

Rail Industry Standard
RIS-8270-RST
Issue: One
Date: June 2018

Route Level Assessment of Technical Compatibility between Vehicles and Infrastructure

Synopsis

This document sets out requirements and responsibilities for the assessment of technical compatibility at route level for vehicles and infrastructure.

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Published by RSSB

Issue Record

Issue	Date	Comments
One	02/06/2018	This document contains updated requirements and guidance for assessing technical compatibility at route level. It supersedes and replaces GERT8270.

This document will be updated when necessary by distribution of a complete replacement.

Superseded Documents

The following Railway Group Standard is superseded, either in whole or in part as indicated:

Superseded documents	Sections superseded	Date when sections are superseded
GERT8270 issue three Assessment of Route Compatibility of Vehicles and Infrastructure	All	01/09/2018

Supply

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Part 1 Purpose and Introduction

1.1 Purpose

- 1.1.1 This document is a standard on technical compatibility assessment at route level between assets. Such assets encompass trains (composed of one or more vehicles) and infrastructure.
- 1.1.2 This document sets out for the Great Britain (GB) mainline railway the industry agreed process to determine technical compatibility at route level and for the provision of information related to that assessment. This process is used to help railway undertakings (RUs) and infrastructure managers (IMs) discharge their legal obligations concerning compatibility assessment.
- 1.1.3 This document is to assist RUs and IMs meet their duties around cooperation and the introduction of new or changed assets into operation - as described in the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) (as amended).
- 1.1.4 Before any new or modified infrastructure or vehicle is put into use on a specific route, or the use of infrastructure or vehicles is changed, it is essential that the change is assessed to ensure that technical compatibility between assets is determined.
- 1.1.5 This document can also be used when assessing technical compatibility between vehicle and vehicle, or infrastructure and infrastructure, where the assets concerned are operated by different organisations.
- 1.1.6 This document is to be adopted by RUs and IMs under their respective safety management systems (SMSs) and by other bodies, where appropriate, under their respective management systems, contract and/or internal procedures.

1.2 Processes not covered in this document

- 1.2.1 The process set out in this document does not apply to the assessment of compatibility between the railway system and assets outside the railway system; however, specific legislation applicable beyond the railway may apply (for example, the Health and Safety at Work etc. Act 1974, or the Electromagnetic Compatibility Regulations (EMC) 2016 - transposition of the EMC Directive 2014/30/EU).
- 1.2.2 Any commercial arrangements associated with the introduction of new or modified vehicles or infrastructure are complementary to assessing technical compatibility at route level but are outside the scope of this document. These arrangements can include timetabling, capacity and track access which can be related to compatibility assessment. These arrangements are typically subject to agreement between the RUs and IMs involved. Network Rail and the Office of Rail and Road (ORR) provide more information on these arrangements (such as the Network Statement, Licence conditions and track access) on their respective websites.
- 1.2.3 This document does not cover demonstrating technical compatibility at the network level which is to be addressed when seeking authorisation for placing into service according to the Railway (Interoperability) Regulations 2011 (as amended) (RIR).

1.3 Application of this document

- 1.3.1 Compliance requirements and dates have not been specified because these are the subject of internal procedures or contract conditions.
- 1.3.2 If you plan to do something that does not comply with a requirement in this RIS, you can ask a Standards Committee to comment on your proposed alternative. If you want a Standards Committee to do this, please contact RSSB at proposals.deviation@rssb.co.uk. You can find further advice in the 'Guidance to applicants and members of Standards Committee on using alternative requirements', available from RSSB's website www.rssb.co.uk.

1.4 Health and safety responsibilities

- 1.4.1 Users of documents published by RSSB are reminded of the need to consider their own responsibilities to ensure health and safety at work and their own duties under health and safety legislation. RSSB does not warrant that compliance with all or any documents published by RSSB is sufficient in itself to ensure safe systems of work or operation or to satisfy such responsibilities or duties.

1.5 Structure of this document

- 1.5.1 This document sets out a series of requirements that are sequentially numbered. This document also sets out the rationale for the requirement, explaining why the requirement is needed and its purpose and, where relevant, guidance to support the requirement. The rationale and the guidance are prefixed by the letter 'G'.
- 1.5.2 Some subjects do not have specific requirements but the subject is addressed through guidance only and, where this is the case, it is distinguished under a heading of 'Guidance' and is prefixed by the letter 'G'.

1.6 Approval and Authorisation

- 1.6.1 The content of this document was approved by Rolling Stock Standards Committee on 16 March 2018.
- 1.6.2 This document was authorised by RSSB on 27 April 2018.

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Part 2 Guidance on the Wider Regulatory Context

2.1 Background to the regulatory framework

Guidance

- G 2.1.1 The regulatory framework relating to the introduction of new or modified infrastructure or trains (composed of one or more vehicles) is set out in:
- The Railway Safety Directive 2004/49/EC (as amended), transposed by the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) (as amended).
 - The Railway Interoperability Directive 2008/57/EC (as amended), transposed by the Railways (Interoperability) Regulations 2011 (as amended).
- G 2.1.2 The Directives create a fundamental regulatory separation between:
- 'Placing in service' – gaining authorisation of new, upgraded and renewed vehicles and infrastructure before they are put into use. Placing in service is sought by the 'project entity' (as defined in the Railways (Interoperability) Regulations 2011 (RIR 2011)). Any organisation can undertake the role of a 'project entity' as long as it fulfils the duties set out in RIR 2011. Where authorisation for placing in service is required, it is obtained from a National Safety Authority (in GB this is the ORR, except in the Channel Tunnel, where it is the Channel Tunnel Intergovernmental Commission - IGC). EC verification, the process in which conformity against applicable European requirements is demonstrated and certified, is a prerequisite to obtaining authorisation for placing in service.
 - 'Putting into use' – using the vehicles (as trains) and infrastructure in day-to-day operation under the safety management systems of RUs and IMs.
- G 2.1.3 Additionally, for changes which do not require a new or updated authorisation for placing in service, for example vehicle cascade or modifications that are not in scope of RIR 2011 (as amended), there is still a need for RUs and IMs to have processes in place under their SMS to determine that these assets are technically compatible with the route and facilitate the putting into use of these assets. The process in this document is also intended to be used for this purpose, and helps RUs and IMs fulfil their duties under ROGS 2006 (as amended) to ensure safe operation of the rail system and to cooperate with each other, where appropriate, to achieve this.
- G 2.1.4 **Note:** New Directives on Railway Interoperability (Directive (EU) 2016/797) and Railway Safety (Directive (EU) 2016/798) have been published. However, these Directives have not yet been transposed into UK legislation, so the current transpositions of the previous Directive remain in force for UK organisations until any transposition of the new directives takes place.
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2.2 Placing in service

Guidance

- G 2.2.1 Before granting authorisation for placing in service, Article 15 of Directive 2008/57/EC requires Member States to check that the new, upgraded or renewed vehicle or structural subsystem meets the essential requirements (covering aspects of

safety, reliability and availability, health, environmental protection, technical compatibility, and accessibility to persons with disabilities and persons with reduced mobility). In particular, they are required to check that the vehicle or structural subsystem:

- a) Complies with applicable Technical Specifications for Interoperability (TSIs) and Notified National Technical Rules (NNTRs).
- b) Is technically compatible with the network, and for infrastructure this includes adjacent parts of the infrastructure where the new subsystem is constructed.
- c) Can be 'safely integrated' in its design operating state.

- G 2.2.2 At this stage, the demonstration of technical compatibility and safe integration is required at a network level between mobile (rolling stock, and control, command and signalling (CCS) onboard subsystems) and fixed structural subsystems (infrastructure, trackside energy and CCS trackside subsystems) rather than at a route specific level. It is based on compliance with TSIs and, where relevant, national rules and application of a suitable and sufficient risk assessment methodology.
- G 2.2.3 The placing in service process should not be confused with putting the actual asset into use; this is the responsibility of the RU or IM introducing the asset into operation.
- G 2.2.4 Therefore, following placing in service, additional processes are required when putting new and modified assets into use. Part of this involves determining technical compatibility of the asset on the specific route(s) intended for operation.
-

2.3 Putting into use

Guidance

- G 2.3.1 Putting into use is the process RUs and IMs implement to actually operate vehicles as part of a train or infrastructure on a specific route(s). This process forms part of their respective SMSs.
- G 2.3.2 ROGS 2006 sets out that the SMS is required to contain procedures for when there is a change in the way an operation is carried out or where any new asset is used in operation. RUs and IMs are required to carry out risk assessment, implement risk control measures to ensure any change is implemented safely, and consult with other affected parties when implementing any such change. The process described in this document can be used to control technical incompatibility hazards identified through risk assessment.
- G 2.3.3 For putting into use of trains, the following checks for technical compatibility are made:
- a) Interface between vehicles comprising a train.
 - b) Interface between the train and the specific route(s) intended to be operated over.
- G 2.3.4 For putting into use of infrastructure, technical compatibility with trains (existing and planned) operating over the specific route is checked. Technical compatibility with adjacent parts of the infrastructure is checked as part of placing in service.

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- G 2.3.5 Checks as described in [G 2.3.3](#) and [G 2.3.4](#) are made when putting into use, as the varying age of infrastructure and vehicles means that the granting of an authorisation to place in service is not always sufficient on its own to determine technical compatibility with the existing infrastructure or trains operating on a specific route. This is largely because a significant quantity of existing vehicles and infrastructure in operation on the GB mainline railway is not fully compliant with the latest standards. There are often specific physical, geographical and operational constraints associated with the specific route(s) the train or infrastructure is intended to be operated on.
-

2.4 Safe integration and route technical compatibility

Guidance

- G 2.4.1 Each RU and IM is responsible for safe operation of their own part of the railway system. Neither party gives permission to, or has authority over, the other. However, ROGS 2006 requires RUs and IMs to cooperate and collaborate with other transport operators to help achieve safe operation of the railway system.
- G 2.4.2 Part of ensuring safe operation includes determining route technical compatibility between trains and infrastructure. ROGS 2006 also requires that, for any change on the railway, the proposer of the change is to carry out a suitable and sufficient risk assessment, and implement any necessary control measures.
- G 2.4.3 European interoperability legislation transposed in GB through RIR 2011 introduces the concept of demonstrating safe integration. Commission Recommendation (EU) 2014/897 defines safe integration as 'the action to ensure the incorporation of an element (for example, new vehicle type, network project, subsystem, part, component, constituent, software, procedure and organisation) into a bigger system, does not create an unacceptable risk for the resulting system.' Safe integration is a term used in several contexts; in this document reference to safe integration is in relation to the interface between trains and infrastructure for the purposes of route compatibility.
- G 2.4.4 When seeking authorisation for placing in service of a vehicle, demonstration of safe integration between a vehicle and the network characteristics is required. For an infrastructure project, demonstration of safe integration between the infrastructure project with the vehicle characteristics defined in TSIs and national rules, and the adjacent parts of the network is required.
- G 2.4.5 At the authorisation stage, demonstrating safe integration is required for the vehicle or infrastructure in its 'design operating state'. This is effectively confirming that the vehicle or infrastructure project can be used safely according to its conditions and limits of use (such conditions are defined in the technical file). This is typically demonstrated by application of a suitable and sufficient risk assessment methodology such as the Common Safety Method for Risk Evaluation and Assessment (CSM RA), and then implementing any necessary controls identified. Hazards identified that are associated with technical compatibility at a network level (not route specific) are usually controlled through conforming with TSIs and national rules.

- G 2.4.6 Safe integration when putting into use a train or infrastructure requires demonstrating that it can be safely operated on the specific route(s) it is intended to be used on. Safe integration at this stage is broader than just checking technical compatibility as it includes aspects such as the interface with the staff who operate the asset and other parties who may be affected by the change. However, part of demonstrating safe integration does involve checking that the train or infrastructure is technically compatible with the route, including with the existing infrastructure and trains that currently operate on that route.
- G 2.4.7 Safe integration as part of putting into use is managed through the relevant 'management of change' process defined in the RU's and/or IM's SMSs; this process includes how application of a suitable and sufficient risk assessment is required for a change. Where a risk assessment has been carried out for the placing in service, then the assessment at this stage (putting into use) will typically build on the assessment work already done at placing in service, where the information is available.
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2.5 Practical application on the GB mainline railway

Guidance

- G 2.5.1 While placing in service and putting into use are two distinct legal steps, in practice these activities often run concurrently rather than occur sequentially. There is a common interest between the parties responsible for placing in service and those responsible for putting into use. For example, the project entity responsible for placing in service a vehicle or piece of infrastructure will want to be sure that the asset can be operated in the specific application it is intended to be used. This works conversely for the RU or IM who is responsible for putting into use the changed asset (that is, the RU or IM will want to be sure that the asset can be operated as intended).
- G 2.5.2 The information and analysis gathered as evidence to obtain authorisation for placing in service, such as any risk or compatibility assessment work, is often re-used to inform the decision to put into use. Therefore, there are often arrangements between the parties involved on who will perform the necessary activities to introduce a changed vehicle or piece of infrastructure into operation on the GB mainline railway. This is discussed further in [Appendix A](#). However, these arrangements do not remove the ultimate responsibility that the RU or IM has in determining technical compatibility at route level.
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2.6 OPE TSI

Guidance

- G 2.6.1 The Operation and Traffic Management Technical Specification for Interoperability (OPE TSI), set out in Commission Regulation (EU) 2015/995, contains requirements for assessing train-route compatibility and includes requirements on the provision and exchange of information between IMs and RUs.
- G 2.6.2 Specifically, the OPE TSI includes requirements on train composition which involve the RU checking that the vehicles forming its train are compatible with the infrastructure characteristics of the intended route of operation. The OPE TSI also
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includes an appendix which sets out some information that the IM has to provide to enable the RU to assess train-route compatibility.

2.7 Common Safety Method on Risk Evaluation and Assessment (CSM RA)

Guidance

- G 2.7.1 Commission Implementing Regulation (EU) 402/2013 on the CSM RA is applicable to all technical, organisational or operational changes on the GB mainline railway. Where the change has an effect on safety, and where the change is considered by the proposer to be significant, the risk management process defined in the CSM RA regulation is required to be carried out and subjected to third-party verification by a recognised or accredited assessment body (formalised by the production of a Safety Assessment Report). Where the proposed change is not considered to be significant, a risk assessment in accordance with Regulation 19 of ROGS (a suitable and sufficient risk assessment) is still required to be carried out.
- G 2.7.2 A change affecting technical compatibility at route level can affect safety, and in such cases the CSM RA risk management process (set out in Annex I of Regulation (EU) 402/2013) may apply. The process requires the proposer of the change to implement appropriate controls and consult with other affected parties when implementing any such change. GEGN8646 gives further guidance on the application of the CSM RA.
- G 2.7.3 Route level technical compatibility assessment can form part of the overall risk assessment work. The process in this document can help control specific hazards relating to incompatibility at the interface between trains and infrastructure identified through risk assessment. Therefore, there is synergy between route technical compatibility assessment and other activities carried out as part of the overall risk assessment.
-

2.8 Assessing technical compatibility between vehicle and vehicle, or infrastructure and infrastructure

Guidance

- G 2.8.1 In most cases where a change requires an assessment of technical compatibility at route level, the required assessment is between vehicles and infrastructure. However, an assessment is also carried out between vehicles proposed to be introduced onto a route and the existing vehicles using that route (for example, in respect of EMC between vehicles and/or trains). Where the vehicles concerned are the responsibility of different RUs, the process set out in this document can be used to assess the technical compatibility of the vehicles.
- G 2.8.2 Similarly, the process set out in this document can be used to assess the technical compatibility of proposed changes to the infrastructure managed and operated by one IM with infrastructure managed and operated by another IM (for example, alterations to the geometry of track adjacent to the platform of a station managed and operated by another IM).
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Part 3 Process for Assessing Technical Compatibility at Route Level

3.1 Introduction to the assessment process

Guidance

- G 3.1.1 This Part sets out the process to be followed where assessment of technical compatibility at route level is required. (See 3.2.)
- G 3.1.2 Figure 1 shows the process that is set out in this document.

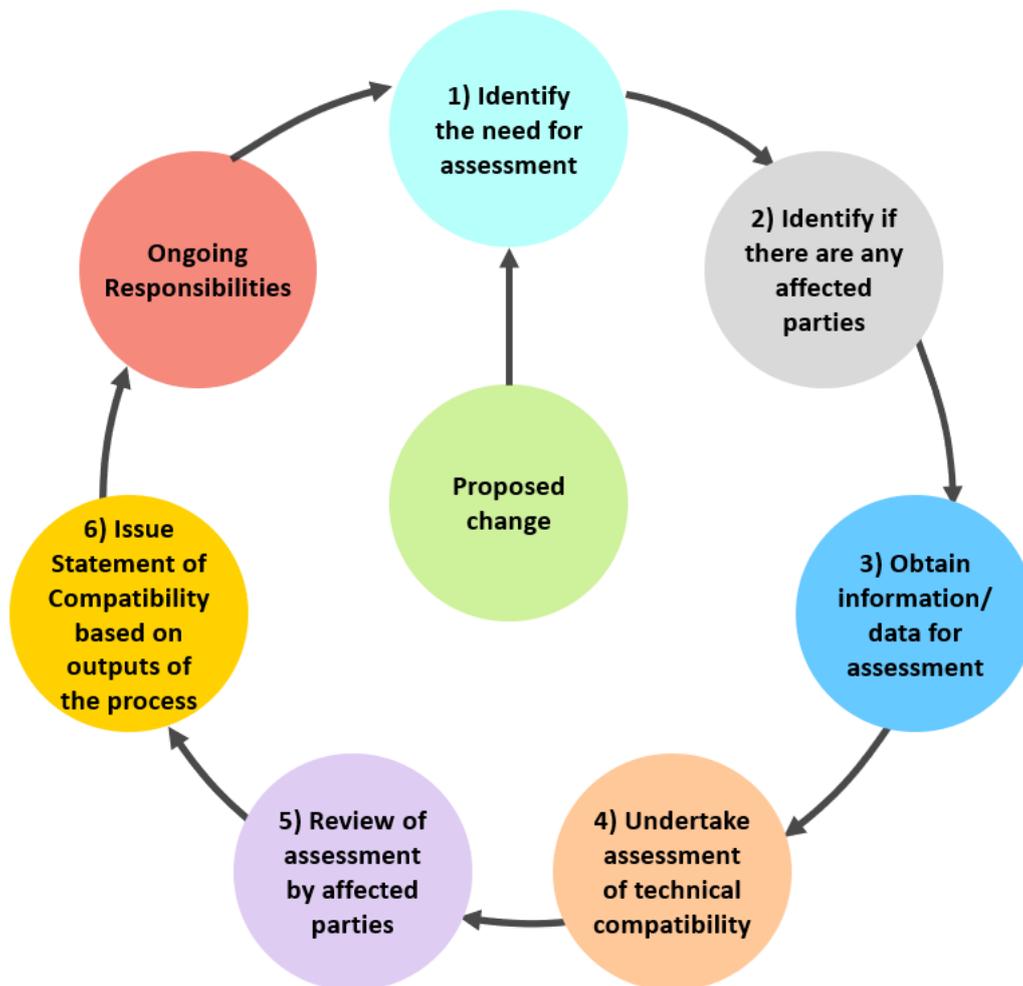


Figure 1: Illustrating the assessment process

3.2 Step 1 - Identifying the need for assessment of technical compatibility at route level

- 3.2.1 Where a change is proposed to an asset, the proposer of the change shall determine whether the change affects technical compatibility.

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3.2.2 A proposed change to a train shall require an assessment of technical compatibility at route level where the change affects technical compatibility with the infrastructure on the route it is intended to operate over.

3.2.3 A proposed change to the infrastructure on a route shall require an assessment of technical compatibility at route level where the change affects technical compatibility with the trains (existing or planned) operating on the route.

Rationale

G 3.2.4 Changes to vehicles or infrastructure that affect technical compatibility between these assets need to be assessed to help ensure that the safety and performance of the rail system is not jeopardised by incompatibility. The proposer is responsible for carrying out this assessment as they are introducing the change.

Guidance

G 3.2.5 A proposer of a change is required to carry out the assessment when the change they are proposing to a train or piece of infrastructure has the potential to affect physical interfaces with other assets. Such assets may be under the responsibility of another RU or IM. Guidance on interfaces is included in Appendix B.

G 3.2.6 As described in 2.8 the process can also be applied for vehicle-vehicle and infrastructure-structure technical compatibility assessment.

G 3.2.7 Schedule 1 of ROGS 2006 (as amended) requires the proposer's SMS to include a process for managing change. Such changes that need to be managed include those that may affect technical compatibility with another asset and this process will inform the decision as to whether assessment is necessary. Part of this process can involve initial dialogue between the proposer and potential affected parties.

G 3.2.8 Examples of proposed changes which can require assessment of technical compatibility at route level can include:

- a) Engineering changes to vehicles or infrastructure as a result of modifications (for example, modification of the platform height).
- b) The introduction of different vehicles to operate on a route (for example, cascading of existing vehicles to a new route).

G 3.2.9 These examples are not exhaustive and, in addition, a change requiring assessment can be a combination of the above examples.

G 3.2.10 The proposer of the change is either the RU for proposed vehicle changes or the IM for proposed infrastructure changes. The proposer is ultimately responsible for determining technical compatibility with a particular route(s) as they are the actor who will operate the asset. However, for some of the activities involved in the route compatibility process, the proposer (RU or IM) can put in place arrangements with a third party (such as a project entity, Entity in Charge of Maintenance (ECM) or keeper different to the proposer) to perform most of the work necessary to determine technical compatibility, particularly the technical demonstration elements. Further clarification on this is included in Appendix A.

3.3 Step 2 – Identify affected parties

- 3.3.1 The proposer shall identify any parties who might be affected by the proposed change.
- 3.3.2 The proposer shall provide any identified affected parties with an initial summary of the proposed change.

Rationale

- G 3.3.3 A change affecting technical compatibility will typically also concern safety. ROGS 2006 requires parties making changes to collaborate and cooperate with other external parties who may be affected by the change.
- G 3.3.4 Informing parties who may be affected by the change helps ensure they are made aware and gives them an early opportunity to provide any early feedback or supporting information to the proposer.

Guidance

- G 3.3.5 When informing the affected party of the proposed change, the following information can help the affected party understand better the change and, therefore, facilitate the assessment process:
- a) A brief description and rationale for the proposed change.
 - b) Planned timescales for implementation of the change.
- G 3.3.6 The proposer can inform an affected party, either electronically or via letter. Some railway organisations specifically set out as part of their internal management systems their company policy in regard to communicating and receiving notice of proposed changes.
- G 3.3.7 For Network Rail, specific provisions on changes to vehicles and infrastructure are set out in the Network Statement, which is published annually and available on the Network Rail website.
- G 3.3.8 There may also be 'neighbours' potentially affected by a proposed change; however, non-railway legislation and procedures, such as planning regulations for example, govern how to manage consultation with 'neighbours'. Affected parties in the context of this document concerns organisations that operate on the railway.

3.4 Step 3 - Obtain information required for assessment

- 3.4.1 The proposer shall determine and obtain the following information:
- a) The technical compatibility interfaces affected by the change.
 - b) The criteria by which technical compatibility at route level can be determined.
 - c) The interface data, if not readily available, from the relevant party to enable the assessment to be undertaken (see also [4.1](#)).

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Rationale

- G 3.4.2 This information is needed to enable the proposer to carry out a robust assessment of technical compatibility of their proposed change and the effect it may have on technical compatibility with existing assets.

Guidance

- G 3.4.3 ROGS 2006 requires RUs and IMs to '*co-operate, insofar as is reasonable, with any other transport operator who operates on the same transport system where that other transport operator is taking action to achieve the safe operation of that transport system*'. Therefore, where a party receives a request from the proposer for data needed to determine technical compatibility, they are expected to provide the necessary information to the proposer. The OPE TSI also sets out specific requirements on the information RUs and IMs have to provide each other when undertaking train-route compatibility.
- G 3.4.4 It is good practice for the party receiving the request for data to acknowledge receipt of the request and for them to agree in advance with the proposer a time deadline and the format for data to be provided.
- G 3.4.5 Guidance on interfaces in scope is included in Appendix [B](#).
-

3.5 Step 4 – Undertake the assessment of technical compatibility

- 3.5.1 The proposer shall produce a draft Statement of Compatibility that contains the following:
- In the case of vehicles, the route and/or infrastructure assets for which technical compatibility has been determined.
 - In the case of infrastructure, the types of vehicles for which technical compatibility has been determined.
 - A record of any operational restrictions on which technical compatibility depends and the limiting conditions which cause the restriction to be necessary.
 - The name and position of the proposer's representative who is endorsing the draft Statement of Compatibility.
- 3.5.2 The proposer shall assemble a Compatibility File that contains:
- A description of the new asset or the change to an asset.
 - The methods used to assess technical compatibility.
 - The decision criteria used to declare technical compatibility and how they have been derived.
 - References to all evidence and supporting information used to assess technical compatibility.
 - The draft Statement of Compatibility.

Rationale

- G 3.5.3 These documents are used to record the assessment work done by a proposer to determine technical compatibility. The relevant parts are then shared with affected parties for their review.

Guidance

- G 3.5.4 The Statement of Compatibility is a document which serves as a declaration of technical compatibility between a new or changed asset, and the route it is intended to be operated on. At this stage, the Statement of Compatibility is in draft until it has been reviewed by the affected parties, as set out in Step 4, and issued in accordance with Step 5. The Compatibility File includes more detail of the analysis and evidence gathered to support the assessment of compatibility of the proposed change.
- G 3.5.5 Where both sides of an interface have been shown to conform to corresponding requirements in an integrated suite of standards, this is usually sufficient to determine technical compatibility at that interface. The following are examples of integrated suites of standards:
- a) TSIs.
 - b) RGSs (containing NNTRs).
- G 3.5.6 It is often the case that legacy infrastructure or vehicles may not comply with current standards; therefore, it may not be possible to check the interface through simple cross-checking.
- G 3.5.7 Where either side of an interface has not been shown to conform to an integrated suite of standards, or different types of standards have been used, and where RGSs exist that define criteria by which technical compatibility can be determined, the criteria set out in such standards is used as part of the assessment of compatibility process.
- G 3.5.8 Where either side of an interface has not been shown to conform to an integrated suite of standards, or different types of standards have been used, and RGSs do not exist that define criteria by which technical compatibility can be determined, compatibility can be determined by conducting suitable technical analysis to assess the technical compatibility of the proposed change with existing assets.
- G 3.5.9 Integrated suites of standards contain requirements that have been written to provide a rule-based determination of technical compatibility between assets.
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3.6 Step 5 – Review of the assessment by affected parties

- 3.6.1 The proposer shall advise each affected party of the method of engagement they will use for the review of the assessment.
- 3.6.2 The proposer shall send the relevant part(s) of the Compatibility File to the affected parties for their review and comment.
- 3.6.3 The proposer shall agree a timeframe with the affected parties to provide comments on the Compatibility File.
- 3.6.4 The affected parties shall provide comments on the Compatibility File according to the timeframe set by the proposer, or the affected party shall request an extension of time from the proposer to provide comments.
- 3.6.5 The proposer shall provide a response to the relevant affected party for the comments received.

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- 3.6.6 Where either the proposer or affected party is not satisfied that the review of the compatibility assessment is complete, the following steps shall be taken to resolve outstanding issues:
- a) A compatibility review forum shall be convened with the objective of achieving a consensus.
 - b) The proposer shall not implement the proposed change until the compatibility review forum has concluded.

Rationale

- G 3.6.7 The review process is conducted with the objective of achieving a consensus that the proposed change is technically compatible with the assets of the affected parties given the identified limitations, restrictions, or requirements on which compatibility depends.

Guidance

- G 3.6.8 The proposer advises any identified affected parties the method of engagement they will use for reviewing the assessment; this is typically via electronic correspondence or meetings, and can be iterative. The complexity or significance of the change can inform the method of engagement.
- G 3.6.9 The proposer and affected parties agree a timeframe for review that is proportionate to the complexity and significance of the change to ensure the affected parties have an appropriate amount of time to respond. Where necessary and reasonable, an affected party can request further time from the proposer to review the Compatibility File.
- G 3.6.10 The proposer may decide to send only a specific part of the Compatibility File to an affected party if it establishes that other parts are not relevant for that party. This can avoid sending irrelevant information to affected parties. In agreement with the proposer, an affected party can request access to further information or supporting documents referenced in the Compatibility File to support their review of the assessment.
- G 3.6.11 Typically, consensus is not reached where affected parties are not satisfied that their comments have been addressed or where the proposer is not satisfied with the level of cooperation received with another affected party(ies). In such cases a compatibility review forum is established; guidance on establishing such fora can be found in Appendix C.
- G 3.6.12 If a compatibility review forum does not resolve the issues and industry processes have been exhausted, then either party can escalate it further to the ORR. All parties have the opportunity to determine whether or not to escalate the proposal to the ORR, citing the duty of cooperation set out in the ROGS. The ORR, on its website, provides information on the process it has in place known as '*Escalating disputes to ORR under ROGS duty of cooperation*'.
- G 3.6.13 The review of the assessment by affected parties does not alter the proposer's responsibility for determining technical compatibility of the proposed change with the railway system.

- G 3.6.14 Where Network Rail is an affected party, it may provide a 'Summary of Compatibility' to the proposer when consulted as an affected party. The 'Summary of Compatibility' is not to be confused with the 'Statement of Compatibility'. The 'Summary of Compatibility' is a document that Network Rail can provide when it is responding as an affected party, whilst the 'Statement of Compatibility' is issued by the proposer when it has determined technical compatibility at route level.
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3.7 Step 6 – Outputs from the process and issuing of Statement of Compatibility

- 3.7.1 The proposer shall update the Compatibility File and Statement of Compatibility following the conclusion of the review of the assessment.
- 3.7.2 The proposer shall finalise the Statement of Compatibility once technical compatibility at route level of the proposed change has been determined.
- 3.7.3 The proposer shall allocate a unique reference to each Statement of Compatibility it produces.
- 3.7.4 The issue date shall be recorded on the Statement of Compatibility.
- 3.7.5 Each Statement of Compatibility shall be prefixed by a unique code indicating the name of the proposer.
- 3.7.6 The complete Compatibility File, including the Statement of Compatibility shall be added to the technical file associated with the asset.
- 3.7.7 The proposer shall send a copy of the Statement of Compatibility to all affected parties.
- 3.7.8 The proposer shall send a copy of the Statement of Compatibility to Network Rail, as publisher of the Sectional Appendix and local operating instructions.

Rationale

- G 3.7.9 This step finalises the assessment process after the proposer has determined technical compatibility and helps inform other affected parties of the Statement of Compatibility.

Guidance

- G 3.7.10 A Statement of Compatibility can be issued for either:
- A single vehicle, a group of vehicles with the same class or sub-class identifier, a fleet of vehicles with the same class or sub-class identifier or a generic type of installation (for example, trainborne GSM-R equipment), or
 - A new, modified or existing piece of infrastructure. (In this case, the Statement of Compatibility will describe the infrastructure covered by the Statement.)
- G 3.7.11 Following the issue of a Statement of Compatibility, all documentation needed to define any limitations, restrictions or requirements on which technical compatibility depends upon is updated and maintained according to processes defined in the appropriate management system of the proposer and relevant parties. This may require the updating of formal registers such as the Register of Infrastructure (RINF),

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European Register of Authorised Types of Vehicles (ERATV), R2, National Vehicle Register (NVR) and any associated technical file.

- G 3.7.12 Network Rail, as publisher of the Sectional Appendix and local operating instructions, requires a copy of the Statement of Compatibility to help ensure their documentation is up to date (see RIS-3215-TOM).
 - G 3.7.13 RIS-2453-RST sets out requirements and guidance on registration of GB rail vehicles on the R2 system.
-

3.8 Guidance on technical compatibility assessment at route level for temporary changes (date limited)

Guidance

- G 3.8.1 On the GB mainline railway it is common practice for there to be temporary changes (either operational or technical) involving infrastructure or vehicles which are not part of regular service that can require assessment of technical compatibility at route level.
 - G 3.8.2 Examples can include where a new vehicle or piece of infrastructure is undergoing specific testing (for example as part of staged assessment of technical compatibility) or where a vehicle(s) is temporarily operated on a route not previously assessed for route compatibility to transfer the vehicle(s) from its normal operational location to a maintenance site. Another example is heritage trains operated for a charter and/or touristic services on a particular route for a limited period.
 - G 3.8.3 Where this is required, affected RUs and IMs agree a set of conditions and limitations to help ensure safe operation during the limited period, including the control of risks associated with any potential incompatibility between assets.
 - G 3.8.4 In these cases, an interim or temporary Statement of Compatibility is typically issued. Such statements can set out specific conditions of use and include an expiry date which coincides with the date that the temporary change concludes.
 - G 3.8.5 Similar to any other change that can affect the safety of the railway, the proposer of the change has a duty to ensure that suitable measures are implemented to control any hazards associated with the temporary change, and that other parties affected are sufficiently consulted and, where appropriate, involved in any decisions concerning safety, including technical compatibility. Aspects of the process set out in this document may be considered applicable and can help discharge these duties.
 - G 3.8.6 Temporary changes can differ from permanent changes as there can be temporary measures, not typically in place for regular service, implemented over a route by an affected RU or IM only for the duration of the temporary change.
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Part 4 Ongoing Responsibilities

4.1 Availability and maintainability of data

4.1.1 RUs and IMs shall maintain, update and make freely available to relevant parties the available data that describes their asset characteristics relevant to technical compatibility.

4.1.2 Following the implementation of a change:

- a) The IM shall maintain infrastructure within the characteristics on which technical compatibility depends, and
- b) The RU shall maintain vehicles within the characteristics on which technical compatibility depends.

Rationale

G 4.1.3 This is to help ensure that data is readily available for assessment of technical compatibility at route level, that it can be provided in a timely manner, and there is some certainty in the data provided.

Guidance

G 4.1.4 Relevant parties are other RUs or IMs (or their representatives) carrying out route compatibility assessment, who need the data to determine technical compatibility at route level.

G 4.1.5 The data typically needed for assessment describes the vehicles, their characteristics and parameters, or elements of the infrastructure concerned, including limitations and conditions. It does not contain implicit or explicit judgments about technical compatibility, as these are for the proposer making a change to assess.

G 4.1.6 As an example, it would be inappropriate for an RU to include in the data used to describe asset characteristics a statement to the effect that 'Type XYZ track circuits are not to be used on routes operated by Class 999 vehicles'. Rather, the statement could take the form 'shunt resistance over wheel sets of Class 999 vehicles cannot be guaranteed to be less than X ohms'.

G 4.1.7 Similarly, it would be inappropriate for an IM to include in the data used to describe asset characteristics a statement to the effect that 'Class 999 vehicles are not permitted on routes fitted with type XYZ track circuits'. Rather, the statement could take the form 'The route is fitted with type XYZ track circuits set in the frequency range A to B that require a minimum shunt resistance over wheelsets of X ohms'.

G 4.1.8 In some cases such data can be sourced and maintained in formal registers (where available) such as the RINF, ERATV, NVR and R2 (database of vehicles registered to operate on the GB mainline railway) and also the technical files associated with the assets. The OPE TSI, in Appendix D, also sets out information that the IM is to provide to the RU to carry out train-route compatibility but is not to be considered exhaustive.

G 4.1.9 In normal operation, RUs and IMs are expected to maintain their assets according to the characteristics on which technical compatibility depends. Where they are making

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changes that can affect these characteristics, the proposer is required to ensure technical compatibility of the rail system continues following the change.

- G 4.1.10 The requirements in this section do not preclude the introduction of temporary performance restrictions affecting the infrastructure or vehicles (for example, a temporary speed restriction).
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Appendices

Appendix A Guidance on Arrangements with a Third Party

A.1 Arrangements with a third party

- A.1.1 EU and UK railway legislation places primary responsibility on the proposer of a change to determine technical compatibility at route level. They are responsible for assessing technical compatibility and for issuing the Statement of Compatibility, following consultation with affected parties. In the case of determining technical compatibility of a vehicle(s) over a particular route(s), the RU is responsible. Similarly, the IM is responsible for these activities where it introduces a change to infrastructure.
- A.1.2 Railway legislation sets out a formal and legal separation between demonstrating technical compatibility at the network level under placing in service (responsibility of the project entity), and demonstrating technical compatibility with the route under putting into use (the RU for vehicles, and IM for infrastructure). Nonetheless, for vehicles, it often makes commercial sense for the project entity to also perform part of the work necessary for the RU to determine technical compatibility with the route as, in practice, on the GB mainline railway these activities often happen in parallel. Neither this document, nor legislation, precludes the proposer from having arrangements with a third party to act on their behalf (as their agent) to carry out some of the activities required for compatibility assessment.
- A.1.3 Therefore, the proposer (RU or IM) can put in place arrangements with a third party (such as a project entity, ECM or keeper different to the proposer) to perform and provide the assessment work. This can particularly be the case for new vehicle orders. For example, carrying out technical analysis outside the expertise of the proposer can be carried out by the manufacturer.
- A.1.4 Such arrangements are typically set out in contractual agreements between the relevant actors involved, and it is up to the proposer and the third party to agree the extent of the work that the third party will perform. However, while the tasks can be delegated to a third party, the responsibility for determining technical compatibility at route level rests with the proposer.

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Appendix B Guidance on Interfaces

B.1 Interfaces in scope

B.1.1 An interface is a point or boundary where two assets (for example, between a vehicle and infrastructure) have the potential to interact. The compatibility assessment process set out in this document applies where the two assets under consideration are the responsibility of IMs or RUs.

B.1.2 The interfaces in scope of this document are those which can be assessed using a pass/fail criterion (that is, can the interface be objectively assessed). This can involve a simple comparison of the requirements that both sides of an interface conform to or, for more complex cases, it can require further technical analysis to confirm that the interfaces are technically compatible. Interfaces not amenable to such an assessment will typically form part of the wider risk assessment process or commercial arrangements.

B.1.3 Physical interfaces are typically technical interfaces between structural subsystems; for example, the interface between the on-board part of the CCS subsystem and the trackside part of the CCS subsystem. Another example is the interface between the vehicle swept envelope (loading gauge) and the infrastructure gauge (structure gauge). An example list of interface parameters (non-exhaustive) for consideration when determining physical interfaces for a proposed change is set out in Appendix [B.2](#).

B.2 Example list of interface parameters

B.2.1 The list set out in Table 1 is intended to provide guidance on the typical interface parameters considered for a proposed change when assessing technical compatibility at route level and identifying the relevant physical interfaces.

B.2.2 The table sets out related documents and supporting information to the relevant interface parameter.

B.2.3 The list and its contents are not exhaustive, and it remains the responsibility of the proposer of change, in consultation with affected parties, to identify all relevant physical interfaces affected by their change, some of which may not be set out in Table 1. In particular, special care may be needed for legacy assets where their interfaces may not conform to current standards.

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Interface parameter	Supporting information
Gauging and platforms	Relevant documents are: <ul style="list-style-type: none">• GERT8273 - Assessment of Compatibility of Rolling Stock and Infrastructure - Gauging and Stepping Distances• GERT8073 - Requirements for the Application of Standard Vehicle Gauges• GMRT2173 - Requirements for the Size of Vehicles and Position of Equipment• GIRT7073 - Requirements for the Position of Infrastructure and for Defining and Maintaining Clearances• GIRT7020 - GB Requirements for Platform Height, Platform Offset and Platform Width• GEGN8573 - Guidance on Gauging and Platform Distances
Electromagnetic Compatibility (EMC)	Relevant requirements and parameters are included in: <ul style="list-style-type: none">• RIS-0725-CCS - Electromagnetic Compatibility of Train Detection Infrastructure with Rail Vehicles• LOC&PAS TSI• CCS TSI
Braking	Relevant requirements and guidance are included: <ul style="list-style-type: none">• LOC&PAS TSI• WAG TSI• OPE TSI• GMRT2045 - Compatibility Requirements for Braking Systems of Rail Vehicles

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Interface parameter	Supporting information
Electrification, current collection and power supply	<p>Considerations include the intended interactions between the electric vehicle and the energy subsystems they use (for example, ensuring adequate electrical clearance between parts of vehicles such as the body shell, roof-mounted equipment, underframe equipment etc, and the live parts of the contact line minimises the risk from flash-over between these assets and vehicle bonding which can withstand the associated fault currents).</p> <p>Relevant documents are:</p> <ul style="list-style-type: none"> • ENE TSI • LOC&PAS TSI • GLRT1210 - AC Energy Subsystem and Interfaces to Rolling Stock Subsystem • GLGN1610 - Guidance on AC Energy Subsystem and Interfaces to Rolling Stock Subsystem • GMRT2111 - Rolling Stock Subsystem and Interfaces to AC Energy Subsystem • GMGN2611 - Guidance on Rolling Stock Subsystem and Interfaces to AC Energy Subsystem • GLRT1212 - DC Conductor Rail Energy Subsystem and Interfaces to Rolling Stock Subsystem • GLGN1612 - Guidance on DC Conductor Rail Energy Subsystem and Interfaces to Rolling Stock Subsystem • GMRT2113 - Rolling Stock Subsystem and Interfaces to DC Conductor Rail Energy Subsystem • GMGN2613 - Guidance on Rolling Stock Subsystem and Interfaces to DC Conductor Rail Energy Subsystem
Loading	<p>Relevant documents are:</p> <ul style="list-style-type: none"> • GERT8006 - Assessment of Compatibility of Rail Vehicle Weights and Underline Bridges • LOC&PAS TSI • WAG TSI • INF TSI

Interface parameter	Supporting information
Signalling and European Train Control System (ETCS)	<ul style="list-style-type: none"> • The parameters for ETCS are defined in the CCS TSI • Requirements concerning train detection clearing points are set out in GKRT0028 - Infrastructure Based Train Detection Interface Requirements • Requirements concerning Class B signalling systems (AWS/TPWS) and trainstops are set out in GERT8075 and GERT8018
Telecommunications	Relevant documents are: <ul style="list-style-type: none"> • ENE TSI • CCS TSI
Wheelsets	Relevant documents are: <ul style="list-style-type: none"> • GMRT2466 - Railway Wheelsets • LOC&PAS TSI • WAG TSI
Track forces and resistance to derailment	Relevant documents are: <ul style="list-style-type: none"> • GMRT2141 - Resistance of Railway Vehicles to Derailment and Roll-Over • GMTT0088 - Permissible Track Forces for Railway Vehicles • GCRT5021 - Track System Requirements • LOC&PAS TSI • WAG TSI • INF TSI
Tunnels	Relevant documents are: <ul style="list-style-type: none"> • SRT TSI • GMRT2130 - Vehicle Fire, Safety and Evacuation includes specific GB provisions relating to the operation of trains in tunnels over 5 km

Table 1: Information on typical parameters for consideration

B.3 Interfaces not intended to be in scope of this process

B.3.1 Operational interfaces affected as a consequence of a proposed change to vehicles or infrastructure are not intended to be in scope of assessment of technical compatibility at route level, but will be considered as part of the wider overall risk assessment required when introducing changes to the rail system. The term

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‘operational interface’ refers to the interface between physical assets (that is, the vehicle or structural subsystem subject to change) and the ‘operation and traffic management’ functional subsystem as defined by Annex II of Directive 2008/57/EC. Broadly, this covers the operational rules and procedures in place to ensure the safe and uninterrupted movement of trains. This includes interfaces that relate to the rules and procedures implemented as part of the Rule Book.

- B.3.2 Issues that are managed through commercial arrangements are not in scope of assessment of technical compatibility at route level. A typical issue is the arrangements concerning the cumulative number of vehicles intended to be operated. An example is the cumulative gross tonnage of a vehicle using a section of track, and the rate at which track components and track geometry deteriorate. In this case, the number of vehicles concerned is not a matter for assessment of technical compatibility, but is significant for the sustainability of any proposed service. As a result, consideration of these issues is not a matter for the process set out in this document and is managed by commercial arrangements.
- B.3.3 However, the principles of the process set out in this document, whilst primarily intended for assessment of route technical compatibility, can also be applied to the management of interface and issues between multiple parties.

Appendix C Guidance on Operation of a Compatibility Review Forum

C.1 Operation of a compatibility review forum

- C.1.1 The compatibility review forum is established with the purpose of facilitating a shared understanding of the proposed change, and to consider the issues raised by the affected parties and the effects of the change on those parties. The aim is to facilitate consensus where issues have been raised by either the proposer or affected parties.
- C.1.2 The compatibility review forum involves reviewing the draft Statement of Compatibility, together with those supporting documents referenced in the Compatibility File.
- C.1.3 The scope of examination of the proposed change is limited to the compatibility between vehicles and infrastructure on the route(s) concerned.
- C.1.4 Members of a compatibility review forum typically include representatives of the proposer and the affected parties, together with their technical advisers.
- C.1.5 The compatibility review forum is chaired by an individual who is independent of the outcome. They are nominated by the proposer and agreed by the other members of the forum.
- C.1.6 The chair seeks to facilitate a meeting that allows all parties to explain their respective views. The chair assists all participants in understanding the issues at hand and, where possible, facilitates the development of a consensus.
- C.1.7 Where appropriate, the participants of the compatibility review forum may also suggest potential improvements to the proposed change, with a view to seeking a consensus in support of the proposal.

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Abbreviations and Acronyms

CSM RA	Common Safety Method for Risk Evaluation and Assessment. COMMISSION REGULATION (EU) No 2015/1136 of 13 July 2015 amending Implementing Regulation (EU) No 402/2013 on the common safety method for risk evaluation and assessment.
ECM	Entity in Charge of Maintenance.
EMC	Electromagnetic Compatibility.
ERATV	European Register of Authorised Types of Vehicles.
IM	Infrastructure Manager.
NNTR	Notified National Technical Rules.
ORR	Office of Rail and Road.
R2	The national central database of rail vehicle design and operational data, owned and maintained on behalf of the industry by RSSB. It incorporates what was previously known as the Rolling Stock Library (RSL). It integrates with key Industry Systems, including TOPS, Gemini, GENIUS, and National Vehicle Register (NVR).
RGS	Railway Group Standard.
RINF	Register of Infrastructure.
RIR	Railways (Interoperability) Regulations 2011.
RIS	Rail Industry Standard.
ROGS	Railways and Other Guided Transport Systems (Safety) Regulations 2006.
RU	Railway Undertaking.
SMS	Safety Management System.
TSI	Technical Specification for Interoperability.

Definitions

Affected Party	A railway undertaking or infrastructure manager responsible for assets on the other side of a physical interface with the potential to be affected by a proposed change.
Class identifier	The initial two digits of a locomotive number (for example 60) or the initial three digits of a multiple unit set identification number (for example 465).
Design Operating State	The normal operating mode and the foreseeable degraded conditions (including wear) within the range and the conditions of use specified in the technical and maintenance files. <i>Source: Directive (EU) 2016/797</i>
Infrastructure	For the purposes of this document, infrastructure includes all the network subsystems: infrastructure, energy and trackside CCS, as defined in the Railway Interoperability Directive 2008/57/EC.
National Vehicle Register (NVR)	A register that contains information on vehicles authorised in each Member State. Regulation 36 of the Railway (Interoperability) Regulations 2011 (as amended) sets out the legal requirements concerning the NVR.
Network Statement	Statement required to be developed and published by an Infrastructure Manager under regulation 13 of The Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016 (as amended) that provides all current and potential Railway Undertakings wishing to run services on the infrastructure information relating to its network such as conditions of access and the associated charges.
Placing in service	All the operations by which a subsystem or a vehicle is put into its design operating state. <i>Source: Article 2 (q) of Directive 2008/57/EC.</i>
Project Entity	As defined in the Railways (Interoperability) Regulations 2011 (as amended): 'project entity' means, in relation to a project, a contracting entity or manufacturer or the authorised representative established in the EU of a contracting entity or manufacturer.
Proposer	The railway undertaking (RU) or infrastructure manager (IM) proposing a change that has a potential to affect physical interfaces between vehicles and infrastructure.
Put into use	Using vehicles in day-to-day operation under the safety management systems of railway undertakings.
Route	The physical path of a journey to be undertaken by a vehicle or a collection of vehicles, where the path is comprised of a number of track sections, each of which has individually defined characteristics.

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Sub-class identifier	The first digit after the class identifier which is used to indicate different ownership or different operating characteristics (for example 37 401, 465 201).
Technical compatibility	Technical compatibility means an ability of two or more structural subsystems or parts of them which have at least one common interface, to interact with each other while maintaining their individual design operating state and their expected level of performance. <i>Source: 2014/897/EU</i>
Technical file	The file that has to accompany the EC declaration of verification of the subsystem, containing, for example, all the necessary documents relating to the characteristics of the subsystem and, where appropriate, all the documents certifying conformity of interoperability constituents.
Technical Specification for Interoperability (TSI)	A TSI is a specification adopted in accordance with the Railway Interoperability Directive 2008/57/EC by which each subsystem or part subsystem is covered in order to meet the essential requirements and ensure the interoperability of the rail system.
Train	A 'train' is an operational formation consisting of one or more units. A unit may be composed of several 'vehicles'. <i>Source: Directive 2008/57/EC, Article 2(c). LOC&PAS TSI 2.2.1</i> Note: In GB application, an operational formation may consist of locomotives, wagons, coaches, multiple units or a single fixed formation unit and any combination thereof.
Vehicle	An individual vehicle or car of any train formation.

References

The Standards Catalogue gives the current issue number and status of documents published by RSSB. This information is available from <http://www.rssb.co.uk/railway-group-standards.co.uk>.

RGSC 01	Railway Group Standards Code
RGSC 02	Standards Manual

Documents referenced in the text

Railway Group Standards

GCRT5021	Track Systems Requirements
GERT8000	The Rule Book
GERT8006	Assessment of Compatibility of Rail Vehicle Weights and Underline Bridges
GERT8018	Mechanical Trainstop System Interface
GERT8073	Requirements for the Application of Standard Vehicle Gauges
GERT8075	AWS and TPWS Interface Requirements
GERT8273	Assessment of Compatibility of Rolling Stock and Infrastructure - Gauging and Stepping Distances
GIRT7021	GB Requirements for Platform Height, Platform Offset and Platform Width
GIRT7073	Requirements for the Position of Infrastructure and for Defining and Maintaining Clearances
GKRT0028	Infrastructure Based Train Detection Interface Requirements
GLRT1210	AC Energy Subsystem and Interfaces to Rolling Stock Subsystem
GLRT1212	DC Conductor Rail Energy Subsystem and Interfaces to Rolling Stock Subsystem
GMRT2045	Compatibility Requirements for Braking Systems of Rail Vehicles
GMRT2111	Rolling Stock Subsystem and Interfaces to AC Energy Subsystem
GMRT2113	Rolling Stock Subsystem and Interfaces to DC Conductor Rail Energy Subsystem
GMRT2130	Vehicle Fire, Safety and Evacuation
GMRT2141	Resistance of Railway Vehicles to Derailment and Roll-Over
GMRT2173	Requirements for the Size of Vehicles and Position of Equipment
GMRT2466	Railway Wheelsets
GMTT0088	Permissible Track Forces for Railway Vehicles

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Various Railway Group Standards, Rail Industry Standards and Rail Industry Guidance Notes are referenced in Appendix B. These are not reproduced in this section as this Appendix is subject to future update.

RSSB Documents

GEGN8573	Guidance on Gauging and Platform Distances
GEGN8646	Guidance on the Common Safety Method for Risk Evaluation and Assessment
GLGN1610	Guidance on AC Energy Subsystem and Interfaces to Rolling Stock Subsystem
GLGN1612	Guidance on DC Conductor Rail Energy Subsystem and Interfaces to Rolling Stock Subsystem
GMGN2611	Guidance on Rolling Stock Subsystem and Interfaces to AC Energy Subsystem
GMGN2613	Guidance on Rolling Stock Subsystem and Interfaces to DC Conductor Rail Energy Subsystem
RIS-0725-CCS	Electromagnetic Compatibility of Train Detection Infrastructure with Rail Vehicles
RIS-2453-RST	Vehicle Registration, Marking and Numbering
RIS-3215-TOM	Weekly Operating Notice, Periodical Operating Notice and the Sectional Appendix

Other References

Commission Recommendation (EU) 2014/897	Commission Recommendation on matters related to the placing in service and use of structural subsystems and vehicles under Directives 2008/57/EC and 2004/49/EC (commonly known as DV29bis).
CCS TSI	Commission Regulation (EU) 2016/919 on the technical specification for interoperability relating to the 'control-command and signalling' subsystems of the rail system in the European Union
CSM RA	Commission Implementing Regulation (EU) 402/2013 amended by Regulation (EU) 2015/1136 on a common safety method for risk evaluation and assessment
EMC Directive	Electromagnetic Compatibility Directive 2014/30/EU
EMC Regulations 2016	Electromagnetic Compatibility Regulations 2016 - transposition of the EMC Directive 2014/30/EU
ENE TSI	Commission Regulation (EU) No 1301/2014 on the technical specifications for interoperability relating to the 'energy' subsystem of the rail system in the Union
HSW Act	Health and Safety at Work etc. Act 1974

INF TSI	Commission Regulation (EU) No 1299/2014 on the technical specifications for interoperability relating to the 'infrastructure' subsystem of the rail system in the European Union
LOC&PAS TSI	Commission Regulation (EU) No 1302/2014 concerning a technical specification for interoperability relating to the 'rolling stock — locomotives and passenger rolling stock' subsystem of the rail system in the European Union
Network Statement	Provides all current and potential train operators wishing to run services on our infrastructure with a single source of relevant information on a fair and non-discriminatory basis.
OPE TSI	Commission Regulation (EU) 2015/995 amending Decision 2012/757/EU concerning the technical specification for interoperability relating to the 'operation and traffic management' subsystem of the rail system in the European Union
Railway Interoperability Directive	Railway Interoperability Directive 2008/57/EC (as amended)
Railway Safety Directive	Railway Safety Directive 2004/49/EC (as amended)
RIR 2011	Railway (Interoperability) Regulations 2011 (as amended) - transposition of the Railway Interoperability Directive 2008/57/EC
ROGS 2006	Railway and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) - transposition of the Railway Safety Directive 2004/49/EC
SRT TSI	Commission Regulation (EU) No 1303/2014 concerning the technical specification for interoperability relating to 'safety in railway tunnels' of the rail system of the European Union
WAG TSI	Commission Regulation (EU) No 321/2013 concerning the technical specification for interoperability relating to the subsystem 'rolling stock — freight wagons' of the rail system in the European Union and repealing Decision 2006/861/EC

Other relevant documents

RSSB Documents

Taking Safe Decisions	How Britain's Railways Take Decisions That Affect Safety
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