

## **DRAFT AGENDA**

### **1<sup>st</sup> meeting of the Informal Working Group (IWG) on Event Data Recorder (EDR) and Data Storage System for Automated Vehicle (DSSAD)**

8-9 July 2019,  
Brussels

**Time:** Monday 8 July 13:30-17:30  
Tuesday 9 July 9:00-16:30

**Venue:**

- 1<sup>st</sup> day: EU Commission BREY 12A / DG GROW, Avenue d'Auderghem 45, 1040 Brussels;
- 2<sup>nd</sup> day: EU Commission room CCAB 3B, Rue Froissart 36, 1040 Brussels.

**Chairmen:**

The Netherlands: Mr. Tim Guiting  
Japan: Mr. Tetsuya Niikuni

**Secretariat:** Mr. Olivier Fontaine (OICA)

**1. Welcome and Introduction**

**2. Approval of the agenda**

Document: EDR/DSSAD-01-01 (Chair)

**3. Introduction**

**3.1. Procedural background**

At WP29-178 the Framework document 2019/34 was supplemented by WP29-178-10-Rev.2.

The EDR-DSSAD terms of reference are completed as per Annex VII of the WP29 draft report (see CRP4).

**3.2. Collection of first views from the parties**

Document: EDR-DSSAD-01-04 (CLEPA-OICA)

D: as part of the ACSF informal group, the delegate was keen to contribute mainly for DSSAD. In particular on the differences between EDR and DSSAD.

Chair: 1<sup>st</sup> meeting will be mainly devoted to the identification of DSSAD vs. EDR. Yet the 1<sup>st</sup> task (most urgent) will be DSSAD.

OICA presented EDR-DSSAD-04:

- EVU: there might be a need that data be collected also for assistance systems of L2 (AEBS sometimes inadequately intervenes).
- Chair: the mandate from the Framework document is for L3-4
- D:
  - o The request from ACSF is for L3-4. Enlargement of scope might be possible at a later stage
  - o Real need to deliver ALKS L3 by February 2020, hence DSSAD should be ready by that date.
- S: questioned the EDR triggering in case of e.g. system failure or “unplanned take-over”. Yet these events are captured by the EDR.

J presented EDR-DSSAD-05: the timeline is quite tight, group needs to find efficient delivery system

- D:

- Suggested synchronizing meetings of EDR/DSSAD with those of ACSF
- Suggested that EDR/DSSAD requests ACSF to provide a “whish list” to this group so as to know exactly what to deliver.

#### 4. Revision of the terms of reference

Document: GRVA-03-22 (GRVA Secretary)

##### 4.1. identifying the IWG’s tasks and deadlines

The group is expected to decide what needs to be done for these tasks (like setting up the drafts for regulatory proposals, in what format (respecting 98 and 58 Agreements), what can be used as starting documents etc

The group reviewed the Annex VII from the WP29-178 draft report (CRP4)

The Chair pointed out that the dates were taken out from the draft terms of reference, to be found back in the Framework document WP29-178-10-Rev.2.

The EC wondered how the group could deliver DSSAD full package w/o delivering EDR as well.

The Chair confirmed the timeline as per WP29-178-10-Rev.2.

On the regulatory approach, the Chair suggested focusing on the technical requirements for DSSAD as a UN regulation linked to ALKS.

OICA informed having already started producing a draft EDR regulation. Yet need to collaborate with ALKS for some particular aspects such as the definition of take-over demand, the GPS positioning data, access to date, etc.

D:

- GRVA-02-21 (OICA): would OICA present this here, as an input
- ACSF has no view on the formatting

OICA committed to share a draft regulation on EDR.

OICA informed having an ongoing document on DSSAD. Yet need to know what is stable as a request from ALKS.

There was a debate on DSSAD dedicated for ALKS and for systems beyond ALKS. Yet the mandate of the group for the time being is restricted to DSSAD for ALKS.

Conclusion:

- OICA to deliver a DSSAD draft text for the next session,
- That document being a starting point for the group.

##### 4.2. Priorities

The group is expected to conclude on the timeframes to deliver the respective parts (DSSAD, EDR)

See WP29-178-10-Rev.2.

##### 4.3. Identification of the scope of the regulatory proposals (vehicle categories, possible exemptions, etc.)

D informed that the scope of ASCF is currently decreased to M1 for time constraints at low speed. Yet the group will consider enlarging the scope in the near future.

OICA clarified the dates of introduction of EDR within the EU GSR (2022-2024)

The EC suggested to win time and already now start elaborating EDR for HCVs. Yet OICA pointed out that the timeline for DSSAD for light vehicle is already quite challenging. EVU supported this OICA point of view, i.e. EDR triggering is already quite difficult to discriminate on light vehicles, hence even more difficult on HCVs.

S: is there any technical limitation for DSSAD on HCVs?

Conclusion:

- All contracting parties to check their wish for the scopes on EDR and DSSAD for the next meeting

- All also to check the necessary exemptions (e.g. for privacy reasons).

#### 4.4. Identification of the specific objectives of EDR and DSSAD

##### Documents:

- EDR-DSSAD-01-02
- EDR-DSSAD-01-03
- EDR-DSSAD-01-06

The group started elaborating a comparison table EDR-DSSAD-01-07 and rev.1

D: stressed the attention on cybersecurity

The result of this exercise should be given to WP29 at its November session

The group then reviewed the draft regulation on EDR (document EDR-DSSAD-01-03).

S: asked the reason for the different time and frequency of recording. Different parameters need different recording values.

Tesla requested clarity on the column related to “accuracy”: does it apply to the full range of collected data? Yet the proposal is mainly a copy/paste of the US EDR.

FERV pointed out that, as we know the the proposal is not perfect (because outdated), some parameters could be improved. The expert cited the Veronica project as a place where some guidance could be found. The expert suggested establishing a roadmap of what should be improved in the future. OICA acknowledged this point of view but stressed that the time is limited to finalize the text.

Some expert stressed that the text and table are developed on the basis of a 2008 US EDR, while it was reviewed in 2011.

The Chair stressed that it is up to the contracting parties to check at home whether the proposal is convenient.

TRL informed that their EDR data sample since more than 10 years have at least one axis acceleration value.

S requested the Veronica project report as part of the reference document. The Secretariat committed to make it available to the group.

##### Korea

- Unit for “G”: the data should be recorded in  $m/s^2$ .
- Other systems like TPMS: mandatory ADAS should be added to the list

OICA stressed that in the UNECE the regulation can only refer to the UNECE regulated functions. The elaboration of a GTR may become a challenge in this regard. OICA acknowledged that TPMS is indeed a candidate. OICA stressed that TPMS is currently not proven as a safety function, it was mandated for emission purposes.

S questioned which data should be recorded in AVs.

The question was raised as to whether the EDR should be treated as a separate unit, or whether this should be treated as a vehicle regulation (EU GSR requires a separate component treatment).

Some expert raised the question of PTI to ensure it is in good shape when there is an event. OICA requested evidence of such a need: in the USA, how many accidents could not be reconstructed due to the EDR out of order.

TRL pointed out that some L2 ADAS may need more detailed criteria.

S stressed the need for a clear roadmap.

OICA stressed that starting with a copy/paste of the existing EDRs would permit transitional provisions when the text evolves, which is of high relevancy for Industry. For example, some existing vehicles EDRs cannot be upgraded to some recent ADAS data collection due to lack of proper connexion.

##### Conclusion:

- More details at next session
- OICA to improve the document according to the comments received
- Then homework for all parties to have positions and comments to the revised draft. Comments to be sent to the Secretariat
- All to have a position as to whether the 1<sup>st</sup> step should be a copy/paste of the US EDR, or to be a further elaborated draft.

OICA then presented an updated version of the document GRVA-02-21.

The Chair recognized the need to correctly liaise with GRVA and ACSF

FSD:

- Time scan: capacity of the timescan to give a clear picture of the event: need to well define the accuracy
- Access to data. Currently via OBD. Yet in the future it will be OTA then stored in some backhand. What is the role of the manufacturer there?
- Retrieval tool: need for harmonization to avoid 1000 of different tools.
- MSD: in the EU there is a scantool mandatory as from 2023, with a standard in ISO: standardized access.

There was an exchange of view on the place of data storage, and who should have access to the data. A UN regulation can only regulated what is related to the vehicle itself. However, the access allowance, and the duration of accessibility has an influence on the design of the DSSAD.

S wondered whether an external storage of data can be accepted.

The Secretary suggested to transfer the Article 4.5. to the ALKS draft regulation.

Format of the document:

- Separate regulation or
- Annex to the ALKS regulation.

D was of the opinion that this is up to GRVA to decide. Yet the Framework document requires the informal group to develop a draft UN regulation.

Conclusion:

- Document to be reviewed at next meeting
- All to provide comments to the Secretary
- Secretary to transform the draft into a UNECE draft regulation.
- GRVA to decide whether the final text will be produced as an annex to the ALKS regulation or

#### 4.5. Identification of the differences between EDR and DSSAD

The group then reviewed the document EDR-DSSAD-01-07-Rev.1

“purpose”: EVA challenged having different columns for conventional and automated vehicles since the lower levels of automation need the same data as the others. Some debate took place as well on the definition of “accident”.

“what it cannot do”: wording changed into “what it shall not do”. Yet the group should not confuse the technical regulation and the use of the function. Problem of whether the row addresses the technical capabilities or a legal limit.

“PTI”: FSD: longevity of the system and its accuracy should be ensured throughout the life of the vehicle. Yet a test method cannot be defined in this draft regulation. Yet we must ensure that PTI can have access to the information and have the access rights. S was some reluctance with PTI. OICA stressed that PTI anyway raises the “pandora box” of data privacy. FSD insisted that PTI should have access to the data. The Chair found access to data beyond the mandate of the group; OICA wondered about possible conflict between PTI provisions and the purpose of EDR as defined in the row above.

“vehicle storage capabilities”: UK mentioned that some data could be stored out of the vehicle. D raised the question of the expected amount of memory; requested the manufacturers to provide an idea of the amount of data. OICA clarifies that it is a question of “system capability” and pointed out that event does not have same definition for EDR vs. DSSAD

“System crash survivability”: OICA: should refer to R94. The Chair questioned the reference to R144. Yet OICA pointed out that R144 requires AECS capabilities even if the vehicle is fully destroyed (very aggressive impact); this is not valid for EDR and DSSAD. The Chair pointed out the R94 is dedicated to the protection of the occupants, not of the data. OICA also stressed that R94 is a harmonised standard. In the USA, with the SC, is that there is no guarantee that the data can be retrieved in all cases (no space for failure at FMVSS), hence NHTSA abandoned the FMVSS. TRL informed that there is barely no case where data cannot be retrieved. For DSSAD, OICA clarified that crash survivability depends on the storage place of the data.

“event definition”: debate on the limit to be given to the definition since it could limit the range of the regulation. The EC informed that the GSR refers to a “collision”, hence the trigger threshold should be related to a collision. The Chair suggested inspiring from R144 since the triggering in absence of any crash is addressed somehow.

“Battery restitution”: in case of a severe crash, the battery connection might be destroyed, yet the EDR should have energy enough to store data. A manufacturer informed that in current production the EDR is usually situated into the restrain system ECU, which contains energy enough to deploy several airbags. For DSSAD, there should be no relevant data to be included after a “big event”. In addition, ALKS is for the moment limited to low speed.

“Environmental robustness (vibrations, etc.)”: Korea recalled their need for provisions. Concerning EDR, the system is included into the restraint system ECU hence is somewhat protected. For DSSAD, it should collect and store data for a long period hence must of course withstand the same constraints as the vehicle itself. Conclusion; Malfunction detection: should there be a failure in the DSSAD, and the DSSAD being mandatory for ALK, there should be of course a warning and a MRM. Criteria depend on ALKS.

Conclusion:

- FSD to provide a wording for PTI

## 5. List of action items

- Informal group to deliver a comparison document to GRVA-04 and GRSG-117, for tabling at WP29-179 of November 2019
  - o All to review the document EDR-DSSAD-01-07-Rev.1
  - o Table to be finalized for ADR-DSSAD-02 (18-20 Sept)
- EDR
  - o OICA to improve the document according to the comments received at EDR-DSSAD-01
  - o Then homework for all parties to have positions and comments to the revised draft. Comments to be sent to the Secretariat
  - o All contracting parties to check for the next meeting
    - their wish for the scopes on EDR and DSSAD
    - the necessary exemptions (e.g. for privacy reasons)
  - o All to have a position as to whether the 1<sup>st</sup> step should be a copy/paste of the US EDR, or to be a further elaborated draft.
- DSSAD
  - o OICA to deliver a DSSAD a revised draft text for the next session,
  - o All to provide comments to the Secretary
  - o Secretary to transform the draft into a UNECE draft regulation.
  - o That document being a starting point for the group.
  - o GRVA to decide whether the final text will be produced as an annex to the ALKS regulation or

## 6. Dates and venues of next meetings

Meeting	Dates	Venue	Note
EDR-DSSAD-02-Prepa	5 September 2019	Webex	Timing to be precised
EDR-DSSAD-02	18 Sept pm to 20 Sept am	Palais des Nations	Venue to be confirmed Conflict with WP1-79
GRVA-04	24-27 September 2019	Palais des Nations	
GRSG-117	8-11 October 2019	Palais des Nations	
EDR-DSSAD-03	10-12 December 2019	OICA	Venue to be confirmed