|  |  |  |
| --- | --- | --- |
|  | United Nations | ECE/TRANS/WP.29/2020/1 |
| _unlogo | **Economic and Social Council** | Distr.: General5 March 2020English only |

**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations**

**180th session**

Geneva, 10-12 March 2020

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[[1]](#footnote-2)\*

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 178th session (ECE/TRANS/WP.29/1147) and its 179th session (ECE/TRANS/WP.29/1149) and the proposed agenda for its 180th session (ECE/TRANS/WP.29/1150) and updates also the information on the work of the six subsidiary Working Parties to WP.29.

 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 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, the 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 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 established.

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 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 and179th session of WP.29, all GRs were invited to perform a review of their activities and to identify 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.). As main priorities of work for 2020 the GRs identified:

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), revision of sound limit values, sound measurement uncertainties as well as wet grip for tyres in a worn state. A detailed list of 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. A detailed list of activities of GRE is presented in Table 3.

3.1.3. GRPE main area of work is related to a new UN GTR and a new UN Regulation on Global Real Driving Emissions (GRDE), Determination of Electrified Vehicle Power (DEVP), in-vehicle battery durability, sub-23 nm exhaust particles and particulates stemming from brake emissions. A detailed list of 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). A detailed list of activities of GRVA is presented in Table 5.

3.1.5. GRSG work will focus on Event Data Recorder (EDR) with a new UN Regulation and UN GTR, on augmented reality in the driver's field of vision 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 a UN Regulation for transposition of UN GTR No.20 for electric vehicle safety as well as on transposition of UN GTR No. 7 on head restraints into UN Regulation No.17, update of UN crash regulations and on child restraint systems. A detailed list of activities of GRSP is presented in Table 7.

# Table 1

# **Subjects under consideration by the World Forum (WP.29)**

| *Subject* | *Document symbol ECE/TRANS/WP.29/...* | *Documentation availability* |
| --- | --- | --- |
| **0.** **Intelligent Transport Systems (ITS)*** 1. **Automated/Autonomous Driving**

1.0.1. Framework document on automated/autonomous vehicles.1.0.2. Functional Requirements for automated / autonomous vehicles1.0.3. New assessment / Test method1.0.4. Cyber security and (Over-the-Air) Software updates1.0.5. Event Data Recorder (EDR)1.0.6. Data Storage System for Automated Driving vehicles (DSSAD) |  |
| * 1. **1958 Agreement**
 | For document symbols and its availability, please refer to the agenda (1150) |
| 1.1.1 Draft amendments to existing UN Regulations to be considered at the June 2020 sessionUN Regulations Nos.:9 (Noise of three-wheeled vehicles)10 (Electromagnetic compatibility)26 (External projections of passenger cars)28 (Audible warning devices)46 (Devices for indirect vision)48 (Installation of lighting and light-signalling devices)51 (Noise of M and N categories of vehicles)55 (Mechanical couplings)58 (Rear underrun protection devices)59 (Replacement silencing systems) 62 (Anti-theft (mopeds/motorcycles))79 (Steering equipment)90 (Replacement braking parts)106 (Tyres for agricultural vehicles)107 (M2 and M3 vehicles)110 (CNG and LNG vehicles)117 (Tyre rolling resistance, rolling noise and wet grip) 121 (Identification of controls, tell-tales and indicators)122 (Heating systems)128 (LED light sources)144 (Accident Emergency Call Systems)148 (LSD) 149 (RID) 150 (RRD) 151 (Blind Spot Information Systems (BISIS))152 (AEBS for M1 and N1) |  |
| * + 1. Proposal for new UN Regulations to be considered at the March 2020 session

Nil |  |
| Draft amendments to existing UN Regulations to be considered at the June 2020 sessionUN Regulations Nos.:9 (Noise of three-wheeled vehicles)10 (Electromagnetic compatibility)26 (External projections of passenger cars)28 (Audible warning devices)46 (Devices for indirect vision)48 (Installation of lighting and light-signalling devices)51 (Noise of M and N categories of vehicles)55 (Mechanical couplings)58 (Rear underrun protection devices)59 (Replacement silencing systems) 62 (Anti-theft (mopeds/motorcycles))79 (Steering equipment)90 (Replacement braking parts)106 (Tyres for agricultural vehicles)107 (M2 and M3 vehicles)110 (CNG and LNG vehicles)117 (Tyre rolling resistance, rolling noise and wet grip) 121 (Identification of controls, tell-tales and indicators)122 (Heating systems)128 (LED light sources)144 (Accident Emergency Call Systems)148(LSD) 149 (RID) 150 (RRD) 151 (Blind Spot Information Systems (BISIS))152 (AEBS for M1 and N1)  | (1152) |
| * + 1. Proposal for new UN Regulations to be considered at the June 2020 session

Nil | (1152) |
| * + 1. Status of the Agreement and of the annexed UN Regulations, including the latest situation report
 | 343/Rev.28 |
| * + 1. Development of an International Whole Vehicle Type Approval (IWVTA) system,
 |  |
| * + 1. Consideration of amendments to the 1958 Agreement.
 |  |
| * + 1. Development of an electronic database for the exchange of type approval documentation (DETA)
 |  |
| * 1. **1998 Agreement (Global)**
 | For document symbols and its availability, please refer to the agenda (1150) |
| * + 1. Consideration of draft UN GTRs and amendments to them to be considered at the March 2020 session

UN GTR Nos.:3 (Motorcycle braking)6 (Safety glazing)16 (Tyres) |
| * + 1. Consideration of Mutual Resolutions

Consideration of draft amendments to Mutual Resolution No. 1 (M.R.1)NilConsideration of draft amendments to Mutual Resolution No. 2 (M.R.2) Nil.Consideration of new Mutual ResolutionsNil |  |
| * + 1. Guidance for the development of UN GTRs:

 Nil* + 1. Progress on the development of new UN GTRs and of amendments to established UN GTRs
 |  |
| * + 1. Consideration of draft UN GTRs and amendments to them to be considered at the June 2020 session

UN GTR Nos.:6 (Safety glazing)16 (Tyres) | (1152) |
| * + 1. Consideration of new Mutual Resolutions
 |  |
| * + 1. Guidance for the development of UN GTRs:

Nil* + 1. 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)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)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)Draft UN GTR on Global Real Driving Emissions (GRDE)Draft UN GTR on determination of electrified vehicle power (Electric vehicles and the environment) |  |
| * + 1. Exchange of views on items for new UN Global Technical Regulations
 |  |
| Harmonization of side impactSpecifications for the 3-D H point machineEvent Data Recorder (EDR) |  |
| * 1. **1997 Agreement (Inspections)**
 | For document symbols and its availability, please refer to the agenda (1150) |
| * + 1. Future development of the Agreement
 |
| * + 1. Consideration of new UN Rules

**Nil** |  |
| * + 1. Update of existing UN Rules Amendment of UN Rule No.  3Amendment of UN Rule No.  4
 |  |
| * + 1. Amendments to Resolution R.E.6
 |  |

# Table 2

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

| *GRBP* |
| --- |
| *Priority/recurrent* | *Title*  | *Tasks / Deliverables* | *References* | *Allocations / IWGs* | *Timeline* | *Chair/Initiator* | *Comments* |
| recurrent | Maintenance of the text | Clarification/Simplification/ update of the regulations according to the feedback and the possible interpretations of the regulations |  | GRBP |  |  |  |
| Priority | Real Driving Additional sound emission Provision (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 | GRBP January 2020 for UN-R41.05 1st step.GRBP January 2021 with UN-R51-04 (latest) | Chair: Germany secretariat OICA | M1, N1L3and their NORESS |
| Priority | Reverse Warning System (RWS) | Harmonisation of Reverse Warning Systems (Components and vehicles) with the aim of lower sound emissions on a high safety level. Camera Monitor systems as an alternative to RWS | New REGULATION | TF-RWS | GRBP September, 2020 | Chair: Japan Secretariat OICA | [M2], N2, M3, N3 |
| Priority | Uncertainties | Assessment of measurement uncertainties and track alignment | R51R117R41 | TF-MU(to become an informal group) | January 2021official document R 51 & R 117 | Chair: Norway Secretariat: OICA | R 51: Noise R117: Noise Other regulationsDeadline to be defined |
| recurrent | Selection scheme for a representative vehicle | Consideration on tolerances for type defining parameters and selection scheme for a representative vehicle for type approval test | [New] R51 R41 | TF XX | Deadline to be defined | OICA |  |
| Priority | Limits for R 51  | Revision of limit values Phase 3 (considering new technologies and tyre noise related to UN-R51-03)  | Article 11 of Regulation (EU) 540/2014, for the EC study on sound level limits, that should be published by 1/7/2021 | IWG |  | Maybe to be created in 2020]? | M, N |
| ~~recurrent~~ | ~~GTR 16 phase 2~~ | ~~GTR 16~~ | ~~IWG Tyres GTR~~ | ~~C1, C2~~ | ~~Russian Federation~~ | ~~ETRTO~~ | ~~GRBP January 2020~~~~(Adopted GRBP Sept 2019)~~ |
| Priority | Wet Grip on Worn Tyres (WGWT) | Additional prescriptions regarding performances on Wet Grip of Worn Tyres to be added in R 117. |  | IWG  | C1: GRBP Jan. 2021 | Co- Chairs: France & European CommissionSecretariat: ETRTO  |  |
| Priority | Introduction of snow tyres: 3PMSF in R 117 |  |  | GOIE Snow Tyres | GRBP September 2019 for special use tyres[GRBP September 2020 full package] | Chair: Germany | C1, C2, C3 |
| Priority | R117 | Introduction of new Wet Grip test method for C1 tyres (ISO TC31 WG12) |  | GRBP | GRBP September 2020 (ETRTO) | ETRTO | C1 |
| Priority | R117 | Introduction of new Traction definition for C2 and C3 tyres |  | GRBP | GRBP September 2020 (ETRTO) | ETRTO | C2, C3 |
| Priority | TPMS | Tyre Pressure Monitoring System (TPMS) |  | GRBP  | GRBP January 2021 | \ | Linked to work done by EC |
| Priority | PTI & Roadside checks | Pass by test light for roadside-checks and PTI has to be incorporated insideR9, R41, (R63, R51) and gives guidelines and tolerances to the type approval values |  | [to be created after IWG ASEP] | GRBP January 2022 |  | L3, L4, L5, M1, N1 |
| recurrent | New technology | Adjustment to the new technologies |  | GRBP |  |  |  |

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

| *Subject* | *Document symbol ECE/TRANS/WP.29/…* | *Documentation availability* |
| --- | --- | --- |
| * 1. **1958 Agreement**
 | For document symbols and its availability, please refer to the agenda of the sixty-ninth session (GRBP/2020/1) |
| * + 1. Proposal for draft amendments to existing UN Regulations (1958 Agreement):

Part 1 – Noise: |
| 41 (Noise of motorcycles); 51 (Noise of M and N categories of vehicles); 138 (Quiet road transport vehicles);Part 2 – Tyres:30 (Tyres for passenger cars and their trailers);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); |  |
| * 1. **1998 Agreement (Global)**
 | For document symbols and its availability, please refer to the agenda of the sixty-ninth session (GRBP/2020/1) |
| 16 (Tyres), if needed. |

# Table 3

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

| *GRE* |
| --- |
| *Priority/recurrent* | *Title*  | *Tasks / Deliverables* | *References* | *Allocations / IWGs* | *Timeline* | *Initiator* | *Comments* |
| **General** |
| *Priority* | *Simplification* | *The overarching objective is to update and harmonize technical requirements for lighting and light-signalling, suitable for global implementation under the 1958 and 1998 Agreements.* | *New simplified UN Regulations Nos. 148, 149 and 150**GRE reports in 2015-2019* | *IWG-SLR**and**GRE* |  | *WP.29**(EC, JPN)* | *The time schedule according to the T.o.R. is ambitious* |
| **Short term** |
| Priority | SimplificationStage 2, step 1 | Revise the technical requirements of the new Regulations Nos .148, R.149, R.150, to become future proof and technology neutral, with performance-based and objective test requirements | New simplified UN Regulations Nos. 148, 149 and 150  | IWG-SLR andGRE | [2020] | IWG-SLR(GRE) | Ongoing |
| Priority | Headlamp levelling (visibility and glare) | Taking into account glare and visibility considerations. Amend installation Regulations taking into account the work of IWG-VGL. | ECE/TRANS/WP.29/GRE/2020/8 | ~~IWG-VGL~~ =>IWG-SLRandGRE | 2020 | Various CP’s | To be finalized |
| Priority | InstallationNew Series of Amendments for Regulation No. 48(R.48-08) | Many proposals merged; various amendments, improvements and clarifications included(headlamps, direction indicators, daytime running lamps, rear position lamps, etc.) | UN Regulation No. 48 | SIG-R.48andGRE | 2020 | Various CP’s | To be finalized |
| Priority | ‘Unique Identifier’ | Suitable application of the ‘Unique Identifier’ (‘UI’) | SLR-37-01 | IWG-SLRandGRE | [2020] | IWG-SLR | Ongoing |
| Recurrent | Lights sources  | Development of replaceable LED lights sources (incl. substitutes and replacement light sources for filament lamps) | ECE/TRANS/WP.29/2019/29,ECE/TRANS/WP.29/2019/126,ECE/TRANS/WP.29/GRE/2020/6,… | TF-S/RandGRE |  |  | Ongoing |
| Recurrent | Adaptation to technical progress | e.g. road light projections | ECE/TRANS/WP.29/GRE/2020/4 | GRE |  |  | Continuous process |
| Potential | Software | Awareness of GRVA activity on software updates |  | GRE |  |  | t.b.c. |
| **Medium term** |
| Priority | SimplificationStage 2, step 2 | Simplify and update the technical requirements of the installation Regulations Nos. 48, 53, 74, 86, to become future proof and technology neutral, with performance-based and objective test requirements | UN Regulations Nos. 48, 53, 74, 86 | IWG-SLR | [2022] | IWG-SLR(GRE) | Started |
| Priority | EMC issues for electrical vehicles | Further development of EMC requirements for electrical vehicles (EV’s) | UN Regulation No. 10 | TF-EMC |  |  | Ongoing |
| Recurrent | Automation | Signalling requirements for autonomous vehicles |  | TF-AVSR |  |  | Awaiting guidance WP.29(WP.1?) |
| Recurrent | Electromagnetic compatibility  | Updating EMC requirements in relation to various international standards | UN Regulation No. 10 | TF-EMC |  |  | Ongoing |
| Recurrent | Adaptation to technical progress | e.g. further development of adaptive and intelligent lighting systems |  | GRE |  |  | Continuous process |
| Potential | Sensors | New, or additional, requirements related to optical sensors (e.g. ensuring adequate illumination for – and avoid glaring of – optical sensors) |  | t.b.c. |  |  | t.b.c. |
| Potential | Reference EMC | Regulation No. 10 should become the reference for EMC requirements for all GR’s | UN Regulation No. 10 | TF-EMCandGRE |  |  | t.b.c. |
| Potential | Global harmonization | Development of globally standardized signalling for automated/ autonomous vehicles (AV’s) |  | t.b.c. |  |  | t.b.c. |
| Potential | Sustainability | Attention to environmental aspects (energy efficiency, waste reduction, etc.) |  | GRE |  |  | t.b.c. |
| Potential | “Zero emission” | “Zero emission mode” light signalling (hybrid vehicles, city centers, etc.) |  | t.b.c. |  |  | t.b.c. |
| Potential | Avoid approval by-passing | Further amendments to Regulation No. 10 to avoid by-passing the approval of other regulations | UN Regulation No. 10 | TF-EMCandGRE |  |  | t.b.c. |
| Potential | New systems and AV’s | New, or additional, requirements for automated/autonomous vehicles (AV’s) and new systems |  | GRE |  |  | t.b.c. |
| Potential | Light source regulations | Regulatory improvement by further consolidation of the light source regulations |  | t.b.c. |  |  | t.b.c. |
| Potential | Connected vehicles (CV’s) | Connected & communicating light signalling lamps |  | t.b.c. |  |  | t.b.c. |

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

| *Subject* | *Document symbol ECE/TRANS/WP.29/...* | *Documentation availability* |
| --- | --- | --- |
| **3.1. 1958 Agreement** | For document symbols and its availability, please refer to the agenda of the eighty-third session (GRE/2020/1) |
| 3.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement): |
| 48 (Installation of lighting and light‑signalling devices); 53 (Installation of lighting and light signalling devices for L3 vehicles);65 (Special warning lamps);86 (Installation of lighting and light-signalling devices for agricultural tractors);98 (Headlamps with gas-discharge light sources);123 (Adaptive front lighting systems (AFS));148 Light-Signalling Devices (LSD) 149 Road Illumination devices (RID) 150 Retro-Reflective Devices (RRD) |  |
| 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**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 provisionsDirection for future GRE work | For document symbols and its availability, please refer to the agenda of the eighty-first session (GRE/2020/1) |

# Table 4

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

| *GRPE* |
| --- |
| *Priority/recurrent* | *Title*  | *Tasks / Deliverables* | *References* | *Allocations / IWGs* | *Timeline (WD in GRPE)* | *Comments* |
| Priority | Global Real Driving Emissions (RDE) phase 1 | New UN GTR and new UN Regulation | GRPE-79-20-Rev.1 | IWG on GRDE | Q2 2020  |  |
| Priority | Determination of Electrified Vehicle Power (DEVP) | New UN GTR | GRPE-79-28-Rev.1 | IWG on EVE | Q2 2020 | New timeline announced in GRPE 79.IWG Mandate expiring in June 2021 |
| Priority | In Vehicle Battery Durability | New UN GTR | GRPE-79-28-Rev.1 | IWG on EVE | [Q2 2021] | IWG Mandate expiring in June 2021 |
| Priority | Sub-23 nm exhaust particles | Amendments to UN GTR No. 15 | GRPE-79-14-Rev.1 | IWG on PMP | Q2 2020 | IWG Mandate expiring in June 2021 |
| Priority | Brake emissions | New UN GTR | GRPE-79-14-Rev.1 | IWG on PMP | Q2 2021 | About half of the work concluded. Work progress according to schedule |
| recurrent | Transposition to Euro VI step E | Introduction to PEMS cold start and PN-PEMS measurement to UN Regulation No. 49 | ECE/TRANS/WP.29/GRPE/79, para. 26 | GRPE | Q1 2021 |  |
| recurrent | New series of amendments to UN Regulation No. 83 | Develop the 08 series of amendment to Un Regulation No. 83 |  | IWG on WLTP | [Q2 2020] |  |
| recurrent | Finalising Worldwide light duty test procedure (WLTP) | Amendments / improvements to UN GTR No. 15 and UN Regulation No. XXX on WLTP | GRPE-79-19 | IWG on WLTP | Q2 2020 | IWG Mandate expiring in June 2020 |
| recurrent | OBD-2 for L Category vehicles | Amendment to UN GTR No. 18 | GRPE-79-24 | IWG on EPPR | Q2 2020 |  |
| recurrent | Revision on M.R.3 concerning VIAQ | Amendment to Mutual Resolution No.3 | GRPE-79-18 | IWG on VIAQ | Q2 2020 |  |
| recurrent | Transposition of UN GTR No.2 into UN Regulation | Include latest provisions of UN GTR No. 2 into UN Regulation No.[40] | GRPE-79-24 | IWG on EPPR | tbd |  |
| potential | Lifetime compliance: In-Service Conformity, in use compliance and beyond  | Ensure adequate and long-lasting environmental performance of vehicles:- In-Service Conformity (ISC) / durability provisions- On-Board Measurements and monitoring- Tampering prevention (e.g. NOx emulator, DPF removal…)-Provisions for PTI |  | GRPE / IWG on PTI |  |  |
| potential | Non-regulated Emissions | Include non-regulated pollutant into emissions regulations, if appropriate  |  | GRPE |  |  |
| potential | Tyre wear emissions | Develop methodology to characterize (PN, other?) emissions from tyre wear |  | IWG on PMP / GRBP ? |  |  |
| potential | Heavy Duty Hybrids | Introduction of approval provisions in UNR 49 and possible Amendments to UN GTR No. 4 |  | GRPE |  |  |
| potential | Hydrogen-powered Heavy Duty | Introduction of approval provisions in UNR 49 |  | GRPE |  |  |
| potential | Powertrain definitions  | Develop a more regular and systematic framework for the update of Mutual Resolution No. 2 Containing Vehicle Propulsion System Definitions |  | GRPE |  |  |
| potential | Replacement after-treatment systems | Amendments to UN Regulation No. 103 |  | GRPE |  |  |
| potential | Connected, automated and autonomous vehicles and the environment | Using vehicle connectivity, automation and self-driving capabilities to minimize environmental impact of vehicles and associated activity. |  | GRPE / GRVA |  |  |
| potential  | Method for stating energy consumption / emissions from EVs | Joint task force being set-up with the Group of experts on energy efficiency (GEEE) of the energy division of UNECE |  | IWG on EVE |  |  |

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

| *Subject* | *Document symbol ECE/TRANS/WP.29/...* | *Documentation availability* |
| --- | --- | --- |
| **4.1. 1958 Agreement**4.1.1 Proposal for draft amendments to existing UN Regulations (1958 Agreement): | For document symbols and its availability, please refer to the agenda of the eighty's session (GRPE/2020/1) |
| 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 M1 and N1 vehicles); 85 (Measurement of the net power); 96 (Diesel emission (agricultural tractors));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) |  |
| 4.1.2. Proposal for draft new UN Regulations |  |
|  Nil |  |
| **4.2. 1998 Agreement (Global)**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));17 (Crankcase and evaporative emissions of L-category vehicles);18 (On-Board Diagnostic (OBD) systems for L-category vehicles); | For document symbols and its availability, please refer to the agenda of the eighty's session (GRPE/2020/1) |
| 4.2.1. Proposal for developing new UN Global Technical RegulationsVehicles 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's session (GRPE/2020/1) |
| 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 vehiclesElectric 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)**

| ***GRVA*** |
| --- |
| *Category* | *Item* | *Activities in 2020* | *Top three priorities for 2021* | *Initiator* |
| ADAS | AEBS | X |  | EU |
|  | ACSF | X |  | OICA / AVERE |
| Automated Vehicles | ALKS | X |  | Germany / Japan |
|  | FRAV | X | X | Framework doc. |
|  | VMAD | X | X | Framework doc. |
|  | DSSAD | X |  | Framework doc. |
| Connectivity  | Cyber Security  | X | X | Framework doc. |
|  | (OTA) software updates | X |  | Framework doc. |
| Braking | MVC | X |  | Sweden / OICA |
|  | Motocycle braking | X |  | Italy / IMMA |

**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 symbols and its availability, please refer to the agenda of the fifth session (GRVA/2020/1) |
| 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 M1 and N1) |  |
| 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);Night Vision;Rear crossing alert;Door-open blind spot detection;Around view monitor |  |
| **5.2. 1998 Agreement (Global)** | For document symbols and its availability, please refer to the agenda of the fifth session (GRVA/2020/1) |
| 3 (Motorcycle braking); |
| **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 fifth session (GRVA/2020/1) |
| 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 updatesData Storage System for Automated Driving vehicles (DSSAD)Horizontal regulation on automated and autonomous vehicles and associated recommendationsSystem safetyArtificial Intelligence technologies for wheeled vehiclesDriver availability recognitionVehicle cybersecurity and data protectionRear crossing traffic alertingNight Vision system360-degree vision monitorInternational 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 | 2020 | WP.29 | IWG reporting both to GRSG and GRVA |
| Priority | Augmented reality | 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  |  |  | OICA |  |
| Priority | Connectivity | Virtual keys | UN R 116GRSG-117-31 |  |  | OICA |  |
| recurrent | Consolidated Resolution on the construction of vehicles | Update to technical progressInclusion of automated vehicles (classification) | R.E.3GRSG-117-06 |  |  | WP.29France |  |
| recurrent | IWVTA | Update to technical progress | UN R 0 |  |  | WP.29 |  |
| recurrent | External projections of passenger cars | Update to technical progress | UN R 26 |  |  | WP.29 |  |
| recurrent | Prevention of fire risks | Update to technical progress | UN R 34 |  |  | WP.29 |  |
| recurrent | Foot controls | Update to technical progress | UN R 35 |  |  | WP.29 |  |
| recurrent | Speedometer/odometer | Update to technical progress | UN R 39  |  |  | WP.29 |  |
| recurrent | Safety glazing | Update to technical progress | UN R 43 / UNGTR 6 | Panoramic Sunroof Glazing (PSG) | April 2020 | KoreaWP.29 |  |
| recurrent | Devices for indirect vision | Update to technical progress | UN R 46  |  |  | WP.29 |  |
| recurrent | Mechanical couplings | Update to technical progress | UN R 55  |  |  | WP.29 |  |
| recurrent | Rear underrun protective devices | Update to technical progress | UN R 58 |  |  | WP.29 |  |
| recurrent | Driver operated controls (mopeds/motorcycles) | Update to technical progress | UN R 60  |  |  | WP.29 |  |
| recurrent | Anti-theft (mopeds/motorcycles) | Update to technical progress | UN R 62 |  |  | WP.29 |  |
| recurrent | Strength of superstructure (buses) | Update to technical progress | UN R 66  |  |  | WP.29 |  |
| recurrent | LPG vehicles | Update to technical progress | UN R 67  |  |  | WP.29 |  |
| recurrent | Lateral protection devices | Update to technical progress | UN R 73  |  |  | WP.29 |  |
| recurrent | Front underrun protection | Update to technical progress | UN R 93 |  |  | WP.29 |  |
| recurrent | ADR vehicles | Update to technical progress | UN R 105  |  |  | WP.29 |  |
| recurrent | M2, M3 vehicles | Update to technical progress | UN R 107 |  |  | WP.29 |  |
| recurrent | CNG and LNG vehicles | Update to technical progress | UN R 110  |  |  | 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 M2 and M3 category vehicles' general construction in case of fire events (BMFE | Oct. 2020 | FranceWP.29 |  |
| recurrent | Identification of controls, tell-tales and indicators | Update to technical progress | UN R 121  |  |  | WP.29 |  |
| recurrent | Heating systems | Update to technical progress | UN R 122 |  |  | WP.29 |  |
| recurrent | Accident Emergency Call Systems (AECS) | Update to technical progress | UN R 144 |  |  | WP.29 |  |
| recurrent | Blind Spot Information Systems | Update to technical progress | UN R 151 | Awareness of Vulnerable Road Users proximity(VRU-Proxi) | April 2021 | Japan, ECWP.29 |  |
| potential  | Consolidated Resolution on the construction of vehicles | Inclusion of other vehicle categories (e.g. recreational vehicles) | R.E.3GRSG-117-19 |  |  | RVIA |  |
| potential | Automated vehicles | Review/screening of existing regulations having the word "driver" | All UN Rs and UN GTRs under the purview of GRSG |  |  | GRSG (Germany) |  |

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

| *Subject* | *Document symbol ECE/TRANS/WP.29/...* | *Documentation availability* |
| --- | --- | --- |
| **6.1. 1958 Agreement** | For document symbols and its availability, please refer to the agenda for the 118th session (GRSG/2020/1) |
| 6.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement): |  |
| 43 (Safety glazing);46 (Devices for indirect vision);55 (Mechanical couplings);58 (Rear underrun protective devices);60 (Driver operated controls (mopeds/motorcycles));67 (LPG vehicles);93 (Front underrun protection);107 (M2 and M3 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)) |  |
| 6.1.2. Proposal for draft new UN Regulations: |  |
| Advanced Driver Assistance Systems for blind spot monitoring. |  |
| **6.2. 1998 Agreement (Global)** | For document symbols and its availability, please refer to the agenda for the 118th session (GRSG/2020/1 |
| Possibility to develop further UN GTRs6 (Safety glazing) |  |
| **6.3. 1997 Agreement (Inspections)** |  |
| Nil |
| **6.4. Proposal for draft recommendations or amendments to existing recommendations:** |  |
|  Nil |  |
| **6.5. Miscellaneous items** | For document symbols and its availability, please refer to the agenda for the 118th session (GRSG/2020/1 |
| International Whole Vehicle Type Approval (IWVTA)Consolidated Resolution on the Construction of Vehicles (R.E.3)Event Data Recorder |  |

# 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** |
| Priority | Child restraint systems | Amendment of scopeHarmonization and improvement of test tools | ECE/TRANS/WP.29/GRSP/2019/28 | EC | Finalise in GRSP 66th meeting, WP.29 June 2020 | EC | To be finalised |
| Priority | Update of UN crash regulations following revised EU GSR | Depending on GRSP 66th meeting outcome if further work is needed or is transmitted to WP.29 June 2020 | ECE/TRANS/WP.29/GRSP/2019/29ECE/TRANS/WP.29/GRSP/2019/30ECE/TRANS/WP.29/GRSP/2019/37ECE/TRANS/WP.29/GRSP/2019/38GRSP-66-09 | TF - EU GSR Revision | Finalise in GRSP 66th 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/2019/27New consolidated working document for 67th session of GRSP | Ad hoc group on R17 | Finalise in GRSP 67th meeting at the latest, WP.29 November 2020 | EC | To be finalised  |
| Priority | Electric vehicles safety | Transposition of GTR20 in UN R94, R95, R100, [R136] R137 [and R146], [possibly in R12 (t.b.c.)] | N/A | Ad hoc group on R100 | Finalise in GRSP 67th meeting at the latest, WP.29 November 2020 | JPN, EC | Side meetings of EVS IWG Phase 2 |
| **Medium term** |
| Priority | Deployable pedestrian protection systems | Inclusion in GTR9 | ECE/TRANS/WP.29/AC.3/45ECE/TRANS/WP.29/AC.3/45/Rev.1 | IWG-DPPS | 06/2020 | KOR | Ongoing |
| Priority | Head impact zone enlargement | Inclusion in GTR9 | N/A | T.b.d. | WP.29 June 2021 | EC, JPN | To be started  |
| Priority | 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  |
| 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 November 2021 | 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 December 2021 GRSP | US, EC, CN, JP | Ongoing |
| Priority | Children in buses | New reg | 2019/22 and GRSP-66-06 | IWG-STCBC | WP29 March 2023 | SP | Ongoing |
|  |  |  |  |  |  |  |  |
| **Long term** |
| Priority | Helmets | 07 series of amdtPhase 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)**

| *Subject* | *Document symbol ECE/TRANS/WP.29/...* | *Documentation availability* |
| --- | --- | --- |
| **7.1. 1958 Agreement**7.1.1. Proposal for draft amendments to existing UN Regulations (1958 Agreement): | For document symbols and its availability, please refer to the agenda for the sixty-seventh session (GRSP/2020/1) |
| 16 (Safety-belts);17 (Strength of seats);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-seventh session (GRSP/2020/1) |
| 9 (Pedestrian safety);13 (Hydrogen and Fuel Cells Vehicles)20 (Electric vehicle safety)Side impact dummiesElectric vehiclesVehicle Crash compatibility |
| **7.3. 1997 Agreement (Inspections)** |  |
| Nil |
| **7.4. Proposal for draft recommendations or amendments to existing recommendations** |  |
|  Mutual Resolution No. 1. |  |
| **7.5. Miscellaneous items** | For document symbols and its availability, please refer to the agenda for the sixty-seventh session (GRSP/2020/1) |
| 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. |

1. \* In accordance with the programme of work of the Inland Transport Committee for 2020 as outlined in proposed programme budget for 2020 (A/74/6 (part V sect. 20) para 20.37), 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. [↑](#footnote-ref-2)