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Analysis of the feasibility of establishing an OTIF/international vehicle register for railway vehicles which are intended for use in international traffic

1. INTRODUCTION

Provisions under Article 13 of the ATMF Uniform Rules set out the obligation of the ATMF Contracting States (CSs) to establish and implement railway vehicle registers, and extend to the possibility of setting up regional vehicle registers, such as the single European Vehicle Register (EVR) in the European Union (EU), as long as the information in such registers is accessible to other CSs. The EVR should become operational by 16 June 2021. With this in mind and within the scope of work of Working Group Technology (WG TECH), the OTIF Secretariat has been actively involved in discussions with DG MOVE, the European Union Agency for Railways (ERA) and the railway sector to find a way forward to maintain connectivity between national registers and the exchange of relevant vehicle data between EU and non-EU CSs.

The European Commission proposed that in order to avoid the use of numerous national vehicle registers (NVRs), a common EU/OTIF centralised register could be established on the basis of EVR. As an intergovernmental organisation, OTIF has ambitions to enlarge geographically, and it has to consider the sovereignty of its members. The idea of using the EVR as a common EU/OTIF centralised tool, managed by the EU's railway authority (ERA), may be a sensitive issue for some CSs. In response to these concerns, the European Commission suggested that the EVR could be connected to one centralised OTIF register.

During the discussions, the OTIF Secretariat launched a questionnaire to the non-EU CSs (TECH-19009-CTE12-NVR Questionnaire dated 4 July 2019) to understand the progress they have made towards establishing their railway vehicle register and their views on a central register. The responses showed a different level of implementation, with some states already using well developed and sophisticated tools, while other states were still deciding on the best approach, bearing in mind their limited funds and resources. The questionnaire is attached as Annex I.

The Secretariat also decided to explore further the possibility and feasibility of establishing an OTIF/international vehicle register for vehicles intended for use in international traffic that is compliant with the vehicle register specifications and is compatible with and able to connect to the EVR. For this purpose, it drafted an internal Terms of Reference document, which is attached as Annex II.

The topic is relevant to the following stakeholders who are involved in the registration process and use of vehicles: OTIF Member States and their competent authorities, the European Commission, ERA, international associations and representative bodies (CER, ERFA, UIP, EIM, UIC, etc.) and their members: railway undertakings (RUs), registration entities, keepers, entities in charge of maintenance (ECMs), infrastructure managers (IMs) and the OTIF Secretariat.

2. EXCHANGE OF VEHICLE-RELATED DATA FOR INTERNATIONAL TRANSPORT BY RAIL

OTIF´s aim is to promote, improve and facilitate international traffic by rail. In this context, it is important that vehicle-related data are accessible to all relevant parties in the railway system across borders. It is mandatory for such information to be accessible through digital vehicle registers. With the implementation of OTIF's NVR rules of 2015, practice has shown that some CSs face difficulties in developing and connecting their registers. Under the new specifications for vehicle registers, which entered into force on 1 April 2021, it could become more difficult, or even impossible, to connect registers, as there would no longer be any interface specifications defined at COTIF level. Consequently, vehicles for which data are neither available, nor accessible, could be stopped when crossing borders.

Assessment of the responsibilities for data availability, including data provision and data access, is not the subject of this analysis, as these responsibilities remain with the vehicle keepers and registration entity in each CS and are clearly defined in the specifications for vehicle registers. However, a reminder of the vehicle registration process should be given before proceeding with the analysis.

As shown in the diagram below, once a vehicle is admitted according to the ATMF and APTU provisions, the keeper of this vehicle submits an application for registration to the registration entity of the chosen CS. In most cases, and for practical reasons, the keeper would register the vehicle in the CS where the vehicle is admitted and where the keeper would have its seat.

The registration entity is set up at national level and has an obligation to register the vehicle data in the vehicle register. It is usually a public entity that can be an independent body or part of the transport ministry of a CS. The vehicle register may be developed in-house or outsourced to an independent private IT company as decided by the CS.

If a central register is used, such as the EVR, the keeper still has to submit the vehicle data to the registration entity of the CS of choice, so that these data are then submitted to the central register by the registration entity. In a more concrete example, when a vehicle is used in international traffic and crosses borders with EU CS, it has to be either visible to the EVR or registered in the EVR. In practice, this would mean that the registration entity of the non-EU CS has to update its national register if it has established one, as well as provide the vehicle data to the EVR.

The vehicle data can be consulted by making a query to the vehicle register. Users can obtain access to the register, which is managed by the registration entity in the CS.
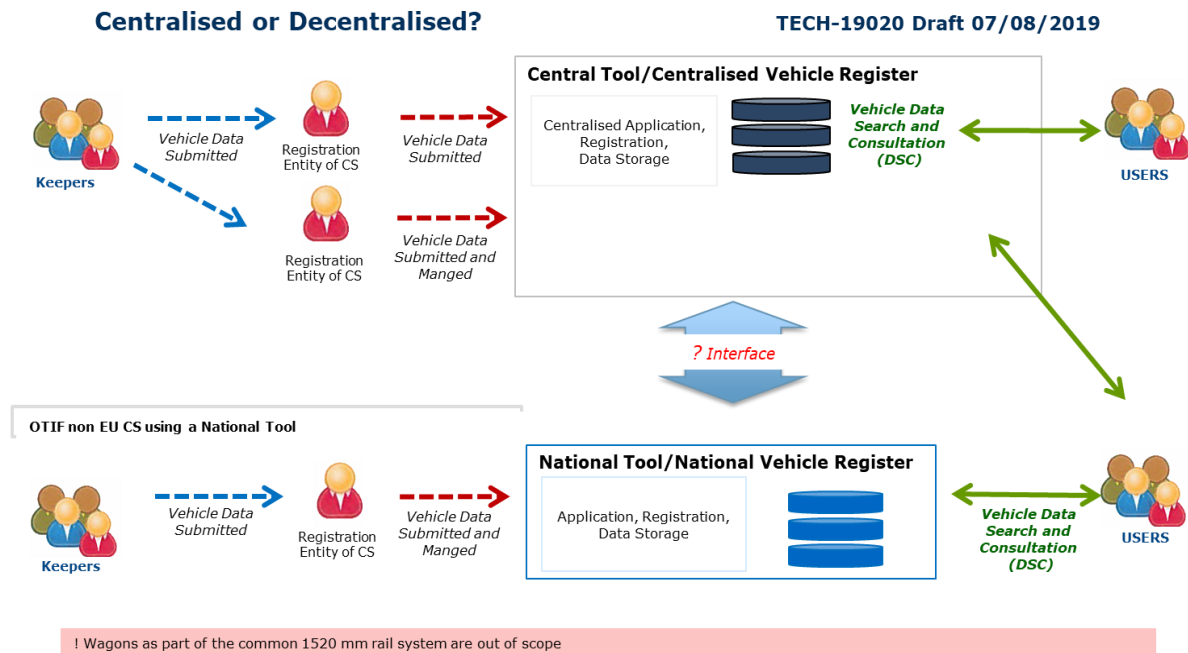
3. PURPOSE OF AND APPROACH TO THE ANALYSIS

The purpose of the feasibility analysis is to examine the potential for an OTIF/international vehicle register analogous to the EVR established by the EU, and whether it is possible to connect such a register to the EVR.

The following COTIF provisions are taken as the legal basis for the analysis:

- The provisions of Article 13 of ATMF (version of 1 March 2019).

- The specifications for vehicle registers in force since 1 April 2021.

The analysis assumes that the functioning of an OTIF register is neutral, meaning that it should not be influenced by external factors (i.e. political, economic, or social), and it should allow the CSs to choose how they should manage their vehicle data. It should also avoid duplicate registrations and ensure connectivity between registers, including between itself and the EVR.

The analysis has been developed and the conclusions have been drawn from the following sources and activities:

- ERA Impact Assessment of 23 February 2018
  (https://www.era.europa.eu/sites/default/files/library/docs/recommendation/013rec1005_impact_assessment_on_eu_vehicule_register_en.pdf)

- Final report of the ERA Economic Steering Group Taskforce on Registers and Databases
  (https://www.era.europa.eu/sites/default/files/activities/docs/esg_tf_reg-db_report_en.pdf)

- Remote bilateral meetings with the European Commission and ERA

- Remote one-to-one discussions with experts from the CSs (CH, GB) and the railway sector, which have developed a vehicle register in the form of a rolling stock reference database (UIP (RSRD^2 IT tool), CER and UIC (RAILDATA IT tool))

- Publically available information on other modes of transport.

The analysis is not intended to provide conclusive information on the basis of which a final confirmation or alternative decision to establish an OTIF/international vehicle register can be taken. The analysis should instead help the Committee of Technical Experts (CTE) to decide whether establishing an OTIF/international vehicle register should be pursued and whether other OTIF organs, such as the Administrative Committee and the General Assembly, should be involved with regard to the consequences for the OTIF budget and additional staff required.

4. FINDINGS

As a benchmark for practices in the exchange of vehicle-related data, the Secretariat looked at the approach to registers in other transport modes, such as road, aviation and maritime.

In road transport, freight and passenger vehicles are registered with the national authorities of the country where the vehicle is authorised and its owner is registered.

Aviation is similar to road in that the aircraft is usually registered with a national aviation authority. The procedures for registration are laid down by the country where the aircraft is registered. The aircraft can only be registered once in one jurisdiction at a time. The most common practice is that the choice of jurisdiction is where the carrier is based. Sometimes an aircraft can be registered offshore if the bank financing it is also located off-shore. In aviation, the registers may be different, but the data formatting is harmonised. In addition, there is a central website, which provides a list of links to all the registers in the different countries.

In the maritime sector, there is an international registries private service provider (register-iri.com). The headquarters are in the US, with 28 offices in major shipping and financial centres around the world. The registry has a wider role and covers private and commercial vessel information, licences, certificates for vessels as well as mortgage and financial instruments.

The discussions during the remote bilateral and one-to-one meetings revealed a common desire to find a solution whereby vehicle-related data are available and accessible to all eligible parties. They also identified three key aspects for consideration:

- A political aspect related to the will, the demand and the degree of acceptance among the CSs to use a centralised register;

- A technical aspect related to the type of register that is most suitable, as well as the costs and resources that would be required to develop, maintain and operate such a register; and

- A legal aspect related to the roles and responsibilities in data management and managing an own vehicle register.

Each of these aspects have benefits and limitations and entail some challenges in establishing a central OTIF international register and are explained in more detail in the following sections.

Political aspect: demand and need for an OTIF/international vehicle register

One of the first questions the OTIF Secretariat investigated was the demand for an international register. This particularly concerned the non-EU CSs, because the CSs who are members of the EU are required under EU legislation to use the EVR. Based on the questionnaire that was sent out in 2019, it was concluded that many non-EU CSs had not yet set up a vehicle register. They supported the idea of using a centralised register, as long as the conditions and costs for its use were known and reasonable. Using a centralised system might be useful for those CSs that do not have the budget and resources to build their own tool.

Because of the fact that the scope of COTIF covers only vehicles used in international traffic, CSs are not obliged to include their domestic vehicles in the centralised register. Mandating the use of a centralised register may lead to some states having to use two vehicle registers; one national register used for vehicles in domestic traffic and a centralised register used for vehicles in international traffic. Managing data in two registers is not optimal and it could lead to additional costs and an administrative burden for all actors involved in the registration process. Having one centralised tool might be an attractive option for users, as they could look up vehicle-related data in a single database; however, this might also have its own risks and limitations. If the centralised tool were compromised or had a technical fault, it is likely that data could be lost or damaged, or could become inaccessible.

The findings also show that some CSs may prefer to have a register at national level, as it may offer data that are beyond what is required under the specifications for vehicle registers. A few non-EU CSs, such as Switzerland and the United Kingdom, have already established national vehicle registers and expressed a preference to use an interface between their registers and the centralised EVR. The main justification was that their national registers had a wider scope and purpose, and the vehicle-related data are only a small part of the whole database.

In Switzerland, the Federal Office of Transport acts as the registration entity, but the tool is outsourced to a provider based in Switzerland. The database covers all data for vehicles registered in Switzerland, and only the data relevant to the EVR would be shared.

The United Kingdom, for example, uses a rolling stock library, known as R2, which has a much wider function and role in the management of rolling stock data and safety reporting. Its infrastructure

manager, Network Rail, set up the NVR, which is a much leaner tool focusing on the NVR specifications only. An interface between R2 and NVR was established, but it proved ineffective and the data were entered in both registers manually.

These two states have vehicles in international traffic going to countries in the EU and vehicles coming from the EU run in Switzerland and the United Kingdom; therefore, accessibility to and connectivity between the respective registers is essential.

Other non-EU CS that are neighbouring countries to the EU, such as those in the Western Balkans and Turkey, have already implemented the NVR software previously offered by and purchased from ERA. However, with the introduction of the EVR, the software will no longer be usable from 16 June 2021. This has created uncertainty among those states in terms of how to proceed and under what conditions they would be able to use the EVR. Furthermore, the registration entities in these states would require retraining in order to adapt to the new EVR.

The OTIF Secretariat recognises the benefit of a centralised vehicle register for vehicles used in international rail traffic now and in the future. However, it is not able to have a detailed view on the CSs that are located further away from the EU. The reality today is that there are national vehicle registers established in all CSs that are members of the EU as well as their neighbouring states in the Western Balkans, Turkey, Switzerland, the United Kingdom and Norway. When the centralised tool of the EVR becomes operational, these CSs that border an EU CS would have to decide whether they would use their own national register that exchanges data with the EVR, or whether they would switch to using the EVR only. From 2024 onward, it is planned that the EVR will no longer support an interface to connect with other registers, except with an OTIF register, if such is established.

With the potential for broadening the geographical scope of its membership and railway developments in specific regions in Africa, Asia and the Middle East, some countries may choose to group together to set up a regional register, as the EU did with the EVR. These regions may also choose to connect with each other, including the EVR, which could only be achieved through mutual connectivity between these registers.

Whether an OTIF/international vehicle register or several centralised regional registers are established, the priority remains making the vehicle related-data available and accessible.

Technical aspect for the establishment of an OTIF/international vehicle register

If a centralised solution is chosen, there are three possibilities for implementing this at international level.

- Develop an OTIF/international vehicle register using existing software and interface

- Develop the EVR to create a joint OTIF/EVR

- Develop a separate OTIF/international vehicle register from scratch.

The OTIF Secretariat first considered the possibility of establishing a register similar to the EVR and of obtaining support from ERA to develop an OTIF/international vehicle register using the same or similar software and connecting it to the EVR. The benefit of using existing IT products and practices is that it would save the time otherwise needed to develop a new product. It could therefore lower costs for the initial set-up.

The downside to this option is that there may be few possibilities for OTIF to adapt and develop the software for future needs and to meet the requirements of its CSs and other actors in the railway sector.

Furthermore, if ERA were to agree that OTIF could use the software used for the EVR, the OTIF Secretariat might find it difficult to keep it running due to the lack of in-house resources and expertise. Making changes to a software would require the adaptation of different versions and new coding, which might be a complex process entailing additional costs.

The European Commission and ERA have also shared a long-term vision for "European Digital Strategy and Sustainable and Smart Mobility", which could set new goals and incentives for expansion and further evolution to their EVR tool. There may be uncertainty that the specifications at EU level may change over time, putting at risk the future compatibility of software products used in EVR and in the OTIF register.

With regard to the question of whether ERA could provide support to OTIF to set the register up, ERA responded that its immediate priority was to make the EVR operational at EU level, and to ensure that data from the national vehicle registers of the EU CSs are migrated to the EVR by 2024. Non-EU CSs that have used the previous software version of the NVR by ERA would in theory be able to migrate their data to the EVR, should they wish to do so. However, support for this process would have to be considered further, as ERA is already working with a limited budget and resources. Furthermore, the EU, including ERA, would have to consider contractual arrangements with those states that wish to use the EVR.

If OTIF develops its own register, the first reference for its development would be the specifications for the vehicle register, which include the content and data format, access rights, standard form for registration, coding for status of registration, harmonised restriction codes and harmonised numbering system for Unique Identification Number (EIN). Although the main parameters are listed, there is no clear guidance on how simple or complex such a register should be and how it should connect to other registers, such as the EVR. A vehicle register with a clearly defined role would help considerations with regard to the most suitable architecture and format. With the development of the software, specific consideration would have to be given to the interface specifications in order to ensure connectivity with other relevant IT tools as well as adaptability to different languages. In today's digital era, an interface is considered an effective and efficient method to ensure that data are exchanged between vehicle registers, as long as the specifications for such registers are the same and the data shared are provided in a compatible format. For this, the register would have to share common elements and functions that are compatible with other registers.

If OTIF were to develop its own tool and interface, this would still require developments from both ERA and OTIF to use the interface. ERA already defined the interface specifications at the end of 2019 between the EVR and the so-called Decentralised Application Registration and data Storage function (D-ARS). According to ERA, the D-ARS is intended to facilitate the migration of data from the NVRs of the EU CSs to the EVR. The process is currently on-going and will continue until June 2024. At the time of this analysis, there was not sufficient information on the successful use of the D-ARS. What is known is that in order to keep a system such the D-ARS running, one would need resources to update the so-called security certificates to encrypt the information that is registered and to maintain the operational system. This means that in addition to the software and interface, rules on security and integrity of data (i.e. firewall, proxies and debugging) may need to be considered.

Cost and resources aspect for the establishment an OTIF/international vehicle register

The resources required to develop an OTIF/international vehicle register would depend on the requirements and resulting specifications. The register could be simple, for information only, but it could also be complex and multifunctional.

During the bilateral discussions with railway sector representatives, such as UIC and UIP, who have extensive experience with rolling stock databases such as RAILDATA and RSRD[2], an open data source

approach was suggested, because the vehicle data required for the register are not commercially sensitive and they would only be used as a reference. Furthermore, the register should be able to exchange data through a push and pull function, allowing access to data in both directions between the EVR and the OTIF/international vehicle register.

More complex software would mean that it would be more costly to develop, it would entail greater maintenance and operation costs, and it could be more challenging to modify and develop in the future. Specific costs could not be calculated, because they depend on the set-up, the use, operation and maintenance of the register. Based on talks on experience with the existing registers, one could envisage at least EUR 500,000 to develop such a register, while annual operational costs could be in the range of EUR 50,000. Maintenance costs would depend on the number of people involved and could be of a similar level. Lastly, the overall costs have to be assessed against OTIF's budget and whether fees should apply for the use of the register and to whom.

The administrative burden and costs would remain for the actors involved in the registration process. So far, it has been observed that some CSs have different fee practices in their role as a registration entity, which could be set as an annual fee, or a one-off fee, or a fee for maintenance only. The registration entities of each CS may also incur costs for forwarding data to the centralised register, but in return, they might have access rights to all vehicle data that are in the register. As planned for the EVR, OTIF may also need to consider a mechanism for fees and charges for registration and whether the costs should be borne only by the CSs whose data is in the register. Moreover, if the 25 CSs that are members of the EU are already making a financial contribution to the EVR via the EU budget, it would not be fair to expect those same CSs to pay to the OTIF register as well.

The analysis concerning development and costs leads to the next item for consideration, which is whether the OTIF international vehicle register should be developed and hosted in-house or outsourced. There are several options: 1) development and hosting are both in-house; 2) development is outsourced, but the register is hosted by OTIF; 3) both the development and hosting are outsourced, but are controlled by OTIF.

The first option for in-house development and hosting would mean that everything would be developed and managed at OTIF's headquarters in Bern, Switzerland. This option might be less feasible, because the OTIF Secretariat would require additional IT resources, capacity and expertise to install, set-up, operate and maintain its register. This would go far beyond the tasks currently carried out by the Secretariat and may require a fundamental organisational change.

The second option for outsourced development might be possible and to some extent feasible, by contracting an external developer for the register software and set-up of an in-house IT support system to maintain and manage the tool. The positive aspect is that the development project would be carried out following a call for tender, giving the opportunity to select the most appropriate development company. With regard to maintenance and operations, the OTIF Secretariat would require additional in-house IT resources for this role.

The third option for outsourced development and hosting would be possible as well as feasible, because it would minimise the burden on the OTIF Secretariat to manage, operate and maintain the register. The obligation to develop and maintain the register would remain with a specialised IT company. Contractual arrangements would be required between OTIF and such a company to support the tool as the OTIF register. Furthermore, there should be appropriate supervision on the execution of the contract.

The time to develop and make a register operational would also depend on the complexity of the tool, and it could be between 1 and 3 years, including development and pilot testing phases.

Legal aspect: contracts, agreements, roles and responsibilities, data hosting and management

The above options focus on the register, but they do not answer the question of the role of the OTIF Secretariat in the process of vehicle registration and as a registrar. If the OTIF Secretariat were to provide an OTIF register for its CSs, the role of the OTIF Secretariat as a registrar would have to be carefully analysed and, if necessary, justified by a legal basis under the Convention.

If joint ownership of the OTIF/EU register is proposed, this option would have to be analysed not only from a technical perspective, but also from a legal perspective. A joint register might be subject to a special contract or an agreement between OTIF and ERA. ERA is a competent authority for the EU, while OTIF is an organisation with a different legal personality. The OTIF Secretariat is not an authority and its role is limited to administrative tasks related to the functioning of OTIF.

During the application for registration, the information is handled and, when necessary, modified by the keeper and the registration entity of the chosen CS. The user of the register can only retrieve the information as a reference. Data quality is very important; therefore, validation checks and cross checks are necessary. The question of data management also depends on the hosting of the data. There are currently no rules or responsibilities for a registrar with regard to hosting a centralised vehicle register and the data that are submitted.

As mentioned above in the questionnaire of 2019, some non-EU CS indicated the need to investigate the legal implications of having data hosted outside their country's geographic boundaries. As a result, further analyses would be required to investigate whether it is possible from the legal point of view for the OTIF Secretariat to act as a registrar and to host the data of its members.

5. CONCLUSIONS

The following principles remain with regard to vehicle registers and the availability of vehicle-related data.

- The vehicle register of a CS contains data on the vehicles authorised in this state, i.e. vehicles that can be used for domestic and international services. The specifications for a vehicle register under ATMF require that only data on vehicles used for international traffic be available.

- A vehicle can run between CSs if it is registered in the vehicle register of one of these states and if the vehicle data are made available in the other CS.

- To avoid the duplicate manual entry of vehicle data, only one registration should be necessary in the vehicle register of one CS where the vehicle is authorised, which should be connected to the vehicle registers of the other CSs where the vehicle might be operated.

- If vehicle registers are connected, all relevant parameters, as defined in the specifications for vehicle registers, should be accessible to authorised users via a DSC function.

- CSs can agree to use one central vehicle register. A CS can register all vehicles in the common vehicle register or can register the vehicles for international traffic only.

If the OTIF CSs choose not to pursue the development of an OTIF/international vehicle register, implementation of the specifications for vehicle registers remains an obligation for each CS. The non-EU CSs could choose whether to establish their own register or whether they would join a centralised

register, such as the EVR. Each register should be developed under the uniform COTIF provisions, preferably with an interface to ensure data exchange between registers.

The consequences of maintaining "business as usual" could lead to some uncertainties, which may hinder the facilitation of international traffic by rail:

- Due to the lack of interface specifications at ATMF level, there is no guarantee that an interface would be developed with each established register. This would make it difficult to exchange vehicle-related data digitally.

- If CSs develop their own interface, there is also no guarantee that the different interfaces would be harmonised or technically and linguistically compatible. This may lead to an inability to connect registers.

- Users would have to consult and access multiple registers, because there would be no data exchange between registers and there would be no single search engine in place to help retrieve data from the existing registers.

ERA has established interface specifications that can be used to connect the EVR and the existing national vehicle registers. There is not yet any information on the extent to which these specifications have been implemented and their level of successful connectivity. However, if they are successful, these specifications could be proposed as a common standard to be implemented at OTIF level.

The demand for an OTIF international vehicle register would depend on a number of factors, including the conditions of its use, the hosting and management of data and costs for the CSs to use the register. The latter is particularly important, as the EU CSs may not see an incentive to support the development of such a register if they are already using the centralised EVR and paying for it to be developed, operated and maintained through the EU budget.

If an OTIF register were established, the general recommendations would be to start from scratch, to keep the tool simple and lean, mainly as a reference database. This would mitigate the one-off costs for development and would require fewer resources to operate and maintain the register. Outsourcing the register to an IT provider might also be an option if this helped lower costs. Until more information is available on how the non-EU CSs would implement the new specifications for the vehicle register, the OTIF Secretariat could place a page on its website with the list of web links to existing vehicle registers, including the EVR, and the contact data for requesting access rights. This would provide users with a single place to search and find active vehicle registers.

In conclusion, it is too early to make specific proposals on whether to establish an OTIF/intenational vehicle register, because there are many additional aspects that should be considered and assessed. These are:

- The legal basis for the role of the OTIF Secretariat as a registrar of the OTIF/international vehicle register

- The legal basis for the OTIF Secretariat to bear responsibility as a registrar for its CSs

- The legal consequences, including liabilities, for OTIF to host and manage data belonging to its CSs

- Types of fees and charges for use of the register

- Cost-benefit analysis for EU and non-EU CSs

- A proposal including estimated budget and staffing requirements has to be submitted to and supported by the relevant OTIF decision-making organs, such as the Administrative Committee, and possibly the General Assembly

- Both OTIF and the EU should explore the possibility of a joint EU/OTIF/international vehicle register

- The possibility should be explored for a platform or a common search engine that can retrieve data from different vehicle registers.

PROPOSAL FOR DECISION

The Committee of Technical Experts:

1. Notes the analysis of the feasibility of establishing an OTIF/international vehicle register for railway vehicles which are intended for use in international traffic.

2. Concludes that a decision as to whether or not an OTIF/international vehicle register should be established cannot be taken at this time, as critical information is missing.

3. Requests the Secretary General of OTIF to remind CSs of their obligations under the specifications for vehicle registers, and to notify him of the registration entity, the location (internet address) of the vehicle register and to inform him how eligible users can obtain access to the registered data.

4. Requests the OTIF Secretariat to publish this information on OTIF's website in the form of a list of all vehicle registers, including information on how to contact the registration entity of each CS and how eligible parties can obtain access rights.

5. Mandates WG TECH to monitor the experience gained from use of the EVR at EU level before exploring, together with the EU and ERA, the possibility for a joint OTIF/EVR, and requests the WG TECH to keep it updated.

ANNEX I

Commission d'experts techniques
Fachausschuss für technische Fragen
Committee of Technical Experts

TECH-19009-CTE12-NVR
Questionnaire

04.07.2019

Original: EN

TO THE NON-EU COTIF CONTRACTING STATES

Establishment of National Vehicle Registers

Questionnaire

INTRODUCTION

Within the scope of work of the OTIF standing working group technology (WG TECH), the OTIF Secretariat is examining a number of options relating to the establishment of National Vehicle Registers (NVRs), connectivity between such registers and the future development of a centralised register. In connection with this, the Secretariat would like to better understand the situation in the non-EU OTIF Contracting States, including their requirements with respect to vehicle registers.

The OTIF Secretariat has developed a short questionnaire which you are kindly invited to complete. It is preceded by a short explanation of the issues relating to the establishment and connectivity of NVRs.

The objectives of this questionnaire are:
- To understand how railway vehicles are registered in the non-EU OTIF Contracting States

- To gain insight into whether NVRs are established by the non-EU OTIF Contracting States and if not, why this is the case

- To obtain the views of the non-EU OTIF Contracting States concerning the future centralised vehicle register.

If you have any questions, please do not hesitate to contact the OTIF Secretariat at maria.price@otif.org.

BACKGROUND

Article 13 of ATMF prescribes the establishment of the national vehicle registers (NVRs). In accordance with ATMF and subsequent decisions taken by the Committee of Technical Experts, each Contracting State should have established its NVR in accordance with the harmonised specifications by 1 September 2013 at the latest.

Connected and accessible electronic vehicle registers help provide users, such as RUs, keepers, IMs, ECMs and state authorities, with relevant information on vehicles in international traffic. COTIF requires that when admitted, vehicles must be registered in the NVR of a Contracting State (normally the state which first admitted it). The register also records additional admissions for other states and information concerning the identity of the keeper, the entity in charge of maintenance, etc. Traditionally much of this information was inscribed/marked on each vehicle. Today it is mandatory for such information to be accessible through digital vehicle registers. To ensure that all relevant parties have access to the vehicle data, NVRs should be connected. Vehicles coming from states which have not established their NVR could be stopped in international traffic.

RECENT DEVELOPMENTS IN THE EUROPEAN UNION

On 25 October 2018, the European Union (EU) adopted a Decision concerning the establishment of the European Vehicle Register (EVR). The EVR will be a centralised vehicle register which will eventually replace all NVRs of EU Member States. It will feature the centralised creation of user accounts and use of common reference data. The EVR will be managed by the European Union Agency for Railways (ERA), which will become the EU Competent Authority from June 2019. The national *Registration Entities* in the different EU States remain responsible for registering or validating the pre-registered data.

The EVR is expected to become operational by 16 June 2021, at which time the technical support for the current sNVR software and the NVR-TE (translation engine which connects with all existing NVRs) will be discontinued.

From June 2021 until June 2024 EU Member States have the option either to join the centralised register EVR or to continue operating their NVRs. States which continue operating their NVRs are responsible for connecting them to the EVR. After 16 June 2024, all EU Member States must use the EVR.

WHAT DOES THIS MEAN FOR NON-EU OTIF CONTRACTING STATES?

At present, several non-EU OTIF contracting states use the sNVR and for them the developments would mean that from June 2021 their NVR software would no longer be supported by ERA and the connection to other NVRs will be lost. If nothing is done, the consequence is that vehicle data will no longer be mutually retrievable. The EU has suggested that its new centralised register EVR could become a joint OTIF-EU central register, where non-EU OTIF Contracting States can also register their vehicles. This use may come at a cost.

The question which must be answered in the coming period is whether all non-EU OTIF Contracting States should migrate to the centralised register (as the EU states will do), or whether it should continue to be possible for non-EU states to use a national register that is connected to the centralised register. WG TECH has been discussing possible solutions to ensure that the exchange of data on vehicles for international traffic is maintained and not interrupted.

By filling out the following short questionnaire you will help the OTIF Secretariat gain a better understanding of the state of play and the requirements and expectations of the non-EU Contracting States with regard to the NVR, and will enable it to propose a solution that can facilitate implementation at national level.

After you have filled in the questionnaire, please return it to Ms Maria Price at maria.price@otif.org.

Thank you very much for your responses.

QUESTIONNAIRE

ESTABLISHEMENT OF NVR

MEMBER STATE: Click here to enter text.

AUTHORITY: Click here to enter text.

CONTACT PERSON (name, function, email, telephone number): Click here to enter text.

1. **Has a National Vehicle Register (NVR) in accordance with Article 13 of the ATMF and NVR specifications been established in your country?** *(choose all that apply)*

☐ We have established our own NVR and connected it to other NVRs.

☐ We have established our own NVR, but we have **not** connected to other NVRs.

☐ We use the standard NVR software provided by ERA.

☐ We are aware of the requirement to establish our NVR, but we have not yet done so.

☐ We were not aware of the requirement to establish and connect a vehicle register.

Comments: Click here to enter text.

2. What software is used for your NVR?

☐ Standard NVR provided by ERA

☐ Other *(please specify):* Click here to enter text.

3. **If you have an NVR, has it been connected to other NVRs?**

☐ YES, connected successfully.

☐ YES, but had difficulties connecting *(please explain):* Click here to enter text.

☐ NO, tried to connect, but was not successful or it was connected in the past but this is no longer the case *(please explain):* Click here to enter text.

☐ NO, have not yet tried to connect.

4. **COTIF covers international traffic only and so the obligation to register vehicles is limited to vehicles used internationally. Article 13 § 1 explicitly allows the register also to contain vehicles used for national traffic. Please indicate your preference below.**

☐ We prefer limiting the registration of vehicles in the context of COTIF to those vehicles used internationally. For vehicles used only domestically there is a different solution.

☐ We prefer having one register containing all vehicles, irrespective whether they can be used internationally or domestically only.

☐ Other *(please specify):* Click here to enter text.

The EU is setting up a centralised register and has suggested that it could become a joint OTIF/EU register. If such a centralised OTIF/EU register were set up, it would mean that:

- **Each Contracting State would be able to register its vehicles and the data would be stored centrally**

- **The European Union Agency for Railways (ERA) would ensure the proper functioning of the register**

- **The Registration Entity in each CS would be responsible for the accuracy of the data**

- **Non-EU OTIF Contracting States will be required to pay a user and service fee.**

5. What statement best describes your view concerning the possibility of using a central OTIF/EU register?

☐ Extremely useful, a central register is most efficient and its use should be mandatory (provided costs for using it are known and acceptable)

☐ Somewhat useful, the possibility of joining a central register is fine, but national registers should remain the norm. Responsibility for connecting the central register to the other NVRs should be shared.

☐ Not useful, the current system of connected NVRs is good. If some states establish a joint register it is their responsibility to ensure that it functions within the current system of connected NVRs.

☐ Other *(please explain):* Click here to enter text.

5. **The central vehicle register of the EU will be set up and hosted by ERA in Valenciennes, France. Are there data protection constraints for storing vehicle data, similar to data in the NVR, outside the territory of your State? Please indicate the most suitable statement**

☐ No problem, vehicle data is not particularly sensitive and can be stored abroad.

☐ Not acceptable, vehicle data cannot be stored abroad.

☐ Unknown, need to investigate further.

7. If your NVR is currently connected to the ECVVR, what do you plan to do after 2021, when the current system will be discontinued?

☐ We would prefer to use our own NVR and not the centralised vehicle register hosted by ERA. As a consequence we would take care of connecting our NVR to the centralised register.

☐We would prefer to use the centralised vehicle register hosted by ERA.
Other *(please explain):* Click here to enter text.

Other Comments related to this questionnaire: Click here to enter text.

Département de l'interopérabilité technique

Abteilung für technische Interoperabilität

Technical Interoperability Department

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Terms of reference for an analysis of the feasibility of establishing an OTIF/International vehicle register for railway vehicles which are intended for use in international traffic

BACKGROUND

The 26th session of the Revision Committee held on 27/28 February 2018 adopted modifications to Article 13 § 1 of ATMF which prescribe the establishment of vehicle registers as follows:

"Article 13
Registers
§ 1   Vehicle registers shall be set up in the form of one or more electronic national or regional data banks containing information concerning the railway vehicles in respect of which a Certificate of Operation has been issued. The register shall also include railway vehicles admitted according to Article 19; it may contain railway vehicles admitted for national traffic only. The register or registers shall:

a)   comply with the specifications adopted by CTE;

b)   be kept updated;

c)   be accessible by the competent authorities of all Contracting States, by railway undertakings and infrastructure managers, as well as those persons or organisations registering vehicles or identified in the register. […]"

These provisions, which entered into force on 1 March 2019, maintain the obligation of the CS to establish and implement railway vehicle registers and extend to the possibility of setting up, instead of national registers, regional vehicle registers, such as the single European Vehicle Register in the EU, provided that the information it contains is accessible to other CS.

The European Vehicle Register (EVR) is based on a Decision amending the NVR Decision (*Commission Implementing Decision (EU) 2018/1614)*, which was adopted on 25 October 2018 in accordance with the fourth railway package (Article 47 of Directive (EU) 2016/797). The EVR is a centralised register, which is intended to simplify the vehicle registration process, reduce costs and improve data quality, and is hence a step forward towards the objectives for the Single European Railway Area (SERA). The EVR should become operational by 16 June 2021.

Bearing in mind the developments on the EU vehicle register, within the scope of work of WG TECH the OTIF Secretariat has been actively involved in discussions with DG MOVE and ERA to find a way forward in maintaining connectivity between national registers and the exchange of relevant vehicle data between EU and non-EU CS.

The European Commission proposed that in order to avoid the use of numerous national vehicle registers, a common EU/OTIF centralised register could be established. As an intergovernmental organisation, OTIF has ambitions to enlarge geographically and it has to consider the sovereignty of its members and the fact that having the EVR centralised tool in one region (EU), managed by its authority (ERA), as proposed, may be a sensitive issue for some CS. In response to these concerns, the European Commission suggested that the EVR could be connected to one centralised OTIF register.

In view of the above, the OTIF Secretariat should explore further, by means of an analysis, the possibility of establishing an OTIF/International Vehicle Register for vehicles intended for use in international transport that is compliant with the Vehicle Register specifications and is compatible and able to connect to the EVR.

OTIF´s aim is to promote, improve and facilitate international traffic by rail. In this context, it is important that vehicle related data are accessible to all relevant parties, such as railway undertakings (RUs), keepers, infrastructure managers (IMs), entities in charge of maintenance and the authorities.

With the former (NVR) rules, practice has shown that some Contracting States face difficulties in developing and connecting their registers. Under the future rules this will be even more difficult, as there are no longer any interface specifications, or even impossible.

A centralised OTIF register of vehicles used in international traffic and which is connected with the EVR may facilitate the registration of vehicle data by the Registration Entity of each Contracting State and access to vehicle data for users.

It is worth noting that the responsibility for data entry and data quality is not subject of the analysis, as this is and should remain the responsibility of the vehicle keepers and the Registration Entity in each Contracting State.

OBJECTIVES

The analysis to be carried out by the OTIF Secretariat should therefore provide an insight into the potential for an OTIF/International Vehicle Register analogous to the EVR established by the EU, and whether it is possible to connect such a register to the EVR. The analysis should take the form of a quick survey based on expert views and information available online. The analysis should allow the CTE to decide whether or not the task of establishing an OTIF/International vehicle register should be pursued.

To this end, the aim of the analysis is to provide an insight into the following points:

- Whether the European Union would lend their support (know-how and return of experience) to establishing an OTIF/International vehicle register and connecting it to the EVR.

- Whether the software developed by the EU and used in the EU for the EVR is fit for OTIF needs can also be used by OTIF, possibly in cooperation with third parties, and under which conditions.

- Whether the EU would be committed to keeping the software used for the EVR and the OTIF/International vehicle register compatible.

- The most suitable architecture for an OTIF VR and its connection to the EVR, including whether some elements/functions can be shared between the two registers.

- Time frame/planning for establishing an OTIF VR.

- The requirements with respect to security, availability and reliability of vehicle data.

- Overview of legal aspects, such as liability, data ownership and responsibility in the event of loss or theft of data.

- What resources (costs, staff, equipment, etc.) would be required for establishing, maintaining and keeping an OTIF register.

- Whether the services required to keep a register could be provided in-house by the OTIF Secretariat or whether they should be outsourced. The different scenarios should be listed, with an indication of their advantages and disadvantages.

- Possibility of cooperation with international organisations or associations.

- The (non-EU) Member States that would potentially be interested in using the OTIF register to register vehicles.

- The benefits of an OTIF/International vehicle register for international traffic, now and in the future, also bearing in mind a possible broadening of the geographical scope.

- Identification of risks for OTIF in general and the OTIF Secretariat in particular in connection with establishing and operating a register and an assessment of whether these risks are manageable or not.

- Identification of OTIF organs that should be involved in the decision-making (in terms of staff and budget).

- Any other information that might be relevant in terms of helping to take a decision on whether establishing an OTIF/International vehicle register might be feasible or not.

- How other international sectors or other modes deal with the subject of storing and exchanging administrative data that is relevant internationally.

The objective is not to provide conclusive information on the basis of which a final yes/no decision to establish an OTIF/International vehicle register can be taken.

DELIVERABLES

The information should address, and where possible respond to the items described under "Objectives" and should be structured and presented in a working document for WG TECH as a first step and for CTE as a second step.

The working document should clearly identify the questions that cannot be answered and the uncertainties and risks resulting from them.

ASSUMPTIONS

The following is taken as the legal basis for the analysis:

- The provisions of Article 13 of ATMF (version of 1 March 2019).

- The specifications for vehicle registers are those proposed for adoption by written procedure in July 2020 (TECH-20008).

Despite the aim, which is to connect it to the EVR, the functioning of an OTIF register should not rely on external factors. Therefore, an OTIF/International vehicle register must also be able to function autonomously and independently of any other register. In addition, the data in an OTIF register would have to be stored at a location controlled by OTIF.

STAKEHOLDERS

The analysis is relevant to the following stakeholders who are involved in the registration process and use of vehicles: OTIF Member States and their competent authorities, ERA, European Commission, international associations (CER, ERFA, UIP, EIM, UIC, RailData, RNE, etc.), RUs, registration entities, keepers, ECMs, IMs, the OTIF Secretariat.

PLANNING AND STEPS

1. OTIF Secretariat discusses Terms of Reference to be mandated by the Secretary General.

2. Carry out the analysis and draft the deliverables.

3. Inform and engage WG TECH and relevant stakeholders who can support the analysis with expertise and experience.

4. Inform WG TECH 41 (September 2020) orally of the analysis, present preliminary results to WG TECH 42 (November 2020) and present conclusions of the analysis at the CTE 13 meeting in June 2021.