**Expert Group on Roadworthiness**

**and Vehicle Registration Documents (RWEG)**

**Discussion paper**

Revision of the Roadworthiness Package

Possible measures related to Periodic Technical Inspection (PTI)

(Directive 2014/45/EU)

Version 1.0

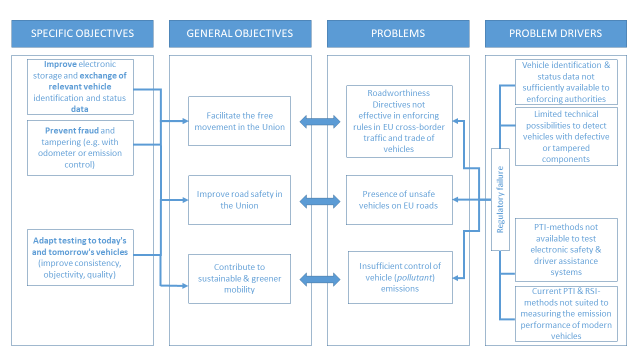
**Introduction**

This discussion paper is based on

* Part 1 of the scoping paper discussed at the meeting of the RWEG of 11 February 2022 and comments received subsequently (PTI measures);
* The general and specific objectives identified in the preliminary problem tree discussed at the meeting of the RWEG of 21 September 2022 (cf. figure below).

It will be first discussed at the meeting of the RWEG on 5 December 2022.

Figure 1 - Problem tree - Revision of Roadworthiness Package



**Linking measures to objectives**

In the table below, possible PTI measures are associated with (general and) specific objectives. The last column indicates which article or specific provision of the Directive might be affected. New elements compared to the February version of the scoping paper (largely based on comments received) are highlighted. Inspection should ‘follow’ (be in line with) type-approval requirements. The measures listed below can be grouped as follows: (1) scope of vehicles and frequency of testing – directive or regulation?; (2) Roadworthiness certificate; (3) Improving current test requirements and procedures; (4) Introducing new test procedures.

Table 1 - PTI measures vs objectives

|  | **Addressing specific objective** | | |  |
| --- | --- | --- | --- | --- |
| **Measures** | **Improve exchange of data** | **Prevent tampered, defective vehicles** | **Adapt testing to new vehicles** | **Amend Directive** |
| **Scope of vehicles and frequency of testing – directive or regulation?** | | | | |
| Scope[[1]](#footnote-1): mandatory PTI for   * MC (from 50 or 125 cm3? Or refer to design speed or power instead?) * Tractors * Additional trailer categories? * Every registered vehicle?   Same frequency as for cars? |  | ✓ |  | Art. 2(2) |
| PTI abroad to be recognised by MS of registration (if regulation); at least every 2nd time [if MS decides so] (if directive) | Facilitate free movement  (general objective) | | | “shall” or “may” provision in Art. 4(2) |
| Adapt PTI intervals, based on   * More frequent emission testing e.g. for   + commercial vehicles? (N1 like HDV?)   + older cars?   + some other category? * Intensity of vehicle use: mileage limit in addition to frequency?) * vehicle history, safety recalls * less frequent for vehicles subject to ePTI, CTI (e.g. automated vehicles)? * period extended if vehicle passed RSI or ePTI without defects? |  | ✓ |  | Art. 5 |
| Additional options for requesting additional PTIs (are these necessary?):   * Before transfer of ownership * crashed vehicles with significant damage * following significant modifications (e.g. change of class, propulsion system)   (is it not already the case in all MSs? – currently “may”)   * Before permanent transfer to another jurisdiction (incl. export from EU) |  | ✓ |  | Need “shall” in Art. 5(4)? |
| **Roadworthiness certificate** |  |  |  |  |
| Require roadworthiness certificate in electronic format | ✓ |  |  | Art. 8 |
| Report results of on-board fuel consumption monitoring on certificate (OBFCM required by Regulation 2021/392) – any need for adaptation? |  | ✓ |  | Art. 8? |
| **Improve current test requirements and procedures** | | | | |
| Require more advanced testing of:   * noise (for motorcycles): sufficient to refer to UN Regulation 41 for pass-by noise tests? Or type-approved sound level? * Lighting? Ensure ability to test advanced headlamps (e.g. LED- and laser light headlamps)? * Braking: extrapolation methods and regenerative braking? * Other items? |  | ✓ |  | Annex I (tests) |
| Is there a need to better define minimum requirements for an OBD-tester? |  | ✓ |  | Annex III (equipment) |
| Training of inspectors for PTI – any need for update?   * *Conflict of interests* * *Qualification of inspectors* * *Support of inspectors by of state-of-the-art equipment* |  | ✓ |  | Art. 13 and Annex IV – are the requirements sufficient? |
| Independence of auditors – any need for update? |  | ✓ |  | Art. 14 and Annex V – are the requirements sufficient? |
| **Introduce new test procedures** | | | | |
| Adapt PTI to electric and hybrid vehicles   * Safety of components (high-voltage batteries, etc.) * Environmental performance/ durability of batteries (SoH), following definition in Euro 7 (impl. act) * Provisions to make necessary standardised data and their interpretation available[[2]](#footnote-2) |  |  | ✓ | **Annex I** (tests) + III (equipment) and IV (training of inspectors)?  *(2014/47 Annex II?)* |
| Updates reflecting new requirements in GSR (implementing/delegated acts):   * Introduce basic requirements for function and software integrity test of all safety-relevant electronic systems & components, where applicable to newly type-approved vehicles * ref. to ISO 20730-1:2021[[3]](#footnote-3) for tests via electronic vehicle interface (ePTI)? * *Details to be defined in impl. or del. acts to adapt requirements to technical progress* |  | ✓ | ✓ | New paragraph in **Art. 6**  **Annex I** (tests) + III (equipment) and IV (training of inspectors)?  *(2014/47 Annex II?)* |
| Updates reflecting proposed new Euro 7 requirements regarding   * On-board monitoring (OBM) of emissions * … |  | ✓ | ✓ | As above? |
| PN-testing of LDV and HDV (Diesel, possibly petrol?), based on COM Recommendation |  | ✓ | ✓ | **Annex I** (tests) + III (equipment)?  *(2014/47 Annex II)* |
| NOx testing of LDV and HDV (Diesel for now, petrol later?), based on ongoing work by the JRC.   * Is there a need to use of an OBD-tester at PTI, to read out emission-related data for possible malfunctions? |  | ✓ | ✓ | **Annex I** (tests) + III (equipment)?  *(2014/47 Annex II)* |
| New test methods[[4]](#footnote-4):   * ePTI (ref. to 20730-1:2021 and ISO 20730-3:2021[[5]](#footnote-5)) * Continuous Technical Inspection (for autonomous vehicles only?) |  |  | ✓ | New provisions |
| Incorporate essential parts (e.g. Art. 5 on procedures) of Implementing Regulation 2019/621[[6]](#footnote-6) on access to relevant technical information into Directive 2014/45 (or a regulation)?   * require that relevant data is to be provided free of charge? (Art. 4(3) reads “free of charge or at a reasonable price”) | ✓ |  | ✓ | New article(s) or Article 4? |

**Follow-up**

DG MOVE would welcome comments from Members at, as well as after, the meeting of 5 December. Members will be asked to indicate at least whether they consider the specific measures ‘a must’, ‘useful’, or ‘not important/relevant’, and possible justification (technical, legal, political feasibility) and further details on these measures ideally by the end of the year. Any additional suggestions are welcome. The topic will be further discussed in 2023.

1. Cf. [Study on the inclusion of light trailers and two- or three-wheel vehicles in the scope of the periodic roadworthiness testing - Publications Office of the EU (europa.eu)](https://op.europa.eu/en/publication-detail/-/publication/366a32b6-34c2-11e9-8d04-01aa75ed71a1) [↑](#footnote-ref-1)
2. if not provided for by regulation on access to in-vehicle data [↑](#footnote-ref-2)
3. <https://www.iso.org/standard/73801.html> Road vehicles — Vehicle interface for electronic Periodic Technical Inspection (ePTI) — Part 1: Application and communication requirements [↑](#footnote-ref-3)
4. subject to independent and trustworthy (remote) access to in-vehicle (diagnostic) data and functions for sovereign authorities – to be provided for either:

   In regulation on access to in-vehicle data, or

   As part of this revision (directive or regulation) [↑](#footnote-ref-4)
5. <https://www.iso.org/standard/78388.html> Road vehicles — Vehicle interface for electronic Periodic Technical Inspection (ePTI) — Part 3: Data definitions [↑](#footnote-ref-5)
6. <https://eur-lex.europa.eu/eli/reg_impl/2019/621/oj> [↑](#footnote-ref-6)