



Economic Commission for Europe**Inland Transport Committee****Working Party on Rail Transport****Group of Experts on Permanent Identification of Railway Rolling Stock****Second session**

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Item 3 of the provisional agenda

**Development of the Unique Rail Vehicle
Identification System****The Luxembourg Rail Protocol – how will it work in
practice?****Submitted by Rail Working Group^{*,**}****I. The definition of railway rolling stock****What is and what is not “railway rolling stock” under the Luxembourg
Rail Protocol**

1. The Luxembourg Rail Protocol to the Cape Town Convention covers railway rolling stock defined as:

“vehicles movable on a fixed railway track or directly on, above or below a guideway, together with traction systems, engines, brakes, axles, bogies, pantographs, accessories and other components, equipment and parts, in each case installed on or incorporated in the vehicles, and together with all data, manuals and records relating thereto.”

2. Railway rolling stock must be a vehicle which we would define as a “carriage or conveyance of any kind used on land or in space”. It is essentially a means of physical transportation and although the derivation, from the Latin *vehiculum*, meaning carriage, implies a more narrow definition, in common understanding this clearly has a wider application (otherwise, for example, technically a locomotive could be outside the scope of the Protocol where it only hauls wagons, and locomotives of all types were clearly in the minds of the drafters of the Protocol as railway rolling stock).

3. But the definition has to be viewed in context, taking into account the objectives of the Protocol and the practical issues which arise when equipment is attached to, and considered, as a matter of local law, as part of real estate. We would exclude a vehicle which

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** The present document is being issued without formal editing.

could physically drive on a guideway but is not designed to do so (for example a car). We would further exclude certain types of river ferries which do operate on chains or guideways but, in context, were not intended to be covered by the Protocol. On the other hand, a vehicle which is designed to run on tracks or a guideway but not *exclusively* (for example specialist maintenance equipment which has both flanged wheels and ordinary tyres) – a hybrid vehicle - would qualify.

4. The definition applies to two categories of vehicles, namely those which run on a fixed railway track and those running directly on, above or below a guideway. So, there is also a discussion as to what constitutes a *guideway*. We would define this as a physical channel or track or an electronic, magnetic, optical or digital pathway or system which governs or controls the exact line of motion (of a vehicle).

5. Below is a list of what we think should be covered by the Protocol and what should not, even if the asset could be included with a literal interpretation of the definition:

| <i>What is covered</i> | <i>What is not covered</i> |
|--|---|
| All types of locomotives | Model trains |
| Passenger wagons | Buses ¹ |
| Light rail rolling stock | Trolley buses |
| All types of freight wagons | Containers |
| Metro/underground trains | Lifts (Elevators) |
| Cable cars/funiculars | Conveyor belts |
| Chair lifts on cables | Escalators |
| Hybrid maintenance equipment | Travellators |
| Specialist boring, milling, tamping and track laying equipment mounted on rails ² | River barges and ferries moving on fixed chains |
| Rail bots and drones ³ | Roller coaster and ferris wheel vehicles |
| Suburban rail rolling stock | Lifeboats |
| Mountain rail carriages | |
| Shuttles at airports ⁴ | |
| Trams (Trolleys): electric and horse drawn ⁵ | |
| Gantries and cranes running on tracks | |
| Heritage/vintage/legacy rolling stock | |
| Miniature railway rolling stock ⁶ | |
| Hyperloop pods | |
| Monorail vehicles | |
| Maglev vehicles | |
| Buses where running on a guideway | |

¹ Unless they operate on a physical or digital guideway.

² Even if hybrid – i.e. they can run on both rails or on roads.

³ With the capability of running on tracks.

⁴ If running on guideways and still transporting people.

⁵ But not the horse!

⁶ As long as it can carry people.

II. The URVIS number

6. The Luxembourg Rail Protocol⁷ to the 2001 Cape Town Convention on International Interests in Mobile Equipment, will, by giving secured creditors more security, make it much easier and cheaper for the private sector to finance new and existing railway rolling stock across the world. Railway rolling stock is very broadly defined and includes any vehicle which runs on tracks or above, on or under a guideway. The Protocol will provide a new common system of international security rights for creditors (secured lenders and lessors) whose interests will be registered, and searchable 24/7, at an international registry to be based in Luxembourg. It will also introduce a new global unique rail vehicle identification system (URVIS) for rolling stock delivering real practical benefits for creditors and operators by making it easier to track the location and status of the equipment. This is particularly helpful when rolling stock crosses international borders. But there are still practical questions to be answered.

Does the URVIS number replace the running number or the manufacturer's serial number?

7. No, these are entirely separate and designed for different purposes. The running number is usually allocated on immatriculation, or admission to service of an item of rolling stock to a particular rail network based on its physical characteristics and fitness for purpose. But that number could change in relation to any particular item of rolling stock. For example, the equipment could be re-qualified to operate on another rail network, at that point receiving a new number. Furthermore, the manufacturer's serial number is constructed by the manufacturer and may well be duplicated or recycled. The URVIS number however, can never change in respect of that equipment once fixed to an item of rolling stock. The running number is therefore like number plate on the back of the car, which can change. The URVIS number is, on the other hand, like the permanent Vehicle Identification Number stamped on the car's chassis.

Is the URVIS number mandatory?

8. There is no mandatory requirement for every new or used item of railway rolling stock to be identified with the URVIS number. However, the number is essential if the creditor (secured lender or lessor) wishes to take advantage of the benefits of the Luxembourg Rail Protocol and, in particular, to enable registration of its security interest at the international registry. There will be other benefits of having the URVIS number on the wagon (for example, facilitating lifetime tracking and tracing), so some manufacturers may decide to add the URVIS number from the outset for all new equipment, bearing in mind the very limited cost involved. In addition, even where rolling stock is owned by the operator it may be prudent for the operator to register its ownership by filing a notice of sale recording its acquisition of the equipment. Since this registration would also be publicly accessible it would go a long way in practice to secure the operator/owner from 3rd parties claiming title rights, particularly when the rolling stock is crossing international borders. That registration will of course also need to be against a specific URVIS number marked on the rolling stock.

How unique is the URVIS number?

9. The number will be unique at the time it is issued and thereafter. Once the number is given out by the international registry, it will never be used again and will be permanently deleted from the list of available numbers.

How is the URVIS number constructed?

⁷ For more information and articles on the Luxembourg Rail Protocol see www.railworkinggroup.org.

10. The number is expected to comprise 16 Arabic numerals including one check digit. But deliberately the number is a random one given out by the international registry; it will not reflect any operational characteristics of the equipment. This is because the principle is that once allocated to a specific item of rolling stock, the number can never change, whereas the running number or another number indicating the model or the type or even the ownership of the equipment could potentially change. However, it is open to customers, if they wish, to order specific numbers or blocks of numbers whereby they can embed specific numerical sequences (for example a manufacturer could embed its multi-digit serial number as part of the URVIS number).

Will it be possible for a manufacturer, keeper or operator to buy a block or sequence of URVIS numbers?

11. Yes, which means that, subject to availability, a registry user can buy customised numbers. It would then allocate the numbers to specific items of rolling stock. It is also possible that a block of numbers will be made available to regulators who can then allocate the URVIS number and the running number for the equipment at the same time.

What will be the cost of the URVIS number?

12. The international registry will have a schedule of fees set by the Supervisory Authority, in consultation with the registrar. The first schedule of fees will only be published shortly before the Protocol comes into force, but we expect that the charge per number will be small (between \$5 and \$10) with a possible surcharge for customised numbers. There will be separate fees for registering and searching against a security interest registered at the international registry. Again, we expect them to be modest.

How will URVIS numbers be allocated by the international registry?

13. We expect this to be an automated process where a user will request the allocation of the number through the Internet and will receive the next available number unless the user wishes to purchase customised numbers, where it will be able to simply select whatever numbers are available.

Is the allocation of an URVIS number or the registration of the security interest at the international registry dependent on rolling stock operating on a particular gauge?

14. Absolutely not. The Protocol applies to all rolling stock regardless of which gauge it operates on., The Protocol will also secure variable gauge rolling stock, moving between different gauges.

Is there a requirement to mark financed equipment with an URVIS number?

15. Yes, if the creditor and the debtor wish to take advantage of all of the benefits arising from the Luxembourg Rail Protocol including the ability to register the creditor's security interest at the international registry. How the marking should take place remains to be decided.

Can components of railway rolling stock be given a separate URVIS number?

16. Yes, this is possible in theory although the Protocol only covers railway rolling stock in its entirety and not components. This means that it will not be possible to create and register a separate security interest under the Protocol although it may assist in creating rights under local law. It may also be possible, subject to the approval of the registrar, to create a registration system which includes the URVIS numbers of the components in the registration of the security interest in the rolling stock.

III. The international registry

17. The Luxembourg Rail Protocol to the 2001 Cape Town Convention on International Interests in Mobile Equipment, will, by giving secured creditors more security, make it much easier and cheaper for the private sector to finance new and existing railway rolling stock across the world. Railway rolling stock is very broadly defined and includes any vehicle which runs on tracks or above, on or under a guideway. The Protocol will provide a new common system of international security rights for creditors (secured lenders and lessors) whose interests will be registered, and searchable 24/7, at an international registry to be based in Luxembourg. It will also introduce a new global unique rail vehicle identification system (URVIS) for rolling stock, delivering real practical benefits for creditors and operators by making it easier to track the location and status of the equipment. This is particularly helpful when rolling stock crosses international borders. But there are still practical questions to be answered:

Where is the international registry located?

18. The office of the international registry is located in Luxembourg, but the international registry is cloud-based and accessible 24/7 online.

Who will be the registrar?

19. The Preparatory Commission, established by the diplomatic conference which adopted the Luxembourg Rail Protocol, has, after a detailed tender process, appointed Regulis SA, part of the SITA group, to be the first registrar. SITA is a highly regarded international services provider for the aviation sector and owns a majority interest in Aviareto Ltd, the company which operates as the registrar of the parallel international registry under the aircraft protocol to the Cape Town Convention. The appointment runs for 10 years from the date the Protocol enters into force. Thereafter it will be retendered.

Who supervises the international registry?

20. The international registry will be supervised by the Supervisory Authority, an intergovernmental entity established under the Luxembourg Rail Protocol. Each state which ratifies the Protocol will appoint a representative to the Supervisory Authority. There must be at least 10 state representatives so, since the Protocol may come into force with only 4 ratifications, some representatives will be appointed by either OTIF or UNIDROIT until there are 10 ratifications. OTIF will be the secretariat to the Supervisory Authority but it has no decision-making powers. The Supervisory Authority is allowed to appoint a committee of experts to advise it on technical matters, drawing from the experience of organisations and specialists working in the rail sector.

How does international registry operate?

21. The international registry will operate under regulations issued by the Supervisory Authority and revised from time to time. Pursuant to these regulations, the registry will adopt certain procedures dealing with the mechanics and logistics relating to registrations. These will need to be approved by the Supervisory Authority.

Does a user have recourse against the registrar?

22. The regulations governing the operation of the international registry will include a complaints procedure and the user will have the ability to request the Supervisory Authority to step in and adjudicate on any complaint if it cannot be resolved with the registrar. Separately the registrar has liability, subject to a limit set out in the regulations, for errors and omissions.

When does the registry start operations?

23. The international registry will need to be fully functional on the day the Protocol comes into force. In practice this means that once the 4th state ratification becomes effective, there will be a period of about a year needed to deal with all the technical aspects of setting up the registry. Only when OTIF certifies that the registry is ready to operate can the Preparatory Commission designate the date when the Protocol comes into force. However, it is possible that the registrar will begin issuing URVIS numbers some months before the entry into force of the Protocol.

Who owns the data stored at the international registry?

24. The data belongs to the Supervisory Authority and not the registrar. If there is a change of registrar, the successor can therefore continue to work seamlessly with the data.

How will the international registry be financed?

25. The international registry is intended to be self-financing over the 10-year mandate. It may also receive funding from offering ancillary services (see below).

Who has access to the international registry?

26. Searches of the registry will be open to the public against a search fee. Because this will be a registry which must be 100% secure, parties making registrations will need to be on-boarded in advance by the registrar and thereafter receive and then maintain a digital signature. Probably there will be an annual fee for this. In case of the parallel international registry for aircraft, the user set up fee is \$200 per annum per user.

May the international registry offer additional services?

27. Yes, these are known as “ancillary services” but may only be offered with the approval of the Supervisory Authority.

Does the creditor’s security interest have to be separately registered for every item of railway rolling stock?

28. There will be a facility for block registrations and block searches, so it will be possible for a creditor to submit a list of equipment against which the creditor’s security interest is registered. This block registration will be given a file number and then it will be possible for parties to search either against individual items, using the URIVS numbers, or against the block registration using the block file number. This will be particular useful for auditors as well as financiers and purchasers of used rail equipment.

Can the security interest of the creditor be registered at the International Registry using the running number for the financed equipment?

29. No. The registration must be by reference to the URVIS number but there will be space on the registration also to input the running number or any other reference number at the time of the registration. A searching party will only be able to search by the URVIS number but will see the other reference numbers on search certificate.

Is there any point in registering a security interest in the International Registry where the Protocol does not apply?

30. This is an interesting question. The Protocol only applies, creating an “international interest”, with the creditor rights accruing under the Protocol where the lessee/debtor has its principal place of operation in a state which has ratified the Protocol. However since there are no other national or international public registries at which security interest in rolling stock are recorded, there may still be a benefit for owners, operators and creditors financing railway rolling stock in registering a security interest, using the URVIS number, which will protect the owner, operator and creditor as a matter of domestic law. This is because one of the greatest practical risks for these parties is a third-party claiming ownership of the equipment concerned as a *bona fide* third party purchaser without notice of rival claims, taking possession of the equipment. If the owner of the railway rolling stock has registered the notice of sale against the equipment or the creditor and operator have registered the security interest in the Registry, there is a strong argument as a matter of local law that any third party purchaser is not acting in good faith because it has actual or constructive notice of the rival claims to a title interest in the equipment concerned.
