**Terms of Reference of the informal working group on Periodical Technical Inspections (IWG on PTI)**

1. **Introduction**

1.Informal working group on Periodical Technical Inspections (IWG on PTI) is the platform for discussion and development measures for providing compliance at all stages of vehicle life cycle.

2.There are new challenges for the group:

appropriate coordination between the requirements for new and in-use vehicles;

 fighting against tampering;

requirements for the performance of equipment and systems including automotive systems in all the relevant driving conditions other than those tested;

application of new automatic information technology in the field of PTI;

support the introduction of highly automated and autonomous vehicles to the market.

1. **Working items to be covered**

3. Revision of the regulations, attached to the 1958 Geneva Agreement, and development of draft amendments to them, supporting vehicle technical inspections.

Since the 1958 Geneva Agreement and 1997 Vienna Agreement deal with provisions for the same products: vehicles and their components, in different stages of their life, it is necessary to ensure the appropriate coordination between the requirements for new and in-use vehicles.

4. Measures against tampering: methods and supervision.

The ways to fight against emission tampering have to consider:

* development of traditional inspection techniques, like the detection of non-appropriate welding that may indicate the removal of a particle trap;
* the version of the software, since almost all tampering practices also involve software modification;
* access to sensors’ reading to check their plausibility;
* access to actuators to check different working modes of the vehicle.

 5. Guidance for establishment of requirements for the performance of equipment and systems including automotive systems in all the relevant driving conditions other than those tested, as well as methods for their evaluation.

There are inherent risks that some systems, especially those relying on software could be designed to work only in the limited conditions corresponding to those tested rather than in all the relevant driving conditions. IWG could develop guidance for establishment of requirements for the performance of equipment and systems including automotive systems in all the relevant driving conditions other than those tested, as well as methods for their evaluation.

6. Consistency between the provisions of the 1968 Vienna Convention and the technical provisions for vehicles of rules in the framework of the 1997 Vienna Agreement.

Requirements for vehicles in service and to their periodical technical inspection are prescribed by UN ECE documents, including the 1968 Vienna convention on road traffic, the 1997 Vienna agreement, the UNECE Consolidated Resolution R.E.1.

7. Solution in PTI field needed to support the introduction of highly automated and autonomous vehicles to the market.

WP.29 works out an approach for approval of automated driving systems (ADS). He underlined that it is a complex problem covering technical inspections of the systems in use. In his opinion the group could follow the work of IWG on ITS and propose pragmatic and effective solution in PTI field needed to support the introduction of highly automated and autonomous vehicles to the market. The solution should be achieved through a pragmatic way that on the one hand leaves controlled flexibility for industry and on the other hand defines reasonable requirements/principles to ensure a safe operation of ADS.

8. Guidance for education and attestation of the expert implementing PTI, supervision for PTI quality,inspection of testing centres.

The item could be put into the agenda to be considered when requested.

9. Uniform provisions for periodical technical inspections of wheeled agricultural and forestry tractors with regard their roadworthiness

The item could be put into the agenda to be considered when requested.

10. Proposal for possible further steps

11. Others

(i) Consideration of guidance regarding PTI when requested to WP29 by GRs

(ii) Exchange of views and information from each Contracting Party about the most advanced technology, equipment and methods, including, such as research results including field tests, information on the national legal system and measures, events, conventions, etc.

(iii) Exchange of views and information on PTI will also be taken forward. This latter activity might be concurrent with above discussion on PTI.

(iv) Necessary discussion will be made at appropriate terms.

(v) Consider further items to be treated by the IWG or the WP.29

1. **Timeline**

**(a) Approval process**

March 2018 Submission of draft TOR of IWG-PTI to WP29 for approval

**(b) Revision of the regulations, attached to the 1958 Geneva Agreement, and development of draft amendments to them, supporting vehicle technical inspections.**

Submission when draft is approved by the group.

**(c) Measures against tampering: methods and supervision.**

November 2018 Submission of the draftdocument

June 2019 Approval by WP.29

**(d) Guidance for establishment of requirements for the performance of equipment and systems including automotive systems in all the relevant driving conditions other than those tested, as well as methods for their evaluation.**

March 2019 Submission of the draftdocument

November 2019 Approval by WP.29

**(e) Consistency between the provisions of the 1968 Vienna Convention and the technical provisions for vehicles of rules in the framework of the 1997 Vienna Agreement.**

June 2018 Submission of the draftdocument to WP.29

September 2018 Submission of the draftdocument to WP.1 by WP.29

2019 Discussion in WP.1.

**(f) Solution in PTI field needed to support the introduction of highly automated and autonomous vehicles to the market.**

June 2019 Submission of the draftdocument

**(g) Guidance for education and attestation of the expert implementing PTI, supervision for PTI quality,inspection of testing centres.**

The item could be put into the agenda to be considered when requested.

 **(h) Uniform provisions for periodical technical inspections of wheeled agricultural and forestry tractors with regard their roadworthiness**

The item could be put into the agenda to be considered when requested.

**(j) Submission of a proposal for possible further steps**

**(i) Other**

Necessary discussion will be made at appropriate times.

1. Rules of procedure

The following rules of procedure describe the functioning principles of the informal working group.

(a) Following the Rules of Procedure of WP.29. Chapter 1, Rule 1, the IWG is open to all experts from any country or organization of WP.29 and its subsidiary bodies.

(b) Two Co-Chairs (Netherland and the Russian Federation) and a Secretary (CITA) will manage the IWG.

(c) The working language of the IWG will be English.

(d) All documents and/or proposals shall be submitted to the secretary of the group in a suitable electronic format, preferably in line with the UNECE guidelines in advance of the meetings. The group may refuse to discuss any item or proposal which has not been circulated 5 working days in advance of the scheduled meetings.

(e) Meetings of the IWG shall be held according to WP.29 sessions schedule. Additional meetings will be organized upon demand.

(f) An agenda and related documents will be circulated to all members of the informal working group in advance of all scheduled meetings.

(g) The work process will be developed by consensus. When consensus cannot be reached, the Co-Chairs of the informal group shall present the different points of view to WP.29. The Co-Chairs may seek guidance from WP.29 as appropriate.

(h) The progress of the informal group will be routinely reported to WP.29 orally or with an informal document by the Co-Chairs.

(i) All documents shall be distributed in digital format. The specific PTI/AD section on the UNECE website shall be used for this purpose.

(j) Draft meeting minutes will be available after each meeting, and presented to approval in the next one.