Position Paper on UNECE Catalogue for Scenarios for Automated Driving Systems Approval Process

Submitted from experts from the United Kingdom

<u>**Background:**</u>

At the 18th GRVA meeting held in Geneva, the topic of UNECE Catalogue for Scenarios for Automated Driving Systems (ADS) Approval Process was discussed. Various presentations were shared from stakeholders including France, ITU, United Kingdom and University of Warwick. Each of the presentations shared their initial thought process about the concept of a UNECE scenario catalogue. On the suggestion of the GRVA Chair, it was decided that a dedicated workshop to delve into the details of the nuances to be considered for a UNECE scenario catalogue need to be discussed. This document is intended to aid the conversations for this workshop with inputs from the UK experts.

<u>**Things to consider and current working principles:**</u>

As the work on the UNECE ADS Regulation and GTR has kicked-off on 22nd April 2024 building upon the Guideline document jointly created by FRAV and VMAD sub-groups (GRVA-18-50), it is evident that scenarios will play a key role in the approval process for automated driving systems. UNECE Guideline document shares details for a scenario generation process. We would like to state the current expected working principles regarding scenario catalogues for operationalising an ADS regulation and approval process. Based on our discussions with various stakeholders, we have established that:

1. ADS developers **will possess internal (in-house) catalogues** for relevant scenarios for their system of interest.

2. A Type Approval Authority (TAA) and Technical Service Provider (TSP) **will require access to a scenario catalogue(s)** to enable them to undertake an approval of an ADS for choosing relevant scenarios for the ODD.

3. A TAA or TSP will need access to an **independent** scenario catalogue which is different from the ADS' developers' in-house scenario catalogue.

4. Such an independent scenario catalogue (which could be a UNECE scenario catalogue) **should not be a replacement** for an ADS developers' in-house scenario catalogue.

5. An independent scenario catalogue (which could be a UNECE scenario catalogue) **should complement** an ADS developers' in-house scenario catalogue.

6. A scenario catalogue (either UNECE or ADS developers' in-house) needs to contain scenarios relevant to the ODD of the system to be approved.

7. While interoperability between scenario catalogues is good to have, it **raises questions about the accountability of the quality assurance of the conversions between various scenario catalogues**. This is especially important when used as part of an approval process.

8. An independent scenario catalogue (which could be a UNECE scenario catalogue) is **important to ensure appropriate implementation and operationalisation of the in-service monitoring process** and identification and sharing of new scenarios from real-world for both 58 and 98 agreement contracting parties.

9. An independent scenario catalogue will aid type-approval authorities in various countries to be able to **confidently** approve systems for other countries using scenarios present in the central UNECE catalogue. This will enable easier implementation of the mutual recognition scheme by reducing workload on type approval authorities and technical services.

10. Development of an independent scenario catalogue (which could be a UNECE scenario catalogue) is an IT undertaking.

11. A UNECE scenario catalogue would need to be funded by stakeholder(s).

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