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Item 6 of the provisional agenda

The Permanent Identification of Railway Rolling Stock**Final Report of the Activities of the Group of Experts on the
Permanent Identification of Railway Rolling Stock****Submitted by the Group of Experts****I. Introduction**

1. The Group of Experts on Permanent Identification of Railway Rolling Stock (GE_PIRRS) was established by the Working Party on Rail Transport at its seventy-third session, held from 25 to 27 November 2019. The Inland Transport Committee approved the establishment of this Group of Experts at its eighty-second session, held from 25 to 28 February 2020. Its primary goal was to develop a system to fix a unique identifier on railway rolling stock in accordance with the provisions in the Luxembourg Rail Protocol to the Cape Town Convention on International Interests in Mobile Equipment of 2007.

2. The Luxembourg Rail Protocol provides a new common system of international security rights for creditors (secured lenders and lessors) whose interests will be registered and searchable at any time, at an international registry to be based in Luxembourg under the auspices of a Supervisory Authority composed of the contracting states. The ability uniquely to identify railway rolling stock is critical for the effective operation of the Luxembourg Rail Protocol. Hence the need for the creation of the Group.

3. The Group held a total of six sessions throughout its current mandate meeting in September 2020, December 2020, May 2021, September 2021, May 2022 and August 2022. Each of these sessions were held with reduced interpretation resources than planned due to interpretation restrictions and restrictions resulting from the COVID-19 pandemic.

II. Main Activities

4. The terms of reference for the Group (ECE/TRANS/2020/15) set out a number of key activities to be undertaken during the mandate:

(a) Identify methodologies, tools and good practices for evaluating optimal mechanisms for marking railway rolling stock with unique identifiers to ensure that the marking is compatible with requirements under the Luxembourg Rail Protocol;

(b) shape open standards for the Unique Rail Vehicle Identification System (URVIS) application among the relevant stakeholders;

(c) set out recommendations and draft protocols for a range of qualifying rolling stock marking systems with unique identifiers, taking into account the wide range of equipment potentially to be marked, the need to be flexible to adapt to future technological developments and balancing cost with effectiveness;

(d) consider and recommend protocols on private and public access to the unique identifier, in particular when these are accessible remotely.

Activity A: Identifying methodologies, tools and good practices for evaluating optimal mechanisms for the permanent marking of railway rolling stock

5. The Group of Experts had a standing agenda item at all its meetings (except the last session) with the aim of identifying methodologies, tools and good practices for evaluating optimal mechanisms for the permanent marking of railway rolling stock. During discussions under these agenda items experts were able to share best practices in the marking of rolling stock.

6. In support of this, comparisons were made with the systems currently in operation in the aviation and maritime sectors to learn from the experiences of the other sectors. These comparisons also provided information on the working of the Registry for these two sectors (ECE/TRANS/SC.2/PIRRS/2020/5 and ECE/TRANS/SC.2/PIRRS/2021/3) and how it could be optimised for the rail sector including through the use of new standards such as blockchain (Informal document SC.2/PIRRS No. 1 (2020)).

7. In carrying out this comparison, the Group believes that activity A of the mandate has been fulfilled.

Activities B and C: Shape open standards for Unique Rail Vehicle Identification System and set out recommendations and draft proposals for a range of qualifying rolling stock marking systems

8. In discussing how to develop an appropriate marking system for the URVIS number, experts identified that many of the different agenda items that had been developed initially should be merged together to ensure that discussions were uniform and integrated to reach the desired outcome within the mandate of the Group (ECE/TRANS/SC.2/PIRRS/2021/2). In so doing activities B and C identified above were also merged.

9. In order to meet the requirements of the mandate, the work of the Group focused on the setting of the standard that should be used for the URVIS identifier and its marker as well as the development of rules that underpin the permanent marking of rolling stock.

10. In agreeing the form of the visual and physical form of the URVIS identifier and its marker, experts at the first session discussed a number of different options and filled in a questionnaire (ECE/TRANS/SC.2/PIRRS/2020/11) between the first and the second session, and, during the second session, assessed the various options. The agreed approach in this respect was then included in appendix 1 of the Model Rules described below.

11. In parallel to the identification of the manner in which the URVIS identifier was to be placed on rolling stock, experts agreed that it was necessary to develop a set of rules to underpin the functioning of the permanent marking system (ECE/TRANS/SC.2/PIRRS/2020/2). Experts discussed at length over a number of sessions the development of these Model Rules with the aim of making an internationally recognised system for the permanent identification of railway rolling stock. The agreed version of the Model Rules for the Permanent Identification of Railway Rolling Stock is available in document ECE/TRANS/SC.2/2022/5.

12. The Model Rules however are not a static instrument and will need to be updated to reflect changes in the sector and in technology. As a result, the Model Rules identify, in Article 8, the need to create a Revisions Committee to review Model Rules. The Group requests that the Working Party on Rail Transport consider creating such a Revisions Committee to support the implementation of the Model Rules with the Terms of Reference

set out in document ECE/TRANS/SC.2/2022/6 and as a subsidiary body to the Working Party on Rail Transport. In considering membership of the Revisions Committee the Group recommends that membership is open to all United Nations Member States and to the following entities:

- Intergovernmental Organisation for International Carriage by Rail (OTIF)
- European Union Agency for Railways (EUAR)
- The Organization for Cooperation between Railways (OSJD)
- International Union of Railways (UIC)
- Association of American Railroads (AAR)
- The Community of European Railway and Infrastructure Companies (CER)
- International Union of Wagon Keepers (UIP)
- Rail Working Group
- The Registrar
- The International Institute for the Unification of Private Law (UNIDROIT).

13. To facilitate the implementation of the Model Rules, the Group has also prepared a non-binding Guidance Note to the Model Rules as set out in ECE/TRANS/SC.2/2022/7. If the Terms of Reference of the Revisions Committee are adopted by the Working Party on Rail Transport, then one of the Revisions Committee's tasks will be to update the Guidance Note on a regular basis.

14. In preparing the Model Rules, the Terms of Reference for the Revisions Committee and the Guidance Note, the Group believes that activities B and C of the mandate have been fulfilled.

Activity D: Consider and recommend protocols on private and public access to the unique identifier, in particular when these are accessible remotely

15. In analysing activity D, the Group reviewed a number of different options for the relevant protocols. The Group concluded that with a human readable plate on the side of the item of rolling stock, any public or private party will be able to have access to that information if it has physical access to, or even sight of, the asset. The Group agreed that regulators would be assisted by having the unique number attached to the rolling stock.

16. At this stage, with varied technology available, initially at least, the URVIS marker would only be required to be attached as at least two plates and any embedding of the URVIS identifier into an electronic system, or making the identifier machine-readable, would be voluntary and not an obligation of a party applying the Model Rules.

17. Accordingly, it was not necessary to discuss issues relating to access to such electronic information from remote locations at this stage. The Group recognised that this could be part of a future discussion as technology develops and there are common security protocols. The Revisions Committee therefore plays an important role in examining these issues and making recommendations as to access protocols in the future.

18. With this in mind, the Group believes that it has fulfilled the requirements under activity D for this part of the mandate of the Group.

III. Conclusion and recommendations from the Group

19. The Group of Experts has successfully completed the tasks in its mandate as set out in the terms of reference of the Group. The Group of Experts proposes that the Working Party adopts:

- (a) the Model Rules for the Permanent Identification of Railway Rolling Stock set out in document ECE/TRANS/SC.2/2022/5;

(b) the Terms of Reference for the Revisions Committee contained in document ECE/TRANS/SC.2/2022/6; and

(c) the first version of the Guidance Note as set out in document ECE/TRANS/SC.2/2022/7.

20. In considering the adoption of the Terms of Reference of the Revisions Committee it proposes that the Working Party on Rail Transport consider inviting the parties identified in paragraph 12 above to nominate experts to act as members of the Revisions Committee.

21. The Group of Experts also proposes that the Working Party on Rail Transport request official publication of the Model Rules and the first version of the Guidance Note in the official languages of ECE so that they can be made available on the website of ECE and shared more widely.

22. Supporting the development of the railways and the need to increase the visibility of the United Nations, the Group requests that the Working Party asks the secretariat to explore the possibility of adding the United Nations logo to the URVIS marker and establishing conditions for its use.
