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Item 9 (k) of the provisional agenda

**Strategic questions of a horizontal and cross-sectoral policy or regulatory nature:
Harmonization of vehicle regulations**

Latest developments in Vehicle Regulations

Note by the secretariat*

Summary

The work in the World Forum for Harmonization of Vehicle Regulations (WP.29) continued to strengthen vehicle safety and environmental protection, resulting in numerous new and amended vehicle regulations and rules under the 1958, 1997 and the 1998 Agreements.

Important topics in 2021 were the establishment of a set of UN Regulations for better protection of vulnerable road users, UN Regulation No. 160 (Event Data Recorder) for better in-depth accident analysis, a set of UN Regulations for better anti-theft provisions attached to the 1958 Agreement, implementation and further development of the 1998 Agreement and Periodic Technical Inspections (PTI) under the 1997 Agreement with the drafting of a holistic framework on vehicle whole-life compliance.

The Inland Transport Committee (ITC) is invited to:

- **Endorse** the activities listed in this document
- **Welcome** the establishment of a set of UN Regulations for better protection of vulnerable road users, for event data recorders and a set on anti-theft measures by WP.29
- **Note** the limitation of the sessions of WP.29 and its subsidiaries as reaction on the COVID-19 impact and the United Nations financial crisis
- **Thank** Germany for the interim hosting of DETA and **reaffirm** its request for a sustained financing for hosting DETA at ECE either under the United Nations regular budget or through voluntary contributions from contracting parties.

* This document was scheduled for publication after the standard publication date owing to circumstances beyond the submitter's control.



General consideration

1. The work of WP.29 and its subsidiary bodies (GRs) had been heavily impacted by the COVID-19 pandemic and the United Nations financial crisis. Following the COVID-19 pandemic outbreak, in-person meetings were no longer possible and interpretation services for virtual meetings were only provided to a very limited extent. Furthermore, and to accommodate the participation of delegates from all continents and different time zones, the session time had to be limited to early afternoons (Geneva time). This resulted in, e.g. that the WP.29 sessions had to be limited to two-hour session only and thus the agenda had to be reduced to the necessary minimum to accommodate decision taking/voting. Furthermore, for several GR sessions only two hours of interpretation were provided by Conference Services of the United Nations Office at Geneva. In several cases technical moderations for virtual/hybrid sessions with interpretation were no longer provided by the Conference Services and thus had to be taken over by the Division's staff. In addition, necessary silence procedures, imposed by EXCOM, needed to be followed leading to a heavier administrative burden.

I. Vehicle automation

2. Following the restructuring of WP.29 in June 2018 to implement ITC Decision No.19 of 2018 and the establishment of the Working Party on Automated/Autonomous and Connected Vehicles (GRVA), WP.29 and its subsidiary bodies worked according to the Framework Document on Automated/Autonomous Vehicles (ECE/TRANS/WP.29/2019/34/Rev.2), endorsed by ITC at its eighty-second session, which guided the work on automated vehicles. This work, led by Co-Chairs from America, Asia and Europe is performed in line with the safety vision, key safety elements, guidance provided by the framework document to the Working Parties of WP.29 and in line with the programme of activities included in its Annex, which is aimed to be suitable for the countries under the regime of type approval and the countries under the regime of self-certification. These activities form a novel initiative aimed at harmonizing globally automated vehicles regulations and creating a more productive environment for innovation. In 2021, the highlights produced under the Framework Document include the first iteration of the New Assessment/Test Method for Automated Driving (NATM) – Master Document as well as the draft recommendations for automotive cyber security and software update.

3. These highlights noted above follow the achievements in 2020 with the adoption of a first set of UN Regulations for automated vehicles which entered into force on 22 January 2021. These new UN Regulations not only covered the UN Regulation No. 157 on Automated Lane Keeping System (ALKS) – the first level 3 vehicle automation application, with a narrow Operational Design Domain, but also forward-looking UN Regulations Nos. 155 and 156 on Cyber Security and on Over the Air Software Updates respectively. UN Regulation No. 157 was amended since its adoption to include provisions for the approval of heavy vehicles equipped with ALKS. Further developments are in discussion to increase the maximal speed of operation as well as the inclusion of lane change provisions.

II. 1958 Agreement

4. Two new UN Regulations entered into force in 2021 aiming at the protection of vulnerable road users:

(a) UN Regulation No. 158 on devices for Reversing Motion and motor vehicles with regard to the driver's awareness of vulnerable road users behind vehicles; and,

(b) UN Regulation No. 159 on the Moving Off Information System for the Detection of Pedestrians and Cyclists.

5. WP. 29 adopted at the March 2021 session the following four new UN Regulations, which; entered into force on 30 September 2021:

(a) UN Regulation No. 160 on Event Data Recorder;

- (b) UN Regulation No. 161 on Devices against Unauthorized Use;
 - (c) UN Regulation No. 162 on Immobilizers; and,
 - (d) UN Regulation No. 163 on Vehicle Alarm Systems.
6. Existing UN Regulations were updated by 134 amendments, which adapt the regulations to the most recent technological innovations and introduce more stringent limits aimed at increasing both the safety and environmental performance of vehicles.
7. As funding for the hosting of DETA at ECE could not be secured so far both under the regular budget or extra budgetary resources. WP.29 was grateful to Germany who is currently hosting the system on an interim basis. WP.29 would continue to look into possibilities for sustained solutions for the funding of the hosting of DETA.
8. As regards the development of additional functionalities/modules of DETA, the International Motor Vehicle Inspection Committee reconfirmed its readiness to finance the development of the module for Declaration of Conformity (DoC). The industry associations: International Organization of Motor Vehicle Manufacturers, the European Association of Automotive Suppliers and the European Tyre and Rim Technical Organization confirmed their intention to finance the module for the Unique Identifier (UI), where current contractual issues would need to be solved, with a possible involvement of the secretariat, if needed.

III. 1997 Agreement

9. At its 185th session, WP.29 started the consideration of the draft framework document on vehicle whole-life compliance, which provides for a compliance regime for vehicles from type-approval via periodic technical inspections, roadside technical inspections until its end-of-life and scrapping by applying a holistic approach.

IV. 1998 Agreement

10. In 2021, WP.29 concluded several years of work on amendments to UN Global Technical Regulations No. 4 (Test procedure for compression-ignition (C.I.) engines and positive-ignition (P.I.) engines fuelled with natural gas (NG) or liquefied petroleum gas (LPG) with regard to the emission of pollutants (WHDG)) and one Mutual Resolution on Panoramic Sunroof Glazing, which were adopted during 2021. This will adapt the UN GTRs to the most recent technological innovations and introduce more stringent requirements aimed at increasing both the safety and environmental performance of vehicles.

V. Link with the 2030 Agenda for Sustainable Development

11. Accession to United Nations vehicle agreements and adherence to annexed UN Regulations, Rules and UN GTRs can contribute to progress in achieving targets 3.6, 3.9, 7.3, 9.1, 11.2 and 13.2 of the Sustainable Development Goals.