

Invitation to the 17th Session of the GRVA Informal Working Group on Functional Requirements for Automated Vehicles (FRAV)

The 17th session of the FRAV informal group is scheduled for 26-27 July 2021 between 12:45 and 15:15 CET each day via web conference. Further details will be posted as available on the FRAV wiki page for the session.¹

Session Objectives

This session is expected to consider proposals for general safety requirements² based on the three workstream perspectives:

1. ADS performance of the DDT
2. Human roles in ADS vehicle use
3. Other road users' physical, functional, and behavioral properties

The session is also expected to consider FRAV recommendations to EDR/DSSAD concerning data collection elements for ADS vehicles.

The main objective of the session is to review and provide feedback on the draft proposals for general safety requirements and the recommendations to EDR/DSSAD. FRAV intends to meet again on 9 September to reach agreement on the general safety requirements to be presented to GRVA and on 16 September to review the draft submission(s). FRAV intends to submit its recommendations on data collection for ADS vehicles to the September session of the EDR/DSSAD informal group.

Additional context

Safety topics and DDT

During the last session, FRAV agreed to use a template developed by this workstream to derive general safety requirements from the safety topics. The workstream pilot has been working with FRAV stakeholders to reach consensus on these draft requirements. FRAV expects to review these consensus proposals in order to have an initial list that can be presented to GRVA.

ADS users

During the last session, FRAV discussed the differentiation of human roles between “driver” and “user”. A human would be considered in a driver role when engaged in real-time dynamic control of the vehicle.³ A human would be considered in a user role when the ADS is engaged in performance of the entire DDT (i.e., the human has no role in exercising dynamic control). Based on this understanding, FRAV expects to receive proposals for general safety requirements from the perspective of ensuring ADS user safety.

¹ At the moment of this writing, the UNECE wiki was experiencing technical difficulties preventing group secretaries from posting documents.

² “General safety requirements” are a step towards drafting requirements with specific criteria. The initial goal is to prepare an interim list of objectively verifiable aspects of ADS performance that address the safety topics and comments consolidated in FRAV-12-08. The general safety requirements list is intended to supersede the safety topics list as the basis for FRAV work. After the GRVA session at the end of September, FRAV would work on a list of requirements with technical specifications (limits, criteria, values, etc.) where appropriate to supersede the list of general safety requirements.

³ Dynamic control is defined in alignment with WP.1 and considered equivalent to the DDT, including perception, planning and decision, and control.

Other Road Users (ORU)

During the last session, the ORU workstream pilot presented a detailed analysis of ORU case properties and a list of categorical physical, functional, and behavioral properties. The pilot presented a concept where ADS detection of physical properties would enable classification and recognition of objects. The functional and behavioral properties associated with these objects informs consideration of ADS responses. FRAV anticipates receiving initial draft proposals for general safety requirements based on this concept.

EDR/DSSAD

During the last session, FRAV received additional information on possible data elements under five categories for differentiating the applicability of the data across ADS configurations. FRAV expects to consider a proposal for a recommendation document that can be transmitted to EDR/DSSAD explaining the categories and offering examples of data elements.