

Report on the 2<sup>nd</sup> meeting of the GRRF informal group on  
Advanced Emergency Braking Systems (AEBS)  
for light vehicles  
Cologne, 20 – 21 November 2017

Chair: Mr. Antony Lagrange (EC) and Mr. Toshiya Hirose (Japan)

Secretary: Mr. Yukihiro Shiomi (Japan) and Mr. Olivier Fontaine (OICA)

**General:**

1. The 2<sup>nd</sup> meeting of the informal group on AEBS for light vehicles set up under GRRF was hosted by BAST and delegates and experts from Industry and contracting parties participated to this two-day meeting.
2. The main topics on the agenda (AEBS-02-01) were (1) exchange of information on existing and future AEBS technologies, (2) exchange of information on existing studies, standards and guidelines for developing a draft outline for UNECE Regulation on AEBS (Result of this discussion showed in AEBS-02-17).

**Information on existing and future AEBS technologies:**

1. OICA presented the document AEBS-02-05 presenting the state of play with regard to the existing AEBS test protocols and system functionalities.
2. EuroNCAP presented the document AEBS-02-12 (AEB at Thatcham Research and in Euro NCAP). Work of EuroNCAP determined, on the basis of accident data, what test procedures could be implemented through EuroNCAP to cover the most common types of accidents.
3. The group had the opportunity to review some of the existing test targets currently used by BAST for their testing.
4. OICA presented the data of AEBS-02-06 (Accident data). The study shows that the mean vehicle impact speed is 44 km/h.
5. OICA presented their reasons supporting the creation of a new regulation separate to UNECE Regulation No.131; this approach was supported by the group. **The informal group is seeking confirmation of this recommendation by GRRF at its February 2018 session.**

6. OICA presented a possible structure for the possible new regulation in AEBS-02-14 (Industry position).
  - Test methods and targets to be inspired from EuroNCAP.
  - General requirements and HMI to be inspired by UN R131.,
  - The system should be default ON but with the ability for the driver to deactivate.
  - No activation if Last Point to Steer (LPS) is before Last Point to Brake (LPB).
7. The group scrutinized the limitation of technologies in AEBS-02-16 (Sensor and Scenario):

**Review existing studies/standards/guidelines:**

1. Japan presented their J-NCAP per AEBS-02-09 (J-NCAP for pedestrian) that focused on emergency braking in case of a moving pedestrian in daytime, and AEBS-02-10 (J-NCAP for vehicle) that focuses on emergency braking in case of a rear-end collision. The expert informed that the protocols are basically the same as at EuroNCAP.
2. Japan presented the document AEBS-02-07 (Estimation of the Effect of AEBS Based on Data about Rear-End Accidents That Occurred in Japan). The expert informed that the data are similar to those from Europe.
3. Japan presented AEBS-02-08 (Explanation of Japanese guideline) of Japanese guidelines for AEBS.
4. The European Commission informed of the outcomes of the cost / benefit analysis conducted in the EU for enhancing vehicle safety per document AEBS-02-04.

**Consideration of issues to be tackled/a first draft:**

1. The group started an attempt to capture the main points to include into the regulation, starting from AEBS-02-17 (Discussion point).
  - Definition of AEBS
  - Operating range
  - General performances, HMI (UN R131), speed thresholds, relative speeds, etc.
  - Test scenario (C2C, C2B, C2P)
  - False warning

**Next steps:**

The group decided to hold its 3<sup>rd</sup> meeting in Brussels on the 19<sup>th</sup> and 20<sup>th</sup> of February 2018 (week following the February 2018 GRRF session), and then every 2 months. The draft agenda of 3<sup>rd</sup> meeting is document AEBS-03-01. The group captured the main discussion points to include into the regulation (AEBS-02-17), and the group will discuss consideration for technical requirements for this points identified at the last meeting. (Car to Car, Car to Pedestrians and Car to Cyclists) Concerning the regulatory approach, the group agreed that this issue should be confirmed by GRRF at its February 2018 session.

-----