

**CITA International Conference «From Periodic Inspection to Whole Life Compliance»
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**Co-Chairs of the Informal Working Group on periodical
technical inspections**

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System for Assurance and Verification of the Whole Life Compliance of the Vehicles

Objective of the 1997 Agreement

- Harmonization of technical prescriptions of Contracting Parties with respect to wheeled vehicles roadworthiness is the declared objective of the 1997 Agreements.
- An essential element of this objective is the confidence that the assessment of compliance is robust and not subject to variation depending upon the periodical inspection system used in the assessment process.



Facilitation of the application of the 1997 Agreement

To facilitate the application of the 1997 Agreement, UN Inland Transport Committee and WP.29 had decided that

- technical inspection facilities and test equipment,
- Inspectors' authorization system,
- supervision of the testing centres

should be defined in UN documents. Contracting Parties could refer to this documents when establishing the suitability of their PTI system for the assessment of compliance with the prescriptions of Rules in the framework of the 1997 Agreement.



What are “the Rules”?

Article 1 of the 1997 Agreement

"rules for periodical technical inspections of wheeled vehicles" shall include provisions for the proof of the periodical administrative uniform procedure by which the competent authorities of a Contracting Party declare, after the required verifications have been carried out, that the wheeled vehicle conforms to the requirements of the given Rules. As proof shall serve a technical inspection certificate the model of which is reproduced in Appendix 2 to this Agreement.



Requirements for test tools, devices and equipment

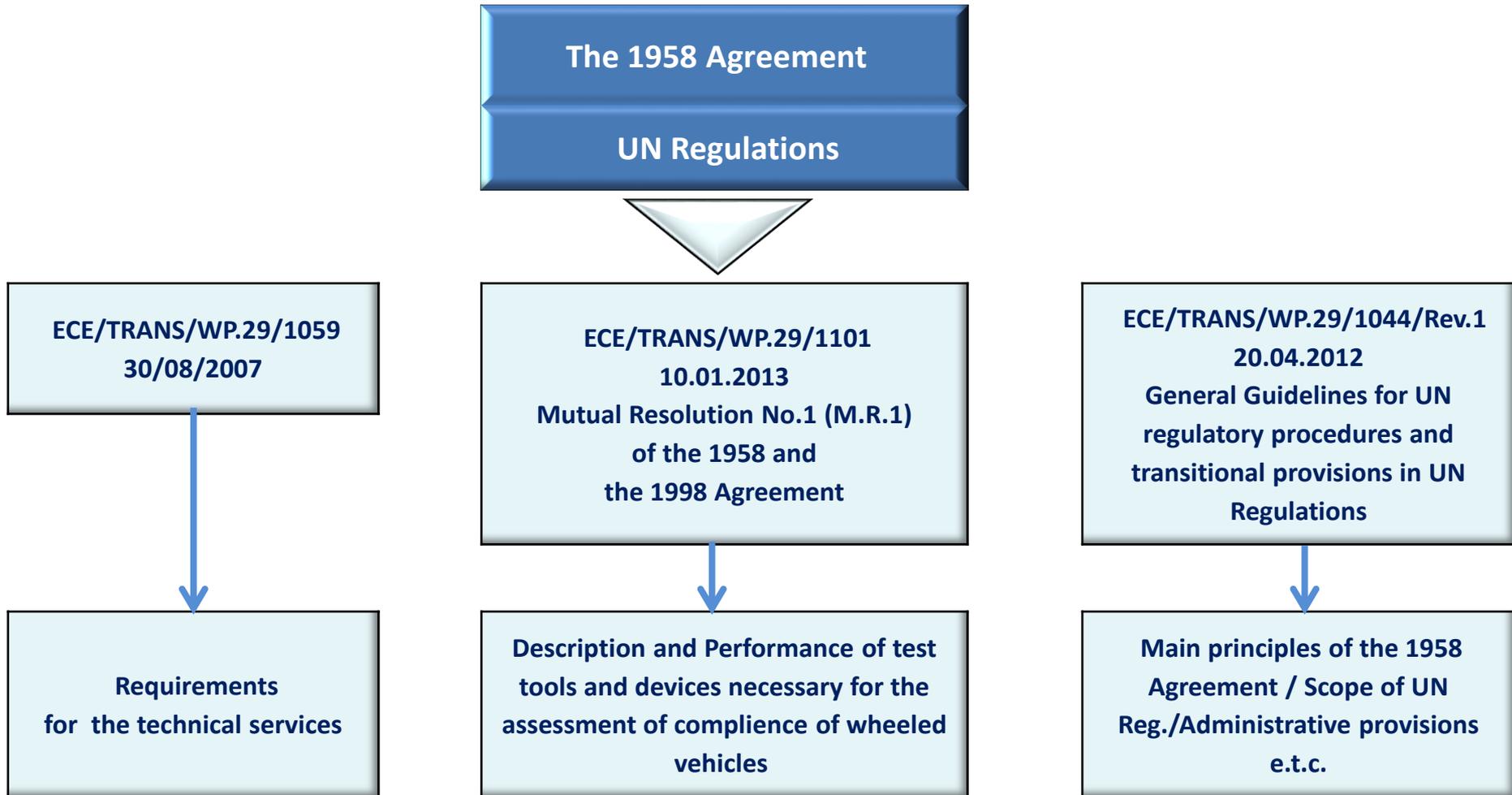
Article 2, paragraph 1 of The 1997 Agreement

“The Rule shall cover the following:

- (a) The categories of wheeled vehicles concerned and the frequency of its inspection;
- (b) The equipment and/or parts to be inspected;
- (c) Test methods, **[test tools, devices and equipment]** by which any performance requirements are to be demonstrated;
- (d) Conditions for granting inspection certificate;
- (e) The date(s) on which the Rule enters into force.”



Structure of the 1958 Agreement



New Approved Structure of the 1997 Agreement

Legal Provisions

Definitions
Establishment of the Rule
Accession the Rules
Amendment of the Rules
Amendment of the Agreement

Appendix 1
Composition and Rules of Procedure of the
Administrative Committee

Appendix 2
International Technical Inspection Certificate

Administrative Provisions

APPENDIX 3
**Conformity of Periodical Technical
Inspection System**

RESOLUTION R.E.6
**on the Administrative and
Technical Provisions**

Legal status of Resolution R.E.6

- The Resolution does not hold regulatory status within Contracting Parties.
- Contracting Parties refer to this Mutual Resolution when establishing the suitability of their PTI system for the assessment of compliance with the prescriptions of Rules in the framework of the 1997 Agreement
- The added value that would be secured were it to be applicable to Rules annexed to the 1997 Agreement.



Content of Resolution R.E.6

- Minimum requirements concerning technical inspection facilities and test equipment
- Minimum requirements concerning the competence, training and certification of inspectors
- Minimum requirements concerning the surveillance of the designated Testing Centres
- Interpretation issues
- Another issues upon the request to make PTI robust and effective



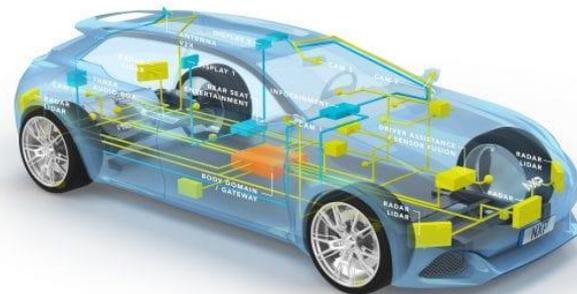
Development of future options for in service compliance enforcement

- measures to ensure in service compliance of vehicles or their systems and components, including those that are type approved under the UN Regulations, attached to the 1958 and 1998 Geneva Agreements, as appropriate;
- when necessary, to develop relevant requirements for the performance of systems and components including automated / autonomous driving systems for in service compliance;
- application of new intelligent transport system (ITS) technologies in the field of PTI;



Development of future options for in service compliance enforcement

- **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.**
- **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.**



Measures to detect tampering: methods and supervision

- further development of inspection techniques;
- in coordination with the activities under the 1958 and 1998 Agreements and especially the issue of software identification and Over the Air Updates, the version and integrity of the software, since tampering practices may also involve software modification;
- when appropriate, and taking into account cybersecurity and intellectual property rights, access to the relevant sensors' readings and actuators.



Solutions in the roadworthiness field to support the safe operation of highly automated and autonomous vehicles

The proposed framework of assurance of the vehicle safety is based on a risk-analysis approach, which has to be developed for each system of the vehicle. It consists of assessing the possibilities of non-compliance and their impacts. The framework proposes the estimation and development of:

- the necessity to check that system/performance during the life of the vehicle
- the requirements for in service compliance verification of the performance of equipment and systems in the driving conditions other than those tested during the Type Approval



Solutions in the roadworthiness field to support the safe operation of highly automated and autonomous vehicles

- the methods for assessment of the requirements for in service compliance
- any kind of provision for the Type Approval
- the data needed for objective verification of the functionality of the safety and environment related systems



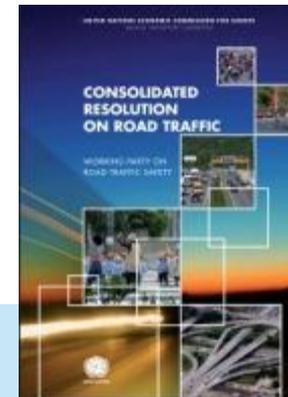
Guidance for road-side technical inspection and enforcement

A range of measures is required that encourage in service compliance including the use of targeted enforcement, incentives, disincentives, user education and training. Roadside inspection is a form of vehicle assessment that makes considerable contribution towards ensuring in service compliance.



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

Requirements for periodical technical inspection are prescribed by UN legal acts, including the 1968 Vienna Convention on road traffic, the 1997 Vienna Agreement and the UN Consolidated Resolution R.E.1. Where necessary and possible, the rules for periodical technical inspections among the various Agreements, Conventions and Resolutions should be harmonised to allow improved safety and sustainability of road transport and exclude legislative obstacles for technological developments.





Thank You For Your Kind Attention

