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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 EC comments

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 181st session (ECE/TRANS/WP.29/1153) and its 182nd session (ECE/TRANS/WP.29/1155) and the proposed agenda for its 183rd session (ECE/TRANS/WP.29/1156) 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 2021 as outlined in proposed programme budget for 2021 (A/75/6 (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.

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)
- ...
- (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)
- (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), both 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, 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. At the 178th, 179th and 180th session of WP.29, all GRs were invited to perform a review of their activities and to identify 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 2020 and beyond (ECE/TRANS/WP.29/1145, para. 7 and ECE/TRANS/WP.29/1149, para.). 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 2020:

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 on 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. Installation requirements will be updated by new Series of Amendments for Regulation No. 48 (R53, R74, R86). EMC issues will be specifically addressed for certain vehicles (e.g. for electrical vehicles) as well as a suitable application of Unique Identifier for lighting regulations.

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 and Automated Emergency Braking Systems (AEBS) based on UN Regulation No.131.

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

3.1.5. GRSG work will focus on finalizing step I for Event Data Recorder (EDR) with a new UN Regulation and performance requirements for EDR suitable for both 1958 and 1998 Agreements, on driver's field of vision assistant systems and vehicle connectivity elements related to virtual keys.

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

3.1.6. GRSP focuses its work on crashworthiness, passive safety with regard to new seating configurations in automated/autonomous vehicles and electric vehicle safety. Further work priorities are Child Restraint Systems, update of UN crash regulations following revised EU General Safety Regulation 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)

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
0. Intelligent Transport Systems (ITS)		
0.1. Update of ITS Road Map		
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 (1156)
1.1.1. Proposal for amendments to UN Regulations to be considered at the March 2021 session		
UN regulation No.:		
13 (Heavy vehicle braking)		
13-H (Brakes of M1 and N1 vehicles)		
18 (Anti-theft of motor vehicles))		
30 (Tyres for passenger cars and their trailers)		
41 (Noise emissions of motorcycles)		
46 (Devices for indirect vision)		
48 (Installation of lighting and light-signalling devices)		
54 (Tyres for commercial vehicles and 53 (Installation of lighting and light-signalling devices for L ₃ vehicles)		
65 (Special warning lamps)		
67 (LPG vehicles)		
75 (Tyres for L-category vehicles)		
79 (Steering equipment)		
74 (Installation of lighting and light-signalling devices for mopeds)		
86 (Installation of lighting and light-signalling devices for agricultural vehicles)		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
97 (Vehicle Alarm Systems)		
98 (Headlamps with gas-discharge light sources)		
106 (Tyres for agricultural vehicles and their trailers)		
107 (M ₂ and M ₃ vehicles)		
113 (Headlamps emitting a symmetrical passing-beam)		
116 (Anti-theft and alarm systems)		
117 (Tyre rolling resistance, rolling noise and wet grip)		
118 (Burning behaviour of materials)		
123 (Adaptive front lighting systems)		
124 (Replacement wheels for passenger cars)		
125 (Forward field of vision)		
141 (Tyre pressure monitoring system)		
142 (Tyre installation)		
148 (Light-Signalling Devices)		
149 (Road illumination devices)		
150 (Retro-reflective devices)		
152 (AEBS for M ₁ and N ₁)		
154 (WLTP Regulation)		
157 (ALKS)		
1.1.2. Proposal for new UN Regulations to be considered at the November 2020 session		
Proposal for new UN Regulation on Event Data Recorder (EDR)		
Proposal for a new UN Regulation on uniform provisions concerning the protection of motor vehicles against unauthorized use and the approval of the device against unauthorized use (by mean of a locking system)		
Proposal for a new UN Regulation on uniform technical prescriptions concerning approval of immobilizers and approval of a vehicle with regard to its immobilizer		
Proposal for a new UN Regulation on uniform provisions concerning the approval of vehicle alarm system and approval of a vehicle with regard to its vehicle alarm system		

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
1.1.3. Status of the Agreement and of the annexed UN Regulations, including the latest situation report	343/Rev.29	
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 (1156)
1.2.1. Consideration of draft UN GTRs and amendments to them to be considered at the November 2020 session		
Nil		
1.2.2. Consideration of Mutual Resolutions		
Proposal for a draft Mutual Resolution No. [4] concerning Panoramic Sunroof Glazing		
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		
1 (Doors locks and door retention components)		
2 (Worldwide Motorcycle emission Test Cycle (WMTC))		
3 (Motorcycle braking)		
4 (Worldwide Heavy-Duty vehicle emission test Cycle (WHDC))		
5 (On-Board Diagnostic Systems (OBD))		
6 (Safety glazing)		
7 (Head restraints)		
8 (Electronic stability control systems (ESC))		
9 (Pedestrian safety)		
10 (Off-cycle emissions (OCE))		
11 (Agricultural and forestry tractors and non-road mobile machinery emission test procedures)		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
12 (Motorcycle Controls, Tell-tales and Indicators)		
13 (Hydrogen and Fuel Cell Vehicles (HFCV) – Phase 2)		
14 (Pole Side Impact (PSI))		
15 (Worldwide harmonized Light vehicle Test Procedures (WLTP) – Phase 2)		
16 (Tyres)		

Amendment 2 adopted at the 181st WP29 session (June 2020).

ETRTO proposed at the 72nd GRBP (September 2020) a roadmap for transposition of the GTR 16 provisions in UNECE Regulations.

Such discussion has not started yet in GRBP.

- 17 (Crankcase and evaporative emissions for two- or three-wheeled motor vehicles)
- 18 (On-board diagnostics for two- or three-wheeled motor vehicles)
- 19 (EVAPorative emission test procedure for the Worldwide harmonized Light vehicle Test Procedure (WLTP EVAP))
- 20 (Electric Vehicles Safety (EVS))

Draft UN GTR on Quiet Road Transport Vehicles (QRTV)

No progress since 2018, due to work stop by USA (Chair).

The 72nd GRBP (September 2020) decided to extend the mandate of IWG on Quiet Road Transport Vehicles for the Global Technical Regulation (GTR) until December 2021. At the 73rd GRBP (January 2021) USA informed to discuss internally and inform again the 74th GRBP (September 2021).

Draft UN GTR on Global Real Driving Emissions (GRDE)

Draft UN GTR on determination of electrified vehicle power (Electric vehicles and the environment)

1.2.6. Exchange of views on items for new UN Global Technical Regulations

Harmonization of side impact

Specifications for the 3-D H point machine

Event Data Recorder (EDR)

1.3. 1997 Agreement (Inspections)

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
1.3.1. Future development of the Agreement		For document symbols and its availability, please refer to the agenda (1156)
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		

Table 2 
Subjects under consideration by the Working Party on Noise and Tyres (GRBP)

<i>GRBP</i>							
<i>Priority/ recurrent</i>	<i>Title</i>	<i>Tasks / Deliverables</i>	<i>References</i>	<i>Allocations / IWGs</i>	<i>Timeline</i>	<i>Chair/Initiator</i>	<i>Comments</i>
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	R 51, R 41	IWG ASEP	<ul style="list-style-type: none"> • GRBP January 2021: Informal document for amendments to UN-R51-04 • GRBP September 2021: Working document UN-R51-04 (M₁, N₁ vehicles) 	Chair: Germany Secretariat: OICA	M ₁ , N ₁ L ₃ and their NORESS
Priority	Wet Grip on Worn Tyres (WGWT)	Additional prescriptions regarding performances on Wet Grip of Worn Tyres to be added in R 117.	R 117	IWG WGWT	<ul style="list-style-type: none"> • GRBP September 2021: Working document for amendments to UN-R117 on C1 tyres and possibly C2, C3 tyres GRBP September 2022: Working or informal document for amendments to UN-R117 on C2, C3 tyres 	Co- Chairs: France & European Commission Secretariat: ETRTO	C2, C3 to be considered in the timeline, subject to agreement of the IWG and GRBP (change of Terms of Reference submitted by EC expert to GRBP January 2021).
Priority	Measurement Uncertainties	Assessment of measurement uncertainties and track alignment	R51 R117 R41	IWG -MU	<ul style="list-style-type: none"> • GRBP January 2021: Informal document for amendments to UN-R51 & UN-R117 • GRBP September 2021: <ul style="list-style-type: none"> ▪ Working document for amendments to UN-R51 & UN-R117 ▪ Informal document containing general Guidelines • GRBP January 2022: Working document 	Chair: Norway Secretariat: OICA	R 51: Noise R117: Noise Other regulations: Deadline to be defined

<i>GRBP</i>							
<i>Priority/ recurrent</i>	<i>Title</i>	<i>Tasks / Deliverables</i>	<i>References</i>	<i>Allocations / IWGs</i>	<i>Timeline</i>	<i>Chair/Initiator</i>	<i>Comments</i>
					containing general Guidelines		
Priority	Reverse Warning Sound (RWS)	Harmonisation of Reverse Warning Sound requirements (Components and vehicles) with the aim of lower sound emissions on a high safety level. MOIS, Reversing Safety, Camera Monitor systems as an alternative to RWS	New Regulation	TF-RWS	GRBP September 2021: Working document	Chair: Japan Secretariat: OICA	M2>3,5tons, N2, M3, N3
Potential	New traction tyre definition	Introduction of new Traction definition for C2 and C3 tyres	R 117	GRBP	GRBP September 2021		C2, C3
Potential	Noise limits	Revision of limit values Phase 3 (considering new technologies and tyre noise related to UN R51-03)	1	Task Force to be initiated	Article 11 of EU Regulation 540/2014, for the EC study on sound level limits, that should be published by 1/7/2021	to be decided in January 2021	M, N
Potential	Type definition	Consideration on tolerances for type defining parameters and selection scheme for a representative vehicle	R51 R41				

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

<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-third session (GRBP/2021/1)
2.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
Part 1 – Noise:		
41 (Noise of motorcycles);		
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);		
124 (Replacement wheels for passenger cars);		
141 (Tyre pressure monitoring system);		
142 (Tyre installation)		
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-third session (GRBP/2021/1)
16 (Tyres), if needed.		

Table 3
Subjects under consideration by the Working Party on Lighting and Light-Signalling (GRE)

<i>GRE</i>							
<i>Priority</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, 150, as well as the installation Regulations Nos. 48, 53, 74, 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, 86	GRE, IWG-SLR	2022	IWG SLR (GRE)	Ongoing
Priority	Installation New Series of Amendments for Regulation No. 48 (R53, R74, R86)	Many proposals merged; various amendments, improvements and clarifications including visibility and glare (headlamps, headlamp levelling, direction indicators, daytime running lamps, rear position lamps, etc.)	UN Regulation No. 48 [ECE/TRANS/WP.29/GRE/2020/8]	GRE, IWG-SLR, SIG-R.48	2021	Various CP's	To be finalized
Priority	EMC issues (e.g. for electrical vehicles)	Further development of EMC requirements (e.g. for EV's)	UN Regulation No. 10	TF-EMC	2022		Ongoing
Priority	Unique Identifier	Suitable application of the 'Unique Identifier' ('UI') for the lighting UN Regulations	SLR-37-01	GRE IWG-SLR	2021	IWG SLR (at request WP.29)	Ongoing

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

<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-fourth session (GRE/2021/1/Rev.1)
3.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
37 (Filament lamps);		
48 (Installation of lighting and light-signalling devices);		
53 (Installation of lighting and light-signalling devices for L3 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-fourth session (GRE/2021/1/Rev.1)
Amendments to the Convention on Road Traffic (Vienna 1968)		
Development of an international whole vehicle type approval (IWVTA)		
Decade of action for road safety 2011–2020;		
Obsolete transitional provisions		
Direction for future GRE work		

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

GRPE						
Priority	Justification/Background information	References	Allocations /IWGs/TFs	Timeline	Chair /sponsor(s)	Comments
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.	UNR on RDE	IWG on RDE	June 2020	EC-JP-KR	Adopted in GRPE June 2020
		UN GTR on RDE	IWG on RDE	[tbd] (Phase 2)	EC-JP-KR	Directly to Phase 2
		08 Series to UN Regulation No. 83	GRPE	June 2022	EC	Delayed
		Amendment to UN Regulation No. 49 to reflect latest regulatory evolution	GRPE	January 2021	EC	Submitted earlier
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.	UN GTR on DEVP	IWG on EVE	June 2020	US-CAN	Adopted by WP.29 November 2020
		UN GTR on in Vehicle Battery durability	IWG on EVE	June 2021	US-CAN, China, EC, Japan	
		Heavy Duty Hybrids	GRPE	[2022]	[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	Amendments to UN GTR No. 15	IWG on PMP	June 2021	EC	Light duty laboratory adopted in GRPE June 2020 - still on-going for PEMS-PN and heavy duty application
		Brake emissions	New UN GTR	IWG on PMP	Jan 2022	EC
	Tyre wear emissions	tbd	IWG on PMP / GRPE	[June 2023]	[EC]	

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

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
4.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda of the eighty-second session (GRPE/2021/1)
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		
Nil		
4.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda of the eighty-second session (GRPE/2021/1)
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</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>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 Vehicles Interior Air Quality (VIAQ)		
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-second session (GRPE/2021/1)
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 priorities stemming from the Framework Document</i>			
<i>Category</i>	<i>IWG activities</i>	<i>Priorities and deliverables in 2021</i>	<i>Source</i>
ADS	FRAV	X	Framework document (ECE/TRANS/WP.29/2019/34/Rev.2)
	VMAD	X	
	DSSAD	X	
Connectivity	Cyber security Software Updates (OTA)	X	





<i>GRVA activities stemming from other sources</i>			
<i>Category</i>	<i>Item</i>	<i>Outcomes expected in 2021</i>	<i>Source</i>
ADAS	Review of the Regulation - Amend UN Regulation No. 79 - Draft a new UN Regulation, if necessary	X	AC.2 responses to GRVA requests (Reproduced in GRVA-08-10)
ADS	Extension of UN Regulation No. 157	X	WP.29 recommendation (ECE/TRANS/WP.29/1155, para. 33)
AEBS	UN Regulation No. 131	X	Terms of Reference of the group
Maintenance of existing UN Regulations and UN GTRs	UN Regulations and UN GTRs will be reviewed, as necessary Example of UN Regulations and UN GTRs for which input is expected: <ul style="list-style-type: none">• UN GTR No. 8• UN Regulation No. 156• UN Regulation No. 155• UN Regulation No. 130• UN Regulation No. 90• UN Regulation No. 13 and 13-H• Etc.	X	-AC.3 decisions, according to the provisions in the 1998 Agreements. -As per the provisions of the 1958 Agreement. -Agenda adopted as per Chapter III, Rule 7 of the Rules of Procedure of WP.29, applicable to GRVA.

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

<i>Subject</i>	<i>Document symbol</i> ECE/TRANS/WP.29/...	<i>Documentation</i> availability
5.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda of the ninth session (GRVA/2021/1)
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:		
Nil		
5.1.3. Vehicle automation		
Remote Control Manoeuvring (RCM)		
Automated Controlled Steering Function (ACSF)		
Automated Lane Keeping Systems (ALKS)		
Validation Methods for Automated Driving (VMAD)		
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;		
Cyber Security;		
Software (incl. Over-the-Air) updates;		
Data Storage System for Automated Driving (DSSAD);		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
Night Vision;		
Rear crossing alert;		
Door-open blind spot detection;		
Around view monitoring		
5.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda of the ninth session (GRVA/2021/1)
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 ninth session (GRVA/2021/1)
Intelligent Transport Systems (ITS)		
Intelligent Transport Systems/Automated Driving (AD)		
Connected, automated and autonomous vehicles		
Functional Requirements for automated / autonomous vehicles		
New assessment / Test method		
Cyber security and (Over-the-Air) Software updates		
Data Storage System for Automated Driving vehicles (DSSAD)		
Horizontal regulation on automated and autonomous vehicles and associated recommendations		
System safety		
Artificial Intelligence technologies for wheeled vehicles		
Driver availability recognition		
Vehicle cybersecurity and data protection		
Rear crossing traffic alerting		
Night Vision system		
360-degree vision monitor		
International Whole Vehicle Type Approval (IWVTA)		
Modular Vehicle Combinations (MVC)		
Exchange of views on innovations and relevant national activities		

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

GRSG							
Priority/ recurrent	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Initiator	Comments
Priority 	Event Data Recorder	Establish new performance requirements for EDR suitable for potential new UN R and/or UN GTR	ECE/TRANS/WP.29/2019/34/Rev.	IWG on EDR/DSSAD	2021	WP.29	IWG reporting both to GRSG and GRVA
Priority	Field of View Assistant (FoVA)	Verify and address as necessary “Augmented Reality” related aspects in relation with existing UN Regulations / UN GTRs / UN Rules 	- UN R- 125 - GRSG-117-27 Field of View Assistant (FOVA) increases driver awareness but constitute obstacle to the prescribed driver’s field of vision (e.g. head-up displays) . If GRSG deems there is a safety benefit, Reg. 125 should be amended to modify requirements on FoVA.	TBD	2021	OICA	Timeline for Step 1, Step 2 will be at best 2022
Priority 	Security 	Virtual keys	UN R 116 GRSG-117-31 Amend the definition of keys taking into account innovative vehicle alarms systems (virtual key).	TBD	2021	OICA	a CP has to step forward to chair this task force
Priority	Direct Vision	Improved direct visibility by drivers through larger windows	UN R 125	VRU Proxy	2022	Japan, EC WP.29	

GRSG							
Priority/ recurrent	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Initiator	Comments
recurrent	Consolidated Resolution on the construction of vehicles	Update to technical progress Inclusion of automated vehicles (classification)	R.E.3 GRSG-117-06	TBD	2021	WP.29 France	
recurrent	Safety glazing	Update to technical progress	UN R 43 / UNGTR 6	Panoramic Sunroof Glazing (PSG)	April 2021	Korea WP.29	
recurrent	Anti theft and alarm systems	Update to technical progress	UN R 116			WP.29	Splitting into three new UN R for compatibility with IWVTA
recurrent	Burning behaviour of materials	Update to technical progress	UN R 118	Behaviour of M ₂ and M ₃ category vehicles' general construction in case of fire events (BMFE)	Oct. 2021	France WP.29	
recurrent	Blind Spot Information Systems	Update to technical progress	UN R 151	Awareness of Vulnerable Road Users proximity (VRU-Proxi)	2021	Japan, EC WP.29	

Subjects under consideration by the Working Party on General Safety Provisions (GRSG)

<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 120 th and 121 st session (GRSG/2021/1 and GRSG/2021/2)
6.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
43 (Safety glazing);		
46 (Devices for indirect vision);		
58 (Rear underrun protective devices);		
60 (Driver operated controls (mopeds/motorcycles));		
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 (Forwardfield of Vision for Drivers);		
144 (Accident Emergency Call Systems (AECS))		
151 (Blind Spot Information Systems)		
158 (Reversing motion);		
159 (Moving Off Information System)..		
6.1.2. Proposal for draft new UN Regulations:		
Event Data Recorder (EDR);		
Devices against Unauthorized Use;		
Immobilizers;		
Vehicle Alarm systems.		
6.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda for the 120 th and 121 st session (GRSG/2021/1 and GRSG/2021/2)
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		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
6.5. Miscellaneous items		For document symbols and its availability, please refer to the agenda for the 120 th and 121 st session (GRSG/2021/1 and GRSG/2021/2)
International Whole Vehicle Type Approval (IWVTA)		
Consolidated Resolution on the Construction of Vehicles (R.E.3)		
Event Data Recorder Requirements		



Table 7
Subjects under consideration by the Working Party on Passive Safety (GRSP) *

GRSP							
Priority/ recurrent	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Initiator	Comments
Short term							
1. Priority	Pedestrian Safety	Review proposed Amendment 3 to GTR9	ECE/TRANS/WP.29/2021/53 ECE/TRANS/WP.29/2021/54 AC3/31/Rev.1 GRSP-69-43-Rev.1	TF to be created		US/EC	To be started
	Head impact zone enlargement	Inclusion in GTR9	ECE/TRANS/WP.29/GRSP/2020/9 ECE/TRANS/WP.29/GRSP/2019/18 GRSP-69-21-Rev.1	T.b.d.	WP.29 June 2021	EC, JPN	To be started
	Head impact zone enlargement	Transposition in UN R127	ECE/TRANS/WP.29/GRSP/2020/9 ECE/TRANS/WP.29/GRSP/2019/18 GRSP-69-21-Rev.1	N/A	2022	EC, JPN	Ongoing
	Deployable pedestrian protection systems	Inclusion in GTR9	ECE/TRANS/WP.29/AC.3/45 ECE/TRANS/WP.29/AC.3/45/Rev.1	IWG-DPPS	11/2022	KOR	Ongoing
	Deployable pedestrian protection systems and head impact zone enlargement	Transposition in UN R127	N/A	N/A	WP.29 June 2021	EC, JPN	To be started
2. Priority	Amendment to Mutual Resolution No. 1 – Addendum 1	Inclusion of Addendum 1 (BioRID)	ECE/TRANS/WP.29/GRSP/2021/2 GRSP-69-01	No	WP29/AC.3 November 2021	UK	Urgent matter, since the lack of specifications may hamper the proper use of UN GTR No. 7 and UN Regulation No. 17

* List of priorities still under discussion by the GR.

GRSP							
Priority/ recurrent	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Initiator	Comments
3- Priority	Electric vehicles safety	Transposition of GTR20 in UN R94, R95, R100, [R136] R137 [and R146], [possibly in R12 (t.b.e.)]	N/A	Ad hoc group on R100	Finalise in GRSP 67 th meeting at the latest, WP.29 November 2020	JPN, EC	Side meetings of EVS IWG Phase 2
Recurrent	UN Regulation No. 17	Test procedure for the height of head restraints in the case of vehicles having a low roof construction.	ECE/TRANS/WP.29/GRSP/2020/12	N/A	2022	OICA	Ongoing
Recurrent	UN Regulation No. 22	Type approval of accessories to helmets	ECE/TRANS/WP.29/GRSP/2020/13 GRSP-69-17	Ad hoc group	WP29 November 2021	Israel	Ongoing
Recurrent	UN Regulation No. 100	Specific conditions concerning a clear interpretation of an AC voltage	GRSP-69-04				
Recurrent	UN Regulation No. 129	head containment assessment for side impact testing;	ECE/TRANS/WP.29/GRSP/2021/7	N/A	2021	Spain	Ongoing

GRSP							
Priority/ recurrent	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Initiator	Comments
Priority	Child restraint systems	Amendment of scope Harmonization and improvement of test tools	ECE/TRANS/WP.29/GRSP/2019/28	EC	Finalise in GRSP 66 th meeting, WP.29 June 2020	EC	To be finalised
Priority	Update of UN crash regulations following revised EU GSR	Depending on GRSP 66 th meeting outcome if further work is needed or is transmitted to WP.29 June 2020	ECE/TRANS/WP.29/GRSP/2019/29 ECE/TRANS/WP.29/GRSP/2019/30 ECE/TRANS/WP.29/GRSP/2019/37 ECE/TRANS/WP.29/GRSP/2019/38 GRSP 66-09	TF – EU GSR Revision	Finalise in GRSP 66 th meeting at the latest, WP.29 June 2020	EC	To be finalised
Priority	Head restraints	Transposition of GTR7 in UN R17	ECE/TRANS/WP.29/GRSP/2019/27 New consolidated working document for 67 th session of GRSP	Ad hoc group on R17	Finalise in GRSP 67 th meeting at the latest, WP.29 November 2020	EC	To be finalised
Medium term							
Priority	Amendment to Mutual Resolution No. 1 – Addendum 4	Inclusion of Addendum 4 (Q dummies)	N/A	Task Force	2021-2022	Germany	Urgent matter, since the lack of specifications may hamper the proper use of UN Regulation No. 129

GRSP							
Priority/ recurrent	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Initiator	Comments
Priority	Amendment to Mutual Resolution No. 1 – Addendum x	Inclusion of Addendum x (Female Dummies) But also other vulnerable occupants and seating position	N/A	[T/F]	2021	Sweden	Urgent matter, to provide the same level of protection to females in the event of crashes to fulfil UN SDG5
Priority							
Priority	Alternative test methods for heavy duty vehicles in order to improve applicability	Transposition in UN GTR13	N/A	IWG	T.b.d	T.b.d	To be started
Priority	Hydrogen safety material compatibility and new tank concepts	Inclusion in GTR13 ‘phase 2’	ECE/TRANS/WP.29/AC.3/49	IWG-HFCV	WP.29 June 2023	JPN, KOR, EC	Ongoing
Priority	Hydrogen safety material compatibility and new tank concepts	Transposition in UN R134 [and R146]	N/A	T.b.d.		EC, JPN	To be started if agreed by GRSP
Priority	Electric vehicles safety	GTR20 Phase 2		IWG-EVS	Proposal at March November 2024WP.29	US, EC, CN, JP	Ongoing
Recurrent	Children in buses	New reg	2019/22 and GRSP-66-06	IWG-STCBC	WP29 March 2023	SP	Ongoing

GRSP							
Priority/ recurrent	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Initiator	Comments
Recurrent	UN Regulation No. 16	Alternative (at the choice of the manufacturer) to the airbag switch-off for frontal airbags in combination with rearward-facing child restraint systems in the rear seat	ECE/TRANS/WP.29/GRSP/2019/15 and GRSP-66-14	N/A	2021	OICA	Ongoing
Recurrent	UN Regulation No. 136	To update R136 considering new provisions in UN R100.03 and to clarify requirements for swappable Rechargeable Electric Energy Storage Systems (REESS)	GRSP-69-13 and GRSP-69-14	N/A	2021/2022	IMMA	
Long term							



GRSP							
Priority/ recurrent	Title	Tasks / Deliverables	References	Allocations / IWGs	Timeline	Initiator	Comments
1. Priority	Passive safety with regard to new seating configurations in automated/autonomous vehicles	<p>At the request of AC.2 and GRVA, collect available information and data describing the expected future seating position configurations (including children) related to highly automated and autonomous vehicles.</p> <p>Create a common understanding on the readiness of new systems over time and related regulatory needs and timeline</p> <p>Identify a step-wise “regulatory approach” to enable the above identified solutions.</p>	Link to GRVA and WP29 (e.g. WP29-179-23 and WP29-179-25)	GRSP Taskforce to collect existing data/info	Depending from the identified “regulatory timeline”	To be defined	<p>Automated/autonomous vehicles are seen to offer significant benefits in road safety</p> <p>It is expected that higher levels of automation will be available in the near future allowing occupants to aim for new seating configurations, e.g. improved comfort, working environment or improved communication.</p>

GRSP							
<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>
2.Prior ity	UN GTR on ECRS	N/A	N/A	N/A	N/A	N/A	Need to harmonize ECRS provisions
3. Priorit y	Crash tests that represents the entire population.	N/A	N/A	N/A	N/A	Swede n	
Recurr ent	Helmets	07 series of amdt Phase 2 of IWG	2019/25 and GRSP-66-22	IWG PH (mandate to be proposed)	2022 ?	FR IT	To be started if agreed by GRSP

Subjects under consideration by the Working Party on Passive Safety (GRSP)

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
7.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda for the sixty-ninth session (GRSP/2021/1)
7.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
21 (Interior fittings);		
22 (Protective helmets);		
80 (Strength of seats and their anchorages (buses));		
94 (Frontal collision);		
95 (Lateral collision)		
100 (Electric power trained vehicles);		
127 (Pedestrian safety);		
129 (Enhanced child restraint systems)		
134 (Hydrogen and fuel cell vehicles (HFCV))		
137 Frontal impact with focus on restraint systems		
7.1.2. Proposal for draft new UN Regulations:		
Nil		
7.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda for the sixty-ninth session (GRSP/2021/1)
9 (Pedestrian safety);		
13 (Hydrogen and Fuel Cells Vehicles)		
20 (Electric vehicle safety)		
Electric vehicles		
Vehicle Crash compatibility		
7.3. 1997 Agreement (Inspections)		
Nil		
7.4. Proposal for draft recommendations or amendments to existing recommendations		
Mutual Resolution No. 1.		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
7.5. Miscellaneous items		For document symbols and its availability, please refer to the agenda for the sixty-ninth session (GRSP/2021/1)
Exchange of information on national and international requirements on passive safety;		
International Whole Vehicle Type Approval (IWVTA)		
Securing of children in buses and coaches;		
Exchange of views on vehicle automation;		
Three-dimensional H-point machine;		
Children left in cars.		

