



Economic and Social Council

Distr.: General
13 September 2021

Original: English

Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

185th session

Geneva, 23-25 November 2021

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 June 2021 session. (ECE/TRANS/WP.29/1159, para. 41). The secretariat suggests the World Forum to review it and to request the secretariat to prepare the Revision 3 of the Framework Document on Automated/Autonomous Vehicles on this basis.

* In accordance with the programme of work of the Inland Transport Committee for 2021 as outlined in proposed programme budget for 2021 (A/75/6 (part V sect. 20) para 20.51), 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)	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. This work item should also cover the requirements for Functional Safety.	a. System safety b. Failsafe Response c. HMI /Operator information d. OEDR (Functional Requirements) e. Operational Design Domain	GRVA/ FRAV informal group	Automated / Autonomous vehicles	<i>Development and submission of recommendations for global ADS safety requirements, including methods for scenario generation and ADS validation, covering the corresponding principles.</i>	<i>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.</i>	June 2023: Guidelines for regulatory requirements and verifiable criteria for ADS safety validation June 2024: Consolidated FRAV/VMAD submission (requirements + assessment)
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.	b. Failsafe Response (Assessment Method) c. HMI /Operator information (Assessment Method) d. OEDR (Assessment	GRVA/ VMAD informal group	Automated / Autonomous vehicles	Description of New assessment /Test method (NATM) process/procedures for the assessment of an ADS	Second iteration of NATM addressing the "outstanding	March 2021 GRVA of September 2021

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	
		Method) e. Operational Design Domain (Assessment Method) f. Validation for System Safety				issues" identified by VMAD and the evaluation of NATM for the motorway use-case Proposal of WP29 guidelines for NATM including outcome of "outstanding issues" and translation of FRAV requirements	for delivery to WP.29 of November 2021 (information) / March 2022 (endorsement) GRVA of February 2022 for delivery to WP.29 of March 2022 (information) / June 2022 (endorsement)
Cyber security and (Over-the- Air) Software updates	Work of Task Force on Cyber Security and (OTA) software updates (TF CS/OTA) ongoing. Draft recommendations on the approach (based on draft technical requirements).	g. Cybersecurity h. Software Updates	GRVA Cyber/soft- ware update informal group	Conventional and Automated / Autonomous vehicles	Review of draft set of technical requirements for 1998 CPs		November 2021
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	i. EDR/DSSAD	GRVA EDR/DSSAD informal group	Automated / Autonomous vehicles		Inventory of best ADS storage practices DSSAD performance elements for ADS	[November 2022] [June 2024]

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	
	information.						
Event Data Recorder (EDR)	Existing systems - as road safety measure (e.g. accident recoding).	i. EDR/DSSAD	GRSG In coordination with GRVA EDR/DSSAD informal group	Conventional and Automated / Autonomous vehicles	Complete EDR Performance Elements for 1958/1998 Contracting Parties Corrections/amendments to existing EDR regulation [and ADS data elements for ALKS] ¹	WP29 guidelines on EDR Performance Elements for ADS EDR Step 2: Consideration of additional technical requirements to current UN Regulation regarding trucks and buses	July 2021 [March 2022] November 2022 March 2023

¹ Subject to endorsement by WP.29 in November 2021