

# Status Report of FRAV/VMAD Integration Group

**United Nations Economic Commission for Europe (UNECE)**

**Working Party on Automated/Autonomous and Connected Vehicles (GRVA)**

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Palais des Nations



**UNECE**

# FRAV/VMAD Integration Group

## Past activities



- The Integration Group started early 2023 with the objective to provide a formal document in WP.29 in June 2024 representing the integrated content of the FRAV and VMAD output.
- The Integration Group mandated a small drafting group to merge the FRAV and VMAD outcomes based on WP.29/2023/44/Rev.1 and WP.29-190-08 (superseded by WP.29-191-07) into an “Integration Document”.
- Since the September GRVA 2023, the Integration Group held three sessions (October, November, December) and organized three joint FRAV/VMAD sessions (November, December, January) to finalize the Integrated Document.
- The collaboration between FRAV and VMAD turned out to be a challenging, exiting and pleasant journey

# FRAV/VMAD Integration Current Status



- The December meeting was a hybrid event back to back with a FRAV and VMAD meeting. The meeting was hosted by Jasic/MLIT in Tokyo.
- During this meeting we managed to finalize the first complete draft of the Integration Document. This draft was subject to final review by FRAV/VMAD during a virtual session on 11 January.
- The proposed structure consists of 8 sections in total plus Annexes.

# Selection of items solved

- “Critical occurrence” definition
- “Safety case” and “safety concept” definitions
- Updated Section 4
  - Updated NATM diagram (b/w for formal UN document)
  - MPA paragraphs from Section 6 integrated into Section 4
- Updated Section 5
  - Remove FRAV and VMAD references with revisions for coherence
- Integrated document annexes
  - b/w matrices, diagrams
- Formatting (numbering, hierarchy, etc.)

# Basic structure of Integration Document

- Section 1: Introduction
- Section 2: Scope & Purpose
- Section 3: Definitions
- Section 4: Overview of ADS safety requirements, assessment, and validation
- Section 5: Audit, Safety Assessment, and Manufacturer's System Documentation
- Section 6: Requirements for ADS Performance of the DDT
- Section 7: Requirements for safe interactions between Users and ADS
- Section 8: In-Service Monitoring and Reporting
- Annexes (10)

# Final output for June WP.29

- Integration Document:  
Consolidation of FRAV and VMAD outcomes based on WP.29/2023/44/Rev.1 (VMAD NATM guidelines) and WP.29-191-07 (FRAV ADS safety recommendations) as amended during FRAV/VMAD Integration sessions and forwarded as informal draft to GRVA January 2024.
  - Annex 10 of this document identifies topics for further consideration during the next phase of work (per the AC.2 deliberations and outcomes). This annex may be updated by the May GRVA session.
- Addendum:  
Updates pursuant to conclusion of work in progress as of December 2023 towards providing additional clarifications. This Addendum may be updated by the May GRVA session

# Examples of items in Annex 10

- Scenario framework/protocols (e.g., development, coverage, catalogue, harmonisation)
- Credibility assessment development (Modelling/simulation management)
- “Commonality” aspiration
- Safety model approaches annex
- ISMR reporting templates
- RWT scenarios/engineered test routes protocols
- ODD-related impediments to track testing (e.g., testing ADS absent ODD conditions)

# Timing for documents

- Integration Document:  
January GRVA: informal  
March WP.29: informal  
May GRVA: formal  
June WP.29: formal
- Amendments to Annex 10 (if any)  
May GRVA: informal  
June WP.20: informal
- Addendum:  
May GRVA: informal  
June WP.29: informal



# Next steps integration group

- A few corrections from VMAD Subgroups 3 (audit/ISMR) and 4 (physical testing) are anticipated for the draft Integration Document. This concerns items already approved in the endorsed NATM or the December FRAV/VMAD meeting but not yet included as such.
- Next session (5 February 2024, invites will follow) for:
  - amendments (if any) to the Integration Document pursuant to the January GRVA session
  - review and approval of the Addendum for the May GRVA
  - amendments (if any) to Annex 10 for the May GRVA

# Special thanks



To Jasic/MLIT for providing (again) a perfect ambience to succeed our activities during the Tokyo meeting

To the small drafting group for their great work providing the draft Integration Document in the short period available

**Thank you!**

