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Item 2.2 of the provisional agenda

**Coordination and organization of work:
programme of work and documentation**

Revised 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 its 175th session (ECE/TRANS/WP.29/1139 and Add.1) and its 176th session (ECE/TRANS/WP.29/1142) and the proposed agenda for its 177th session (ECE/TRANS/WP.29/1144) 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 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, cluster 3.1), 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.

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

Top priorities for the work of the World Forum for Harmonization of Vehicle Regulations lie in the field of automated vehicles paving the way for a regulatory framework supporting the introduction of these emerging technologies towards future autonomous vehicles and in environmental protection and climate change

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.

1.2. **1997 Agreement:** Further to amending the rules under the agreement, elements related to the performance and quality of periodic technical inspections have been prepared for an adaptation of the agreement and resolution R.E.6 covering skills and training for inspectors, requirements for testing equipment and supervision of test centres was established. 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 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. GRBP: following the conversion of GRRF into GRVA the work on tyres has been transferred to GRBP. GRBP main topics are the work on a UN GTR for Quiet Road Transport Vehicles (QRTV), sound measurement uncertainties as well as wet grip for tyres in a worn state.

3.2. GRE is finalizing the work on simplification of the lighting regulations following the establishment of the Resolution R.E.5 on the common specification of light source categories. Once simplification is finalized, GRE will focus on introducing technology neutral requirements for dipped beam headlamp operation with the aim to avoid glare and to ensure good visibility.

3.3. GRPE main area of work is related to the transformation of WLTP into a new UN Regulation and further harmonization of emission and energy consumption test procedures including a new UN GTR on Global Real Driving Emissions (GRDE). Alternative powertrains/fuels and development of requirements for real world vehicle performance towards sustainable transport systems.

4.4. GRVA is establishing further elements for the UN vehicle regulatory framework towards automated driving.

4.4. GRVA's main topic is to deliver technical provisions for the safety performance assessment of automated and connected vehicles. GRVA is continuing to work on amendments to UN Regulation No. 79 (steering equipment) for this purpose but is also continuing the work initiated by the Informal Working Group on Intelligent Transport Systems / Automated Driving started before its inception. Beside this, GRVA is working on Cyber Security provisions and software updates (including Over-the-Air Software updates). GRVA is drafting technical provisions which are suitable for use under both the 1958 and the 1998 Agreement. GRVA continues the work of the former GRRF on ADAS and active safety and provisions mostly related to vehicle dynamics.

4.5. GRSG established a new UN Regulation on Advanced Driver Assistant Systems for Blind Spot Detection to early warn drivers of not automated vehicles and deals with mechanic coupling devices, a former activity of GRRF. Future work will address the thematic of Event Data Recorder (EDR) with a new UN GTR.

4.6. GRSP focuses its work on a UN GTR for electric vehicle safety as well as on hydrogen vehicles, protection of vulnerable road users (e.g. UN GTR /UN Regulation on pedestrian protection, motorcycle helmets and child restraint systems).

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>
1.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda (1144)
1.1.1. Draft amendments to existing UN Regulations to be considered at the March 2019 session:		
0 (International Whole Vehicle Type Approval);		
3 (Retro-reflecting devices);		
4 (Illumination of rear registration plates);		
6 (Direction indicators);		
7 (Position, stop and end-outline lamps);		
9 (Noise of three-wheeled vehicles);		
10 (Electromagnetic compatibility);		
19 (Front fog lamps);		
23 (Reversing lamps);		
27 (Advance warning triangles);		
38 (Rear fog lamps);		
41 (Noise emissions of motorcycles);		
48 (Installation of lighting and light-signalling devices);		
50 (Position, stop, direction indicator lamps for mopeds and motorcycles);		
51 (Noise of M and N categories of vehicles);		
53 (Installation of lighting and light-signalling devices for L3 vehicles);		
55 (Mechanical couplings);		
58 (Rear underrun protection);		
62 (Anti-theft for mopeds/motorcycles);		
67 (LPG vehicles);		
69 (Rear-marking plates for slow moving vehicles);		

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
70	(Rear-marking plates for heavy and long vehicles);	
73	(Lateral protection devices);	
74	(Installation of lighting and light-signalling devices for mopeds);	
77	(Parking lamps);	
86	(Installation of lighting and light-signalling devices for agricultural vehicles);	
87	(Daytime running lamps);	
91	(Side marker lamps);	
98	(Headlamps with gas-discharge light sources);	
92	(Replacement exhaust silencing systems for motorcycles);	
104	(Retro-reflective markings);	
106	(Tyres for agricultural vehicles and their trailers);	
107	(M2 and M3 vehicles).	
110	(CNG and LNG vehicles);	
112	(Headlamps emitting an asymmetrical passing-beam);	
113	(Headlamps emitting a symmetrical passing-beam);	
116	(Anti-theft and alarm systems);	
119	(Cornering lamps);	
122	(Heating systems);	
123	(Adaptive front lighting systems (AFS));	
128	(LED light sources).	
1.1.1. Draft New UN Regulation:		
	Blind Spot Information System for the Detection of Bicycles	
	Light-Signalling Devices (LSD)	
	Road Illumination devices (RID)	
	Retro-Reflective Devices (RRD)	

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
1.1.2. Draft amendments to existing UN Regulations to be considered at the June 2019 session UN Regulations Nos.: forthcoming	1146	
1.1.3. Proposal for new UN Regulations to be considered at the June 2019 session forthcoming	1146	
1.1.4. Status of the Agreement and of the annexed UN Regulations, including the latest situation report	343/Rev.27	
1.1.5. Development of an International Whole Vehicle Type Approval (IWVTA) system,		
1.1.6. Consideration of amendments to the 1958 Agreement.		
1.1.7. 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 (1144)
1.2.1. Consideration of draft UN GTRs and amendments to them: Nil		
1.2.2. Consideration of Mutual Resolutions Consideration of draft amendments to Mutual Resolution No. 1 (M.R.1) Nil Consideration of draft amendments to Mutual Resolution No. 2 (M.R.2) Nil Consideration of new Mutual Resolutions Nil		
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. Consideration of draft UN GTRs and amendments to them to be considered at the June 2019 session UN GTR Nos.:		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
forthcoming		
1.2.6. Consideration of new Mutual Resolutions		
1.2.7. Guidance for the development of UN GTRs:		
Nil		
1.2.8. Progress on the development of new UN GTRs and of amendments to established UN GTRs		
2 (Worldwide Motorcycle emission Test Cycle (WMTC));		
3 (Motorcycle braking);		
6 (Safety glazing);		
7 (Head restraints);		
9 (Pedestrian safety);		
13 (Hydrogen and Fuel Cell Vehicles (HFCV) – Phase 2);		
15 (Worldwide harmonized Light vehicle Test Procedures (WLTP) – Phase 2);		
16 (Tyres)		
Draft UN GTR on Quiet Road Transport Vehicles (QRTV)		
Draft UN GTR on Global Real Driving Emissions (GRDE)		
1.2.9. Exchange of views on items for new UN Global Technical Regulations		
Harmonization of side impact		
Electric vehicles and the environment		
Specifications for the 3-D H point machine		
Hydrogen and Fuel Cell Vehicles (HFCV) (UN GTR No. 13) – Phase 2		
Event Data Recorder (EDR)		
1.3. 1997 Agreement (Inspections)		
1.3.1. Future development of the Agreement		For document symbols and its availability, please refer to the agenda (1144)
1.3.2. Update of UN Rules Nos. 1 and 2		
1.3.3. Consideration of new UN Rules		

Table 2

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 sixty-ninth session (GRB/2019/1)
2.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
Part 1 – Noise:		
28 (Audible warning devices);		
41 (Noise of motorcycles);		
51 (Noise of M and N categories of vehicles);		
59 (Replacement silencing systems);		
92 (Replacement exhaust silencing systems for motorcycles);		
117 (Tyre rolling noise and wet grip adhesion);		
Part 2 – Tyres:		
30 (Tyres for passenger cars and their trailers);		
54 (Tyres for commercial vehicles and their trailers);		
64 (Temporary use spare unit, run flat tyres, run flat-system and tyre pressure monitoring system);		
75 (Motorcycle tyres);		
106 (Tyres for agricultural vehicles);		
108 (Retreaded tyres for passenger cars and their trailers)		
109 (Retreaded tyres for commercial vehicles and their trailers);		
117 (Tyres - Rolling resistance, rolling noise and wet grip);		
124 (Replacement wheels for passenger cars);		
141 (Tyre Pressure Monitoring Systems);		
142 (Tyres installation).		

Table 3
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-first session (GRE/2019/1)
3.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
6 (Direction indicators);		
7 (Position, stop and end-outline lamps);		
10 (Electromagnetic compatibility);		
19 (Front fog lamps);		
23 (Reversing lamps);		
38 (Rear fog lamps);		
45 (Headlamp cleaners);		
48 (Installation of lighting and light-signalling devices);		
50 (Position, stop, direction indicator lamps for mopeds and motorcycles);		
53 (Installation of lighting and light signalling devices for L ₃ vehicles);		
77 (Parking lamps);		
86 (Installation of lighting and light-signalling devices for agricultural tractors);		
87 (Daytime running lamps);		
91 (Side marker lamps);		
98 (Headlamps with gas-discharge light sources);		
112 (Headlamps emitting an asymmetrical passing-beam)		
113 (Headlamps emitting a symmetrical passing-beam);		
119 (Cornering lamps);		
123 (Adaptive front lighting systems (AFS));		
New UN Regulation on Light-Signalling Devices (LSD)		
New UN Regulation on Road Illumination devices (RID)		
New UN Regulation on Retro-Reflective Devices (RRD)		

<i>Subject</i>	<i>Document symbol</i> ECE/TRANS/WP.29/...	<i>Documentation</i> <i>availability</i>
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 Proposals for draft amendments to the Consolidated resolution on the common specification of the light source categories (R.E.5)		
3.5. Miscellaneous items Pending amendment proposals Simplification of lighting and light-signalling UN Regulations Amendments to the Convention on Road Traffic (Vienna 1968) Development of an international whole vehicle type approval (IWVTA) Phantom light and colour washout Direction for future GRE work Work progress of the International Automotive Lighting and Light Signalling Expert Group (GTB) task forces		For document symbols and its availability, please refer to the agenda of the eighty-first session (GRE/2019/1)

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

<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 seventy-eight session (GRPE/2019/1)
4.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
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);		
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 seventy-eight session (GRPE/2019/1)
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);		
15 (Worldwide harmonized Light Vehicle Test Procedure (WLTP))		

<i>Subject</i>	<i>Document symbol</i> <i>ECE/TRANS/WP.29/...</i>	<i>Documentation</i> <i>availability</i>
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 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)		For document symbols and its availability, please refer to the agenda of the seventy-eight session (GRPE/2019/1)

Table 5
Subjects under consideration by the Working Party on Automated / Autonomous and Connected Vehicles (GRVA)

<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 second session (GRVA/2019/1)
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);		
5.1.2. Proposal for draft new UN Regulations:		
Nil		
5.1.3. Vehicle automation		
Remote Control Manoeuvring (RCM)		
Automated Controlled Steering Function (ACSF)		
Framework Regulation on automated/autonomous vehicles;		
Track / Real World Driving Evaluation;		
Simulation / Virtual / Automated assessment;		
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);		
Night Vision;		

<i>Subject</i>	<i>Document symbol</i> ECE/TRANS/WP.29/...	<i>Documentation</i> <i>availability</i>
Rear crossing alert;		
Door-open blind spot detection;		
Around view monitor		
5.2. 1998 Agreement (Global)		For document symbols and its
3 (Motorcycle braking);		availability, please refer to the agenda
[16 (Tyres)]		of the second session (GRVA/2019/1)
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
Intelligent Transport Systems (ITS)		availability, please refer to the agenda
Intelligent Transport Systems/Automated Driving (AD)		of the second session (GRVA/2019/1)
Connected, automated and autonomous vehicles		
Assessment of Automated Vehicles (AutoVeh)		
Horizontal regulation on automated and autonomous vehicles and associated recommendations		
System safety		
Data Storage Systems for Automated Driving (DSSAD)		
Artificial Intelligence technologies for wheeled vehicles		
Human Machine Interface for automated vehicles (e.g. transitions)		
Driver availability recognition		
Vehicle cybersecurity and data protection		
Software updates and over-the-air software updates		
Rear crossing traffic alerting		
Night Vision system		
360-degree vision monitor		

<i>Subject</i>	<i>Document symbol</i>	<i>Documentation</i>
International Whole Vehicle Type Approval (IWVTA)	ECE/TRANS/WP.29/...	availability
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)

<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 116th session (GRSG/2019/1)
6.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
39 (Speedometer/odometer);		
43 (Safety glazing);		
46 (Devices for indirect vision);		
55 (Mechanical couplings);		
60 (Driver operated controls (mopeds/motorcycles));		
66 (Strength of superstructure (buses));		
67 (LPG vehicles);		
73 (Lateral protection devices);		
105 (ADR vehicles);		
110 (CNG and LNG vehicles);		
116 (Anti-theft and alarm systems);		
118 (Burning behaviour of materials);		
121 (Identification of controls, tell-tales and indicators);		
146 Accident Emergency Call Systems (AECS)		
6.1.2. Proposal for draft new UN Regulations:		
Advanced Driver Assistance Systems for blind spot monitoring (ADAS).		
6.2. 1998 Agreement (Global)		For document symbols and its availability, please refer to the agenda for the 116th session (GRSG/2019/1)
Possibility to develop further UN GTRs		
6 (Safety glazing)		
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>Documentation availability</i>
6.5. Miscellaneous items		For document symbols and its availability, please refer to the agenda for the 116th session (GRSG/2019/1)
International Whole Vehicle Type Approval (IWVTA)		
Consolidated Resolution on the Construction of Vehicles (R.E.3)		
Event Data Recorder		
Three-dimensional H-point machine		

Table 7

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

<i>Subject</i>	<i>Document symbol ECE/TRANS/WP.29/...</i>	<i>Documentation availability</i>
7.1. 1958 Agreement		For document symbols and its availability, please refer to the agenda for the sixty-fourth session (GRSP/2018/23)
7.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		
14 (Safety-belt anchorages);		
16 (Safety-belts);		
17 (Strength of seats);		
21 (Interior fittings);		
22 (Protective helmets);		
25 (Head restraints);		
44 (Child restraints systems);		
80 (Strength of seats and their anchorages (buses));		
94 (Frontal collision);		
100 (Electric power trained vehicles);		
127 (Pedestrian safety);		
129 (Enhanced child 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-fourth session (GRSP/2018/23)
1 (Door locks and door retention components);		
7 (Head restraints);		
9 (Pedestrian safety);		
13 (Hydrogen and Fuel Cells Vehicles)		
Side impact dummies		
Electric vehicles		
Vehicle Crash compatibility		
7.3. 1997 Agreement (Inspections)		
Nil		
7.4. 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>
7.5. Miscellaneous items		For document symbols and its availability, please refer to the agenda for the sixty-fourth session (GRSP/2018/23)
Exchange of information on national and international requirements on passive safety		
International Whole Vehicle Type Approval (IWVTA)		
3-D H point machine		
Intelligent Transport Systems (ITS)		
Definition and acronyms in UN Regulations under GRSP responsibilities		
