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Item 2.3 of the provisional agenda

Coordination and organization of work:

Intelligent Transport Systems and

coordination of automated vehicles related activities

Proposal for an updated Table 1 in the Framework document on automated/autonomous vehicles

Note by the secretariat*

The text reproduced below was adopted by the World Forum for Harmonization of Vehicle Regulations (WP.29), on the basis of informal documents, at its November 2022 session. (ECE/TRANS/WP.29/1168, para. 18). The secretariat suggests the World Forum to review it and to request the secretariat to prepare the Revision 4 of the Framework Document on Automated/Autonomous Vehicles on this basis.

* In accordance with the programme of work of the Inland Transport Committee for 2023 as outlined in proposed programme budget for 2023 (A/77/6 (Sect.20), para 20.6), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



Table 1
Detailed WP.29 work priorities related to automated/autonomous vehicles

Title	Description of work / ECE/TRANS/WP.29/2019/2	Corresponding principles/elements	Allocation to	Main targets	Activities		Deliverable/ Deadline for submission to WP29
					Current activities	Future Activities	
Functional Requirements for automated/autonomous vehicles	<p>This work item should cover the functional requirements for the combination of the different functions for driving: longitudinal control (acceleration, braking and road speed), lateral control (lane discipline), environment monitoring (headway, side, rear), minimum risk manoeuvre, transition demand, HMI (internal and external) and driver monitoring.</p> <p>This work item should also cover the requirements for Functional Safety.</p>	<p>a. System safety</p> <p>b. Failsafe Response</p> <p>c. HMI /Operator information</p> <p>d. OEDR (Functional Requirements)</p> <p>e. Operational Design Domain</p>	<p>GRVA/ FRAV informal group</p>	Automated / Autonomous vehicles	<p>Development and submission of recommendations for global ADS safety requirements, including methods for [scenario generation] and verifiable criteria, covering the corresponding principles.</p>	<p>Shift of emphasis towards alignment of FRAV and VMAD outcomes to provide integrated guidelines on ADS safety assurance sufficient to enable WP.29 decisions on initiatives, if any, under the Agreements.</p> <p>Progressive increase in FRAV-VMAD collaboration towards 2024 deliverable of consolidated submission.</p>	<p>June 2023:</p> <p>Guidelines for regulatory requirements and for verifiable criteria for ADS safety validation</p> <p>June 2024:</p> <p>Consolidated FRAV/VMAD submission (requirements + assessment)</p>

Title	Description of work / ECE/TRANS/WP.29/2019/2	Corresponding principles/elements	Allocation to	Main targets	Activities		Deliverable/ Deadline for submission to WP29
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New assessment / Test method	Multi-pillar concept: Audit, simulation, electronic system compliance, digital identity, test track, real world driving evaluation., in-use monitoring, use of scenarios.	<p>b. Failsafe Response (Assessment Method)</p> <p>c. HMI /Operator information (Assessment Method)</p> <p>d. OEDR (Assessment Method)</p> <p>e. Operational Design Domain (Assessment Method)</p> <p>f. Validation for System Safety</p>	GRVA/ VMAD informal group	Automated / Autonomous vehicles	<p>Description of the credibility assessment</p> <p>Description of In Service Monitoring & Reporting</p> <p>Description for Real World Testing</p> <p>Description on how to create and maintain the catalogue for scenarios</p> <p>Exploration of safety validation methods, linking to the status of FRAV's consideration of technical requirements for Dynamic Driving Task, Operational Design Domain, and traffic-rule conversions</p> <p>Progressive increase in FRAV-VMAD collaboration towards 2024 deliverable of consolidated submission.</p>	<p>2nd iteration of the Guidelines for NATM</p> <p>Outcomes based on FRAV and VMAD collaboration for integrated guidelines on ADS safety assurance sufficient to enable WP.29 decisions on initiatives, if any, under the Agreements.</p>	<p>June 2023</p> <p>2nd iteration of the Guidelines for NATM including outcome of "outstanding issues"</p> <p>June 2024 Consolidated FRAV/VMAD submission (requirements + assessment)</p>
Cyber security and (Over-the-Air)	Work of Task Force on Cyber Security and (OTA) software updates (TF CS/OTA) ongoing.	<p>g. Cybersecurity</p> <p>h. Software Updates</p>	GRVA Cyber/software update informal group	Conventional and Automated / Autonomous vehicles	[...]	[...]	November 2024

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Software updates	Draft recommendations on the approach (based on draft technical requirements).						
Data Storage System for Automated Driving vehicles (DSSAD)	DSSAD are for autonomous vehicles (e.g. accident recoding). This work item should take into consideration of the discussion at GRVA and its Informal Working Group on Automatically Commended Steering Function (IWG on ACSF). Clear objectives, deadline and the identification of differences with EDR to be determined first before discussion on detailed data information.	i. EDR/DSSAD	GRVA EDR/DSSAD informal group	Automated / Autonomou s vehicles		Inventory of best ADS storage practices DSSAD performance elements for ADS	November 2022 June 2024
Event Data Recorder (EDR)	Existing systems - as road safety measure (e.g. accident recording).	i. EDR/DSSAD	GRSG In coordinati- on with GRVA EDR/DSSAD informal group	Conventiona l and Automated / Autonomou s vehicles	Complete EDR Performance Elements for 1958/1998 Contracting Parties Corrections/ amendments to existing EDR regulation and ADS data elements for ALKS		March 2023 completed
						WP29 guidelines on EDR Performance Elements for ADS	June 2024

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					Current activities	Future Activities	
						EDR Step 2: Consideration of additional technical requirements to current UN Regulation regarding trucks and buses	November 2024