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| Transmitted by the Co-Chairs of the Informal Working Group on Periodical Technical Inspections  | Informal document **WP.29-177-06**177th WP.29, 12-15 March 2019Agenda item 7 |

Report to WP.29 about results of the 13th meeting of the Informal Working Group on Periodical Technical Inspections

The 13th IWG on PTI meeting was arranged with support of I**nternational Motor Vehicle Inspection Committee** (CITA) and held on 14 February 2019 in Brussels (Belgium).

 1. Priorities of the IWG on PTI and timeline

 According to the Terms of Reference (ToR) approved at the 175th session of WP.29 the IWG on PTI outlines its plan to be approved by the WP.29. The group analyzed the working items covered by ToR, expected deliverables and feasible timelines. It was taken into consideration that the group shall coordinate its work with calendars of the other GRs. The draft working plan was proposed to be submitted to WP.29.

1. Coordination of the IWG on PTI with other WP.29 activities

 According to the ToR the group coordinates its work with calendars and agendas of the other GRs. It was discussed how to coordinate this work and how to avoid overlapping work. The group considers that the requirements for the performance of vehicles their systems and components including automated/autonomous driving systems for in service compliance is one of its priority task. It is logic that the other GRs to arrange arguable topics on compliance in service at the platform of the IWG on PTI. It will allow the proper management and preparation of general solutions with participation of experts on compliance in service. It was as well noted that the existing title of the group could be modified to the IWG on in service compliance of vehicles and their components. It was decided to continue the discussion taking into consideration the guides of WP.29.

1. In-Service compliance

 The group noted that UN Regulations may consider provisions to enable assessment of the compliance of vehicles in use. The role of roadworthiness inspections, including PTI, is to verify in service vehicle compliance. The IWG on PTI in cooperation with other GRs work out the approach for development of the corresponding requirements for the performance of systems and components and assessment methods, which can be prescribed either UN Regulations or the UN Rules.

 Manufacturers develop diagnostic and self-monitoring system that continuously monitor functionality of the vehicle and components. It was supported that the IWG on PTI in cooperation with other GRs deals with the requirements for the systems and a possibility to use the results of diagnostic to confirm the compliance of vehicle in service. There is as well the task of the verification of the proper function of those systems.

 It was agreed that a concept of future system for verification of compliance of vehicle in service to be developed by the group shall take into consideration ITS technologies.

 The group agreed the further discussion on modification of UN Rule 2, item 1.2.2 of the Annex to include reference braking forces was initiated.

1. Measures to detect tampering: methods and supervision

 The group supported the proposal of GRPE and CITA to draft precise proposals to make the design of vehicles more difficult to tamper.

 The group was informed that the Netherlands, along with Belgium, Germany and Switzerland, have developed a method to measure PN during inspection that will make more difficult the unauthorized removal of particle traps. It was decided to assess feasibility to include method for PN measurement in Rule 1. The group will monitor further researches on catalytic durability. It was noted that methods of NOx measurement are being developed. In this case the main difficulty is to know whether the NOx limiting systems implemented in the vehicle are working when measures are taken.

 The group was informed about a study demonstrating that EGR malfunctions do not trigger the Malfunction Indicator Lamp. It was decided to continue the discussion when the details of the study will be available.

1. Innovative technologies

 The group was informed about the activity of the ISO group on ePTI “Road vehicles – Vehicle roadworthiness interface for electronic Periodical Technical Inspection (ePTI)” (ISO 20730, ISO TC22-SC31-WG07). This is the status of the different parts:

Part I: Communication requirements, approved on May 2018

Part II: Communication requirements conformance test plan. Drafting

Part III: Digital annex of standardized data definitions. Drafting

The IWG on PTI supported the proposal to be updated with the progress of ISO as soon as confidentiality rules are released.

1. Solutions in the PTI field to support the safe operation of highly automated and autonomous vehicles

 The group considered the proposals for assurance of the safety of vehicles and their equipment and systems, including automated/autonomous driving systems in operation based on a risk-analysis approach. The approach was recognised as appropriate. The group decided to submit the proposals to WP.29 for further discussion and guidance.

The group noted that according to some researches on ADAS systems there is a trend in new vehicles to move from “self-calibration” to a manual calibration and alignment. It was underlined that, for instance, a small hit in the bumper during a parking manoeuvre may challenge the alignment of sensor that are related with the adaptive cruise control, creating situations of risk. The group agreed on keeping discussions about this matter once more information is available.

1. Guidance for road-side technical inspection and enforcement

The group continued the consideration of the draft guidelines for performing an initial roadworthiness roadside check, submitted by the Russian Federation and CITA. The representative of The Netherlands informed the group that his country is preparing legislation to introduce the measurement of PN in Road Side Inspection by the end of 2019.

1. Next meeting

The group thanked CITA for hosting the meeting. The next meeting will take place in May or June.