

## II

(Non-legislative acts)

## DECISIONS

## COMMISSION IMPLEMENTING DECISION

of 15 September 2011

on the common specifications of the register of railway infrastructure

(notified under document C(2011) 6383)

(Text with EEA relevance)

(2011/633/EU)

THE EUROPEAN COMMISSION,

HAS ADOPTED THIS DECISION:

Having regard to the Treaty on the Functioning of the European Union,

*Article 1*

The common specifications for the register of infrastructure as referred to in Article 35 of Directive 2008/57/EC are set out in the Annex to this Decision.

Having regard to Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community <sup>(1)</sup>, and in particular Article 35(2) thereof,

*Article 2*

1. Each Member State shall ensure that its register of infrastructure is computerised and fulfils the requirements of the common specifications referred to in Article 1 not later than 3 years after the entry into force of this Decision.

Whereas:

(1) According to Article 35 of Directive 2008/57/EC, each Member State should ensure that a register of infrastructure is published and updated. The Commission should adopt specifications on the register on the basis of a draft prepared by the European Railway Agency (the Agency).

2. Member States shall ensure that their registers are interconnected and connected to the common user interface referred to in Article 4 not later than 6 months after that interface is operational.

(2) Complementary common specifications are needed to make data of the registers easily accessible across several Member States. The development and deployment of a computerised common user interface acting as a virtual register of railway infrastructure at European level should be done together with the setting-up of national registers of infrastructure and the collection of data. Member States, with the help of the Agency, should cooperate to ensure that the registers are operational, contain all the data, are interconnected and provide a common interface to the users.

*Article 3*

The Agency shall publish an application guide relating to the specifications referred to in Article 1 not later than 1 year after the entry into force of this Decision and shall keep it up to date. The application guide shall include a reference to the relevant clauses of the Technical Specifications of Interoperability (TSIs) for each parameter.

(3) The measures provided for in this Decision are in accordance with the opinion of the Committee established in accordance with Article 29(1) of Directive 2008/57/EC,

*Article 4*

1. The Agency shall draft the detailed specifications, the governance and implementation plan (a) for the development, testing, deployment and operation of a common user interface; and (b) for the interconnection of the national registers. The Agency shall submit them to the Commission not later than 1 year after the entry into force of this Decision.

<sup>(1)</sup> OJ L 191, 18.7.2008, p. 1.

2. The common user interface referred to in paragraph 1 shall be a web-based application facilitating access to the data of the registers of infrastructure at European level. It shall be operational not later than 3 years after the entry into force of this Decision.

3. When progress in the development of TSIs so requires, the Agency shall recommend updates of the specifications referred to in Article 1 and of the detailed specifications referred to in paragraph 1.

#### Article 5

1. Member States shall ensure that the necessary data are collected and inserted in their national register of infrastructure in accordance with paragraphs 2 to 5. They shall ensure that these data are reliable and are kept up to date.

2. Data relating to infrastructures for freight corridors defined in the Annex to Regulation (EU) No 913/2010 of the European Parliament and of the Council <sup>(1)</sup> shall be collected and inserted in the national register of infrastructure not later than 3 years after the entry into force of this Decision.

3. Data relating to infrastructures placed in service after the entry into force of Directive 2008/57/EC and before the entry into force of this Decision, other than the data referred to in paragraph 2, shall be collected and inserted in the national register of infrastructure not later than 3 years after the entry into force of this Decision.

4. Data relating to infrastructures placed in service before the entry into force of Directive 2008/57/EC other than the data referred to in paragraph 2 shall be collected and inserted in the national register of infrastructure in accordance with the national implementation plan referred to in Article 6(1) but not later than 5 years after the entry into force of this Decision.

5. Data relating to private sidings placed in service before the entry into force of Directive 2008/57/EC shall be collected and inserted in the national register of infrastructure in accordance

with the national implementation plan referred to in Article 6(1) but not later than 7 years after the entry into force of this Decision.

6. Data relating to infrastructures placed in service after the entry into force of this Decision shall be inserted in the national register of infrastructure as soon as the infrastructures are placed into service and as soon as the register referred to in Article 2(1) is set up.

#### Article 6

1. Each Member State shall draft a national implementation plan for the implementation of the obligations resulting from this Decision, together with a timetable. The national implementation plan shall be submitted to the Commission not later than 6 months after the entry into force of this Decision.

2. The Agency shall coordinate, monitor and support the implementation of the national registers of infrastructure. In particular, it shall set up and manage a group composed of representatives of the entities in charge of setting up and maintaining the national registers. These entities shall send an implementation progress report to the Agency every 4 months. The Agency shall regularly report to the Commission on progress in implementing this Decision.

#### Article 7

This Decision shall apply from 16 March 2012.

#### Article 8

This Decision is addressed to the Member States and to the European Railway Agency.

Done at Brussels, 15 September 2011.

For the Commission

Siim KALLAS

Vice-President

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<sup>(1)</sup> OJ L 276, 20.10.2010, p. 22.

## ANNEX

**1. INTRODUCTION****1.1. Technical scope**

(1) This specification concerns data about the following subsystems of the Union rail system:

- (a) the infrastructure structural subsystem;
- (b) the energy structural subsystem; and
- (c) the fixed installations of the control-command and signalling structural subsystem.

(2) These subsystems are included in the list of subsystems in point 1 of the Annex II to Directive 2008/57/EC.

**1.2. Geographical scope**

The geographical scope of this specification is the Union rail system as determined by Directive 2008/57/EC.

**1.3. Responsibility**

Member States shall decide which entities are responsible for setting up and maintaining the Register of Infrastructure.

**1.4. Definitions**

For the purpose of this specification:

- (a) 'macro-level' means the overall railway network defined by sections of line and operational points;
- (b) 'micro-level' means the detailed railway network defined for sections of line by tracks and for operational points by tracks and sidings;
- (c) 'line' means a sequence of one or more sections, which may consist of several tracks;
- (d) 'section of line' means the part of line between adjacent operational points and may consist of several tracks;
- (e) 'operational point' means any location for train service operations, where train services can begin and end or change route, and where passenger or freight services are provided; 'operational point' may be any location where the functionality of basic parameters of a subsystem is changing or any location at boundaries between Member States or Infrastructure Managers;
- (f) 'track' means any track used for train service movements; passing loops and meeting loops on plain line or track connections only required for train operation are not published;
- (g) 'siding' means any track which is not used for train service movements.

**2. PURPOSE****2.1. General**

The Register of Infrastructure is used for planning purposes in designing new trains and developing routes before the start of operation. Therefore the Register of Infrastructure supports the processes described hereafter.

**2.2. Designing rolling stock subsystems**

Compliance with TSIs and Notified National Technical Rules is essential from the start of the design of new or the redesign of existing subsystems throughout the whole manufacturing process. Parameters of the Register of Infrastructure should be used in order to meet infrastructure characteristics for the intended use of the rolling stock.

**2.3. Ensuring technical compatibility for fixed installations**

(1) The Notified Body checks the conformity of the subsystems with the applicable TSI(s) based on information in the relevant TSI and in the registers. It covers the verification of interfaces with the system into which it is incorporated. Verification of interfaces for technical compatibility may be ensured by consulting the Register of Infrastructure.

- (2) The body designated by the Member States checks the conformity of the subsystems when national rules apply and the Register of Infrastructure may be consulted to verify the interfaces for technical compatibility in these cases.

#### 2.4. Monitoring interoperability of the Union railway network

Transparency about the progress of interoperability shall be ensured to monitor regularly the development of a Union interoperable network.

#### 2.5. Ascertaining route compatibility for planned train

- (1) Compatibility with the route for the intended train service is checked by the Railway Undertaking by using the register of infrastructure before the Railway Undertaking procures access to the network from the Infrastructure Manager. The Railway Undertaking must be sure that the route intended to be used is capable of supporting its train.
- (2) The Railway Undertaking chooses vehicles considering any restrictions on the authorisation for placing in service and a possible route for the train intended to run:
- (a) all vehicles in the train must be in compliance with the requirements applicable on the routes over which the train will run; and
  - (b) the train as a combination of vehicles must comply with the technical constraints of the route concerned.

### 3. FEATURES OF THE REGISTER OF INFRASTRUCTURE

#### 3.1. Railway network structure for the register

- (1) For the purpose of the Register of Infrastructure each Member State shall subdivide its railway network into sections of line and operational points. This level of the register is referred to as macro-level.
- (2) Items to be published for 'section of line' related to infrastructure, energy and control-command and signalling subsystems shall be assigned to the infrastructure element 'track' referred to as micro-level.
- (3) Items to be published for 'operational point' related to infrastructure subsystem shall be assigned to the infrastructure elements 'track' and 'siding' referred to as micro-level.

#### 3.2. Items for the register of infrastructure

- (1) Items and format of items shall be published in accordance with Table 1.
- (2) Items indicated as 'mandatory' in Table 1 shall be published in all cases. Items indicated as 'other' in Table 1 are context specific and shall be published as required by Member States.
- (3) The application of items to the network type in Table 1 is specified using the following abbreviations:
- 'TSI' — lines verified against the TSI,
  - 'existing' — lines put into service before the entry into force of Directive 2008/57/EC and not yet verified against the TSIs,
  - 'TEN CR, TEN HS, Off TEN' — lines belonging to the correspondent type of network and irrespective whether verified against the TSIs or not,
  - 'all' — all lines of the Union.

Table 1

#### Items of the Register of Infrastructure

Number	Title	Format	Definition	mandatory [M]/other [O]
1	<b>MEMBER STATE</b>			
1.1	<b>SECTION OF LINE</b>			
1.1.1	<b>TRACK</b>			

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.1.1.0.0</b>	<b>Generic information</b>			
1.1.1.0.0.1	IM's Name	[CharacterString]	Infrastructure Manager means any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure (Article 2(h) of Directive 2001/14/EC of the European Parliament and of the Council).	M
1.1.1.0.0.2	National line identification	[CharacterString]	Unique line identification or unique line number within Member State.	O
1.1.1.0.0.3	Identification of track	[CharacterString]	Unique track identification or unique track number within section.	M
1.1.1.0.0.4	Start of track	[WGS84 + NNN.NN + CharacterString]	Geographical coordinates according to the standard World Geodetic System (WGS) and km or mile related to line identification at the beginning of a track section in normal running direction. In case both directions are possible, any extreme might be 'Start'.	M
1.1.1.0.0.5	Operational Point at start of track	[CharacterString]	Name of operational point at the beginning of a track section in normal running direction.	O
1.1.1.0.0.6	End of track	[WGS84 + NNN.NN + CharacterString]	Geographical coordinates according to the standard World Geodetic System (WGS) and km or mile related to line identification at the beginning of a track section in normal running direction. In case both directions are possible, any extreme might be 'End'.	M
1.1.1.0.0.7	Operational Point at end of track	[CharacterString]	Name of operational point at the end of a track section in normal running direction.	O
<b>1.1.1.1</b>	<b>Infrastructure subsystem</b>			
<b>1.1.1.1.1</b>	<b>Declarations of verification for track</b>			
1.1.1.1.1.1	EC declaration of verification for track (INF)	[CC/ RRRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/ INF/10-2009/INT).	M — TSI
1.1.1.1.1.2	EI declaration of demonstration for track (INF)	[CC/ RRRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/ INF/10-2009/INT).	O — existing

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.1.1.1.2</b>	<b>Performance parameters</b>			
1.1.1.1.2.1	Type of Line	[RN] single selection from the predefined list: I/II/III/IV/V/VI/VII	Importance of a line (core or other) and the way of achieving parameters required for interoperability (new or upgraded) as defined in the CR INF TSI. This parameter is only applicable for TEN lines.	M — TEN HS M — TEN CR
1.1.1.1.2.2	Type of Traffic	[A] single selection from a predefined list: P/F/M	Indicates for a TSI Category of Line the dominant traffic for the target system and the respective Basic Parameters (Passenger, Freight, Mixed) as defined in the CR INF TSI. This parameter is applicable also for Off TEN lines.	M
1.1.1.1.2.3	Load capability	[CharacterString]	The result of the classification process set out in EN 15528:2008 (Annex A) and referred to in that standard as 'Line Category'. It represents the ability of the infrastructure to withstand the vertical loads imposed by vehicles on the line or section of line for regular service as a combination of EN Category of Line with an permitted speed according to Annex E or Annex C to the TSI (Line Category-Speed, examples: E5-100, D4xL-100).	M
1.1.1.1.2.4	Maximum permitted speed	[NNN]	Nominal maximum operational speed on the line as a result of INF, ENE and CCS subsystem characteristics expressed in kilometres/hour except for UK where it is expressed in miles/hour.	M
1.1.1.1.2.5	Temperature range	single selection from the predefined list: T1 (- 25 to + 40) T2 (- 40 to + 35) T3 (- 25 to + 45) Tx (- 40 to + 50)	Temperature range according EN 50125-1:1999, clause 4.3, for unrestricted access to the line.	M
1.1.1.1.2.6	Maximum altitude	[NNNN]	Highest point of the section of line above sea level in reference to Normal Amsterdam's Peil (NAP). NAP is a vertical datum in use in large parts of Europe given in metres.	M
1.1.1.1.2.7	Existence of severe climatic conditions	[Y/N]	Climatic conditions on the line are severe or normal. Snow, ice and hail conditions [EN 50125-1:1999, clause 4.6] as defined in clause 4.2.6.1.5 of the CR LOC and PAS TSI.	M
<b>1.1.1.1.3</b>	<b>Line layout</b>			
1.1.1.1.3.1	Interoperable gauge	[AA] single selection from a predefined list: GA/GB/GC	Gauges GA, GB or GC as defined in EN 15273-3:2009 Annex C.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
1.1.1.1.3.2	Multinational gauges	[CharacterString]	Multilateral gauge (Annex D Sections D.1 to D.3 to EN 15273-3:2009) or international gauge (Annex C Section C.2.1 to EN 15273-3:2009) other than GA, GB and GC.	M
1.1.1.1.3.3	National gauges	[CharacterString]	Domestic gauge as defined in EN 15273:3-2009 or other local gauge.	O
1.1.1.1.3.4	Standard combined transport profile number for swap bodies	[A NN or A NNN] single selection from a predefined list: C 22, C 32, C 45, C 70, C 80, other C 341, C 349, C 351, C 364, C 400, C 410, other	Coding for combined transport with swap bodies as defined in UIC Code 596-6. The technical number is made up of the wagon compatibility code (1 letter) and the standard combined transport profile number (2 digits, width ≤ 2 550 mm or 3 digits, width > 2 550 ≤ 2 600 mm).	O
1.1.1.1.3.5	Standard combined transport profile number for semi-trailers	[A NN or A NNN] single selection from a predefined list: P 22, P 32, P 45, P 70, P 80, other P 339, P 341, P 349, P 351, P 359, P 364, P 400, P 410, other	Coding for combined transport with swap bodies as defined in UIC Code 596-6. The technical number is made up of the wagon compatibility code (1 letter) and the standard combined transport profile number (2 digits, width ≤ 2 550 mm or 3 digits, width > 2 550 ≤ 2 600 mm).	O
1.1.1.1.3.6	Gradient profile	[NN.N] [NNN.NN + CharacterString]	Gradients (expressed in millimetres per metre) and locations of changes in gradient. Km or mile related to line identification in normal running direction. Data is given as a chain of information: gradient-location-gradient-location-...-gradient.	M
1.1.1.1.3.7	Minimum radius of horizontal curve	[NNNNN]	Radius of the smallest horizontal curve of a section.	M
<b>1.1.1.1.4</b>	<b>Track parameters</b>			
1.1.1.1.4.1	Nominal track gauge	[NNNN] single selection from a predefined list: 1000, 1435, 1520, 1524, 1600, 1668	A single value expressed in millimetres that identifies the track gauge. In case of multi-rail track, a set of data is to be published separately to each pair of rails to be operated as separate track.	M
1.1.1.1.4.2	Cant deficiency	[NNN]	Maximum cant deficiency expressed in millimetres defined as difference between the applied cant and a higher equilibrium cant the line has been designed for. In case of lateral acceleration of, e.g. 1,0 m/s <sup>2</sup> the value of 153 mm may be published.	M
1.1.1.1.4.3	Existence of in service limits for equivalent conicity	[Y + link/N]	Equivalent conicity is the tangent of the cone angle of a wheel-set with coned wheels whose lateral movement has the same kinematic wavelength as the given wheel-set on straight track and large-radius curves. In service limits are an open point, link to national rules if they exist.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
1.1.1.1.4.4	Rail inclination	[1:NN] single selection from a predefined list: 1:20/1:30/1:40	An angle defining the inclination of the head of a rail when installed in the track relative to the plane of the rails (running surface), equal to the angle between the axis of symmetry of the rail (or of an equivalent symmetrical rail having the same rail head profile) and the perpendicular to the plane of the rails.	M
1.1.1.1.4.5	Existence of ballast	[Y/Y + link/N]	An aerodynamic phenomenon in which ballast is thrown up or projected related to HS TSI with more than 190 km/h. Ballast pick-up is an open point in HS INF TSI. If national rules exist, the link shall be provided.	M — TEN HS
<b>1.1.1.1.5</b>	<b>Switches and crossings</b>			
1.1.1.1.5.1	TSI compliance of in service values for switches and crossings	[Y/N + link]	Switches and crossings are maintained to in service limit dimension as specified in TSI. If for existing lines less restrictive values than in the TSI are applied, then 'no' shall be selected with a link to a document with detailed specification.	M — existing
1.1.1.1.5.2	Minimum wheel diameter for obtuse crossings	[NNN]	Maximum unguided length of fixed obtuse crossings is based on a minimum wheel diameter in service. If the value is smaller than in the TSI, it has to be specified for non-TSI compliant lines. Diameter given in millimetres.	O — existing
<b>1.1.1.1.6</b>	<b>Track resistance to applied loads</b>			
1.1.1.1.6.1	Maximum train deceleration	[N.N]	Limit for longitudinal track resistance on existing lines not compliant to the TSI, given as a maximum allowed train deceleration and expressed in metres per square second.	O — existing
1.1.1.1.6.2	Use of eddy current brakes	[CharacterString] single choice from predefined list: allowed/allowed only for emergency brake/not allowed	Indication of limitations on the use of eddy current brakes.	M
1.1.1.1.6.3	Use of magnetic brakes	[CharacterString] single choice from predefined list: allowed/allowed only for emergency brake/not allowed	Indication of limitations on the use of magnetic brakes.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.1.1.1.7</b>	<b>Health, safety and environment</b>			
1.1.1.1.7.1	Fire category of rolling stock required	[A] single selection from a predefined list: N/A/B	Defined probability that a passenger train with a fire on board will continue to operate for a defined time period as defined in the SRT TSI and CR LOC&PAS TSI. None (N) for short tunnels or elevated track sections less than 1 km.	M — TSI O — existing
1.1.1.1.7.2	National fire category of rolling stock required	[CharacterString]	Defined probability that a passenger train with a fire on board will continue to operate for a defined time period according to national rules if they exist.	O — existing
1.1.1.1.7.3	Use of flange lubrication	[A] single selection from a predefined list: requested/allowed/ forbidden	Use of on-board device for flange lubrication is requested/allowed/ forbidden.	M — TEN CR M — Off TEN
1.1.1.1.7.4	Existence of level crossings	[Y/N]	Existence of level crossings on the section of line.	M — TEN CR M — Off TEN
1.1.1.1.7.5	Acceleration allowed at level crossing	[N.N]	Limit for acceleration of train if stopping close to a level crossing expressed in metres per square second, when existing according to national rules.	O — TEN CR O — Off TEN
<b>1.1.1.1.8</b>	<b>Tunnel</b>			
1.1.1.1.8.1	IM's Name	[CharacterString]	Infrastructure Manager means any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure (Article 2(h) of Directive 2001/14/EC).	M
1.1.1.1.8.2	Tunnel identification	[CharacterString]	Unique tunnel identification or unique number within Member State.	O
1.1.1.1.8.3	Start of tunnel	[WGS84 + NNN.NN + CharacterString]	Geographical coordinates according to the standard World Geodetic System (WGS) and km or mile related to line identification at the beginning of a tunnel.	M
1.1.1.1.8.4	End of tunnel	[WGS84 + NNN.NN + CharacterString]	Geographical coordinates according to the standard World Geodetic System (WGS) and km or mile related to line identification at the end of a tunnel.	M
1.1.1.1.8.5	EC declaration of verification for tunnel (SRT)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	M — TSI

Number	Title	Format	Definition	mandatory [M]/other [O]
1.1.1.1.8.6	EI declaration of demonstration for tunnel (SRT)	[CC/RRRRRRRRRRRRR/YYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	O — existing
1.1.1.1.8.7	Length of tunnel	[NNNNN]	Real length of a tunnel (expressed in metres) from portal to portal at the level of the top of rail. Required only for a tunnel with length of 100 metres or more.	M
1.1.1.1.8.8	Cross section area	[NNN]	Smallest real cross section area (expressed in square metres) of the tunnel.	M
1.1.1.1.8.9	Existence of emergency plan	[Y/N]	Plan developed under the direction of the IM, in cooperation, where appropriate, with RUs, Rescue services and relevant authorities for each tunnel. It shall be consistent with the self-rescue, evacuation and rescue facilities provided (SRT TSI, Commission Decision 2008/163/EC).	M — TSI O — existing
<b>1.1.1.2</b>	<b>Energy subsystem</b>			
<b>1.1.1.2.1</b>	<b>Declarations of verification for track</b>			
1.1.1.2.1.1	EC declaration of verification for track (ENE)	[CC/RRRRRRRRRRRRR/YYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	M — TSI
1.1.1.2.1.2	EI declaration of demonstration for track (ENE)	[CC/RRRRRRRRRRRRR/YYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	O — existing
<b>1.1.1.2.2</b>	<b>Overhead contact line</b>			
1.1.1.2.2.1	Energy supply system (Voltage and frequency)	[CharacterString] single selection from the predefined list: not electrified/ AC 25kV-50Hz/ AC 15kV-16,7 Hz/ DC 3kV/DC 1,5 kV/ DC (Specific Case FR)/DC 750 V/other (specify nominal voltage and frequency and ranges)	Nominal voltage and frequency if according to EN 50163:2004. If range of the EN is exceeded, maximum permanent voltage value to be published (maximum value given in brackets).	M

Number	Title	Format	Definition	mandatory [M]/other [O]
1.1.1.2.2.2	Maximum train current	[NNNN]	The maximum allowable train current expressed in amperes (A).	M
1.1.1.2.2.3	Maximum current at standstill per pantograph	[NNN]	The maximum allowable train current at standstill for DC systems expressed in amperes (A).	M
1.1.1.2.2.4	Existence of permission for regenerative braking	[Y/N]	Regenerative braking is permitted or not.	M
1.1.1.2.2.5	Nominal contact wire height	[N.NN]	Nominal value of the contact wire height at a support in the normal conditions expressed in metre.	M — TSI
1.1.1.2.2.6	Maximum contact wire height	[N.NN]	Maximum value of the contact wire height at a support in the normal conditions expressed in metre.	M — TEN HS M — TEN CR M — Off TEN
1.1.1.2.2.7	Minimum contact wire height	[N.NN]	Minimum value of the contact wire height at a support in the normal conditions expressed in metre.	M — TEN HS M — TEN CR M — Off TEN
<b>1.1.1.2.3</b>	<b>Pantograph</b>			
1.1.1.2.3.1	Accepted pantograph heads	[CharacterString] multiple choice from the predefined list: 1 950 mm (Type1)/ 1 950 mm (Type2)/ 1 950 mm (PL)/ 1 800 mm (NO,SE)/ 1 600 mm (EP)/ 1 600 mm (GB,CTRL)/ 1 600 mm (GB)/ 1 450/others (specify)	One or more pantograph heads according to RST TSI or EN 50367:2006.	M
1.1.1.2.3.2	Requirements for number of raised pantographs and spacing between them	[CharacterString]	Maximum number of raised pantographs allowed on the line. Minimum spacing centre line to centre line of the pantograph head in case of two or more pantographs raised, expressed in metres. Values are defined for the 'maximum permitted speed' on the section.	M
1.1.1.2.3.3	Permitted contact strip material	[CharacterString] multiple choice from the predefined list: Copper/plain carbon/ carbon with additive material/carbon with cladded copper/others	One or more types of contact strip material allowed to be used on the line.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.1.1.2.4</b>	<b>OCL separation sections</b>			
1.1.1.2.4.1	Existence of phase separation	[Y + link/N]	In case of existence of phase separation on the section of the line, a link to a detailed description shall be given.	M
1.1.1.2.4.2	Existence of system separation	[Y + link/N]	In case of existence of system separation on the section of the line, a link to a detailed description shall be given.	M
<b>1.1.1.2.5</b>	<b>Requirements for rolling stock</b>			
1.1.1.2.5.1	Current limitation on board required	[Y/N]	Requirement for an on-board device allowing to set the maximum train current.	M — TEN CR M — Off TEN
1.1.1.2.5.2	Mean contact force permitted	[CharacterString] or [NNN]	Mean contact force allowed on the line. The force is either given as a predefined curve or a value expressed in newton.	M
1.1.1.2.5.3	Automatic dropping device (ADD) required	[Y/N]	Automatic dropping device (ADD) required on the vehicle, according to EN 50206-1.	M
<b>1.1.1.3</b>	<b>Control-, command and signalling subsystem</b>			
<b>1.1.1.3.1</b>	<b>Declarations of verification for track</b>			
1.1.1.3.1.1	EC declaration of verification for track (CCS)	[CC/ RRRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/ INF/10-2009/INT).	M — TSI
1.1.1.3.1.2	EI declaration of demonstration for track (CCS)	[CC/ RRRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/ INF/10-2009/INT).	O — existing
<b>1.1.1.3.2</b>	<b>Class A — Train protection system (ETCS)</b>			
1.1.1.3.2.1	ETCS level	[CharacterString] single choice from the predefined list: no/1/2/3	The different ERTMS/ETCS application levels are a way to express the possible operating relationships between track and train. Level definitions are principally related to the track side equipment used, to the way the track side information reaches the on board units and to which functions are processed in the track side and in the on board equipment respectively.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
1.1.1.3.2.2	ETCS baseline version (x.y)	[N.N.N] single choice from the predefined list: (2.2.2)/2.3.0/2.3.0.d/ 3.0.0	ETCS baseline installed lineside. (version in brackets not fully compatible)	M
1.1.1.3.2.3	ETCS infill necessary for line access	[Y/N]	Infill is network access criteria.	O
1.1.1.3.2.4	ETCS infill installed lineside	[CharacterString] single choice from the predefined list: None Loop GSM-R Loop & GSM-R	Information about installed trackside equipment capable to transmit infill information by loop or GSM-R for level 1 installations.	O
1.1.1.3.2.5	ETCS national application implemented	number from a predefined list	Packet 44 is the means to transmit data for national applications between train and track and vice versa, using the data transmission facilities included within the ETCS. NID_XUSER values managed by ERA in a document about ETCS variables available on ERA website. National application installed lineside.	O
1.1.1.3.2.6	Existence of operating restrictions or conditions	[Y + link/N]	Restrictions or conditions due to partial compliance with the CCS TSI.	O
1.1.1.3.2.7	Optional ETCS functions	[CharacterString]	Use of those optional ETCS functions might improve operation on the line. They are for information only and no network access criteria.	O
<b>1.1.1.3.3</b>	<b>Class A — Radio (GSM-R)</b>			
1.1.1.3.3.1	GSM-R version	[CharacterString] Multiple choice from predefined list: no/1/2/3 none, 6/14, 7/15	GSM-R FRS and SRS version number installed lineside.	M
1.1.1.3.3.2	Minimum number of active GSM-R mobiles on-board for data transmission	[CharacterString] Multiple choice from predefined list: no/1/2/3	Number of mobiles for data transmission required for a smooth running of the train. Not safety critical and no matter of interoperability.	M
1.1.1.3.3.3	Optional GSM-R functions	[CharacterString] Multiple choice from predefined list: Border crossing manual/Border crossing balise/Border crossing radio/...	Use of those optional GSM-R functions might improve operation on the line. They are for information only and no network access criteria.	O

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.1.1.3.4</b>	<b>Class A — Train detection system</b>			
1.1.1.3.4.1	Existence of Class A train detection system	[Y + link/N]	Open point with a link to national rules where they exist.	O
<b>1.1.1.3.5</b>	<b>Class B — Train protection systems</b>			
1.1.1.3.5.1	Class B and/or other train protection, control and warning systems installed (system and if applicable version)	[CharacterString] Multiple choice from predefined list: LZB DE/LZB Spain/LZB AT/TVM430/PZB 90/others (specify)	Class B and/or other train protection, control and warning systems in normal operation installed lineside.	M
1.1.1.3.5.2	Need for more than one class B and/or other train protection, control and warning system required on-board	[CharacterString] Multiple choice from predefined list: KVB/others (specify)	More than one class B and/or other train protection, control and warning system required on-board and active simultaneously.	M
<b>1.1.1.3.6</b>	<b>Class B — Radio</b>			
1.1.1.3.6.1	Class B or other radio systems installed (system and if applicable version)	[CharacterString] Multiple choice from predefined list: UIC Radio Chapter 1-4/BR 1845/VR Train Radio/others (specify)	Class B or other radio systems in normal operation installed lineside.	M
<b>1.1.1.3.7</b>	<b>Transitions between systems</b>			
1.1.1.3.7.1	Existence of switch over between different protection, control and warning systems	[Y + link/N]	Switch over between ETCS/Class B and Class B/Class B systems whilst running. Installation depends on local conditions.	O — existing
1.1.1.3.7.2	Existence of switch over between different radio systems	[Y + link/N]	Switch over between GSM-R/Class B, Class B/Class B radio systems and no communication system whilst running. Installation depends on local conditions.	O — existing

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.1.1.3.8</b>	<b>Class B — Train detection systems</b>			
1.1.1.3.8.1	Types of train detection system	[CharacterString] Multiple choice from predefined list: track circuit/wheel detector/loop	Types of train detection systems installed. It helps to determine quickly which parameters related to train detection are applicable for a particular section of a railway line (not all parameters are applicable to all types of train detection systems).	M
1.1.1.3.8.2	Maximum permitted distance between two consecutive axles	[NNNNN]	Distance given in millimetres. Related to the minimum length of train detection section. This requirement is related to the minimum length of a signalling section, so that a vehicle or consist does not bridge it, making the train detection system report it as 'unoccupied'.	M
1.1.1.3.8.3	Minimum permitted distance between two consecutive axles	[NNNN]	Distance given in millimetres. Related to axle counter or wheel sensor or specific case. Axle counter systems have to be able to distinguish the detection of an axle by two subsequent counters in a high enough resolution; otherwise the result will be a count-error.	M
1.1.1.3.8.4	Minimum permitted distance between first and last axle	[NNNN]	Distance given in millimetres. Related to track circuits or respective specific cases. The electrical joints between adjacent track circuits may have an area where the detection of an axle of a vehicle is not ensured.	M
1.1.1.3.8.5	Maximum permitted length of the vehicle nose	[NNNN]	Length given in millimetres. Related to track circuits and axle counters. A train detection system shall be able to detect the first axle before the nose of the train reaches a danger point ahead as well as the last axle until the tail of the train has left the danger point. 'Nose' is applicable for both sides (front and rear) of a vehicle or train.	M
1.1.1.3.8.6	Minimum permitted width of the rim	[NNN]	Width given in millimetres. Related to axle counters, pedals and treadles. The detection field of the axle counter is influenced by the wheel which passes. The rim width has to be big enough to influence the field sufficiently to ensure appropriate detection.	M
1.1.1.3.8.7	Minimum permitted wheel diameter	[NNN]	Diameter given in millimetres. Compatibility with axle counters. The area of the influence (on the flange surface of a wheel) of the detection field of the axle counter is related to the wheel diameter.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
1.1.1.3.8.8	Minimum permitted thickness of the flange	[NN.N]	Thickness given in millimetres. Compatibility with axle counters, pedals and treadles. The detection field of the axle counter is influenced by the wheel which passes. The flange thickness has to be big enough to influence the field sufficiently to ensure appropriate detection.	M
1.1.1.3.8.9	Minimum permitted height of the flange	[NN.N]	Height given in millimetres. Compatibility with axle counters, pedals and treadles. The detection field of the axle counter is influenced by the wheel which passes. The flange height has to be big enough to influence the field sufficiently to ensure appropriate detection.	M
1.1.1.3.8.10	Maximum permitted height of the flange	[NN.N]	Height given in millimetres. Compatibility with axle counters, pedals and treadles. The detection field of the axle counter is influenced by the wheel which passes. For the flange height the range of the dimension $Sh(\min) - Sh(\max)$ has to be defined.	M
1.1.1.3.8.11	Minimum permitted axle load	[N.N]	Load given in tons. Compatibility with track circuits, pedals and treadles. A minimum axle load will activate pedals and treadles. Also, minimum axle load will have a beneficiary effect on the resistance between wheel and track, which is important for the operation of track circuits.	M
1.1.1.3.8.12	Existence of rules for metal-free space around wheels	[Y + link/N]	Compatibility with wheel sensors for axle counters. The principle of axle counters is based on the distortion of an electromagnetic field. The distortion should occur only by the passage of the wheel and not of the surrounding parts of rolling stock. Open point with link to national rules if they exist.	M
1.1.1.3.8.13	Existence of rules for metal-mass of vehicle	[Y + link/N]	Compatibility with induction loops. The metal-mass influences loop detection systems. Open point with link to national rules if they exist.	M
1.1.1.3.8.14	Ferromagnetic characteristics of wheel material required	[Y/N]	Compatibility with wheel sensors for axle counters. This characteristic is necessary to generate the distortion of the electromagnetic field of axle counters, to ensure appropriate detection. Requirement in CCS TSI is not precise.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
1.1.1.3.8.15	Maximum permitted impedance between opposite wheels of a wheelset	[N.NN]	Impedance given in ohm. Compatibility with track circuits. A track circuit is only able to detect rolling stock if the impedance between rails does not exceed a certain value. This value is given by the value the impedance of the opposite wheels of the wheelsets and the contact resistance at the wheel-rail surface. The interface requirement given here is only related to the electrical resistance between the running surfaces of the opposite wheels of a wheelset.	M
1.1.1.3.8.16	Minimum permitted impedance between pantograph and wheels	[N.NN]	Impedance given in ohm. Compatibility with track circuits. In track circuit detection systems, harmonics generated by the power supply system can generate interference and there can be a cross-over effect through the catenary system from one track to another. Sufficiently high vehicle impedance prevents this.	M
1.1.1.3.8.17	Maximum sanding output	[CharacterString] Single choice from predefined list: 500 g/800 g/other (specify)	Maximum output given for 30 seconds. Compatibility with track circuits. Too much sand brings the risk of not detecting trains in tracks equipped with track circuits.	M
1.1.1.3.8.18	Sanding override by driver required	[Y/N]	Compatibility with track circuits at places where the use of sanding is not permitted.	M
<b>1.1.1.3.9</b>	<b>Parameters related to electromagnetic interferences</b>			
1.1.1.3.9.1	Existence of rules for return current in the rails	[Y + link/N]	Compatibility with track circuits and wheel detectors of axle counters. The harmonics in the traction current in the rails can interfere with the operation of track circuits. The DC current in the rails may saturate the detectors of the axle counters, preventing their operation. Open point with link to national rules if they exist.	M
1.1.1.3.9.2	Existence of rules for electric, magnetic, electromagnetic fields	[Y + link/N]	Compatibility with wheel detectors. The electromagnetic fields generated by rolling stock can interfere with the operation of axle counters and wheel detectors. Open point with link to national rules if they exist.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.1.1.3.10</b>	<b>Lineside system for degraded situation</b>			
1.1.1.3.10.1	ETCS level for degraded situation	[CharacterString] single choice from the predefined list: no/1/2/3	System for degraded situation. In case of failure of the ETCS Level for normal operation, train movement can be supervised in another ETCS Level. Example: Level 1 as a degraded mode for Level 2.	M
1.1.1.3.10.2	Class B train protection, control and warning systems for degraded situation	[CharacterString] Multiple choice from predefined list: LZB DE/LZB Spain/LZB AT/TVM430/PZB 90/others (specify)	System for degraded situation. In case of failure of ETCS for normal operation, train movement can be supervised in another way. Example: train operation protected by Class B system and/or lineside signals.	M
<b>1.1.1.3.11</b>	<b>Brake related parameters</b>			
1.1.1.3.11.1	Minimum braking performance requested	[Y + link/N]	For the calculation of braking curves for speed supervision Requirement related to brake performance may depend on: — Distance between two consecutive signals (length of track section) — Train speed — Train mass — Gradient	O
<b>1.1.1.3.12</b>	<b>Other CCS related parameters</b>			
1.1.1.3.12.1	Tilting supported	[Y + link/N]	Support of tilting function helps to drive faster in curves and shorten travel time on a line equipped with ETCS (using special train category 'tilting train' for ETCS equipped trains); without support of this function even ETCS equipped tilting trains move as normal trains with more restrictive speed limitations on curves.	O
<b>1.2</b>	<b>OPERATIONAL POINT</b>			
<b>1.2.0.0.0</b>	<b>Generic information</b>			
1.2.0.0.0.1	Name of Operational Point	[CharacterString]	Name normally related to the town or village or to traffic control purpose.	O
1.2.0.0.0.2	OP identity code	[AANNNNNNNNNN NNNN]	Code developed for TAF TSI by SEDP as given in CEN CWA15541: May2006. It is composed of two letters for the Country Code and 14 numbers for the Location Code.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
1.2.0.0.0.3	National Operational Point identity code	[CharacterString]	Unique OP identification or unique OP number within Member State.	O
1.2.0.0.0.4	Type of Operational Point	[CharacterString] multiple selection from the predefined list: station/passenger stop/ freight terminal/ junction/shunting yard/other (specify)	Type of facility in relation to the dominating operational function(s).	M
1.2.0.0.0.5	Location of Operational Point	[WGS84 + NNN.NN + CharacterString]	Geographical coordinates according to the standard World Geodetic System (WGS) and km or mile related to line identification defining the location of the OP. This will normally be in the centre of the OP.	M
<b>1.2.1</b>	<b>TRACK</b>			
<b>1.2.1.0.0</b>	<b>Generic information</b>			
1.2.1.0.0.1	IM's Name	[CharacterString]	Infrastructure Manager means any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure (Article 2(h) of Directive 2001/14/EC).	M
1.2.1.0.0.2	Identification of track	[CharacterString]	Unique track identification or unique track number within OP.	M
<b>1.2.1.0.1</b>	<b>Declarations of verification for track</b>			
1.2.1.0.1.1	EC declaration of verification for track (INF)	[CC/ RRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/ INF/10-2009/INT).	M — TSI
1.2.1.0.1.2	EI declaration of demonstration for track (INF)	[CC/ RRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/ INF/10-2009/INT).	O — existing
<b>1.2.1.0.2</b>	<b>Performance parameters</b>			
1.2.1.0.2.1	Type of Line	[RN] single selection from the predefined list: I/II/III/IV/V/VI/VII	Importance of a line (core or other) and the way of achieving parameters required for interoperability (new or upgraded) as defined in the CR INF TSI. This parameter is only applicable for OPs on TEN lines.	M — TEN HS M — TEN CR

Number	Title	Format	Definition	mandatory [M]/other [O]
1.2.1.0.2.2	Type of Traffic	[A] single selection from a predefined list: P/F/M	Indicates for a TSI Category of Line the dominant traffic for the target system and the respective Basic Parameters (Passenger, Freight, Mixed) as defined in the CR INF TSI. This parameter is applicable also for OPs on Off TEN lines.	M
<b>1.2.1.0.3</b>	<b>Line layout</b>			
1.2.1.0.3.1	Interoperable gauge	[AA] single selection from a predefined list: GA/GB/GC	Gauges GA, GB or GC as defined in EN 15273-3:2009 Annex C.	M
1.2.1.0.3.2	Multinational gauges	[CharacterString]	Multilateral gauge (Annex D Sections D.1 to D.3 to EN 15273-3:2009) or international gauge (Annex C Section C.2.1 to EN 15273-3:2009) other than GA, GB and GC.	M
1.2.1.0.3.3	National gauges	[CharacterString]	Domestic gauge as defined in EN 15273:3-2009 or other local gauge.	O
<b>1.2.1.0.4</b>	<b>Track parameters</b>			
1.2.1.0.4.1	Nominal track gauge	[NNNN] single selection from a predefined list: 1000, 1435, 1520, 1524, 1600, 1668	A single value expressed in millimetres that identifies the track gauge. In case of multi-rail track, a set of data is to be published separately to each pair of rails to be operated as separate track.	M
<b>1.2.1.0.5</b>	<b>Tunnel</b>			
1.2.1.0.5.1	IM's Name	[CharacterString]	Infrastructure Manager means any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure (Article 2(h) of Directive 2001/14/EC).	M
1.2.1.0.5.2	Identification of tunnel	[CharacterString]	Unique tunnel identification or unique tunnel number within MS.	O
1.2.1.0.5.3	EC declaration of verification for tunnel (SRT)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	M — TSI
1.2.1.0.5.4	EI declaration of demonstration for tunnel (SRT)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	O — existing

Number	Title	Format	Definition	mandatory [M]/other [O]
1.2.1.0.5.5	Length of tunnel	[NNNNN]	Real length of a tunnel (expressed in metres) from portal to portal at the level of the top of rail. Required only for a tunnel with length of 100 metres or more.	O
1.2.1.0.5.6	Existence of emergency plan	[Y/N]	Plan developed under the direction of the IM, in cooperation, where appropriate, with RUs, Rescue services and relevant authorities for each tunnel. It shall be consistent with the self-rescue, evacuation and rescue facilities provided (SRT TSI, Decision 2008/163/EC).	M — TSI O — existing
<b>1.2.1.0.6</b>	<b>Platform</b>			
1.2.1.0.6.1	IM's Name	[CharacterString]	Infrastructure Manager means any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure (Article 2(h) of Directive 2001/14/EC).	M
1.2.1.0.6.2	Identification of platform	[CharacterString]	Unique platform identification or unique platform number within OP.	M
1.2.1.0.6.3	Classification of platform	[CharacterString] single selection from a predefined list: HS TEN/CR TEN/Off TEN	Platform is operated as a part of HS TEN, CR TEN or Off TEN.	M
1.2.1.0.6.4	Application of PRM	[Y/N]	Information whether the platform is compliant to PRM TSI.	M
1.2.1.0.6.5	EC declaration of verification for platform (INF/PRM)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	M — TSI
1.2.1.0.6.6	EI declaration of demonstration for platform (INF/PRM)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	O — existing
1.2.1.0.6.7	Usable length of platform	[NNNN]	The maximum continuous length (expressed in metres) of that part of platform in front of which a train is intended to remain stationary in normal operating conditions for passengers to board and alight from the train, making appropriate allowance for stopping tolerances (CR INF TSI).	M

Number	Title	Format	Definition	mandatory [M]/other [O]
1.2.1.0.6.8	Height of platform	[NNNN] single selection from a predefined list: 550/760/others (specify)	Distance between the upper surface of platform and running surface of the neighbouring track. It is the nominal value expressed in millimetres.	M
1.2.1.0.6.9	Fixed facilities for starting trains from platform	[CharacterString]	Fixed equipment like mirrors, CCTV cameras provided as part of the signalling equipment to enable platform staff to indicate to train crew when to close doors, and when this has been done successfully, to start the train.	O
1.2.1.0.6.10	Existence of boarding aid on platform	[Y/N]	Information if any equipment facilitating boarding trains exists on the platform.	M
<b>1.2.2</b>	<b>SIDING</b>			
<b>1.2.2.0.0</b>	<b>Generic information</b>			
1.2.2.0.0.1	IM's Name	[CharacterString]	Infrastructure Manager means any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure (Article 2(h) of Directive 2001/14/EC).	M
1.2.2.0.0.2	Identification of siding	[CharacterString]	Unique siding identification or unique siding number within OP.	M
1.2.2.0.0.3	Classification of siding	[CharacterString] single selection from a predefined list: HS TEN/CR TEN/Off TEN	Siding is operated as a part of HS TEN, CR TEN or Off TEN.	M
<b>1.2.2.0.1</b>	<b>Declaration of verification for siding</b>			
1.2.2.0.1.1	EC declaration of verification for siding (INF)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	M — TSI
1.2.2.0.1.2	EI declaration of demonstration for siding (INF)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	O — existing

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.2.2.0.2</b>	<b>Performance parameter</b>			
1.2.2.0.2.1	Usable length of siding	[NNNN]	Total length of the siding/stabling track expressed in metres where trains can be parked safely.	M
<b>1.2.2.0.3</b>	<b>Line layout</b>			
1.2.2.0.3.1	Maximum gradient for stabling tracks	[N.N]	Value of the gradient exceeding the TSI limit of 2,5 expressed in millimetres per metre.	O — existing
1.2.2.0.3.2	Minimum radius of horizontal curve	[NNN]	Value of the radius (expressed in metres) if below the minimum limit given in CR INF TSI on non-TSI compliant lines.	O — existing
1.2.2.0.3.3	Minimum radius of vertical curve	[NNN]	Value of the radius (expressed in metres) if below the minimum limit given in CR INF TSI on non-TSI compliant lines.	O — existing
<b>1.2.2.0.4</b>	<b>Fixed installations for servicing trains</b>			
1.2.2.0.4.1	Existence of toilet discharge	[Y + link/N]	Type of toilet discharge (fixed installation for servicing trains) as defined in INF TSIs. If yes link to an external document.	M
1.2.2.0.4.2	Existence of external cleaning facilities	[Y + link/N]	Type of external cleaning facility (fixed installation for servicing trains) as defined in INF TSIs. If yes link to an external document.	M
1.2.2.0.4.3	Existence of water restocking	[Y + link/N]	Type of water restocking (fixed installation for servicing trains) as defined in INF TSIs. If yes link to an external document.	M
1.2.2.0.4.4	Existence of refuelling	[Y + link/N]	Type of refuelling (fixed installation for servicing trains) as defined in INF TSIs. If yes link to an external document.	M
1.2.2.0.4.5	Existence of sand restocking	[Y + link/N]	Type of sand restocking (fixed installation for servicing trains). If yes link to an external document.	M
1.2.2.0.4.6	Existence of electric shore supply	[Y + link/N]	Type of electric shore supply (fixed installation for servicing trains) as defined in INF TSIs. If yes link to an external document.	M

Number	Title	Format	Definition	mandatory [M]/other [O]
<b>1.2.2.0.5</b>	<b>Tunnel</b>			
1.2.2.0.5.1	IM's Name	[CharacterString]	Infrastructure Manager means any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure (Article 2(h) of Directive 2001/14/EC).	M
1.2.2.0.5.2	Identification of tunnel	[CharacterString]	Unique tunnel identification or unique tunnel number within MS.	O
1.2.2.0.5.3	EC declaration of verification for tunnel (SRT)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EC declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	M — TSI
1.2.2.0.5.4	EI declaration of demonstration for tunnel (SRT)	[CC/ RRRRRRRRRRRRR/ YYYY/NNNNNN]	Unique number for EI declarations following format requirements specified in the 'Document about practical arrangements for transmitting interoperability documents' (ERA/INF/10-2009/INT).	O — existing
1.2.2.0.5.5	Length of tunnel	[NNNNN]	Real length of a tunnel (expressed in metres) from portal to portal at the level of the top of rail. Required only for a tunnel with length of 100 metres or more.	O
1.2.2.0.5.6	Existence of emergency plan	[Y/N]	Plan developed under the direction of the IM, in cooperation, where appropriate, with RUs, Rescue services and relevant authorities for each tunnel. It shall be consistent with the self-rescue, evacuation and rescue facilities provided (SRT TSI, Decision 2008/163/EC).	M — TSI O — existing

#### 4. INSTRUCTIONS FOR USE

##### 4.1. Processes

In order to satisfy the requests for data, the register shall support the processes as set out in Table 2.

Table 2

##### List of processes

Get items to ascertain route compatibility for planned train	Retrieve technical characteristics for a specific route to check the technical compatibility between fixed installations and rolling stock according to the interface with European Register of Authorised Types of Vehicles
Get items to ensure technical compatibility for fixed installations	Retrieve technical characteristics for a particular route section in order to verify the interfaces with the system into which it is incorporated at the boundaries

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Get items to design rolling stock subsystems	Retrieve technical characteristics for a certain part of the network in order to achieve compliance when designing and authorising vehicles for placing in service on 'type'-level
Get items to monitor interoperability of the EU railway network	Retrieve technical characteristics for specific parts of the networks to monitor regularly the progress towards an EU interoperable network in terms of key performance indicators

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#### 4.2. Revision cycle

Member States shall make updates of items that are in the register on a regular basis, and at least every 3 months. One update should coincide with the annual publication of the Network Statement.

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