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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****189th session**

Geneva, 8-11 March 2023

Item 2.2 of the provisional agenda

Coordination and organization of work:**Programme of work and documentation****Programme of Work of the World Forum for Harmonization of Vehicle Regulations (WP.29) and its Subsidiary Bodies****Note by the Secretariat***

The text reproduced below was prepared by the Secretariat for consideration by the World Forum. It takes into account the results and decisions taken at 184th session (ECE/TRANS/WP.29/1159) and its 185th session (ECE/TRANS/WP.29/1161), comments from GRBP, GRVA, GRSG, GRE and GRPE, and the proposed agenda for its 186th session (ECE/TRANS/WP.29/1162) and updates also the information on the work of the six subsidiary Working Parties to WP.29.

* In accordance with the programme of work of the Inland Transport Committee for 2022 as outlined in proposed programme budget for 2023 (A/76/6 (part V sect. 20) para 20.76), 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.

Programme of Work of the World Forum for Harmonization of Vehicle Regulations and its Subsidiary Bodies

Main topics of work of the World Forum for Harmonization of Vehicle Regulations and its subsidiary bodies

The World Forum for Harmonization of Vehicle Regulations has aligned its work to the Agenda 2030 incorporating into its regulatory framework the technological innovations of vehicles to make them safer and more environmentally sound and thus contributing to the implementation of SDGs 3, 7, 9, 11 and 13.

The Inland Transport Committee (ITC), at its eighty-first annual session in 2019 adopted the ITC Strategy until 2030, invited its subsidiary bodies to take follow-up actions aligning their work with the strategy. In June 2019, the ITC Chair invited all Chairs of Working Parties or Administrative Committees to support in the implementation of the ITC Strategy by proposing a concrete plan aligning the work of their Working Party or Administrative Committee with the ITC strategy.

For the implementation of the ITC strategy ITC identified that, apart from the regular work, the subsidiary bodies need to undertake the following tasks in the Strategy (only those relevant to WP.29 are displayed):

(a) Amendments to the legal instruments with geographical and procedural barriers by 2025 (all WPs/SCs and ACs);

(b) Review of relationship of the existing legal instruments and recommendations by 2022 (all WPs/SCs and ACs to review the legal instruments in the context of different clusters, namely safety, cross-border efficiency, environment and connectivity);

(c) Identification of additional necessary legal instruments (Based on the review, all WPs/SCs and ACs to identify gaps of the legal instruments fully meet the needs for safety, cross-border efficiency, environment and connectivity);

...

(e) Exploring possible new legal instruments from 2020 (all WPs/SCs and ACs based on the above item (c));

(f) Further expand global participation in, and cooperation between, WP.1 and WP.29;

(g) Update DETA and host it at ECE from 2022 onwards (WP.29). This should include consideration given to broadening the current scope of DETA to address needs of 1998 Contracting Parties;

...

(j) Identify, foster and facilitate the introduction of new technologies in the rail, road, road-based mobility, inland waterway, logistics, intermodal transport until 2030 (all WPs/SCs and ACs). The deliverables for this activity should follow realistic timelines, mutually agreed by Contracting Parties;

(k) Enhance support to automated vehicles from 2019, including continuation of amendments to the existing legal instruments and standards, and possible development of new agreement(s), guidance documents, or all if necessary (WP.1 and WP.29);

(l) New training standards and competency criteria from 2022 (all WPs/SCs and ACs with legal instruments);

...

(q) New tools and activities from 2019, e.g. - THE PEP; further development of local pollutant module of ForFITS; reviews on green transport and mobility (WP. 5, WP.29);

...

In conclusion and considering ITC's special priority of global interest, Road Safety and Climate Change mitigation, the top priorities for the work of the World Forum for Harmonization of Vehicle Regulations are related to vehicle safety, including the field of automated vehicles paving the way for a regulatory framework supporting the introduction of these emerging technologies towards future autonomous vehicles, and to environmental protection and climate change mitigation. A detailed list of UN Regulations, UN GTRs, UN Rules and Resolutions for discussion at the upcoming sessions of WP.29 is shown in Table 1.

1. Further development and implementation of the three Vehicle Agreements

1.1. **1958 Agreement:** Following the adoption and entry into force of Revision 3 of the 1958 Agreement on 14 September 2017, the requirements for International Whole Vehicle Type Approval (IWVTA) are to be further developed within UN Regulation No. 0. and DETA to be further developed by adding the modules for Unique Identifier (UI) and Declaration of Conformance (DoC).

1.2. **1997 Agreement:** Amendments to the agreement entered into force on 13 November 2019 introducing elements related to the performance and quality of periodic technical inspections. These endeavours were underpinned by resolution R.E.6 covering skills and training for inspectors, requirements for testing equipment and supervision of test centres. Two additional rules were established covering vehicles with gaseous fuels and electric or Hybrid electric propulsion systems. Access to information necessary for performance of periodic technical inspection of modern vehicles and their electronic controlled safety components needs to be addressed.

1.3. **1998 Agreement:** Following the establishment of Special resolution S.R.3, the implementation of the agreement will be followed with a more strategic approach by identifying key elements that define elements the work will focus on.

2. Horizontal activities

2.1. Performance requirements outside test conditions (ECE/TRANS/WP.29/1126, para. 21) and whole life compliance are elements to be considered in all areas of work both in WP.29 and in all GRs.

3. Main topics of the Subsidiary Bodies

3.1. As of the 184th session of WP.29, all GRs were invited to regularly perform a review of their activities and to update their top priorities of their work. The outcome of this review provided the basis for the establishment of the Programme of Work of the World Forum for Harmonization of Vehicle Regulations (WP.29) and its Subsidiary Bodies for the year 2022 and beyond (ECE/TRANS/WP.29/1159, paras. 34 and 35). There was common agreement that in addition to the work on top priorities, existing UN Regulations, UN GTRs and UN Rules would need to be updated for keeping pace with technical progress on a continuous basis. GRs identified the following main priorities of work for 2023:

3.1.1. GRBP main topics are the work on real driving Additional Sound Emission provision (ASEP), for Quiet Road Transport Vehicles (QRTV), Reverse Warning System (RWS), Measurement Uncertainties, as well as Wet Grip of Worn Tyres (WGWT). Further activities are relating to new traction tyre definition, TPMS and vehicle type definition for sound measurements.

A detailed list of priority activities of GRBP is presented in Table 2.

3.1.2. GRE is continuing the work on simplification of the lighting regulations following the establishment of the UN Regulations Nos. 148,149 and 150 as well as Resolution R.E.5 on the common specification of light source categories. Once the first stage of simplification is finalized, in the second stage, GRE will focus on introducing technology neutral requirements, also taking into account work to avoid glare and to ensure good visibility for dipped beam headlamps. Also, a suitable application of Unique Identifier for lighting regulations is being considered. Installation requirements will be updated by new Series of Amendments for Regulation No. 48 EMC issues will be addressed, not only specifically for

certain vehicles and functionalities (e.g. for electrical vehicles) but also generally for adaptation to technical progress (e.g. consideration of enlarging frequency test-range, assistance systems)..

A detailed list of priority activities of GRE is presented in Table 3.

3.1.3. GRPE main area of work is related to improvement of exhaust emissions requirements to ensure real drive performance on the road, new propulsion energy including in-vehicle battery durability or hydrogen systems as well as particulate emissions: Provisions to limit airborne particulates from different sources e.g. sub-23 nm exhaust particles and particulates stemming from brake emissions and/or tyre wear.

A detailed list of priority activities of GRPE is presented in Table 4.

3.1.4. GRVA is establishing further elements for the UN vehicle regulatory framework towards automated driving. This includes Functional Requirements for automated / autonomous vehicles, New assessment / Test methods, Cyber security and (Over-the-Air) Software updates and Data Storage System for Automated Driving vehicles (DSSAD). GRVA will further elaborate requirements for Advanced Driver Assistance Systems (ADAS) based on the UN Regulation No.79, Automated Driving Systems extending UN Regulation No.157, Automated Emergency Braking Systems (AEBS) based on UN Regulation No.131 and Automated Lane Keeping Systems based on UN Regulation No. 157.

A detailed list of priority activities of GRVA is presented in Table 5.

3.1.5. GRSG work will focus on common performance requirements for EDR suitable for both 1958 and 1998 Agreements, EDR for ADAS equipped vehicles and for Heavy Duty Vehicles (HDV), on driver's field of vision assistant systems, improved direct visibility by drivers of HDVs and heating systems for electric vehicles. GRSG will consider inclusion of automated vehicles in the vehicle classification system in R.E.3.

A detailed list of activities of GRSG is presented in Table 6.

3.1.6. GRSP focuses its work on crashworthiness. Current priorities are electric vehicle safety, pedestrian safety and child safety. Further work priorities are hydrogen and fuel cell vehicles and helmets as well as update of UN crash regulations and head restraints.

A detailed list of priority activities of GRSP is presented in Table 7.

Table 1
Subjects under consideration by the World Forum (WP.29) at its 189th session

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
1.0. Automated/Autonomous Driving		
1.0.1. Framework document on automated/autonomous vehicles.		
1.0.2. Functional Requirements for automated / autonomous vehicles		
1.0.3. New assessment / Test method		
1.0.4. Cyber security and (Over-the-Air) Software updates		
1.0.5. Event Data Recorder (EDR)		
1.0.6. Data Storage System for Automated Driving vehicles (DSSAD)		
1.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda (1169)
1.1.1. Proposal for amendments to UN Regulations to be considered at the March 2023 session		
UN Regulation No.:		
13-H (Braking of Passenger Cars)		
30 (Tyres for passenger cars and their trailers)		
48 (Installation of lighting and light-signalling devices)		
53 (Installation of lighting and light-signalling devices for L3 vehicles)		
51 (Noise of M and N categories of vehicles)		
65 (Special warning lamps)		
67 (LPG vehicles)		
78 (Braking Category L vehicles)		
105 (Vehicles for the carriage of dangerous goods)		
110 (CNG and LNG vehicles)		
116 (Anti-theft and alarm systems)		

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
117 (Tyre rolling resistance, rolling noise and wet grip)		
121 (Identification of controls, tell-tales and indicators)		
125 (Forward field of vision of drivers)		
131 (AEBS for HDV)		
140 (ESC)		
138 (Quiet road transport vehicles)		
148 (Light-signalling devices)		
149 (Road illumination devices)		
150 (Retro-reflective devices)		
152 (AEBS for LDV)		
157 (ALKS)		
164 (Studded tyres)		
1.1.2. Proposal for new UN Regulations to be considered at the March 2023 session		
Nil		
1.1.3. Status of the Agreement and of the annexed UN Regulations, including the latest situation report	343/Rev.31	
1.1.4. Development of an International Whole Vehicle Type Approval (IWVTA) system,		
1.1.5. Consideration of amendments to the 1958 Agreement.		
1.1.6. Development of an electronic database for the exchange of type approval documentation (DETA)		
1.2. 1998 Agreement (Global)	For document symbols and its availability, please refer to the agenda (1169)	
1.2.1. Consideration of draft UN GTRs and amendments to them to be considered at the March 2022 session		
New UN GTR on In-vehicle Battery Durability for Electrified Vehicles		
1.2.2. Consideration of Mutual Resolutions		
Nil		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
1.2.3. Guidance for the development of UN GTRs: Nil		
1.2.4. Progress on the development of new UN GTRs and of amendments to established UN GTRs		
1.2.5. Progress on the development of new UN GTRs and of amendments to established UN GTRs		
3 (Motorcycle braking)		
8 (Electronic stability control systems (ESC))		
9 (Pedestrian safety).		
13 (Hydrogen and Fuel Cell Vehicles (HFCV) – Phase 2)		
15 (Worldwide harmonized Light Vehicle Test Procedures (WLTP) – Phase 2);		
16 (Tyres)		
20 (Electric Vehicles Safety (EVS))		
21 (Determination of electrified vehicle power (Electric vehicles and the environment))		
22 (In-vehicle battery durability (Electric vehicles and the environment));		
23 (Durability of after treatment devices for two- and three-wheeled motor vehicles (Environmental and Propulsion Performance Requirements of L-category vehicles));		
Draft UN GTR on Quiet Road Transport Vehicles (QRTV)		
Draft UN GTR on Global Real Driving Emissions (GRDE)		
1.2.6. Exchange of views on items for further development of UN Global Technical Regulations/Mutual Resolutions		
Harmonization of side impact		
Specifications for the 3-D H point machine		
Event Data Recorder (EDR)		
1.3. 1997 Agreement (Inspections)		For document symbols and its availability, please refer to the agenda (1169)

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
1.3.1. Future development of the Agreement		
1.3.2. Consideration of new UN Rules		
Nil		
1.3.3. Update of existing UN Rules		
Nil		
1.3.4. Amendments to Resolution R.E.6		
Nil		

"Table 2

Subjects under consideration by the Working Party on Noise and Tyres (GRBP)

GRBP							
N°	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Chair/Initiator	Comments
Priority	Real Driving Additional sound emission Provisions (ASEP)	Real driving sound emissions and the extended work of IWG ASEP such as manipulation-safe active components and software, anti-tampering, ASEP NORESS	UN-R41	IWG ASEP	GRBP [2023]: UN-R41 2nd step	Chair: Germany (tbc.) Secretariat: OICA (tbc.)	M ₁ , N ₁ (First step done in R 51) à further work to be started in 2024 after the one-year monitoring period. The 2 nd step for UN-R41 (L-cat.) still in progress and to be restarted with the group in 2023. NORESS for L3 and M1/N1 should be worked in parallel under GRBP after the one-year monitoring period in UN-R51 from 2024.
Priority	Measurement Uncertainties	Application to UN- R 117	UN R 117	IWG MU	GRBP-78 sept 2023 Working doc for UN- R117 (step 1)	Chair : Norway Secretariat : OICA	Done for UN-R51. Proposal to cluster the regulations per subject as for instance for UN R138 (TF-QRTV) and Draft WGWT test procedure.
Priority	Revision of UN-R138 -AVAS	Review of UN-R138 for AVAS (technical, language, consistency, interpretation, operation range) Ensure compatibility/ consistency between UN R138 and Draft UN R51.03 RD-ASEP Ramp-up max. sound level curve under any driving condition to establish a handshake between UN R138 maximum sound and RD-ASEP of UN-R51.	UN-R138 Draft UN-R51-03 (including RD-ASEP)	TF QRTV	<u>1st step:</u> ▪ GRBP-78 (Sept.2023): informal doc. ▪ GRBP-79 (Jan.2024): Working doc. <u>2nd step:</u> ▪ GRBP-80 (Sept.2024): Informal doc. ▪ GRBP-81 (Jan.2025): Working doc.	Chair: Germany Secretary OICA	To be considered: -US FMVSS 141 & UN-R138 AVAS. -Review sound specifications & test conditions. -ISO 16254 Technical results expected

GRBP							
N°	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Chair/Initiator	Comments
Priority	Wet Grip on Worn Tyres (WGWT)	Additional prescriptions regarding performances on Wet Grip of Worn Tyres to be added in UN-R117.	UN-R117	IWG WGWT	GRBP-79 (Feb.2024): Test precision → Working document	Co-Chairs: France & European Commission Secretariat: ETRTO	
Priority	Tyre Abrasion Test method development	Microplastics from tyres, including: Method for rating tyres based on their abrasion performance. enabling the quantification of microplastic emissions from tyres. investigating correlation between abrasion rate and durability of tyres.	Current regulation or new regulation	Task Force TF-TA (in cooperation with GRPE)	<ul style="list-style-type: none"> ▪ GRBP-78 (Sept.2023) Informal document (submitted to 88th GRPE in June 2023). ▪ GRBP-79 (Fev.2024) Working document (submitted for feedback to the 89th GRPE in January 2024). 	Co-Chairs: EC & France Secretariat: ETRTO	C1 Taken into account through (EU) 2020/740 Regulation. Introduction in current UN regulations and/or new regulation under GRBP?
Recurrent	Expand the scope of UN-R28 for new functions 'warning sound outside'	Review UN-R28 and cross-references to other UN Regulations, provide definitions and specifications (if needed) review Communication form. check for application of UI	UN-R28, UN-R97, UN-R138, UN-R16x (RWS), EU-NCAP Roadmap 2025	GRBP	GRBP-78 (Sept.2023): Report	OICA	EU-NCAP with plan for 'child presence' inside the car. See WP 29 report Sound outside of the vehicles.
Recurrent	Reference test track	Influence of surfaces on real sound emissions of the vehicles vs. ISO test track for exchange of information	All regulations concerned	GRBP			To take into account the test surfaces and see how to manage these road surfaces. Other parties are invited to be involved in this topic.

Subjects under consideration by the Working Party on Noise and Tyres (GRBP) at its 76th session

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
2.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda of the seventy-fourth session (GRBP/2023/1)
2.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
Part 1 – Noise:		
51 (Noise of M and N categories of vehicles);		
138 (Quiet road transport vehicles).		
Part 2 – Tyres:		
30 (Tyres for passenger cars and their trailers);		
54 (Tyres for commercial vehicles and their trailers)		
75 (Tyres for L-category vehicles)		
106 (Tyres for agricultural vehicles and their trailers)		
117 (Tyre rolling resistance, rolling noise and wet grip);		
141 (Tyre pressure monitoring system);		
2.1.2. Proposal for draft new UN Regulations (1958 Agreement):		
Draft UN Regulation on studded tyres.		
2.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda of the seventy-fourth session (GRBP/2023/1)

Subjects under consideration by the Working Party on Lighting and Light-Signalling (GRE)

Table 3

<i>GRE</i>							
<i>Priority / Recurrent</i>	<i>Title</i>	<i>Tasks / Deliverables</i>	<i>References</i>	<i>Allocations / IWGs</i>	<i>Timeline</i>	<i>Initiator</i>	<i>Comments</i>
Priority	Simplification Stage 2	Simplify and update the technical requirements of the new Regulations Nos. 148, 149 and 150, as well as the installation Regulations Nos. 48, 53, 74 and 86 to become future proof and technology neutral, with performance-based and objective test requirements	New simplified UN Regulations Nos. 148, 149 and 150 and amendments to UN Regulations Nos. 48, 53, 74 and 86	GRE, IWG-SLR	2025	IWG SLR (GRE)	Ongoing
Priority	Installation New Series of Amendments for Regulation No. 48	Clarifications, particularly with regard to the inclusion of the 'park condition' and usage of certain lamps for additional signals (e.g. welcoming lights)	UN Regulation No. 48	GRE, SIG-R.48-09	2023	Japan, supported by various CP's	Ongoing
Priority	EMC issues (e.g. for electrical vehicles)	Further development of EMC requirements, updating existing requirements and introduction of new provisions for adaptation to technical progress	UN Regulation No. 10	GRE, IWG EMC	2023-2024		Ongoing
Priority	Enabling vehicle automation	Screening of GRE regulations for automated/autonomous vehicles, starting from Regulation No. 48	UN Regulation No. 48	GRE, TF AVSR	2023	TF AVSR	Ongoing
Recurrent	Light sources	Further development LED replacement light sources and other light sources	UN Regulation Nos. 37, 99 and 128 and Resolution R.E.5	GRE			Ongoing
Recurrent	Unique Identifier (UI)	Use of the UI in all component regulations and the preparation of summary document template		GRE			Ongoing
Recurrent	Adaptation to technical progress of lighting and light-signalling Regulations	e.g. further development of driver assistance projections and development of road signalling projections		GRE			Continuous process
Potential priority	Harmonization, possibly global	Development of standardized signalling for automated/autonomous vehicles (AV's)		TF-AVSR in cooperation with GRVA (FRAV)			Start of the work is pending on decision of

								GRVA and WP.29
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Subjects under consideration by the Working Party on Lighting and Light-Signalling (GRE) at its 87th session

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
3.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda of the eighty-fifth session (GRE/2023/1)
3.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
[10 (Electromagnetic compatibility)		
37 (Filament lamps);		
48 (Installation of lighting and light-signalling devices);		
53 (Installation of lighting and light-signalling devices for L ₃ vehicles);		
74 (Installation of lighting and light-signalling devices for mopeds);		
86 (Installation of lighting and light-signalling devices for agricultural vehicles);		
99 (Gas discharge light sources);		
128 (Light emitting diodes light sources);		
148 (Light-signalling devices);		
149 (Road illumination devices);		
150 (Retro-reflective devices);		
R.E.5 (Consolidated Resolution on the common specification of light source categories).]		
3.1.2. Proposal for draft new UN Regulations:		
Nil		
3.2. 1998 Agreement (Global)		
Possibility to develop further UN GTRs		
3.3. 1997 Agreement (Inspections)		
Nil		
3.4. Proposal for draft recommendations or amendments to existing recommendations		
3.5. Miscellaneous items		For document symbols and its availability, please refer to the agenda of the eighty-fifth session (GRE/2023/?)
Amendments to the Convention on Road Traffic (Vienna 1968)		
Development of an international whole vehicle type approval (IWVTA)		
Direction for future GRE work		

Table 4
Subjects under consideration by the Working Party on Pollution and Energy (GRPE)

<i>GRPE</i>						
<i>Priority</i>	<i>Justification/Background information</i>	<i>References</i>	<i>Allocations /IWGs/TFs</i>	<i>Timeline (GRPE session)</i>	<i>Chair /sponsor(s)</i>	<i>Comments</i>
Improvement of exhaust emissions requirements to ensure real drive performance on the road	Revise technical requirements to allow technological progress, ensure technological neutrality by introducing consistent and long-lasting performance-based emissions measures, at type approval, in use and potentially over the lifetime of the vehicle.	UN Regulation on RDE	IWG on RDE	January 2023	EC-JP-KR	Adopted in GRPE June 2020, revision needed
		UN GTR on RDE	IWG on RDE	[June 2023 (Phase 2)]	EC-JP-KR	Directly to Phase 2
		08 Series to UN Regulation No. 83	GRPE	[January 2023]	EC	
Life Cycle Assessment	Quantify and monitor progress towards Carbon neutrality of road transport by 2050. Internationally harmonized procedure to measure carbon footprint of different technologies for fuels and vehicles from production to use and disposal.	tbd	IWG on LCA	2023-2025	tbd	to be discussed and further explored during the next sessions of GRPE
New propulsion energy	Develop technical regulation to ensure environmentally friendly and level-playing market introduction of new form of propulsion energy, such as hydrogen and electricity.	New amendment to UN GTR No. 21 on DEVP	IWG on EVE	June 2023	US-CAN	Update candidate method if needed
		New amendment to UN GTR on in Vehicle Battery durability	IWG on EVE	January 2024	US-CAN, China, EC, Japan	Other vehicle categories and other subsequent steps
		Heavy Duty Hybrids	GRPE	[2023]	[tbd]	
Particulate emissions: Provisions to limit airborne particulates from different sources	Sub-23 nm exhaust particles for light- and heavy-duty applications, in the laboratory and on the road	New UN resolution on HD lab test	IWG on PMP	Jan 2022	EC	New resolution adopted by WP.29 in June 2022. still on-going for PEMS-PN
	Brake emissions	New UN GTR	IWG on PMP	January 2023	EC	

	Tyre wear emissions /Tyre Abrasion (TA). Develop regulations for tyres to limit the emissions of microplastics to the environment	New UN Regulation / amendment to existing UN Regulation	TF TA GRBP/GRPE	January 2024	EC-FR	TF TA operating under GRBP . GRPE and IWG PMP directly participating
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Subjects under consideration by the Working Party on Pollution and Energy (GRPE) at its 85th session

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
4.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda of the eighty-third session (GRPE/2023/1)
4.1.1 Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
24 (Visible pollutants, measurement of power of C.I. engines (Diesel smoke));		
40 (Emission of gaseous pollutants by motorcycles);		
47 (Emission of gaseous pollutants of mopeds)		
49 (Emissions of compression ignition and positive ignition (LPG and CNG) engines);		
68 (Measurement of the maximum speed, including electric vehicles);		
83 (Emissions of M ₁ and N ₁ vehicles);		
85 (Measurement of the net power);		
96 (Diesel emission (agricultural tractors));		
101 (CO ₂ emissions/fuel consumption)		
103 (Replacement pollution control devices);		
115 (LPG and CNG retrofit systems);		
120 (Net power of tractors and non-road mobile machinery);		
132 (Retrofit Emissions Control devices (REC));		
133 (Recyclability of motor vehicles);		
143 (Heavy duty dual-fuel engine retrofit systems)		
154 Worldwide harmonized Light vehicles Test Procedure (WLTP Regulation)		
4.1.2. Proposal for draft new UN Regulations Real Driving Emissions		
4.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda of the eighty-third session (GRPE/2023/?)
2 (Worldwide motorcycle emissions test cycle (WMTC));		
4 (Worldwide harmonized Heavy-Duty Certification Procedure (WHDC));		
5 (Worldwide harmonized Heavy duty on-board diagnostic systems (WWH-OBD));		
10 (Off-Cycle Emissions (OCE));		
11 (Non-road mobile machinery engines);		

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
15 (Worldwide harmonized Light Vehicle Test Procedure (WLTP));		
17 (Crankcase and evaporative emissions of L-category vehicles);		
18 (On-Board Diagnostic (OBD) systems for L-category vehicles)		
19 (Evaporative emission test procedure for the Worldwide harmonized Light vehicle Test Procedure (WLTP EVAP));		
21 (Determination of Electrified Vehicle Power (DEVP))		
4.2.1. Proposal for developing new UN Global Technical Regulations		
In-vehicle battery durability		
Real Driving Emissions		
Brake Particulate Emissions		
4.3. 1997 Agreement (Inspections)		
Nil		
4.4. Proposal for draft recommendations or amendments to existing recommendations		
Nil		
4.5. Miscellaneous items		For document symbols and its availability, please refer to the agenda of the eighty-third session (GRPE/2023/?)
World-wide harmonized Light vehicles Test Procedure (WLTP)		
Heavy Duty Hybrids (HDH)		
Particle Measurement Programme (PMP)		
Gaseous Fuelled Vehicles (GFV)		
Environmental and Propulsion Performance Requirements (EPPR) for L-category vehicles		
Electric Vehicles and the Environment (EVE)		
Vehicle Propulsion System Definitions (VPSD)		
Fuel Quality (FQ)		
International Whole Vehicle Type Approval (IWVTA)		
Exchange of information on national and international requirements on emissions		
Vehicles Interior Air Quality (VIAQ)		
Global Real Driving Emissions (RDE)		

Table 5

Subjects under consideration by the Working Party on Automated / Autonomous and Connected Vehicles (GRVA)

<i>GRVA</i>						
<i>Title</i>	<i>Tasks / Deliverables</i>	<i>References</i>	<i>Allocations / IWGs</i>	<i>Timeline</i>	<i>Initiator</i>	<i>Comments</i>
Functional Requirements for Automated Vehicles	<p>Proposal for WP.29 guidelines on ADS safety requirements and for verifiable criteria for ADS safety validation</p> <p>Consolidated FRAV/VMAD submission covering both functional requirements and assessment/test methods (Progressive increase in FRAV-VMAD collaboration towards 2024 deliverable of consolidated submission).</p>	Framework document for automated/autonomous vehicles ECE/TRANS/WP.29/2019/34 as revised	GRVA, IWG on FRAV and VMAD	<p>June 2023: Guidelines for regulatory requirements and for verifiable criteria for ADS safety validation</p> <p>June 2024: Consolidated FRAV/VMAD submission (requirements + assessment)</p>	WP.29	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.
New Assessment/Test Method	<p>Second iteration of NATM addressing the "outstanding issues".</p> <p>Consolidated FRAV/VMAD submission covering both functional requirements and assessment/test methods</p>	Framework document for automated/autonomous vehicles ECE/TRANS/WP.29/2019/34 as revised	GRVA, IWG on VMAD	<p>June 2023 2nd iteration of the Guidelines for NATM including outcome of "outstanding issues"</p> <p>June 2024 Consolidated FRAV/VMAD submission</p>	WP.29	<i>Progressive increase in FRAV-VMAD collaboration towards 2024 deliverable of consolidated submission.</i>

				(requirements + assessment)		
Cyber security and (Over-the-Air) Software updates	Review of draft set of technical requirements for 1998 CPs. [...]	Framework document for automated/autonomous vehicles ECE/TRANS/WP.29/2019/34 as revised	GRVA, IWG on Cyber Security and OTA issues	November 2023	WP.29	Ongoing More time needed (expected)
Data Storage System for Automated Driving vehicles (DSSAD)	Inventory of best ADS storage practices. DSSAD performance elements for ADS	Framework document for automated/autonomous vehicles ECE/TRANS/WP.29/2019/34 as revised	GRVA, IWG on EDR/DSSAD	June 2024	WP.29	Ongoing
Event Data Recorder (EDR)	EDR Performance Elements for ADS WP29 guidelines on EDR Performance Elements for ADS EDR Step 2: Consideration of additional technical requirements to current UN Regulation regarding trucks and buses	Framework document for automated/autonomous vehicles ECE/TRANS/WP.29/2019/34 as revised	GRSG in cooperation with GRVA, IWG on EDR/DSSAD	March 2023 (WP.29) June 2024 November 2024	WP.29	Ongoing
ADAS / DCAS	Amendment to UN Regulation No. 79 and new UN Regulation	ECE/TRANS/WP.29/GRVA/9, Annex IV	GRVA, Task Force on ADAS	November 2023	Russian Federation and European Commission	Ongoing More time needed (expected)
UN GTRs	Amendments to UN GTRs	AC.3 decisions	GRVA	Upon decisions	AC.3	Ongoing
UN Regulations	Amendments to UN Regulations <ul style="list-style-type: none"> • UN Regulation No. 157 • UN Regulation No. 156 • UN Regulation No. 155 • UN Regulation No. 140 • UN Regulation No. 131 • UN Regulation No. 90 • UN Regulation No. 78 • UN Regulation No. 13 	Provisions of the 1958 Agreement	GRVA	Permanent	N/a	N/a

Subjects under consideration by the Working Party on Automated / Autonomous and Connected Vehicles (GRVA) at its 15th session

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
5.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda of the fifteenth session (GRVA/2023/1)
5.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
13 and 13-H (Braking);		
78 (Motorcycle braking);		
79 (Steering equipment);		
89 (Speed limitation devices);		
90 (Replacement brake linings);		
139 (Brake Assist Systems);		
140 (Electronic Stability Control);		
152 (AEBS for M ₁ and N ₁);		
155 (Cyber security);		
156 (Software updates);		
157 Automated Lane Keeping Systems. (ALKS);		
5.1.2. Proposal for draft new UN Regulations:		
Driver Control Assistance System		
Acceleration Control Pedal Error		
Urban Emergency Braking System		
5.1.3. Vehicle automation		
Automated Lane Keeping Systems (ALKS)		
Validation Methods for Automated Driving (VMAD)		
New assessment / Test method		
Functional Requirements for Automated and Autonomous Vehicles (FRAV)		
Longitudinal control (Adaptive Cruise Control, preventing braking);		
Transition demand (Human Machine Interface (HMI));		
Driver Availability Recognition;		
Information to the driver (HMI);		
Electronic System Compliance (Complex Electronics Development);		
Periodic Technical Inspection/ Roadworthiness Provisions;		
Vehicle cybersecurity and data protection;		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
Software (incl. Over-the-Air) updates; Data Storage System for Automated Driving (DSSAD); Artificial Intelligence technologies for wheeled vehicles Vehicle-to-Vehicle data transmission International Whole Vehicle Type Approval (IWVTA) Exchange of views on innovations and relevant national activities Electromechanical brakes		
5.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda of the fifteenth session (GRVA/2023/1)
3 (Motorcycle braking) 8 (ESC);		
5.3. 1997 Agreement (Inspections)		
Nil		
5.4. Proposal for draft recommendations or amendments to existing recommendations:		
Nil		
5.5. Miscellaneous items		For document symbols and its availability, please refer to the agenda of the fifteenth session (GRVA/2023/1)
Intelligent Transport Systems (ITS) Intelligent Transport Systems/Automated Driving (AD) Connected, automated and autonomous vehicles Horizontal regulation on automated and autonomous vehicles and associated recommendations System safety Rear crossing traffic alerting Night Vision system 360-degree vision monitor Modular Vehicle Combinations (MVC) Door-open blind spot detection Around view monitoring		

Table 6
Subjects under consideration by the Working Party on Passive Safety (GRSG)

<i>GRSG</i>								
<i>Priority/ recurrent</i>	<i>Title</i>	<i>Tasks / Deliverables</i>	<i>References</i>	<i>Allocations / IWGs</i>	<i>Timeline (GRSG adoption)</i>	<i>Timeline (WP.29 adoption)</i>	<i>Initiator</i>	<i>Comments</i>
Priority	Event Data Recorder	EDR performance elements for ADS		GRSG in cooperation with GRVA, IWG on EDR/DSSAD	Oct 2023 (GRSG)	June 2024	WP.29	
Priority	Event Data Recorder	Common technical elements document for creation of a UN regulation on EDR for heavy duty vehicles (trucks and busses)		IWG on EDR/DSSAD	March 2023 (GRSG)	Nov 2023	WP.29	
Priority	Event Data Recorder	EDR Step#2 - consideration of amendments to Step #1 requirements with respect to additional data elements, durability considerations including potential fire resistance, potential test procedures and consideration of new triggering criteria (e.g. “jerk”).		IWG on EDR/DSSAD	Oct. 2023 (GRSG)	June 2024	WP.29	
Priority	Field of Vision Assistant (FVA)	Verify and address as necessary “Augmented Reality” related aspects in relation with existing UN Regulations / UN GTRs / UN Rules	- UN R- 125 - GRSG-121-24/Rev.2 Field of Vision Assistant (FVA) may increase driver awareness but may also constitute obstruction to	IWG on FVA	2022/2023 (Step 2)	Nov. 2023	OICA	Chair: NL Secr.: OICA

		Step 2 aims at developing more detailed rules and guidelines and a new Regulation on FVA also covering other vehicle categories	the prescribed driver's field of vision () . Step 1 was finished in 2021					
Priority	Direct Vision	Phase 2 of the New UN Regulation		VRU Proxi	March 2023 (GRSG)	Nov. 2023	Japan, EC WP.29	
Priority	Heating System	Electric Radiant Warmers for EVs	UN Regulation No. 122	Korea	March 2023		Korea	
recurrent	Consolidated Resolution on the construction of vehicles	Inclusion of automated vehicles (classification)	R.E.3 GRSG-117-06	TBD	2023	Nov. 2023	WP.29 France	

Subjects under consideration by the Working Party on General Safety Provisions (GRSG) at its 124th session

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
6.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda for the 122nd session (GRSG/2023/1)
6.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
43 (Safety glazing);		
46 (Devices for indirect vision);		
66 (Strength of superstructure (buses))		
67 (LPG vehicles);		
93 (Front underrun protection);		
107 (M ₂ and M ₃ vehicles);		
110 (CNG and LNG vehicles);		
116 (Anti-theft and alarm systems);		
118 (Burning behaviour of materials);		
125 (Forward field of Vision for Drivers);		
144 (Accident Emergency Call Systems (AECS))		
151 (Blind Spot Information Systems)		
158 (Reversing motion);		
159 (Moving Off Information System)		
161 (Devices against Unauthorized Use)..		
162 (Immobilizers)		
163 (Vehicle Alarm Systems)		
6.1.2. Proposal for draft new UN Regulations:		
VRU in Front and Side Close Proximity;		
VRU Direct Vision.		
6.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda for the 122nd session (GRSG/2023/1)
Possibility to develop further UN GTRs		
Nil		
6.3. 1997 Agreement (Inspections)		
Nil		
6.4. Proposal for draft recommendations or amendments to existing recommendations:		
Nil		
6.5. Miscellaneous items		For document symbols and its availability, please refer to the agenda for the 122nd session (GRSG/2023/1)

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
International Whole Vehicle Type Approval (IWVTA)		
Consolidated Resolution on the Construction of Vehicles (R.E.3)		
Event Data Recorder Requirements		
