

Transmitted by Co-chairs

VMAD-08-09

Validation Methods for Automated Driving (VMAD) Informal Working Group: New Assessment/Test Method (NATM)

**United Nations Economic Commission for Europe (UNECE)
Working Party on Automated/Autonomous and Connected Vehicles (GRVA)**

July 10, 2020

WebEx



UNECE

Purpose of Meeting



The intent of this meeting is to:

1. Review and discuss the papers prepared by the subgroups; and
2. Outline the next steps and path forward for upcoming meetings as well as the process for further developing the NATM Master Document.

Action Items sent to VMAD Subgroups Following VMAD-07 Meeting



- 1) VMAD Sub-groups were requested to develop high-level descriptions of their respective element/pillars, including, but not limited to the following information:
 - i. Provide a definition of the pillar/element. What is the pillar/element?
 - ii. Provide a high-level description of the various techniques that can be used by this methodology.
 - iii. Identify the strengths and weaknesses of the pillar/element. What are the implications/impacts of these strengths and weaknesses when applying the pillar/element to the NATM?
 - iv. Why should the pillar/element be included within the NATM?
 - v. Discuss the maturity of the pillar/element. Is the pillar/element ready to be used now? Is there existing work?
 - vi. Discuss how the pillar/element interacts with each other.
 - vii. Any other characteristics of the pillar/element

Action Items (continued)



2) CLEPA-led a group of volunteers (Industry and CPs) were also asked to develop a high-level description of how the scenarios and pillars will interact with each other (due date June 26, 2020).

Considerations:

- These action items (1&2) were focus on the general process and not how it could potentially be applied in the future in a type-approval or self-certification system.
- In addition, the descriptions for each pillar were to consider the manufacturer's approach, including how manufacturers perform testing and analysis during different stages of developing the ADS.

Workplans:

- VMAD sub-group were also encouraged to begin the process of proposing questions and action items for their workplan, including establishing timelines for each question and action item.
- Timelines should take into account what can be accomplished in advance of the upcoming pillar-specific teleconferences in July and August, as well as what can be accomplished before and after WP.29 in March 2021.

Thank you for your hard work!



- VMAD Co-chairs would like to thank the sub-group leaders and sub-group members for their hard work preparing these documents in advance of today's meeting
- During the meeting today and on **July 22 (new date)**, VMAD will review and discuss each of the subgroup papers in the following order:
 - SG1a – Scenarios
 - SG2a – Virtual Testing, Audit, and In-use Reporting
 - SG2b – Track and Real-world Testing
 - CLEPA-led Group of Volunteers– Interaction between NATM Pillar

Co-Chairs' General Comments



As we finalize these concept papers and continue our work on the NATM Master Document, VMAD members are encouraged to:

1. Identify inconsistent wording, terminology, and concepts between the documents;
2. Raise points/ ask questions, including those that were adequately addressed during previous VMAD videoconferences/sessions as well as sub-working group meetings; and

To note: VMAD Co-chairs will work with WP.29 and FRAV to ensure FRAV functional requirements (including HMI, etc.) are adequately addressed by the NATM pillars as our respective work progresses.

Documents Available on VMAD-08 Wiki



The following documents have been posted on the VMAD-08 Wiki:

1. VMAD-08-03 – Interaction between NATM Pillars
2. VMAD-08-04 – Traffic Scenarios Concept Paper (SG1a)
3. VMAD-08-05 – Traffic Scenarios Questions and Answers Excel (SG1a)
4. VMAD-08-06 – Virtual Testing, Audit, and In-use Reporting Concept Paper (SG2a)
5. VMAD-08-07-rev.1– Track and Real-world Testing (SG2b)

Sub-group Leader Presentations



- Subgroup Leader will now present their concept paper, outlining the responses to the action items.
 - *To note, following each Subgroup Leader's presentation, there will be an opportunity for VMAD members to pose questions and discuss the document.*
- Order of Subgroup Leader Presentations:
 - SG1a – Traffic Scenarios
 - SG2a – Audit, Virtual Testing, and In-use Reporting
 - SG2b – Track and Real-world Testing
 - CLEPA-led Group of Volunteers– Interaction between NATM Pillar

Next Steps: Pillar-Specific VMAD Meetings



Following the July 22 meeting, VMAD will hold videoconferences that focus on the specific pillars and/or elements of the NATM.

The goal of each pillar/element-specific meeting is to:

- Continue to develop the descriptions and the workplans of each pillar, taking into consideration previous work, including the concept documents prepared for the VMAD-08; and
- Where time allows, begin developing technical elements (e.g., scenarios catalogue) and further detail **how** each pillar can be applied by the NATM, in a manner that meets the respective needs of *both 1958 and 1998 Agreement parties*.

To note: The materials for these meetings will be prepared by the sub-groups and must be submitted to the Co-chairs one week in advance of the meeting for their review and dissemination to all VMAD members.

Revised: Upcoming Meetings



VMAD will schedule the following VMAD meeting:

1. **July 22: Continue discussing subgroup papers and propose changes to the NATM Master Document, reflecting the sub-group papers**
2. **August 7:** All VMAD Member Teleconference – Scenarios
3. **August 28:** All VMAD Member Teleconference - Virtual Testing
4. **September 9 & 10:** VMAD Session – Track testing, Real-world Testing, Audit & NATM Integration
 - **Due to COVID-19, VMAD will hold these sessions via video-conference calls rather than in-person.**
5. **October 9:** All VMAD Member Teleconference – Updated Master Document

As previously noted, Sub-working Group Leaders are required to hold sub-working group meetings and develop materials in advance of the above mentioned teleconference. Their applicable materials must be submitted to the VMAD co-chairs for their review at least one week prior to the teleconference.

Questions & Comments?



Thank you and stay safe!