

## **Proposal for amendments to “*Guidelines and recommendations for ADS safety requirements, assessments and test methods to inform regulatory development.*”**

Proposed changes relate to the baseline GRVA-18-50. Text marked red and crossed out is suggested for deletion. New suggested content in blue italic font.

### **I. Proposals**

Amended text in Section 8. In-Service Monitoring and Reporting, and Annex 8: ISMR reporting templates

Recommended reporting by the manufacturer

The periodic report should provide evidence of the in-service ADS safety performance. In particular, it should demonstrate that:

- No inconsistencies have been detected compared to the ADS safety performance declared prior to market introduction.
- The ADS fulfils the performance requirements and as evaluated in the test methods.
- Any newly discovered significant ADS safety performance issues that pose an unreasonable risk to safety have been adequately addressed and how this was achieved *including modifications made by the ADS manufacturer.*

#### *Occurrence reporting*

<i>Occurrence</i>	<i>Short-term reporting [1 Month]</i>	<i>Periodic Reporting [1 Year]</i>
1) Occurrence related to ADS performance of the DDT		
1.a. <del>Safety</del> critical occurrences known to the ADS manufacturer or OEM <sup>1</sup>	X	X
1.b. Occurrences related to ADS operation outside its ODD	X	X
1.c. ADS failure to achieve a minimal risk condition when necessary	X	X
1.d. Communication-related occurrences		X

1.e. Cybersecurity-related occurrences		X
1.f. <del>Interaction with remote operator if applicable</del> Events where an activated ADS feature required interaction with a remote assistant to navigate a driving situation (if applicable) <sup>2</sup>		X
2) Occurrences related to ADS interaction with ADS vehicle users		
2.a. <del>Driver–Fall-back user</del> unavailability (where applicable) <sup>3</sup> and <del>other user related occurrences</del>		X
2.b. Occurrences related to Transfer of Control failure		X
2.c. Prevention of takeover under unsafe conditions (where applicable) <sup>4</sup>		X
3.a. Occurrences related ADS failure		X
3.b. Maintenance and repair problems to ADS and its components		X
3.c. Occurrences related to unauthorized modifications		X
<del>3.d. Modifications made by the ADS manufacturer or OEM to address an identified and significant ADS safety issue</del>	X (if the issue presented an unreasonable risk to safety)	X
4. Occurrences related to the identification of new safety-relevant scenarios	(already covered under 1.a, 1.b, 1.c and 3,d)	X

<sup>1</sup> If such an occurrence also belongs to one of the remaining sub-categories listed in the occurrence table, the following provisions apply:

- Short term report: there is no need to double-report such occurrence also as part of one of the remaining categories listed in the table.
- Periodic reporting: the occurrence should be double-reported both as part of critical occurrence and as occurrence belonging to one of the remaining categories listed in the table. However, the report shall specifically note this aspect.

<sup>2</sup>This occurrence does not cover remote driving, but rather events in which the ADS will require remote assistance to cope with very specific situations.

<sup>3</sup>At aggregate level, this information can provide useful information on the validity of the HMI concept and on the need to provide more effective procedures for keeping the fall-back user available.

<sup>4</sup>It is acknowledged that there is no obligation to implement such design solution. However, such information can provide useful information to evaluate the safety benefit of implementing such solution.

**Annex 8: ISMR reporting templates (Page 143)**

Periodic reporting table

<b>OCCURRENCES ASSESSMENT</b>		
Cumulative number of occurrences		Number(10)
Occurrences covered under the short-term reporting provisions		Number(10)
<del>Safety</del> critical occurrences known to the ADS manufacturer or OEM		Number(10)
Occurrences related to ADS operation outside its ODD		Number(10)
ADS failure to achieve a minimal risk condition when necessary		Number(10)
Modifications made by the ADS manufacturer or OEM to address an identified and significant ADS safety issue		Number(10)
Occurrences covered under the periodic reporting provisions		Number(10)
Communication-related occurrences		Number(10)
Cybersecurity-related occurrences		Number(10)
<del>Interaction with remote operator if applicable</del> <i>Events where an activated ADS feature required interaction with a remote assistant to navigate a driving situation (if applicable)</i>		Number(10)
<del>Driver-Fall-back user</del> unavailability (where applicable) <sup>3</sup> <del>and other user-related occurrences</del>		Number(10)
Occurrences related to Transfer of Control failure		Number(10)
Prevention of takeover under unsafe conditions <i>(where applicable)</i>		Number(10)
Occurrences related ADS failure		Number(10)
Maintenance and repair problems <i>to ADS and its components</i>		Number(10)
Occurrences related to unauthorized modifications		Number(10)
Occurrences related to the identification of new safety-relevant scenarios		Number(10)
Other occurrences		Number(10)

## II. Justification

- I. The modifications were introduced to provide additional clarity and reduce chance of misinterpretation among stakeholders
- II. The note to the occurrence 1.a was added to ensure consistency in the occurrence reporting process
- III. The notes to the occurrences 1.f, 2.a and 2.c were added to clarify the intention for reporting such occurrences and the related boundaries

## III. Remarks

- I. **This proposal is considered as the best compromise achievable at this stage because it ensures clarity on the list of occurrences and on the rationale for reporting such occurrences.**
  - a. Unanimous consensus was achieved on the need to review the Occurrence list
- II. **However, the proposal did not achieve an unanimous consensus within the SG3**
  - a. The majority of the SG3 participants\* is in favour of the proposal because:
    - i. it adds clarity and consistency to the text
    - ii. It maintains all the occurrences deemed necessary to achieve the ISMR objectives
    - iii. It is consistent with the text already agreed in the baseline document GRVA-18-50
  - b. Other SG3 participants\* recognise that the new text adds more clarity and appreciate the availability of SG3 in openly discussing potential improvements. However, they have reservation on occurrences such as 1.f, 2.a, 2.c for the following reasons:
    - i. 1.f is inconsistent with the ADS Integration Document ~~and~~. The ADS Integration document address in-vehicle users. Remote users/interactions are identified as a subject for future consideration in Annex 10. Moreover, this occurrence is not related to safety events.
    - ii. 2.a is dependent on the single user behavior and not related to safety events. WP29/GRVA is responsible to regulate the safety of the systems, user behaviour does not fall under the scope of WP29/GRVA.
    - iii. 2.c is bringing to an unfair comparison and evaluation between OEMs applying different safety design strategies-
- III. **In consideration of the above points and recognizing the priority to finalize the ADS Integration Document, conscious that an additional effort will be needed on the reporting obligations to be effective and representative in the coming ADS regulatory phase, the proposal should be included as addendum to the baseline document GRVA-18-50**
  - a. The majority of the SG3 participants\* is in favour
  - b. It is mostly in line with the baseline document GRVA-18-50 while adds clarity and tries to remove any inconsistency
  - c. IWG ADS shall try to achieve consensus and common understanding on the ISMR section of the ADS Integration Document to avoid misinterpretation before developing regulatory framework for ADS.

\*regular participants to the SG3 meetings consisted of EU Com, UK, CAN together with industry members from OICA and CLEPA. Further inputs from other SG3 members would help build consensus necessary to develop a regulatory framework going forward.