



# Frequently Asked Questions

## 1. What is NB RAIL?

NB RAIL is the Coordination group of Notified Bodies for Railway products and systems. NB RAIL provides a forum for:

- ★ Sharing experiences and exchanging views on the conformity assessment procedures in order to understand better and apply more consistently the Interoperability Directives;
- ★ Drafting and issuing technical recommendations on matters relating to Railway Conformity Assessment;
- ★ Ensuring consistency with European standardisation work;
- ★ Drawing up reports on technical aspects of the assessment procedures;
- ★ Discussing Commission documents and other information relevant to Railway Interoperability;
- ★ Discussing questions and problems that arise from the practical application of the Interoperability Directives.

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## 3. What are Interoperability Directives?

The latest INTEROPERABILITY DIRECTIVE was adopted by the European Council and the Parliament on 17 June 2008.

The directive 2008/57/EC on the interoperability of the rail system within the Community repeals the High-Speed Directive (96/46/EC), the Conventional Directive (2001/16/EC) with the corresponding amendments (2004/50/EC and 2007/32/EC).

Directive 2009/131/EC amends Annex VII to the directive 2008/57/EC.

## 4. Aims of the Interoperability Directives?

Interoperability is one of a number of European initiatives designed to promote the single market in the rail sector.

The INTEROPERABILITY DIRECTIVES are aimed at removing (mainly technical) barriers to the supply of equipment and the through-running of trains across Europe.

They provide for common technical standards (TSI's) to be applied across Europe's railways and establish a common European verification and authorisation process for placing new, upgraded and renewed infrastructure or rolling stock into service.

They also provide a process for putting certain rail components (known as interoperability constituents) onto the rail market.

## 5. How can Regulations help Technical Harmonisation?

The means by which the Regulations help deliver technical harmonisation can be summarised as follows:

- A series of mandatory "Essential Requirements" to which the rail system must comply and laid down in general terms by the INTEROPERABILITY DIRECTIVES
- The trans-European rail system is divided into "subsystems" each of which has to comply with the Essential Requirements, specified for that particular subsystem.

- Common characteristics of subsystems (including interfaces) for which the Essential Requirements must be met are set out in detail in Technical Specifications for Interoperability (TSI's). Compliance with the TSI's is mandatory and where the TSI's specifically mandate European standards, compliance with those standards also becomes mandatory.
- However there is scope to derogate from compliance with the TSI's, or part of them, under certain circumstances.
- In certain cases an existing national technical rule may be applied instead of a TSI to give effect to the Essential Requirements, so long as it has first been notified to the European Commission and to other Member States. This arises where a TSI has yet to be published, where there are gaps in a TSI or where a derogation from a TSI has been made.
- The TSI also define "Interoperability Constituents" related to each subsystem. The Interoperability Constituents are identifiable parts which must meet the Essential Requirements when placed on the market for use within the trans-European rail network.
- Details of how constituents can meet the Essential Requirements in practice are described in European standards.

**6. If different applicable TSIs to the same subsystem have DIFFERENT CHAPTER 7 (IMPLEMENTATION), e.g with different validity periods, which one is valid?**

Chapter 7 in each TSI is stand-alone, so the most restrictive validity period is valid.

**7. Is it possible to issue an EC-CERTIFICATE if there is no valid TSI ?  
Is it possible to issue an EC-CERTIFICATE if there are open points in a TSI, which require application of national rules? What would be the advantage on interoperability of such a certificate?**

An EC-CERTIFICATE cannot be issued against a TSI which does not exist, because the NNTRs and the process to assess compliance to them are notified by the member state.

If there is any TSI for the constituent or subsystem, but it is not for the complete scope or has open points, an EC-CERTIFICATE is issued for the scope of the TSI(s) only, the remaining assessment and certification being in accordance with the notified process against the NNTRs.

The advantage of the EC-CERTIFICATE is that, for the scope of the certificate, no further assessment is required if the product is introduced into another member state.

**8. Do the TSIs CR NOI, CR SRT and CR PRM require SEPARATE CERTIFICATES ?  
What is the advantage on the interoperability of a vehicle with a certificate for e.g. CR PRM, when there is no TSI CR RST (yet)**

These subjects are "aspects" relating to one or more subsystems, so that, although each TSI lists the modules separately, the certification is for the subsystem, such as Rolling Stock. Hence a certificate issued for the Rolling Stock Subsystem can cover all TSIs applicable to that subsystem. The advantage of the certificate is that no further assessment is required of that scope when the product is introduced into another member state.

**9. When MODULES SB AND SF are applied on an assessment of a series of vehicles, the Notified Body will have to issue a certificate of conformity for each individual vehicle, and the contracting entity will have to issue an EC declaration of verification for each vehicle. When MODULES SB AND SD are applied, is then one certificate of conformity issued, and one EC declaration of verification?**

A single certificate is issued for a fleet of vehicles assessed using the SD MODULE whereas a certificate must be issued for each vehicle assessed using MODULE SF.

**10. Directive 2008/57/EC repealed directives 96/48/EC and 2001/16/EC with effect from 19 July 2010. Are the certificates edited according to 96/48/EC or 2001/16/EC still valid after 19 July 2010?**

Article 40 of Directive 2008/57/EC specifies that: References to the repealed Directives shall be construed as references to these Directives. Conclusion is that the edited certificates according to 96/48/EC and 2001/16/EC are still valid after 19 July 2010 and that there is no need to edit new certificates mentioned 2008/57/EC in order to replace the old one mentioning Directives 96/48/EC and/or 2001/16/EC.

**11. Interoperability constituents are defined as indicated in the HS RST TSI (2008/232/EC), §5.1, interoperability constituents described in section 5.3 are constituents, whose technology, design, material, manufacturing and assessment processes are defined and enable their specification and assessment independently of the related subsystem, according to Annex IV of Directive 96/48/EC modified by Directive 2004/50/EC.**

**The pantograph is defined as an interoperability constituent (see §5.3 of the RST TSI); its specification (see §5.4) is referred to §4.2.8.3.7.**

**The assessment of the interoperability constituent pantograph includes the requirements of HS RST TSI, §4.2.8.3.7.1 : "Requirements on dynamic behaviour and quality of current collection shall be assessed in accordance with the High Speed Energy TSI 2006 clause 4.2.16.2.2.**

**The High Speed Energy TSI (2008/284/EC) 4.2.16.2.2 states a new design of a pantograph shall be assessed by simulation according to EN 50318:2002. This means that :**

**The simulations shall be made using at least two different TSI compliant overhead contact lines for the appropriate system, at the design speed of the Pantograph; If the simulation results are acceptable, a site test shall be made using a representative section of one of the overhead contact lines used in the simulation; If all the assessments are passed successfully, the tested pantograph design shall be considered as compliant and can be used on various designs of rolling stock provided that the mean contact force on the rolling stock complies with the requirements of clause 4.2.16.1.**

**When an approved interoperability constituent pantograph is to be installed on new rolling stock, testing shall be limited to the mean contact force requirements. This point does not meet the interoperability constituent definition indicated above. The dynamic behaviour is a function of the aerodynamic and dynamic effects of the vehicle where the pantograph is mounted, as well as the dynamic characteristics of the overhead line. This means that dynamic behaviour and quality of current collection are characteristics that can be assessed only as part of the subsystem Rolling Stock, not as the interoperability constituent pantograph. It should also be noted that the quality of current collection also depends on the interoperability constituent contact strip (see §5.3 and §4.2.8.3.8 of the RST TSI).**

ERA answer dated 04\_11\_2009:

The pantograph is the component that ensures the current collection from the overhead contact line (OCL).

The quality of the current collection depends on characteristics of the OCL, of the pantograph and of the rolling stock; these 3 elements have a certain dynamic behaviour that has an impact on the final performance.

When a pantograph is designed, a set of characteristics regarding the OCL are taken into account, including the maximum operating speed of the rolling stock (which depends on the OCL and on the rolling stock); in addition, the design allows for the adjustment of the contact forces (static and dynamic), by different means (pressure, springs, deflector...).

A pantograph is not designed for a particular rolling stock, but for a type of OCL and a maximum speed.

The definition of the pantograph as an interoperability constituent (IC) in the HS RST TSI is in line with this principle.

Tests performed for the assessment of the pantograph as IC aim at validating characteristics of the pantograph itself, for OCLs TSI compliant and for a certain maximum speed (area of use of the IC).

The concept of IC allows the designer or manufacturer of the pantograph to get an EC certificate independently of a particular use of the pantograph.

When this pantograph is integrated in a rolling stock, the applicant for this rolling stock has to make the necessary adjustments in order to get a mean contact force in the range specified in the TSI.

**12. Is it (according to TSI PRM) mandatory to install nursery facilities in trains, even when there is no toilet on board?**

Only when the train is equipped with a universal toilet, it is mandatory to provide nursery facilities. Without a toilet, nursery facilities are not necessary.

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**14. Do composite brake blocks to TSI WAG 2006/861/EC+2009/107/EC require any IC-Certificate?**

No, if they are contained in appropriate ERA TD on ERA website. If they are not contained in this TD, they are an open point.

**15. What is the definition of a -small crack- according to TSI WAG 2006/861/EC Ann.J.3?**

This must be determined by the NoBo on a case by case basis. The decision must reflect all relevant parameters - welding, material, design, testing, standards, position of crack, crack propagation, maintenance and inspection provisions, etc.; as the NoBo considers relevant.

**16. Are cast iron brake blocks allowed to be applied on freight wagons which shall be certified according the TSI WAG 2006/861/EU & 2009/107/EC?**

Cast iron brake blocks which are currently on the market produce rough wheel running surfaces. Therefore, with such blocks, the pass-by noise test which is defined in TSI CR NOISE 2011/229/EU will most likely not be passed. Therefore, current designs of cast iron brake blocks are today very unlikely to be acceptable. In case new brake block designs which would not roughen the wheel running surface and which are based on cast iron come to the market and are listed on an ERA TD (Technical Document), such blocks would be acceptable.

**17. Can an EC-Certificate for a subsystem be issued for a single TSI?**

Since EC-Certificates regard only entire subsystems, they can only be issued for a single TSI when it is the only TSI that applies to the subsystem/project. In all other cases only an ISV (Intermediate Statement of Verification) can be issued.

An EC-Certificate is always issued for a subsystem with reference to the assessed TSI(s). It will depend on the scope of the project, if an EC-Certificate can be issued. In some cases a project

includes only one TSI, in other cases a project will include more TSIs. If all relevant clauses of the relevant TSIs have been assessed in all relevant phases positively, then an EC-certificate can be issued. Be aware that an EC-certificate can also be issued in the case of a derogation that has been granted, partial application of TSI for upgrade or renewal, transitional period in TSI or specific cases.

**18. Are the technical opinion issued by ERA legally binding? Shall manufactures, institutions and NoBos follow the provisions laid down in such technical opinions, although the TSI concerned contains different indications or technical solutions?**

Yes, an ERA Technical Opinions shall be taken into account by all the stakeholders involved in the TSI conformity assessment process. An ERA Technical Opinion provides clarification and/or interpretation of unclear points in the TSIs and becomes applicable as soon as published for common use on the ERA Webpage.

The Interoperability Directive 2008/57/EC, in its "whereas" no.48 states "[...] When errors are discovered, an ad hoc rapid procedure should be set up in such a way that a provisional corrigendum is first agreed in the context of a committee and then published by the Agency. This will allow an earlier use of this corrigendum by all stakeholders, including industry, notified bodies and authorities, pending a formal revision of the TSI by the Commission. In order to avoid confusion with official corrigenda of the Commission, the term Technical Opinion will be used [...]."

In follow up to this, Art 7(2) states "If the TSI needs to be amended because of a minor error and this does not justify an immediate revision, the Commission may recommend that the Technical Opinion is used pending the review of the TSI in accordance with Article 6(1). In that case, the Agency shall publish the Technical Opinion."

**19. Do I have to apply a decision (amendment to an existing TSI) established under the 'omnibus procedure' (e.g. 2012/462/EU ; 2012/463/EU & 2012/464/EU) even if I still apply the 'core' TSI ?  
Is the application of an Omnibus TSI amendment mandatory when the project has already started?**

After the date of applicability stated in each Omnibus, the Omnibus must be considered as an integral part of the amended TSI. On the date (after applicability of the Omnibus) of placing on the market or requesting for APIS, the product has to be conforming to the requirements of the amended TSI (original TSI + Omnibus).

**20. In which cases could the modules CA1, CA2 or CH be used for certification of the interoperability constituents wheelsets, wheels, axles, friction elements for wheel tread brakes in accordance to TSI WAG (EU) 321/2013?**

The modules CA1, CA2 or CH may be used only in the case of products placed on the market, and therefore developed before the entry into force of the TSI WAG (EU) 321/2013. The assessment of these constituents in accordance with modules CA1, CA2 or CH requires a documented former design review and type examination that meets the requirements of the TSI WAG (EU) 321/2013. The corresponding relevant evidences must be demonstrated by the applicant to the NoBo. This is a general requirement; hence it is not relevant whether the constituent is a mature product widely used.

## 21. Shall the EC certificates of the ICs integrated into a subsystem be valid at the time of the certification of this subsystem?

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The EC certificates for ICs should be valid at the date of placing on the market of the ICs, not necessarily at the date of “installation” or integration into a subsystem. The authorising entity (ERA or NSA) is expected to consider as acceptable for authorisation purposes that an IC manufactured under the period of validity of the certificate is stored during a period of time and integrated into a subsystem after the expiry date of the certificate, because the IC was lawfully placed on the market.

As requirements in the TSIs evolve over time, it may happen that ICs lawfully placed on the market are not fully compatible with a subsystem compliant with the latest TSI in force. Therefore, the NoBo responsible for the assessment of that subsystem has the role of verifying the compatibility of the ICs with the subsystem.

If an IC is manufactured after the expiry date of the EC certificates, it shall be certified against the TSI in force, unless the TSI itself explicitly allows the use of a previous version of a TSI, or the subsystem benefits from the non-application of the latest TSI that impacts the concerned IC (see ERA-OPI-2016-3) or it is a modification due to obsolescence that does not require a new authorisation (see ERA-ADV-2017-03).

## 22. Is Loc&Pas TSI Reg. (EU) n°1302/2014 amended by Reg. (EU) 2016/919, Reg. (EU) 2018/868, Reg. (EU) 2019/776, Reg. (EU) 2020/387 and corrigendum OJ L10(16/01/2015) pg.45, mandatory for Infrastructure Inspection Vehicles?

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Clause 2.2.2 of TSI L&P defines two types of Special vehicles:

- On track Machines (OTMs) are vehicles specially designed for construction and maintenance of the track and infrastructure
- Infrastructure inspection vehicles are utilised to monitor the condition of the infrastructure.

Clause 7.1.1.3 of TSI L&P states that for OTMs application of TSI is not mandatory. A clear statement about Infrastructure Inspection Vehicle looks missing, however:

- ERA/GUI/07-2011/INT clearly states that for infrastructure inspection vehicles the application of TSI is not mandatory
- Commission Implementing Decision (EU) 2018/1614 defines a unique code (99) for special vehicles, as Vehicle Type, with no distinction between OTM and Infrastructure Inspection Vehicles

This means that clause 7.1.1.3, which state that for “mobile railway infrastructure construction and maintenance equipment” application of TSI Loc&Pas is not mandatory, includes infrastructure inspection vehicles even if they are not explicitly mentioned.



**23. Is it allowed to use the published EN standard (as announced by the TSI) if the Applicant asks for it, instead of the TSI LOC&PAS 'state of the art' data in appendix E and F which has been copied from an old standard?**

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There are some cases where the LOC&PAS TSI states that an EN standard is currently in the drafting process, namely:

**LOC&PAS TSI Appendix E, Anthropometric measurements of the driver and Appendix F, Front visibility**

*"The following data represents the 'state of the art' and shall be used.*

*Note: they will be subject of an EN standard currently under drafting process".*

The meaning of the note is not entirely clear. In addition, EN standard 16186-1:2014+A1:2018 Railway applications - Driver's cab Part 1: Anthropometric data and visibility has been published.

At STR060 it was decided that a new standard cannot change or add requirements of a TSI – see RFU-STR-088 and Q&C-STR-007. Content of new standard can be used in addition, on a voluntarily basis; the important thing is that requirements of TSI (Annex E and F) remain unchanged. A voluntary standard can never replace mandatory references.

**24. If the subsystem is divided into parts or checked at certain stages of the verification procedure, shall the Intermediate Statement of Verification (ISV) and the final verification certificate be based on the same form?**

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When a NoBo carries out an overall verification assessment and some of the evidence of compliance is in the form of an ISV, it is permissible for the modules used for the ISV and the overall verification assessment to be different. In such circumstances, the NoBo shall be satisfied that the assessment work certified by the ISV also meets the requirements of the modules being used for the overall verification assessment.

Particular care shall be taken when integrating modules using Quality Management assessment and modules that are based on unit assessment. The interfaces between the various modules and the certificates issued should be very clearly explained in the NoBo-File or NoBo Conformity Assessment Report by the integrating NoBo.

According to (EU) 2016/797 annex IV clause 2.2.1 the scope of the ISV in relation to part or stage of a project must be defined by the applicant.

If the scope of a single TSI constitutes a part of a subsystem, then an ISV can be used to demonstrate compliance with that TSI.