Report and summary of activities of Informal Working Group on ACSF

After 5th Session of UNECE GRVA
General overview

Two web meetings were held: Feb 25th & Feb 27th 2020

Document: GRVA-06-02

- Consensus commonly reached
  - A few open points which could not be resolved in limited time
  - All positions/alternatives expressed are not always contained in the document (para. 5.2.5.)

- No review:
  - DSSAD (IWG EDR/DSSAD)
  - Annex 4 (IWG VMAD)
  - Cybersecurity (TF CS/OTA)
Proposed amendments & significant changes

- Proposed amendments:
  - Modification to Introduction
  - Amendments (mostly language improvements) to some definitions
  - General alignment/consistency check to Annex 4

- Proposed significant changes:
  - Dynamic driving task: see following slides
  - Annex 3: dissolved & integrated into Annex 4 (CONNECTION TO VMAD!)
  - Annex 5: inclusion of field of view test (para. 4.6.)
  - Annex 5: Appendix (table) dissolved and proposal to incorporate all necessary information into Annex 5 text
Open points – no consensus achieved in limited time

- Incorporating „philosophy of driver model approach“ (para. 5.2.5)
- Defining conditions where a collision shall be avoided (para. 5.2.5.2)
- Clarifying “non-driving activities” provided by the vehicle which shall be suspended in case of transition demand or deactivation of ALKS
- Final check Annex 1 (e.g. with Annex 4 and according Appendixes)
An alternative was also proposed by Japan to add “this assessment shall include in particular scenarios listed in Appendix 4 of Annex 4” at the end of the para. in order to avoid different interpretations among type approval authorities.
Open points – „collision avoidance conditions“

The activated system shall detect the risk of an imminent collision with a suddenly cutting in vehicle and avoid a collision with a suddenly cutting in vehicle,

- provided the cutting in vehicle maintains its longitudinal speed which is lower than the longitudinal speed of the ALKS vehicle and
- [provided that the cutting in vehicle has been clearly visible to the ALKS vehicle’s sensors for a time of at least 0.72 seconds before the reference point for TTCLaneIntrusion is reached, ¹]
- when the distance between the vehicle’s front and the cutting in road user’s rear corresponds to a TTC calculated by the following equation:

\[ TTCLaneIntrusion > \frac{v_{rel}}{(2 \cdot 6 \text{m/s}^2)} + 0.35 \text{s} \]

Where:

- \( v_{rel} \) = relative velocity between both vehicles, positive for vehicle being faster than the cutting in vehicle
- \( TTCLaneIntrusion \) = The TTC value when the outside of the tyre of the intruding vehicle’s front wheel closest to the lane markings crosses a line 0.3 m beyond the outside edge of the visible lane marking to which the intruding vehicle is being drifted.

No consensus reached in limited time regarding the open issue of value decision [0.35s] together with conditions.

Proposed by Germany during GRVA-05 based on industry proposal (GRVA-05-44).

Stakeholders requested to bring proposals to resolve this open issue directly to GRVA-06.
Open points – „non-driving activities“

1. Alternative to para. 6.1.4. proposed by EC:
   “On board displays used by the driver for other activities than driving when the ALKS is activated, shall be automatically suspended as soon as the system issues a transition demand. Other activities than driving that are provided by the vehicle to the driver once the ALKS is activated, shall be automatically suspended as soon as the system issues a transition demand or is deactivated whichever comes first.”

2. Alternative to para. 6.1.4. proposed by JP:
   “Other activities than driving Built-in Infotainment Systems that are provided by the vehicle to the driver once the ALKS is activated, shall be automatically suspended as soon as the system issues a transition demand or is deactivated whichever comes first.”

3. Alternative to para. 6.1.4. proposed by Industry:
   “Other activities than driving performed by the driver through on-board displays when that are provided by the vehicle to the driver once the ALKS is activated, shall be automatically suspended as soon as the system issues a transition demand or is deactivated whichever comes first.”

3 alternatives are generally in the same direction to limit the object from “other activities“ to “on board displays“ though IWG on ACSF could not discuss the proposals due to the time restraint.
Open points – Final check Annex 1 *(e.g. with Annex 4)*

- Final check with Annex 4 (and Appendixes) by IWG VMAD needed,
- input also expected by IWG DSSAD and
- final confirmation expected by TF CS/OTA.