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**Inland Transport Committee** 

#### World Forum for Harmonization of Vehicle Regulations

176th session

Geneva, 13-16 November 2018 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 174th session (ECE/TRANS/WP.29/1137) and its 175th session (ECE/TRANS/WP.29/1139) and the proposed agenda for its 176th session (ECE/TRANS/WP.29/1141) and updates also the information on the work of the six subsidiary Working Parties to WP.29.

<sup>\*</sup> 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 electro-mobility to address the challenges of limited fossil fuel resources, 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 implemented via the new 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.
- 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.20 and in all GRs.

#### 3. Main topics of the Subsidiary Bodies:

- 3.1. GRB[P] Following the conversion of GRRF into GRVA the work on tyres has been transferred to GRB[P]. GRB[P] main topic is the work on a UN GTR for Quiet Road Transport Vehicles (QRTV)
- 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.
- 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.
- 3.4. GRVA is establishing further elements for the UN vehicle regulatory framework towards automated driving.
- 3.5. 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-Ait 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.

- 3.6. GRSG establishes 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.
- 3.7. 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)

Subject	Document symbol Documentation ECE/TRANS/WP.29/ availability
1.1. 1958 Agreement	For document symbols and its availability, please refer to the agenda (1141)

1.1.1. Draft amendments to existing UN Regulations to be considered at the November 2018 session

UN Regulations Nos.:

- 3 (Retro-reflecting devices)
- 4 (Illumination of rear registration plates)
- 6 (Direction indicators)
- 7 (Position, stop and end-outline lamps)
- 11 (Door latches and hinges)
- 14 (Safety-belt anchorages)
- 16 (Safety-belts)
- 17 (Strength of seats)
- 19 (Front fog lamps)
- 23 (Reversing lamps)
- 24 (Visible pollutants, measurement of power of Compression Ignition engine (Diesel smoke))
- 27 (Advance warning triangles)
- 29 (Cabs of commercial vehicles)
- 34 (Prevention of fire risks),
- 37 (Filament light sources)
- 38 (Rear fog lamps)
- 43 (Safety glazing),
- 44 (Child restraint systems)
- 46 (Devices for indirect vision),
- 48 (Installation of lighting and lightsignalling devices)
- 50 (Position, stop, direction indicator lamps for mopeds and motorcycles)
- 53 (Installation of lighting and lightsignalling devices for L3 vehicles)
- 60 (Driver operated controls for

Subject			Document symbol ECE/TRANS/WP.29/	Documentation availability
		mopeds/motorcycles),		
	67	(LPG vehicles),		
	69	(Rear-marking plates for slow moving vehicles)		
	70	(Rear-marking plates for heavy and long vehicles)		
	74	(Installation of lighting and light- signalling devices for mopeds)		
	77	(Parking lamps)		
	86	(Installation of lighting and light- signalling devices for agricultural vehicles)		
	83	(Emissions of $M_1$ and $N_1$ vehicles)		
	87	(Daytime running lamps)		
	91	(Side marker lamps)		
	94	(Frontal collision)		
	95	(Lateral collision)		
	98	(Headlamps with gas-discharge light sources)		
	99	(Gas-discharge light sources)		
	100	(Electric power trained vehicles)		
	101	(CO <sub>2</sub> emission/fuel consumption)		
	104	(Retro-reflective markings)		
	105	(ADR vehicles),		
	110	(CNG and LNG vehicles),		
	112	(Headlamps emitting an asymmetrical passing-beam)		
	113	(Headlamps emitting a symmetrical passing-beam)		
	119	(Cornering lamps)		
	121	(Identification of controls, tell-tales and indicators),		
	123	(Adaptive front lighting systems (AFS))		
	128	(LED light sources)		
	129	(Enhanced Child Restraint Systems)		
	132	(Retrofit Emissions Control devices (REC))		
	137	(Frontal impact with focus on restraint systems)		

Document symbol Documentation Subject ECE/TRANS/WP.29/... availability 1.1.2. Draft New UN Regulation: Light-Signalling Devices (LSD) Road Illumination devices (RID) Retro-Reflective Devices (RRD) 1.1.3. Draft amendments to existing UN 1143 Regulations to be considered at the March 2019 session UN Regulations Nos.: (Noise of three-wheeled vehicles); 10 (Electromagnetic compatibility); 41 (Noise emissions of motorcycles); 43 (Safety glazing); 51 (Noise of M and N categories of vehicles); (Installation of lighting and light-53 signalling devices for L3 vehicles); 55 (Mechanical couplings); 92 (Replacement exhaust silencing systems for motorcycles); 58 (Rear underrun protection); 62 (Anti-theft for mopeds/motorcycles); 67 (LPG vehicles); (Lateral protection devices); 106 (Tyres for agricultural vehicles and their trailers); 107 (M<sub>2</sub> and M<sub>3</sub> vehicles); 110 (CNG and LNG vehicles); 110 (CNG and LNG vehicles); 116 (Anti-theft and alarm systems); 121 (Identification of controls, tell-tales and indicators); 122 (Heating systems); 1.1.4. Proposal for new UN Regulations to be 1143 considered at the March 2019 session Proposal for a new UN on Blind Spot Information Systems (BSIS); 1.1.5. Status of the Agreement and of the 343/Rev.26 annexed UN Regulations, including the latest situation report

Document symbol Documentation Subject ECE/TRANS/WP.29/... availability 1.1.6. Development of an International Whole Vehicle Type Approval (IWVTA) system, 1.1.7. Consideration of amendments to the 1958 Agreement. 1.1.8. 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 1.2.1. Consideration of draft UN GTRs and (1141)amendments to them: UN GTR Nos.: (Pedestrian safety) 1.2.2. Consideration of Mutual Resolutions Consideration of draft amendments to Mutual Resolution No. 1 (M.R.1) Consideration of draft amendments to Mutual Resolution No. 2 (M.R.2) Consideration of new Mutual Resolutions Nil 1.2.3. Guidance for the development of UN GTRs: 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 March 2019 session UN GTR Nos.: Nil 1.2.6. Consideration of new Mutual Resolutions 1.2.7. Guidance for the development of UN GTRs: 1.2.8. Progress on the development of new UN GTRs and of amendments to established **UN GTRs** (Worldwide Motorcycle emission

Subject			Document symbol ECE/TRANS/WP.29/	Documentation availability
		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)		
		ft UN GTR on Quiet Road Transport icles (QRTV)		
		ft UN GTR on Global Real Driving issions (GRDE)		
1.2.9.		hange of views on items for new UN bal Technical Regulations		
	Har	monization of side impact		
	Elec	ctric vehicles and the environment		
	Spe	cifications for the 3-D H point machine		
		drogen and Fuel Cell Vehicles FCV) (UN GTR No. 13) – Phase 2		
1.3.	199	7 Agreement (Inspections)	For document syml	
1.3.1.	Futu	are development of the Agreement	availability, please (1141)	refer to the agenda
1.3.2.	Upd	late of UN Rules Nos. 1 and 2	,	
1.3.3.	Con	sideration of new UN Rules		
	Teciusin Liqu Liqu	posals for a new Rule on Periodical hnical Inspections of motor vehicles ag Compressed Natural Gas (CNG), uefied Petroleum Gas (LPG) and/or uefied Natural Gas (LNG) in their pulsion system		
	Tec with	posals for a new Rule on Periodical hnical Inspections of motor vehicles n electric and hybrid-electric pulsion system		

Table 2
Subjects under consideration by the Working Party on Noise [and Tyres] (GRB[P])

Subje	ects u	nder consideration by the Working I	Party on Noise [and	Tyres] (GRB[P])
Subject	÷		Document symbol ECE/TRANS/WP.29/	Documentation availability
2.1.	1958	8 Agreement	For document symbols and its availability, please refer to the agenda of	
2.1.1.	. Proposal for draft amendments to existing UN Regulations (1958 Agreement):		the sixty-eighth session (GRB/2018/31)	
Part 1	- No	ise:		
	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	-Ty	res:		
	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).

 $\begin{tabular}{ll} Table 3 \\ Subjects under consideration by the Working Party on Lighting and Light-Signalling (GRE) \\ \end{tabular}$ 

Subject			Document symbol ECE/TRANS/WP.29/	Documentation availability
3.1.		B Agreement	For document symb	ools and its
3.1.1.	Proposal for draft amendments to existing UN Regulations (1958 Agreement):		availability, please refer to the agend	
	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))		

Nil

3.1.2. Proposal for draft new UN Regulations:

Document symbol Documentation
Subject ECE/TRANS/WP.29/... availability

#### 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

Nil

#### 3.5. Miscellaneous items

Pending amendment proposals

Simplification of lighting and lightsignalling 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 eightieth session (GRE/2018/31)

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

Subject			Document symbol ECE/TRANS/WP.29/	Documentation availability
4.1.	1958	3 Agreement	For document sym	
4.1.1.	Proposal for draft amendments to existing UN Regulations (1958 Agreement):		availability, please refer to the agenda of the seventy-seventh session (GRPE/2018/11)	
	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 <sub>2</sub> 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.	Prop	oosal for draft new UN Regulations		
	Nil			
4.2.	1998	Agreement (Global)	For document sym	bols and its
	2	(Worldwide motorcycle emissions test cycle (WMTC));	availability, please of the seventy-seve (GRPE/2018/11)	refer to the agenda enth session
	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		

Document symbol Documentation
Subject ECE/TRANS/WP.29/... availability

Vehicle Test Procedure (WLTP))

### 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 Lcategory 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-seventh session (GRPE/2018/11))

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

Subject		Document symbol ECE/TRANS/WP.29/	Documentation availability
5.1.	1958 Agreement	For document sym	
5.1.1.	Proposal for draft amendments to existing UN Regulations (1958 Agreement):	availability, please refer to the agend of the first session (GRVA/2018/1)	
	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 (Comple Electronics Development);	ex	
	Periodic Technical Inspection/ Roadworthiness Provisions;		
	Cyber Security;		
	Software (incl. Over-the-Air) updates;		
	Data Storage System for Automate Driving (DSSAD);	ed	
	Night Vision;		

Subject

Document symbol Documentation
ECE/TRANS/WP.29/... availability

Rear crossing alert;

Door-open blind spot detection;

Around view monitor

5.2. 1998 Agreement (Global)

3 (Motorcycle braking);

[16 (Tyres)]

For document symbols and its availability, please refer to the agenda of the first session (GRVA/2018/1)

5.3. 1997 Agreement (Inspections)

Nil

5.4. Proposal for draft recommendations or amendments to existing recommendations:

Nil

5.5. Miscellaneous items

Intelligent Transport Systems (ITS)

Intelligent Transport
Systems/Automated Driving (AD)

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

For document symbols and its availability, please refer to the agenda of the first session (GRVA/2018/1)

ect	Document symbol ECE/TRANS/WP.29/	Documentation availability
360-degree vision monitor		
International Whole Vehicle T Approval (IWVTA)	Type	
Modular Vehicle Combinations (MV	(C)	
Exchange of views on innovations relevant national activities	and	

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

Subject		Document symbol Documentation ECE/TRANS/WP.29/ availability
6.1.	1958 Agreement	For document symbols and its availability, please refer to the agenda for the 115th session (GRSG/2018/10)
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)	
6.1.2.	Proposal for draft new UN Regulations:	
	Automatic Emergency Call Systems (AECS)	
	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 115th session (GRSG/2018/10)
	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	

Subjec	T .	Document symbol Documentation ECE/TRANS/WP.29/ availability
6.5.	Miscellaneous items	For document symbols and its availability, please refer to the agenda for the 115th session (GRSG/2018/10)
	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)** 

Subject			Document symbol ECE/TRANS/WP.29/	Documentation availability
7.1.	1958	3 Agreement	For document symbols and its availability, please refer to the agenda for the sixty-fourth session (GRSP/2018/23)	
7.1.1.		oosal for draft amendments to existing 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.	Prop	oosal for draft new UN Regulations:		
	Nil			
7.2.	1998	3 Agreement (Global)	For document symbols and its	
	1	(Door locks and door retention components);	availability, please for the sixty-fourth (GRSP/2018/23)	refer to the agenda session
	7	(Head restraints);	,	
	9	(Pedestrian safety);		
	13	(Hydrogen and Fuel Cells Vehicles)		
	Side	impact dummies		
	Elec	tric vehicles		
	Veh	icle Crash compatibility		
7.3.	1997	7 Agreement (Inspections)		
	Nil			
7.4.	ame	posal for draft recommendations or indments to existing immendations		

Nil

Subjec	t	Document symbol Documentation ECE/TRANS/WP.29/ availability
7.5.	Miscellaneous items  Exchange of information on national and international requirements on passive safety	For document symbols and its availability, please refer to the agenda for the sixty-fourth session (GRSP/2018/23)
	International Whole Vehicle Type Approval (IWVTA)	
	3-D H point machine	
	Intelligent Transport Systems (ITS)	
	Definition and acronyms in UN Regulations under GRSP responsibilities	