA |
| Ansgar Pott | OICA-Hyundai |
| Moosong Pyun | Korea-Kikas |
| Kilho Maeng | Korea-Katri |
| Marc Larouche | BRP |
| PHAN Vuthy | OICA-Renault |
| Perl, Andreas | OICA-VDA |
| Francesco Siano (Guest) | OICA-GM |
| LADRET PICIORUS Romain (GROW) | European Commission |
| Marcus (Gast) | OICA-Audi |
| Rudolf Gerlach | Germany-TÜV Rheinland |
| Lehner, Barbara (EVFT) | OICA-MAN |
| Mahieddine Bellebna (Mercedes-Benz AG) (Gast) | OICA-Daimler Benz |
| Schaber, Lisa (ETB/1) | OICA-Volkswagen |
| Julian Brouté de Hita | ANFAG |
| Masahiro Oda | CLEPA-Denso |
| Lammers, Hans | The Netherlands - RDW |
| Justo Sancho (Invitado) | jsalpanes@dgt.es |
| Ramon Gouweleeuw | The Netherlands - RDW |
| Mohit Tyagi (ACEA) (Guest) | OICA-ACEA |
| Justo Sancho | Spain - DGT |
| Mueller von Kralik, Stephan | CLEPA-Webasto |

1. **Background**
* Based on discussions with Type Approval Authorities, OICA asked GRSG during its 118th session to clarify the legal situation in case of extended Head Up Displays with document [GRSG/2020/12](https://www.unece.org/fileadmin/DAM/trans/doc/2020/wp29grsg/ECE-TRANS-WP.29-GRSG-2020-12e.pdf) (the discussion was started by OICA during GRSG-116 with [GRSG-117-27](https://www.unece.org/fileadmin/DAM/trans/doc/2019/wp29grsg/GRSG-117-27e.pdf)).
* During GRSG-118, NL informed to be in favor of provisions for such systems. This was supported by several CPs like Germany, France and UK. NL also informed that they are currently refusing approvals if an extended HUD is installed while other Type Approval Authorities have granted approvals to UN R 125 for vehicles having such a system.
* GRSG agreed to further review and discuss this question in a dedicated TF and asked OICA to organize the Kick-Off meeting.
1. **Organisation**
* Mr. Ramon Gouweleeuw (RDW) volunteered to act as the chair of this TF and Mr. Ansgar Pott (OICA-Hyundai) volunteered as secretary. The TF members agreed.
* Interested experts are invited to join the discussions and are asked to submit their contact data to A. Pott (apott@hyundai-europe.com). He will set up a mailing list for further communication.
1. **Legal Situation Today**

Document: 

* RDW informed about their questions to EU-TAAM (document attached) on the consideration of Augmented Reality for UN R125 approvals:
1. *Do you consider these projections “obstructions” as described in article 5.1.3.?*
2. *Did you issue any WVTA according to 2007/46 with a form of Augmented Reality?*
3. *If the answer to Q2 is yes, what were the conditions of approval?*
4. *If the answer to Q2 is no, why not?*
* NL received only few answers from other Type Approval Authorities but these answers showed that an extended HUD is seen as obstruction.
* NL sees the main key in current discussion in the question if such information -given to the driver via an extended HUD- can be seen as obstruction or not. If it is not seen as an obstruction it will consequently not be further reviewed during the R125 approval process. This will most likely result in the situation that some Authorities are granting an approval to 125 while others are refusing. RDW proposed to define in a first step “obstructions”.
* OICA volunteered to further review and to work out with RDW a proposal for the definition of obstructions until next TF meeting.
* KATRI informed that discussions on an extended AR-HUD started also for the Korean market. KATRI will give more information during next TF meeting
1. **Discussion on document GRSG/2020/12**
	1. Definitions

*Text in current proposal:*

*"2.19. Head Up Display (HUD): Visual information displayed in area “S” as defined in paragraph 5.1.3.4.*

*2.20. Field of Vision Assistant (FVA): Visual information displayed in the transparent field of vision other than by the HUD to support the awareness of the driver in specific driving situations."*

* It was agreed to further review the definitions and to add a definition for obstructions
	1. Provisions

*Text in current proposal:*

*"5.1.3.5. The transparent field of vision as defined in paragraph 5.1.1. may be overlaid by information of a Field of Vision Assist. Such information shall be driving related only and limited to:*

*(a) Warning/Highlight hazardous traffic situation*

*(b) Warning/Highlight vulnerable road users or other road users which may be overseen*

*(c) Information to maintain the distances to surrounding road users*

*(d) Information to find and maintain the correct driveway*

*Other information may be given after agreement between manufacturer and technical service/approval authority. Examples of the above Warning/Highlights/Informations are given in Annex 5.*

*5.1.3.5.1. The symbols and graphics shown by the FVA shall disappear when the driving related situation defined above does not exist anymore.*

*5.1.3.5.2. The FVA shall highlight the real view and shall not fully mask objects.*

*5.1.3.5.3. The driver shall be capable to adjust the light intensity of the FVA and he shall be capable to switch off the FVA system."*

* EC reminded that the technical performance of such systems can differ from simple systems to high tech systems and that the appearance of the scene in front of the vehicle can differ as such. In some conditions, an overlay of information could be without problems in others situations it could create a problem.
* Germany (TÜV Rheinland) confirmed, what was stated by the NL and asked for studies to ensure that an obstruction of the direct view and a distraction of the driver is not occurring.(After the meeting Germany offered to give a presentation about the results of the [BASt Study](https://bast.opus.hbz-nrw.de/frontdoor/index/index/docId/2139) during the next meeting)
* RDW stated that the BASt Study is focused on warning information, not on information for navigation.
* EC supported and asked for more information from studies already done or to be conducted.
* JAMA informed on ongoing studies to update their guideline for extended HUDs. Aim is to finalise the Study until End of 2020.
* OICA is open to a regulatory approach but reminded on the urgency as many manufacturers are ready to introduce such systems in near future. He reminded on the situation with restraint systems/airbags. Airbags were introduced without any regulatory provisions as benefit for the passengers and a regulatory activity started later to limit negative side effects. In the case of an extended HUD, negative side effects are for example the distraction of the driver.
* RDW informed to be fine with the 5.1.3.5. and especially the listed cases a) to d) but opposes to the sentence “ *Other information may be given…”.* In case that additional information have to be included, the legislative text could be modified in future after discussion at GRSG.
* § *5.1.3.5.2. is too vague and unspecific for RDW.*
* OICA understands in principle but has difficulties to add further details as measurements for “masking” are very complicated (e.g.: objects and also the vehicle are not static in real world).
* Secretary proposed to go ahead with a two-step approach:

1st step: to define basic provisions to enable the approval of extended HUD in short time. Basis could be the proposal for § 5.1.3.5. which would limit the negative side effect up to a certain level.

2nd step: to define more detailed provisions, based on studies and further investigations to define and minimize remaining negative side effects.

* All to review if and under which conditions such an approach would be possible.
1. **Next steps and next meeting:**
* Definition of obstruction.
* Review proposal for 2-step approach and come with a revised proposal.
* Next meeting will be in the week of 12th October.