

24th Session Status Review and Session Orientation

Web Conference

8 February 2022

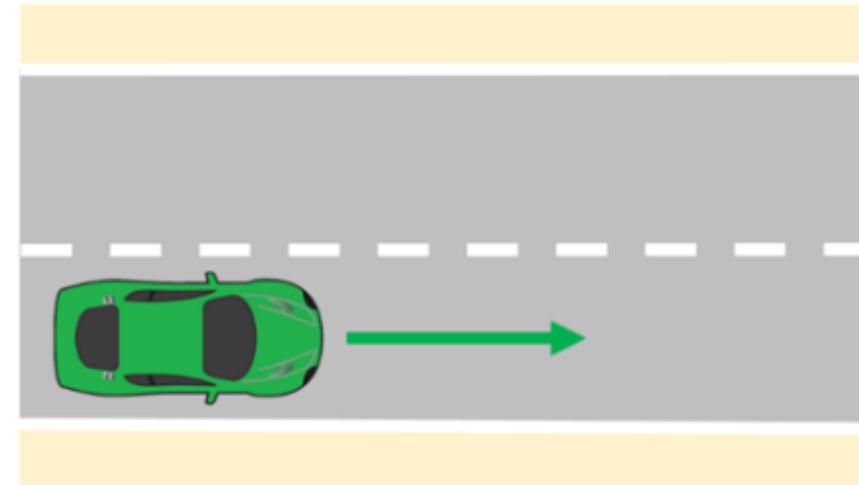


1. Adoption of the agenda	12:45-12:50	FRAV-24-01
2. FRAV status review	12:50-13:00	
3. FRAV coordination with other WP.29 activities 3.1. VMAD informal working group 3.2. VMAD and EDR/DSSAD informal working groups 3.3. WP.29/AC.2 and GRE AV light-signaling task force	13:00-14:45	
4. Elaboration of Document 5 (ADS recommendations) 4.1. Further development of provisions 4.2. Resolution of current open issues 4.3. WP.29 formatting restrictions	14:45-15:00	
5. Workstream updates on status and plans 5.1. ADS performance of the DDT 5.2. ADS interactions with ORU 5.3. ADS user safety 5.4. ADS performance data and EDR/DSSAD	12:45-13:30	

6. FRAV expectations, objectives, tasks 6.1. March WP.29, May GRVA, and June WP.29 sessions 6.2. September GRVA, November and March WP.29 session	13:30-14:15	
7. Other business 7.1. SAE AVSC behavioral competencies paper	14:15-14:35	
8. FRAV status and next steps 8.1. Next session: 15-16 February 8.2. Future sessions (tentative) 8.2.1. 15-16 March 8.2.2. 19-20 April 8.2.3. 19-20 May 8.3. Any other business	14:35-15:00	

- FRAV reported its status to GRVA (document GRVA-12-22)
 - Document 5 submitted as GRVA-12-23
 - Recalled FRAV framework for ADS safety (definitions, descriptions, specifications applicable across ADS configurations)
 - Working on provisions for safety specifications and ADS descriptions
 - Highlighted open issues with current working text
 - Noted elaboration of detailed provisions
 - Integration of VMAD work to develop performance criteria
- Leadership discussions with other groups/activities
 - VMAD scenarios and assessment methods
 - ADS provisions under EDR/DSSAD
 - GRE AV signaling

- Two steps
 - FRAV to check if the 24 safety requirements and their detailed provisions are applicable to lane keeping [scenario].
 - VMAD to identify which methodology including whether scenarios are necessary for each detailed provision for lane keeping.
- FRAV response due mid-February
 - Relevant safety specifications (opportunity to elaborate if useful)
 - Information on scenario conditions (impacting ADS performance)



Input for VMAD by the end of the next FRAV session (15-16 February)

- General recommendations (September 2021)
 - ADS configurations and uses
 - Technical specifications
 - ODD parameters
 - User roles
 - Data use
 - Safety authority crash analysis
 - Manufacturer in-service reporting
 - Technical specifications
 - Data locked on board for retrieval
 - Data uploaded from vehicles
- Data requirements should be clearly applicable (categorized)

- FRAV/VMAD/EDR/DSSAD leadership meetings
- ADS safety requirements provide basis for recording ADS/user actions.
- FRAV requested to provide specific illustrations.
 - Proposal from workstream for FRAV consideration

DSSAD subgroup meets on 10 February.
Leadership meeting on 16 February.
EDR subgroup meets on 22 February.

November 2021 WP.29/AC.2 session

17. AC2 discussed the coordination of work on Automated Driving Systems (ADS). AC.2, for the sake of global harmonization, decided tasking:

(a) First, GRVA and the Informal Working Group on Functional Requirements for Automated Vehicles (FRAV) to determine the conditions, if any, under which an ADS external lighting signal should be activated and recommend to GRE to whom the signal should be displayed (drivers in other vehicles, other road users) and from where it should be visible (e.g. front, rear, side);

(b) Then, GRE (and Task Force on AVSR or an IWG) to harmonize performance requirements for an ADS light according to the conditions prepared under (a). GRE will specify the requirements for ADS lamps and their installation if needed, in cooperation with GRVA (and the IWG on FRAV);

(c) GRE and GRVA (and their respective IWG) to align the proposal on ADS lamps, if any.

Note: AC.2, in consultation with the Chairs of GRVA and GRE, will confirm deadlines during the March 2022 session of AC.2.

**Input for AC.2 by the end of the next
FRAV session (15-16 February)**

- AC.2 to discuss deliverables and deadlines next March.
- FRAV needs general view for 7-11 March WP.29 session.
 - Relevant issues and time needed to fulfill item (a).
- Considerations
 - Benefits and/or risks of external signaling
 - If signaling needed for safety:
 - What might be signaled?
 - Directed to whom?
 - Visible from where? (Front, rear, side)
 - Under what conditions?
 - ORU workstream to elaborate?

- FRAV-24-05: Document 5 as submitted to GRVA
- Detailed provisions outlined in Table 1 (Elaboration of recommendations)
 - Workstream consensus on elements for main body
 - FRAV decisions on measurable/verifiable criteria
- List of open issues to be resolved
 - Items to be resolved during FRAV sessions
 - Items to be resolved via workstream discussions
- Administrative issues raised by GRVA secretariat
 - Editorial formatting (indent, margins, etc.)
 - Figures must be editable
 - Tables cannot have bullet points

Document open to change with items for further consideration.

- Inclusion of ODD in ADS definition (2.1.)
- ADS determination that driver qualified (2.5.)
- Differentiation of “dynamic control” and DDT (2.6., 2.7.)
- Clarification of ORU (2.7.2.1.2.)
- Consideration on animals (2.7.2.1.2.)
- Clarify perception “in vehicle path” versus in vehicle environment (2.7.2.1.2.)
- ADS conspicuity functions and relevance of “gesturing” (2.7.2.3.4.)
- Fallback user: “Fallback-ready user” under SAE/ISO
- MRC: Consideration of SAE/ISO definition
- ODD: Inclusion of illustrative examples under definition
- Clarification of operational and tactical function definition per literature (2.12., 2.17.)
- Transition of control: Attention to verification of driver control by completion (2.18., 4.2.5.)
- Further consideration of ADS user definition (2.19.)
- ODD elements to be expanded and to be measurable/verifiable (3.3.)
- Consider roles of traffic laws in defining readiness obligations of fallback users (3.4.3.1.)
- Clarify manufacturer obligations in describing user roles and responsibilities (3.4.3.1.)
- Clarify targets of user HMI information (3.4.3.5.)
- Clarify addressable misuse and error foreseen by 4.2.3.
- Address steps in transitions of control, including verification that user has assumed driver role/control of vehicle (4.2.5.)
- Clarify intended recipients of information and tools for understanding ADS functionality and operation (4.2.7.)
- Clarify 4.3.3. regarding ADS response to accident/collision.
- Unauthorized modifications: consider tampering and unintentional/inadvertent (4.4.4.)
- Clarify permission for continued operation in presence of fault/failure (4.4.5.)
- Reconsider scope of maintenance—addressable outside FRAV? (4.5.)

- ADS performance of the DDT
 - Derivation of specifications from detailed provisions
 - Consideration of traffic scenarios
- ADS interactions with other road users
 - ORU properties, behaviors, and functions
 - Detectable properties approach
 - OEDR framework for detection, recognition, and classification
- ADS interactions with system/feature users
 - Derivation of specifications from detailed provisions
- ADS performance data collection recommendations
 - Illustration of ADS aspects and applicability

- AC.2 input on external signaling for March WP.29
 - Probability for inclusion and nature of possible needs
- Deliverable(s) to May GRVA session
 - Question concerning legal status of FRAV submission(s)
 - Intentions vis-à-vis June WP.29 session
 - Relationship with VMAD Master Document
- Expectations for 2022
 - Deliverable to September GRVA and November WP.29 (Expectations for elaboration of Document 5)
 - Relationship with GRE AV signaling activity (if any)

- SAE AVSC Best Practice for Evaluation of Behavioral Competencies for Automated Driving System Dedicated Vehicles (ADS-DVs)

FRAV Calendar

Session 25: 15-16 February

[Session 26: 15-16 March]

[Session 27: 19-20 April]

[Session 28: 19-20 May]

Two-day session to resolve open issues and elaborate Document 5 text based on workstream and expert input