European Rail Infrastructure Managers EIM

Technical Position Paper

Cross Acceptance Processes in the European Railway Network

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EIM Rolling Stock Working Group

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Introduction

The European Rail Infrastructure Managers (EIM) support the European Commission (EC) on work associated with vehicle authorisation, including the development and implementation of the 4th Rail Package. EIM consider it as an important topic for achieving the benefits of interoperability and generating growth of the European railway network. This position paper reflects, and brings to the attention of the European Railway Agency (ERA) and EC, the view of EIM on the roles and responsibilities of infrastructure managers (IMs) in the various processes linked to vehicle authorisation and operation. The position paper also proposes further harmonisation topics which would greatly facilitate the efficient acceptance process and use of rolling stock across the EU.

1. Facilitating on testing

Today the European legislation on testing and testing facilities between the rolling stock and infrastructure is very limited. The only engagement that IMs need to take into account is described in Commission Recommendation 2014/897/EU[1]. Article 89 of Commission Recommendation 2014/897/EU states that, 'the infrastructure manager, in consultation with the applicant, shall make every effort to ensure that any tests take place within 3 months of the applicant's request'.

Commission Recommendation 2014/897/EU Article 88 defines the railway undertakings (RUs) responsibility within their safety management system (SMS). However, Directive 2008/57/EC and Commission Recommendation 2014/897/EU Article 89 remains unclear on the responsibilities of the IM within their SMS. On-track testing includes degraded mode which may fall outside of the normal operational rules.

The EIM Rolling Stock (RST) Working Group (WG) has exchanged information on the participation of the IMs in the process of vehicle authorisation for different Member States (MSs). Many MSs have a different approach for on-track testing. In 2014/897/EU the role of the IM is limited to making the track available. Nothing is specified about contribution of the personnel, and making available other necessary resources demanded by the entity in charge of testing (RU, DeBo, NoBo, etc).

The main question to come out of EIM's discussions was the following:

- How far does the IM need to go in facilitating test runs on the network?

[1] Commission Recommendation of 5 December 2014 on matters related to the placing in service and use of structural subsystems and vehicles under Directives 2008/57/EC and 2004/49/EC of the European Parliament and of the Council

For example:

- Degraded mode testing may require additional service and assistance by the IMs.
- Testing may lead to extra costs for the IM.
- Testing may also affect track availability, for example, train paths and maintenance access.

The EIM RST WG recommend to harmonise the detailed procedures of on-track testing and to clarify the obligation of the IM. The responsibility of the IM to include on-track testing in their SMS needs to be defined clearer in Article 89 of the Commission Recommendation, giving guidance to the bilateral discussions between IMs, RUs and testing organisations around on-track testing.

2. Role and responsibility of IMs for vehicle authorisation and monitoring

According to Article 68 of Commission Recommendation 2014/897/EU:

'*The railway undertaking is solely responsible for the safe operation of its trains. The infrastructure manager's role is confined to managing the infrastructure and therefore the infrastructure manager has no responsibility for the operation of trains other than to issue permission for train movement. The infrastructure manager has no other authorisation role.'*

EIM believe Article 68 leads to unsolved issues, in the first case for the existing network, because of the following:

- Fully TSI compliant vehicles and infrastructure are currently rare.
- The existing infrastructure which is non-TSI compliant will remain for years to come.
- TSIs are still undergoing development, which makes it complex to baseline requirements for a vehicle.
- Historic technical knowledge which has formed the fundamentals of many national rules is required.
- Limitations and conditions of use attached to a vehicle authorisation need to be formulated in a transparent way in order to successfully enter vehicles into service.

Due to their current and historical knowledge of the existing infrastructure EIM believe that the IMs can provide an advisory role in the vehicle authorisation process and in forming of Notified National Technical Rules (NNTRs). This advisory role of the IMs should be formalised.

With reference to above mentioned knowledge, IMs must be consulted as a part of the authorisation of vehicles. For example the electrical compatibility of different electric traction units requires experience and knowledge only established over time. The ever increasing usage of active components in the electric traction units and also in the substations requires a system wide understanding to avoid damage to equipment and in the worst case injuries or the loss of life to people.

According to Articles 3 and 64 of Commission Recommendation 2014/897/EU, return of experience is necessary to improve the authorisation process. IMs hold an important role in monitoring vehicles on their network to feed back this information. Today, many IMs already collect information on the condition of rolling stock operating on their network.

IMs are currently involved in implementing the TSIs Infrastructure (INF), Energy (ENE), Persons with Reduced Mobility (PRM) and Command Control and Signalling (CCS). Additionally, IMs are faced with new vehicles for which the authorisation is based on the TSI LOC&PAS. With continued TSI implementation comes a deeper level of understanding with IMs gaining experience of the practical application of TSIs, which should give feedback for further improvements.

EIM ask ERA to clarify how the process for this return of experience will be arranged.

3. Role and responsibility of IMs in the process of route compatibility check by RUs

In several European documents, the register of infrastructure (RINF) is announced as the solution for the route compatibility check.

The RINF includes an overview of the infrastructure and to the different characteristics which your vehicle needs to satisfy. This is useful for planning purposes in designing new trains, for assisting the assessment of compatibility of trains with routes before the start of operation and for use as a reference database.

1. Directive of Interoperability, 2008/57/EC, Article 35 states that each Member State shall ensure that a register of infrastructure is published and updated. This register shall indicate the main features of each subsystem or part subsystem involved.

2. Directive of Interoperability, 2008/57/EC, Article 18(3) states that the technical file of the subsystem must contain all the necessary documents relating to the characteristics of the subsystem.

3. TSI OPE, Commission Regulation 2015/995, Annex I Paragraph 4.2.2.5 states that the railway undertaking must ensure that the combination of vehicles forming a train complies with the technical constraints of the route concerned.

4. The common specifications of the RINF, Commission Implementing Decision 2014/880/EU, Annex Paragraph 2.5 states that one of the purposes of RINF is ascertaining route compatibility for proposed train service.

The above statements confirm that route compatibility is intended to be fulfilled by the RU assessing characteristics of the vehicle, issued in the technical files, to the features of the infrastructures subsystems published in the RINF including the Annex D of the OPE TSI for real time traffic.

5. In addition to above procedure Directive of Interoperability, 2008/57/EC, Article 21(6) states that the authorisation to place a vehicle in service may stipulate conditions of use and other restrictions.

EIM's experience is that the procedure for route compatibility is not yet fully defined and applied. With profound experience of the vehicles and infrastructures influence on each other and how that effects the railway system as a whole, EIM has the ability, and is willing, to make a competent contribution to the development of the route compatibility procedure.

Based on the knowledge of interaction between vehicle and infrastructure from daily operation and detailed knowledge of the infrastructure features, EIM have identified several issues with the current route compatibility process:

- For small RUs there may be a risk that they will not have the economical and technical means within their own organisation to perform an exhaustive route compatibility check, which in the long run can jeopardise the market conditions. It needs to be ensured that the responsibility of undertaking the compatibility check is solely under RUs.

- Some MSs have historically developed vehicles and infrastructure in co-operation, by thorough assessment systems, to achieve maximum utilisation of the railway system. If RUs carry out route compatibility for vehicles by consulting only the RINF for such routes, this can lead to an unnecessary limited operation of their fleet of vehicles. Next to this RUs and IMs have to be in contact to establish the route compatibility in case of deviations or alternative routes.

- Authorisation for placing a vehicle into service may stipulate conditions of use and other restrictions for vehicles to run on the infrastructure. It can be foreseen that such conditions and restrictions might lead to difficulties for a railway undertaking ascertaining route compatibility. Where compatibility cannot be demonstrated, temporary arrangements may be able to be agreed between the RU and the IM for limited movements.

As a consequence to above discussion the issue of IMs becoming involved arises. The EIM RST WG ask ERA to clarify the role and responsibility the RUs and IMs in the above cases. EIM are capable and willing to take part in such a discussion.

4. Discussion between MS and IM about the A, B and C points for XA and NNTRs

In the past years a lot of work has been done by the national safety authorities (NSAs) in Geographical Interest Groups (GIGs) to classify and define National Technical Rules into three groups; A (equivalent, in railway safety terms, to national rules of other Member states), B (not classifiable yet) and C (strictly necessary and associated with technical infrastructure characteristics, in order to ensure safe and interoperable use in the network concerned).

In the scope of additional authorisation for placing in service of railway vehicles in accordance with Article 23 and Article 26 of Directive of Interoperability, 2008/57/EC, the NSA may not carry out verifications on the basis of national rules classified as A and published in part 2 of the reference document (National Reference Document). In this respect, the NSA may only carry out such verification on the basis of the national rules classified as B or C.

Most national rules for technical compatibility between the vehicle and the network are classified as C point. This process is done by the NSAs and the involvement of the IMs has been limited so far. As a next step this classification is planned to be added to the Reference Document Database (RDD, see Application Guide ERA/GUI/RD/XA version 2.0 of 22 July 2013).

In the meantime ERA is working on the project 'Cleaning up National Rules' following the scope of the extended TSIs of July 2015. This as well, ERA is carrying out in collaboration with the NSAs. The goals of this project are:

- Remove all national rules for new vehicles not related to network-vehicle technical compatibility.
- Clean up national rules and TSIs for technical compatibility – remove overlaps and identify gaps, so that only open points, specific case and legacy system interfaces remain.

The processes of classifying A, B and C points and cleaning up national rules are closely connected to the performance of rolling stock and their technical compatibility to the existing network. In their daily work, IMs meet and deal with the result of the subsystem dynamic effects on each other. The experience IMs have and continually gain as a central part of the railway system, gives them thorough knowledge of the technical compatibility amongst the different subsystems. This knowledge provides a great opportunity for IMs to contribute to a railway that is competitive to other forms of transport; economically, environmentally and in terms of safety as well as reliability and availability. In all those cases well-functioning technical compatibility is essential.

For that reason EIM see a great advantage for the sector, for IMs to be invited to ERAs and NSAs continuing work of classifying A, B and C points, and cleaning up national rules. At the moment NSAs can consult IMs to get the relevant data. EIM ask ERA to confirm that IMs

have a role in the above mentioned ERA processes. EIM are capable and willing to take a part in further discussions.

Conclusion

This position paper reflects EIM's view on the roles and responsibilities of infrastructure managers in the various processes linked to vehicle authorisation. Due to IMs current and historical knowledge of the existing infrastructure and day-to-day experience from operation and TSI implementation, EIM RST Working Group have identified several areas where the role of IMs needs to be clarified by ERA.

The railway infrastructure manager's responsibility within the current legislation for vehicle authorisation is very limited. In the areas highlighted in this paper, EIM believe a defined and in some cases increased role for infrastructure managers is necessary in order to facilitate an efficient acceptance process. EIM would like to have the responsibility of IMs clarified by ERA, and believe IMs have the ability to bring a proactive contribution to the railway authorisation process to benefit of the railway system as a whole.

EIM RST WG have identified the following areas:

Facilitating on testing

- In current European legislation information on the role of the infrastructure managers to facilitate rolling stock testing is very limited. EIM recommend ERA to harmonise the detailed procedures of on-track testing and to clarify the obligation of IMs.

Role of IMs in Vehicle Authorisation

- Due to their experience of the existing infrastructure and daily operation, EIM believe that the IMs can provide an advisory role in the vehicle authorisation process and forming of Notified National Technical Rules. EIM ask ERA for this advisory role to be formalised and to clarify how the process for return of experience of the vehicle authorisation process will be arranged as described in the European legislation.

Role of IMs in Route Compatibility Check

- EIM's experience is that the procedure for route compatibility is not yet fully defined and applied. **Unless IMs are formally consulted for non-TSI compliant infrastructure process cannot be considered to be safe**. In addition the IMs remind that TSIs state only the essential requirements of interoperability and do not define the railway system. As a result even on a fully compliant infrastructure the IM must be consulted. IM has a safety responsibility under national law and railway safety directive. Due to this and under certain circumstances identified in this paper the discussion of IMs becoming involved in the route compatibility check arises. EIM have the ability to make a competent contribution to the development of the route compatibility procedure and ask ERA to clarify the role and responsibility of RUs and IMs in the example cases given in the paper.

XA Process

- EIM see a great advantage for the sector, for IMs to be invited to ERAs and NSAs continuing work of classifying A, B and C points, and cleaning up national rules. EIM ask ERA to clarify the role of the IMs in these topics.

- For all cases explained in this paper EIM are capable and willing to take a part in further discussions with ERA and other sector stakeholders.

List of Acronyms

DeBo	Designated Body
EC	European Commission
EIM	European Rail Infrastructure Managers
ERA	European Railway Agency
GIG	Geographical Interest Group
IM	Infrastructure Manager
MS	Member State
NNTR	Notified National Technical Rule
NoBo	Notified Body
NSA	National Safety Authority
RINF	Register of Infrastructure
RST	Rolling Stock
RUs	Railway Undertakings
SMS	Safety Management System
TSI	Technical Specifications for Interoperability
(TSI) ENE	Energy
(TSI) INF	Infrastructure
(TSI) LOC&PAS	Locomotives and Passenger Rolling Stock
(TSI) OPE	Operation and Traffic Management
WG	Working Group
XA	Cross Acceptance