

# Status Report of Informal Working Group on Validation Methods for Automated Driving (VMAD)

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

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

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Palais des Nations



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# Contents



To provide a status update on the work of the Informal Working Group on Validation Methods for Automated Driving (VMAD) :

- Brief review of work and deliverables until June 2024
- VMAD IWG activities since GRVA 17<sup>th</sup> (September 2023)
- Future activities

# VMAD Deliverables until the WP.29 June 2024



Activities	Deliverables	Timeline	
<ul style="list-style-type: none"> <li>• Start of development of safety verification methods, linking to the status of FRAV's consideration of technical requirements for DDTs, etc.</li> <li>• Description how to create and maintain the catalogue for scenarios (SG1)</li> <li>• Description of the credibility assessment (SG2)</li> <li>• Description of ISM&amp;R (SG3)</li> <li>• Description for RWT (SG4)</li> </ul>	<p>2nd iteration of the Guidelines for NATM including outcome of "outstanding issues"</p>	<p>January 2023 (GRVA, information: <i>GRVA-15-26</i>),                      May 2023 (GRVA, adopt),                      June 2023 (WP.29)</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
<p>Progressive increase in FRAV-VMAD collaboration towards 2024 deliverable of consolidated submission.</p>	<p>Consolidated FRAV/VMAD submission (requirements+assessment)</p>	<p>January 2024 (GRVA, information),                      May 2024 (GRVA adopt),                      June 2024 (WP.29)</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

# VMAD activities since GRVA #17 (1)



- VMAD held its meetings on November 6 (#33) and December 14 (#34)
- VMAD activities are conducted by the four sub-groups work on their respective outstanding issues of work and to incorporate the results of their work into the guidelines.
- In addition, we have worked together with FRAV in a coordinated and steady manner, to a great extent via the Integration Group (separate report)

# VMAD activities since GRVA #17 (2)



## Sub-group activities

- Scenarios: Latest amendments for the Scenario section have been discussed and accepted
- Simulation: No new issue, ready
- Audit/In-Service Monitoring & Reporting: “Safety case”, “Safety concept” and “Critical occurrence” definitions are resolved. Some items are not resolved (e.g. ISMR reporting template)
- Track-/Real World testing: Generally, we have found consensus on different proposals. Some items are not resolved (e.g. Real-World test scenarios / engineered test routes protocols)

# Future activities VMAD



- No separate meetings for VMAD
- VMAD would be as a part of the Integration Group and the VMAD subgroups may be held if necessary

**Thank you!**

