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**COMMISSION IMPLEMENTING DECISION**  
**of 4 October 2011**  
**on the European register of authorised types of railway vehicles**  
*(notified under document C(2011) 6974)*  
**(Text with EEA relevance)**  
(2011/665/EU)  
(OJ L 264, 8.10.2011, p. 32)

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**COMMISSION IMPLEMENTING DECISION****of 4 October 2011****on the European register of authorised types of railway vehicles***(notified under document C(2011) 6974)***(Text with EEA relevance)**

(2011/665/EU)

*Article 1***Subject matter**

This Decision establishes the specification for the European register of authorised types of vehicles referred to in Article 34 of Directive 2008/57/EC.

*Article 2***Specification of the European register of authorised types of vehicles**

1. The Agency shall develop, operate and maintain the European register of authorised types of vehicles on the basis of the specification set out in Annexes I and II.

2. The European register of authorised types of vehicles (ERATV) shall contain data on the types of vehicle authorised by the Member States pursuant to Article 26 of Directive 2008/57/EC.

3. Types of vehicle authorised by a Member State before 19 July 2010 for which one or more vehicles have been authorised in one or more Member States pursuant to Article 22 or 24 of Directive 2008/57/EC after 19 July 2010 are deemed to fall under provisions of Article 26 of Directive 2008/57/EC and shall be registered in ERATV. In this case, data to be recorded may be limited to the parameters that have been verified during the type authorisation process.

4. The types of vehicles which can be registered voluntarily are those set out in Section 1 of Annex I.

5. The structure of the number that each type of vehicle receives shall be as set out in Annex III.

6. The register shall be operational by 31 December 2012. In the meantime the Agency shall publish the information relating to the authorised types of vehicles on its website.

**▼ M1***Article 2a***Information to be inserted by the Agency**

The Agency shall insert in the European register of authorised types of vehicles information on the vehicle type authorisations or vehicle type variants it has granted and on new versions of a vehicle type or of a vehicle type variant in accordance with Article 50 of Commission Implementing Regulation (EU) 2018/545 <sup>(1)</sup>, as set out in Annex II to this Decision.

**▼ B***Article 3***Information to be sent by national safety authorities****▼ M1**

1. Member States shall ensure that the national safety authorities provide the information on the vehicle type authorisations or vehicle type variants they have granted and on the new version of a vehicle type or of a vehicle type variant in accordance with Article 50 of Regulation (EU) 2018/545, as set out in Annex II to this Decision.

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2. The national safety authorities shall provide the information referred to in paragraph 1 of this Article in accordance with the rules laid down in Section 5.2 of Annex I.

3. The national safety authorities shall submit the information by using the standard web-based electronic form with the relevant fields filled in.

4. The national safety authorities shall submit the information related to the authorisations of types of vehicles that they have granted after 19 July 2010 and before the entry into force of this Decision not later than 4 months after the date of entry into force of this Decision.

**▼ M1***Article 4***Restriction codes**

Harmonised restriction codes shall be applicable in all Member States.

The list of harmonised restriction codes shall be the list referred to in Commission Implementing Decision (EU) 2018/1614 <sup>(2)</sup>.

<sup>(1)</sup> Commission Implementing Regulation (EU) 2018/545 of 4 April 2018 establishing practical arrangements for the railway vehicle authorisation and railway vehicle type authorisation process pursuant to Directive (EU) 2016/797 of the European Parliament and of the Council (OJ L 90, 6.4.2018, p. 66).

<sup>(2)</sup> Commission Implementing Decision (EU) 2018/1614 of 25 October 2018 laying down specifications for the vehicle registers referred to in Article 47 of Directive (EU) 2016/797 of the European Parliament and of the Council and amending and repealing Commission Decision 2007/756/EC (OJ L 268, 26.10.2018, p. 53).

**▼B***Article 5***Final provisions**

1. The Agency shall publish and keep up-to-date an application guide for the European register of authorised types of vehicles. Among other information, this guide shall include for each parameter a reference to the clauses of the technical specifications for interoperability that state the requirements for this parameter.

2. The Agency shall submit a recommendation to the Commission on the possible inclusion in the register of types of vehicles that were authorised before 19 July 2010 and on the possible amendment of this Decision based on the experience gained not later than 18 months after the entry into force of this Decision.

*Article 6***Date of application**

This Decision shall apply from 15 April 2012.

*Article 7***Addressees**

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



*ANNEX I*

**SPECIFICATION FOR THE EUROPEAN REGISTER OF AUTHORISED TYPES OF VEHICLES**

1. TYPES OF VEHICLE TO BE VOLUNTARILY REGISTERED

Types of vehicle authorised before 19 July 2010 for which no new vehicles have been authorised after 19 July 2010 may be registered in ERATV voluntarily.

In addition, the following types of vehicle may be registered voluntarily:

- vehicles authorised to be placed in service before 19 July 2010 for which an additional authorisation for placing in service has been granted pursuant to Article 23 or 25 of Directive 2008/57/EC,
- vehicles authorised to be placed in service before 19 July 2010 for which a new authorisation for placing in service has been granted after an upgrading or renewal,
- vehicles coming from third countries and authorised on the EU territory according to COTIF 1999 and particularly its Appendices F and G or,
- vehicles coming from third countries and authorised under provisions of Article 21(11) of Directive 2008/57/EC.

In these four cases of voluntary registration, data to be recorded may be limited to the parameters that have been verified during the authorisation process.

Temporary permissions, such as permissions for testing and trial runs, shall not be recorded in ERATV.

2. FUNCTIONAL ARCHITECTURE

2.1. **Administration of ERATV**

The Agency shall host and manage ERATV. The Agency shall create user accounts and to grant access rights at the request of national safety authorities in accordance with this specification.

2.2. **Address of ERATV**

ERATV shall be a web-based application. The address of ERATV shall be made available on the Agency website.



2.3. **Users and user access rights**

ERATV shall have the following users:

*Table 1*

**Access rights to ERATV**

User	Access rights	Log in, user accounts
National safety authority of any Member State	Submission of data related to this Member State to be validated by the Agency.  Unrestricted consultation of any data, including the data for which the validation is pending.	Logging in with user name and password.  No functional or anonymous accounts shall be made available. Several accounts shall be created if the national safety authority so requires.

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User	Access rights	Log in, user accounts
Agency	<p>Registration of data related to vehicle type authorisation it has processed as authorising entity.</p> <p>Validation regarding the compliance with this specification and publication of the data submitted by a national safety authority.</p> <p>Unrestricted consultation of any data, including the data for which the validation is pending.</p>	Logging in with user name and password.
Public	Consultation of validated data.	Not applicable.

**▼ B****2.4. Interface to external systems**

Any type of vehicle registered (i.e. validated and made public) in ERATV shall be available via a hyperlink. These hyperlinks may be used by external applications.

Attention shall be given to possible links between ERATV and the European Centralised Virtual Vehicle Register (ECVVR) <sup>(1)</sup>.

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ERATV shall, as appropriate, allow for exchange of information with other information systems of the Agency such as the European Vehicle Register ('EVR') as referred to in Decision (EU) 2018/1614, the common user interface for the railway register of infrastructure as referred to in Commission Decision 2014/880/EU <sup>(2)</sup> and the one stop-shop ('OSS') as referred to in Article 12 of Regulation (EU) 2016/796 of the European Parliament and of the Council <sup>(3)</sup>.

**▼ B****2.5. Links to other registers and databases**

When developing ERATV, the Agency shall take full account of the interfaces, including coordinated transitional periods, to the following registers and databases:

— National vehicle registers <sup>(4)</sup> (NVR) and ECVVR: the format of data on the type of vehicle in ECVVR shall have a one-to-one correspondence with the designation of types and, where applicable, versions of type in ERATV.

— Register of infrastructure (RINF) <sup>(5)</sup>: the lists of parameters and the data format of RINF and ERATV shall correspond to each other, including any updates or amendments of the RINF and ERATV specifications.

<sup>(1)</sup> As provided for in Commission Decision 2007/756/EC of 9 November 2007 adopting a common specification of the national vehicle register provided for under Article 14(4) and (5) of Directives 96/48/EC and 2001/16/EC (OJ L 305, 23.11.2007, p. 30).

<sup>(2)</sup> Commission Implementing Decision 2014/880/EU of 26 November 2014 on the common specifications of the register of railway infrastructure and repealing Implementing Decision 2011/633/EU (OJ L 356, 12.12.2014, p. 489).

<sup>(3)</sup> Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004 (OJ L 138, 26.5.2016, p. 1).

<sup>(4)</sup> As provided for in Decision 2007/756/EC.

<sup>(5)</sup> As provided for in Commission Implementing Decision 2011/633/EU of 15 September 2011 on the common specifications of the register of railway infrastructure (OJ L 256, 1.10.2011, p. 1).

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- Reference document of national rules (Article 27 of Directive 2008/57/EC): once the reference document is available, the list of parameters for which the conformity assessment is done against national rules indicated in ERATV shall have one-to-one correspondence with the list of parameters indicated in the reference document. ERATV must not allow referring to any parameter not included in the reference document.

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- EVR: the format of data on the type of vehicle in EVR shall have a one-to-one correspondence with the designation of types and, where applicable, variants or versions of type in ERATV;
- The One Stop Shop <sup>(1)</sup> (OSS): OSS shall rely on ERATV to manage any information related to the types/variants/versions. The identification of the type shall be used as reference during the exchange of information between the systems; OSS will allow retrieving information for types/variants/versions from ERATV and will trigger the publication of the type/variant/version information in ERATV when the vehicle type authorisation is delivered;
- Single Rule Database <sup>(2)</sup> containing national rules: for the national rules for vehicle authorisation: the list of parameters for which the conformity assessment is done against national rules indicated in ERATV shall be the same in the Single Rule Database. ERATV must not allow referring to any parameter not included in the Single Rule Database.

Until the Single Rules Database is operational and data migrated from the Reference Document Database and Notif-IT, the list of parameters for which the conformity assessment is done against national rules indicated in ERATV shall be the same as in the Reference Document Database. ERATV must not allow referring to any parameter not included in the Reference Document Database.

**▼ B****2.6. Availability**

As a general rule, ERATV shall be available 24 hours a day, 7 days a week, 365 days a year with a target system availability of 98 %. However, in the case of a failure occurring out of normal working hours of the Agency, the restoration of the service shall be handled the next working day of the Agency after the failure. The unavailability of the system shall be minimal during the maintenance.

**2.7. Security**

The user accounts and passwords created by the Agency must not be disclosed to any third party and must be used in accordance with this specification only.

**3. TECHNICAL ARCHITECTURE****3.1. System architecture**

ERATV shall be a web-based application hosted and managed by the Agency.

ERATV shall be capable of containing complete information for 35 000 types of vehicle.

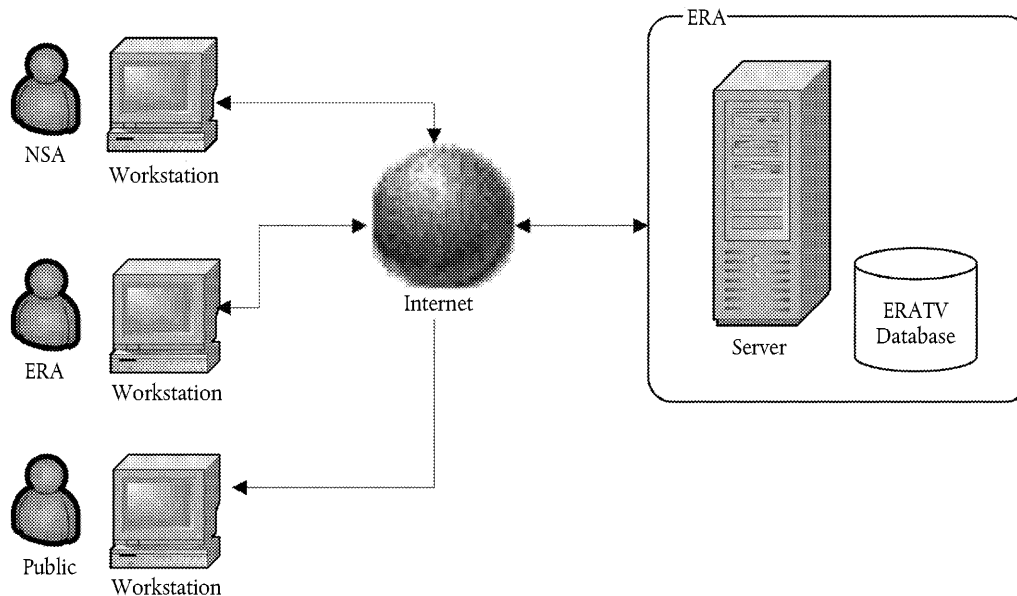
<sup>(1)</sup> As provided for in Article 12 of Regulation (EU) 2016/796.

<sup>(2)</sup> As provided for in Article 27 of Regulation (EU) 2016/796.

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The users shall have the possibility to connect to ERATV by means of a standard Internet connection.

ERATV architecture shall be as shown on the following figure:



### 3.2. System requirements

For having connection to ERATV, an Internet browser and access to Internet shall be required.

## 4. OPERATING MODE

ERATV shall have the following operating modes:

- Normal mode. During the normal operating mode all functionalities shall be available.
- Maintenance mode. During the maintenance mode ERATV may not be available for users.

## 5. RULES FOR DATA INPUT AND CONSULTATION

**▼ M1**

### 5.1. General principle

Every national safety authority shall submit information related to the authorisations of a type of vehicle or vehicle type variant it has granted.

Every national safety authority shall submit information related to the versions of a vehicle type or versions of a vehicle type variant it has received in accordance with Article 15(3) of Regulation (EU) 2018/545.

The Agency shall directly register information related to the authorisations of a type of vehicle or vehicle type variant it has granted and information related to the versions of a vehicle type or versions of a vehicle type variant it has received.

ERATV shall include a web based tool for exchange of information between the national safety authorities and the Agency. This tool shall allow the following exchanges of information:

- (1) reservation of a type ID;



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- (2) submission of data for the register by a national safety authority to the Agency including:
- (a) data related to granting an authorisation for a new type of vehicle or a new vehicle type variant (in this case the national safety authority shall provide the full set of data as set out in Annex II);
  - (b) data related to granting an authorisation for a type of vehicle previously registered in ERATV (in this case the national safety authority shall only provide data related to the authorisation itself, i.e. fields in Section 3 of the list set out in Annex II);
  - (c) data related to registering a version of a vehicle type or version of a vehicle type variant (in this case the national safety authority shall provide the full set of data as set out in Annex II);
  - (d) data related to modification of an existing authorisation (in this case the national safety authority shall only provide data related to the fields that need to be modified; this may not include modification of data related to the characteristics of the vehicle);
  - (e) data related to suspension of an existing authorisation (in this case the national safety authority shall only provide the date of suspension);
  - (f) data related to reactivation of an existing authorisation (in this case the national safety authority shall only provide data related to the fields that need to be modified), distinguishing between
    - reactivation without modification of data,
    - reactivation with modification of data (these data may not be related to the characteristics of the vehicle);
  - (g) data related to withdrawal of an authorisation;
  - (h) data related to correction of an error;
- (3) sending of requests for data clarification and/or correction by the Agency to a national safety authority;
- (4) sending of answers by a national safety authority to the requests of clarification and/or correction done by the Agency.

The national safety authority shall submit the data for updating the register electronically by means of a web based application and using the standard web based electronic form with the relevant fields filled in as set out in Annex II.

The Agency shall check the data submitted by the national safety authority regarding their compliance with this specification, and either validate them or request a clarification.

If the Agency considers that the data submitted by the national safety authority are not in compliance with this specification, the Agency shall send the national safety authority a request for correction or clarification of the submitted data.

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Upon each update of data regarding a type of vehicle the system shall generate a confirmation message, which shall be sent by email to the users of the national safety authority that submitted the data, to the national safety authority of all other Member States where the type is authorised, to the vehicle type authorisation holder and to the Agency.

**▼ B****5.2. Submission of data by national safety authority****▼ M1****5.2.1. *Registering a new vehicle type authorisation, a new vehicle type variant a new version of a vehicle type or a new version of a vehicle type***

- (1) The national safety authority shall inform the Agency of any vehicle type authorisation within 20 working days following the issue of the authorisation.
- (2) The national safety authority shall inform the Agency of any vehicle type variant within 20 working days following the issue of the authorisation.
- (3) The national safety authority shall inform the Agency of any version of a vehicle type or version of a vehicle type variant it has received in accordance with Article 15(3) of Regulation (EU) 2018/545 within 20 working days following receipt of the complete information.
- (4) The Agency shall check the information submitted by the national safety authority and within 20 working days following the receipt of this information either validate it and assign a type of vehicle number as set out in Annex III or request its correction or clarification. In particular, in order to prevent an unintended duplication of types in ERATV, the Agency shall check, as far as the data available in ERATV allows, that this type has not been registered before by another Member State.
- (5) After validation of the information submitted by the national safety authority, the Agency shall assign the new type of vehicle its number. The rules for assigning the type of vehicle number are set out in Annex III.

**▼ B****5.2.2. *Granting an authorisation to a type of vehicle previously registered in ERATV***

The national safety authority shall inform the Agency of any authorisation of a type of vehicle already registered in ERATV (such as a type authorised by another Member State) within 20 working days following the issue of the authorisation.

The Agency shall check the information submitted by the national safety authority and, within 10 working days following the receipt of this information, shall either validate it or request its correction or clarification.

After validation of the information submitted by the national safety authority, the Agency shall complement the data related to this type of vehicle by the data related to the authorisation in the Member State of the national safety authority that granted this authorisation.

**5.2.3. *Modification on an existing authorisation***

The national safety authority shall inform the Agency of any modification to an existing authorisation for a type of vehicle within 20 working days following the issue of the modification to the authorisation.

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The Agency shall check the information submitted by the national safety authority and, within 10 working days following the receipt of this information, shall either validate it or request its correction or clarification. In particular, the Agency shall check that the requested changes actually consist of a modification of an authorisation of an existing type (e.g. amendment of conditions of the authorisation, amendments of the type examination certificate) and do not constitute a new type of vehicle.

After validation of the information submitted by the national safety authority, the Agency shall publish the information.

**5.2.4. Suspension**

The national safety authority shall inform the Agency of any suspension of an existing authorisation for a type of vehicle within 5 working days following the issue of the suspension of the authorisation.

The Agency shall check the information submitted by the national safety authority and, within 5 working days following the receipt of this information, shall either validate it or request its correction or clarification.

**5.2.5. Reactivation without modification**

The national safety authority shall inform the Agency of a reactivation of an authorisation for a type of vehicle previously suspended within 20 working days following the issue of the reactivation of the authorisation. The national safety authority shall confirm that the original authorisation is reactivated without any modifications.

The Agency shall check the information submitted by the national safety authority and, within 10 working days following the receipt of this information, shall either validate it or request its correction or clarification.

**5.2.6. Reactivation with modification**

The national safety authority shall inform the Agency of a reactivation of an authorisation for a type of vehicle previously suspended within 20 working days following the issue of the reactivation of the authorisation. The national safety authority shall indicate that the reactivation is accompanied by a modification of the original authorisation. The national safety authority shall submit information regarding this modification.

The process indicated in clause 5.2.3 above for modification of an authorisation shall apply.

**5.2.7. Withdrawal**

The national safety authority shall inform the Agency of any withdrawal of an existing authorisation for a type of vehicle within 5 working days following the withdrawal of the authorisation.

The Agency shall check the information submitted by the national safety authority and, within 5 working days following the receipt of this information, shall either validate it or request its correction or clarification.

In the cases where an authorisation has a validity term, the IT system shall automatically change the status of the authorisation to 'expired' according to the validity term indicated by the relevant national safety authority.

**5.2.8. Modification of an authorisation which may lead to a modification of a registered type of vehicle**

Before requesting a modification of an authorisation which may lead to a modification of a registered type of vehicle, the national safety authority shall coordinate with national safety authorities who have granted authorisation for this registered type, and in particular the authority who has registered the type in ERATV.

**▼ M1****5.3. Entry or modification of data by the Agency****5.3.1. *The authorising entity is a national safety authority***

Where a national safety authority acts as authorising entity, the Agency shall not modify data submitted by a national safety authority. The role of the Agency shall consist of validation and publication only.

In exceptional circumstances, such as technical impossibility of following the normal procedure, the Agency may, following a request from a national safety authority, enter or modify data submitted by a national safety authority. In this case, the national safety authority that requested the entry or modification of data shall confirm the data entered or modified by the Agency and the Agency shall duly document the process. The timescales for entering data in ERATV as indicated in Section 5.2 shall apply.

**5.3.2. *The authorising entity is the Agency***

Where the Agency acts as authorising entity, it shall:

- (a) register any vehicle type authorisation or vehicle type variant within 20 working days following the issue of the authorisation;
- (b) register any version of a vehicle type or version of a vehicle type variant within 20 working days following receipt of the complete information;
- (c) modify any existing authorisation for a type of vehicle within 20 working days following the issue of the modification to the authorisation;
- (d) suspend any existing authorisation for a type of vehicle within 5 working days following the issue of the suspension of the authorisation;
- (e) reactivate any authorisation for a type of vehicle previously suspended within 20 working days following the issue of the reactivation of the authorisation;
- (f) withdraw any existing authorisation for a type of vehicle within 5 working days following the withdrawal of the authorisation.

**▼ B****5.4. Publication of data by the Agency**

The Agency shall make publicly available the data that has been validated.

**5.5. Error handling in submitted data**

ERATV shall allow correcting errors in the recorded data. In the cases when an error has been corrected, ERATV shall indicate the date of correction.

**5.6. Possible searches and reports**

ERATV shall allow the following reports:

- (1) For a national safety authority and the Agency:
  - information as indicated in Annex II submitted by any national safety authority and not validated by the Agency for any type of vehicle for which the authorisation is active, suspended or withdrawn (including expired authorisations) as far as this information is kept in historical records,
  - any of the reports available to public.

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(2) For the public:

- information as indicated in Annex II submitted by any national safety authority and validated by the Agency for any type of vehicle for which the authorisation is active, suspended or withdrawn (including expired authorisations) as far as this information is kept in historical records.

ERATV shall allow the public to perform searches at least by the following criteria and any combination of them:

- by type code,
- by type name or part of it,
- by manufacturer's name or part of it,
- by vehicle category/subcategory,
- by TSI(s) the type is in conformity with,
- by Member State or combination of Member States where the type of vehicle is authorised,
- by status of the authorisation,
- by any of the technical characteristics.

Where appropriate the search criteria shall allow indicating a range for a technical characteristic.

#### 5.7. Historical records

ERATV shall retain the complete historical record of all the modifications, including correction of errors, requests for clarifications and answers, related to a registered type of vehicle for 10 years from the date of withdrawal of the authorisation in all the Member States and for 10 years from the date of withdrawal of the registration from any NVR of the last vehicle of this type, whatever occurs later.

#### 5.8. Automatic notification of changes

Following a modification, suspension, reactivation or withdrawal of an authorisation of a vehicle type, the IT system shall send the national safety authority of any Member State where the vehicle types is authorised an automatic e-mail informing about the change.

In the cases where an authorisation has a validity term, the IT system shall send the relevant national safety authority an automatic e-mail informing about the forthcoming expiry date 3 months before this date.

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## 6. GLOSSARY

Term or abbreviation	Definition
Type ID	An identification for the type composed of the type number (parameter 0.1, number composed of 10 digits), the variant (parameter 0.2, alphanumeric composed of three characters) and the version (parameter 0.4, alphanumeric composed of three characters):  TypeID = Type number+Variant+Version = XX-XXX-XXXX-X-ZZZ-VVV
Restriction	Any condition or limitation indicated in the authorisation of type of vehicle that applies to placing on the market or use of any vehicle in conformity with this type. Restrictions do not include technical characteristics that are included in Section 4 of Annex II (List and format of parameters).

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Term or abbreviation	Definition
Modification of authorisation	Modification, at the request of an authorising entity, of information of the registered vehicle type authorisation previously published which needs to be changed.
Suspension of authorisation	Decision taken by an authorising entity according to which an authorisation for a vehicle type is temporarily suspended and no vehicle may be authorised to be placed on the market on the basis of its conformity to the given type, until the causes that motivated the suspension have been analysed. Suspension of authorisation for a vehicle type does not apply to the vehicles already in use.
Reactivation of authorisation	Decision taken by an authorising entity according to which a suspension of authorisation it previously issued no longer applies.
Authorisation to be renewed	Decision taken by an authorising entity according to which an authorisation for a vehicle type needs to be renewed in accordance with Article 24(3) of Directive (EU) 2016/797 and no vehicle may be authorised to be placed on the market on the basis of its conformity to the given type. Authorisation to be renewed status for a vehicle type does not affect the vehicles already in use.
Revocation of authorisation	Decision taken in accordance with Article 26 of Directive (EU) 2016/797 by an authorising entity according to which an authorisation for a vehicle type is no longer valid. Vehicle already authorised to be placed on the market on the basis of its type shall be withdrawn.
Error	Transmitted or published data that do not correspond to the given authorisation for type of vehicle. Modification of authorisation does not fall under this definition.

**▼ M1***ANNEX II***DATA TO BE REGISTERED AND FORMAT**

- (1) For each authorised type of vehicle, ERATV shall include the following data:
  - (a) identification of the type;
  - (b) manufacturer;
  - (c) conformity with the TSIs;
  - (d) authorisations, including general information about these authorisations, their status, list of parameters for which conformity with national rules has been checked;
  - (e) technical characteristics.
- (2) The data to be registered in ERATV for each type of vehicle and their format shall be as indicated in Table 2. The data to be registered depend on the category of the vehicle as indicated in Table 2.
- (3) The values indicated for the parameters related to the technical characteristics shall be those recorded in the file accompanying the application.
- (4) In the cases where possible values for a parameter are limited to a predefined list, these lists shall be maintained and updated by the Agency.
- (5) For the types of vehicle that are not in conformity with all the relevant TSIs in force, the national safety authority that has granted the type authorisation may limit the information to be provided on the technical characteristics indicated in Section 4 below to the parameters that have been checked according to the applicable rules.
- (6) Where a parameter is defined in the applicable TSI, the value indicated for the parameter shall be the one assessed in the verification procedure.
- (7) Predefined lists shall be maintained and kept updated by the Agency in accordance with the TSIs in force, including the TSIs that may be applied during a transitional period.
- (8) For parameters indicated as ‘open point’ no data shall be introduced until the ‘open point’ is closed in the relevant TSI.
- (9) For parameters indicated as ‘optional’, indication of data shall be subject to the decision of the applicant for the type authorisation.
- (10) Fields 0.1-0.4 shall be filled in by the Agency.



Table 2

## Parameters of ERATV

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
<b>0</b>	<b>Identification of the type</b>	<b>Heading (no data)</b>					
0.1	Type number (in accordance with Annex III)	[number] XX-XXX-XXXX-X	Y	Y	Y	Y	
0.2	Variant included in this type (in accordance with Article 2(13) of Regulation (EU) 2018/545)	[alphanumeric] ZZZ	Y	Y	Y	Y	
0.4	Versions included in this type. (in accordance with Article 2(14) of Regulation (EU) 2018/545)	[alphanumeric] VVV	Y	Y	Y	Y	
0.3	Date of record in ERATV	[date] YYYYMMDD	Y	Y	Y	Y	
<b>1</b>	<b>General information</b>	<b>Heading (no data)</b>					
1.1	Type name	[character string] (max 256 characters)	O	O	O	O	
1.2	Alternative type name	[character string] (max 256 characters)	O	O	O	O	
<b>1.3</b>	<b>Manufacturer's name</b>	<b>Heading (no data)</b>					
<b>1.3.1</b>	<b>Manufacturer identification data</b>	<b>Heading (no data)</b>					
1.3.1.1	Name of organisation	[character string] (max 256 characters) Selection from a predefined list, possibility to add new organisations	Y	Y	Y	Y	
1.3.1.2	Registered business number	Text	O	O	O	O	
1.3.1.3	Organisation code	Alphanumeric code	O	O	O	O	



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	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
<b>1.3.2</b>	<b>Manufacturer contact data</b>	<b>Heading (no data)</b>					
1.3.2.1	Address of organisation, street and number	Text	O	O	O	O	
1.3.2.2	Town	Text	O	O	O	O	
1.3.2.3	Country code	Code as in EU interinstitutional style guide	O	O	O	O	
1.3.2.4	Post code	Alphanumeric code	O	O	O	O	
1.3.2.5	Email address	Email	O	O	O	O	
1.4	Category	[character string] Selection from a predefined list (according to Annex III)	Y	Y	Y	Y	
1.5	Subcategory	[character string] Selection from a predefined list (according to Annex III)	Y	Y	Y	Y	
<b>2</b>	<b>Conformity with TSIs</b>	<b>Heading (no data)</b>					
2.1	Conformity with TSI	For each TSI: [character string] Y/N/Partial/Not applicable Selection from a predefined list of vehicle related TSIs (both in force and those that were previously in force) (multiple selection possible)	Y	Y	Y	Y	
2.2	EC certificate of verification: Reference of 'EC type examination certificates' (if module SB applied) and/or 'EC design examination certificates' (if module SH1 applied)	[character string] (possibility to indicate several certificates, e.g. certificate for rolling stock subsystem, certificate for CCS, etc.)	Y	Y	Y	Y	

## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
2.3	Applicable specific cases (specific cases conformity with which has been assessed)	[character string] Selection from a predefined list (multiple selection possible) based on TSIs (for each TSI marked as Y or P)	Y	Y	Y	Y	
2.4	Sections of TSI not complied with	[character string] Selection from a predefined list (multiple selection possible) based on TSIs (for each TSI marked as P)	Y	Y	Y	Y	
<b>3</b>	<b>Authorisations</b>	<b>Heading (no data)</b>					
3.0	Area of use	[character string] Selection from a predefined list (multiple selection): MS — Network	Y	Y	Y	Y	
<b>3.1</b>	<b>Authorisation in</b>	<b>Heading (no data)</b>					
3.1.1	Member State of authorisation	[character string] Selection from a predefined list (multiple selection)	Y	Y	Y	Y	
<b>3.1.2</b>	<b>Current status</b>	<b>Heading (no data)</b>					
3.1.2.1	Status	[character string] + [date] Possible options: Valid, Suspended YYYYMMDD, Revoked YYYYMMDD, to be renewed YYYYMMDD	Y	Y	Y	Y	
3.1.2.2	Validity of authorisation (if defined)	[date] YYYYMMDD	Y	Y	Y	Y	
3.1.2.3	Coded conditions for use and other restrictions	[character string] Code assigned by the Agency	Y	Y	Y	Y	

## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
3.1.2.4	Non-coded conditions for use and other restrictions	[character string]	Y	Y	Y	Y	
<b>3.1.3</b>	<b>Historical</b>	<b>Heading (no data)</b>					
<b>3.1.3.1</b>	<b>Original authorisation</b>	<b>Heading (no data)</b>					
3.1.3.1.1	Date of the original authorisation	[date] YYYYMMDD	Y	Y	Y	Y	
<b>3.1.3.1.2</b>	<b>Authorisation holder</b>	<b>Heading (no data)</b>					
<b>3.1.3.1.2.1</b>	<b>Authorisation holder identification data</b>	<b>Heading (no data)</b>					
3.1.3.1.2.1.1	Name of organisation	[character string] (max 256 characters) Selection from a predefined list, possibility to add new organisations	Y	Y	Y	Y	
3.1.3.1.2.1.2	Registered business number	Text	Y	Y	Y	Y	
3.1.3.1.2.1.3	Organisation code	Alphanumeric code	O	O	O	O	
<b>3.1.3.1.2.2</b>	<b>Authorisation holder contact data</b>	<b>Heading (no data)</b>					
3.1.3.1.2.2.1	Address of organisation, street and number	Text	Y	Y	Y	Y	
3.1.3.1.2.2.2	Town	Text	Y	Y	Y	Y	
3.1.3.1.2.2.3	Country code	Code as in EU interinstitutional style guide	Y	Y	Y	Y	
3.1.3.1.2.2.4	Post code	Alphanumeric code	Y	Y	Y	Y	
3.1.3.1.2.2.5	Email address	Email	Y	Y	Y	Y	
3.1.3.1.3	Authorisation document reference	[character string] (EIN)	Y	Y	Y	Y	

## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
3.1.3.1.4	Certificate of verification: Reference of type examination or design examination type	[character string]  (Possibility to indicate several certificates, e.g. certificate for rolling stock subsystem, certificate for Control, command and signalling subsystem, etc.)	Y	Y	Y	Y	
3.1.3.1.5	Parameters for which conformity to applicable national rules has been assessed	[character string] Selection from a predefined list (multiple selection possible) based on Commission Decision 2015/2299/EU	Y	Y	Y	Y	
3.1.3.1.6	Comments	[character string] (max 1 024 characters)	O	O	O	O	
3.1.3.1.7	Reference to the written declaration by the proposer referred to in Article 3(11) of Regulation (EU) No 402/2013	[character string]	Y	Y	Y	Y	
<b>3.1.3.X</b>	<b>Modification of authorisation</b>	<b>Heading (no data) (X is progressive from 2 onwards, as many times as modifications of the authorisation of type have been issued)</b>	Y	Y	Y	Y	
3.1.3.X.1	Type of modification	[character string] Text from a predefined list	Y	Y	Y	Y	
3.1.3.X.2	Date	[date] YYYYMMDD	Y	Y	Y	Y	
3.1.3.X.3	Authorisation holder (if applicable)	[character string] (max 256 characters) Selection from a predefined list, possibility to add new organisations	Y	Y	Y	Y	

▼ **M1**

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
<b>3.1.3.X.3.1</b>	<b>Authorisation holder identification data</b>	<b>Heading (no data)</b>					
3.1.3.X.3.1.1	Name of organisation	[character string] (max 256 characters) Selection from a predefined list, possibility to add new organisations	Y	Y	Y	Y	
3.1.3.X.3.1.2	Registered business number	Text	Y	Y	Y	Y	
3.1.3.X.3.1.3	Organisation code	Alphanumeric code	O	O	O	O	
<b>3.1.3.X.3.2</b>	<b>Authorisation holder contact data</b>	<b>Heading (no data)</b>					
3.1.3.X.3.2.1	Address of organisation, street and number	Text	Y	Y	Y	Y	
3.1.3.X.3.2.2	Town	Text	Y	Y	Y	Y	
3.1.3.X.3.2.3	Country code	Code as in EU interinstitutional style guide	Y	Y	Y	Y	
3.1.3.X.3.2.4	Post code	Alphanumeric code	Y	Y	Y	Y	
3.1.3.X.3.2.5	Email address	Email	Y	Y	Y	Y	
3.1.3.X.4	Authorisation modification document reference	[character string]	Y	Y	Y	Y	
3.1.3.X.5	Certificate of verification: Reference of type examination or design examination type	[character string] (possibility to indicate several certificates, e.g. certificate for rolling stock subsystem, certificate for CCS, etc.)	Y	Y	Y	Y	
3.1.3.X.6	Applicable national rules (if applicable)	[character string] Selection from a predefined list (multiple selection possible) based on Commission Decision 2015/2299/EU	Y	Y	Y	Y	

▼ **M1**

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
3.1.3.X.7	Comments	[character string] (max 1 024 characters)	O	O	O	O	
3.1.3.X.8	Reference to the written declaration by the proposer referred to in Article 3(11) of Regulation (EU) No 402/2013	[character string]	Y	Y	Y	Y	
<b>3.X</b>	<b>Authorisation in</b>	<b>Heading (no data) (X is progressive incremented by one unit from 2 onwards each time an authorisation for this type has been granted). This Section contains same fields as 3.1</b>	Y	Y	Y	Y	
<b>4</b>	<b>Technical characteristics of the vehicle</b>	<b>Heading (no data)</b>					
<b>4.1</b>	<b>General technical characteristics</b>	<b>Heading (no data)</b>					
4.1.1	Number of driving cabs	[Number] 0/1/2	Y	Y	Y	Y	N
<b>4.1.2</b>	<b>Speed</b>	<b>Heading (no data)</b>					
4.1.2.1	Maximum design speed	[Number] km/h	Y	Y	Y	Y	N
4.1.3	Wheel set gauge	[character string] Selection from predefined list	Y	Y	Y	Y	Y
4.1.5	Maximum number of trainsets or locomotives coupled together in multiple operation.	[number]	Y	N	N	N	N
4.1.11	Wheelset gauge changeover facility	[character string] Selection from predefined list	Y	Y	Y	Y	Y
4.1.12	Number of vehicles composing the fixed formation (for fixed formation only)	[number]	Y	Y	Y	Y	N
<b>4.2</b>	<b>Vehicle gauge</b>	<b>Heading (no data)</b>					

## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
4.2.1	Reference profile	[character string] Selection from predefined list (more than one possible) (the list will be different for different categories depending on the applicable TSI)	Y	Y	Y	Y	Y
<b>4.3</b>	<b>Environmental conditions</b>	<b>Heading (no data)</b>					
4.3.1	Temperature range	[character string] Selection from a predefined list (more than one possible)	Y	Y	Y	Y	N
4.3.3	Snow, ice and hail conditions	[character string] Selection from a predefined list	Y	Y	Y	Y	N
<b>4.4</b>	<b>Fire safety</b>	<b>Heading (no data)</b>					
4.4.1	Fire safety category	[character string] Selection from a predefined list	Y	Y	N	Y	Y
<b>4.5</b>	<b>Design mass and loads</b>	<b>Heading (no data)</b>					
4.5.1	Permissible payload for different line categories	[number] t for line category [character string]	OP	OP	Y	OP	Y
<b>4.5.2</b>	<b>Design mass</b>	<b>Heading (no data)</b>					
4.5.2.1	Design mass in working order	[number] kg	Y	Y	O	Y	Y
4.5.2.2	Design mass under normal payload	[number] kg	Y	Y	O	Y	Y
4.5.2.3	Design mass under exceptional payload	[number] kg	Y	Y	N	Y	Y
<b>4.5.3</b>	<b>Static axle load</b>	<b>Heading (no data)</b>					
4.5.3.1	Static axle load in working order	[number] kg	Y	Y	O	Y	Y

## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
4.5.3.2	Static axle load under normal payload	[number] kg	Y	Y	Y	Y	Y
4.5.3.3	Static axle load under exceptional payload	[number] kg	Y	Y	N	Y	Y
4.5.3.4	Position of the axles along the unit (axle spacing): a: Distance between axles b: Distance from end axle to the end of the nearest coupling plane c: distance between two inside axles	a [number] m b [number] m c [number] m	Y	Y	Y	Y	Y
4.5.5	Total vehicle mass (for each vehicle of the unit)	[number] kg	Y	Y	Y	Y	Y
4.5.6	Mass per wheel	[number] kg	Y	Y	Y	Y	Y
<b>4.6</b>	<b>Rolling stock dynamic behaviour</b>	<b>Heading (no data)</b>					
4.6.4	Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed	[number] km/h - [number] mm	Y	Y	Y	Y	Y
4.6.5	Rail inclination	[character string] from a predefined list	Y	Y	Y	Y	Y
<b>4.7</b>	<b>Braking</b>	<b>Heading (no data)</b>					
4.7.1	Maximum average deceleration	[number] m/s <sup>2</sup>	Y	N	N	Y	N
<b>4.7.2</b>	<b>Thermal capacity</b>	<b>Heading (no data)</b>					
<b>4.7.2.1</b>	<b>Brake performance on steep gradients with normal payload</b>	<b>Heading (no data)</b>					
4.7.2.1.1	Reference case of TSI	[character string] from a predefined list	Y	Y	Y	Y	N



## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
4.7.2.1.2	Speed (if no reference case is indicated)	[number] km/h	Y	Y	Y	Y	N
4.7.2.1.3	Gradient (if no reference case is indicated)	[number] ‰ (mm/m)	Y	Y	Y	Y	N
4.7.2.1.4	Distance (if no reference case is indicated)	[number] km	Y	Y	Y	Y	N
4.7.2.1.5	Time (if distance is not indicated) (if no reference case is indicated)	[number] min	Y	Y	Y	Y	N
4.7.2.1.6	Maximum brake thermal energy capacity	[number] kW	Y	Y	Y	Y	N
<b>4.7.3</b>	<b>Parking brake</b>	<b>Heading (no data)</b>					
4.7.3.3	Maximum gradient on which the unit is kept immobilised by the parking brake alone (if the vehicle is fitted with it)	[number] ‰ (mm/m)	Y	Y	Y	Y	N
4.7.3.4	Parking brake	[Boolean] Y/N	N	N	Y	N	N
<b>4.7.4</b>	<b>Braking systems fitted on the vehicle</b>	<b>Heading (no data)</b>					
<b>4.7.4.1</b>	<b>Eddy current brake</b>	<b>Heading (no data)</b>					
4.7.4.1.1	Eddy current track brake fitted	[Boolean] Y/N	Y	Y	N	Y	Y
4.7.4.1.2	Possibility of preventing the use of the eddy current track brake (only if fitted with eddy current track brake)	[Boolean] Y/N	Y	Y	N	Y	Y
<b>4.7.4.2</b>	<b>Magnetic brake</b>	<b>Heading (no data)</b>					
4.7.4.2.1	Magnetic track brake fitted	[Boolean] Y/N	Y	Y	N	Y	Y
4.7.4.2.2	Possibility of preventing the use of the magnetic track brake (only if fitted with magnetic brake)	[Boolean] Y/N	Y	Y	N	Y	Y

## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
<b>4.7.4.3</b>	<b>Regenerative brake (only for vehicles with electrical traction)</b>	<b>Heading (no data)</b>					
4.7.4.3.1	Regenerative brake fitted	[Boolean] Y/N	Y	N	N	Y	Y
4.7.4.3.2	Possibility of preventing the use of the regenerative brake (only if fitted with regenerative brake)	[Boolean] Y/N	Y	N	N	Y	Y
4.7.5	Emergency brake: Stopping distance and deceleration profile for each load condition per design maximum speed	[number] m [number] m/s <sup>2</sup>	Y	Y	N	Y	N
4.7.6	For general operation: Brake weight percentage (lambda) or Braked mass	Lambda (%) [number] tonnes	Y	Y	Y	Y	N
4.7.7	Service brake: At maximum service brake: Stopping distance, Maximum deceleration, for the load condition 'design mass under normal payload' at the design maximum speed.	[number] m [number] m/s <sup>2</sup>	Y	Y	Y	Y	N
4.7.8	Wheel slide protection system	[Boolean] Y/N	Y	Y	Y	Y	N
<b>4.8</b>	<b>Geometrical characteristics</b>	<b>Heading (no data)</b>					
4.8.1	Vehicle length	[number] m	Y	Y	Y	Y	N
4.8.2	Minimum in-service wheel diameter	[number] mm	Y	Y	Y	Y	Y
4.8.4	Minimum horizontal curve radius capability	[number] m	Y	Y	N	Y	Y
4.8.5	Minimum vertical convex curve radius capability	[number] m	Y	Y	Y	Y	N

## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
4.8.6	Minimum vertical concave curve radius capability	[number] m	Y	Y	Y	Y	N
<b>4.9</b>	<b>Equipment</b>	<b>Heading (no data)</b>					
4.9.1	Type of end coupling	[Character string] From a predefined list (multiple selection possible)	Y	Y	Y	Y	N
4.9.2	Axle bearing condition monitoring (hot axles box detection)	[Character string] From a predefined list (multiple selection possible)	Y	Y	Y	Y	Y
<b>4.10</b>	<b>Energy supply</b>	<b>Heading (no data)</b>					
4.10.1	Energy supply system (voltage and frequency)	[Character string] From a predefined list (multiple selection possible)	Y	Y	N	Y	Y
4.10.4	Maximum current at standstill per pantograph (to be indicated for each DC systems the vehicle is equipped for)	[Number] A for [Voltage automatically prefilled in]	Y	Y	N	Y	N
4.10.5	Height of interaction of pantograph with contact wires (over top of rail) (to be indicated for each energy supply system the vehicle is equipped for)	[Number] From [m] to [m] (with two decimals)	Y	Y	N	Y	Y
4.10.6	Pantograph head geometry (to be indicated for each energy supply system the vehicle is equipped for)	[Character string] for [energy supply system automatically prefilled in] From a predefined list (multiple selection possible)	Y	Y	N	Y	Y
4.10.7	Number of pantographs in contact with the overhead contact line (OCL) (to be indicated for each energy supply system the vehicle is equipped for)	[Number]	Y	Y	N	Y	Y

## ▼ M1

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
4.10.8	Shortest distance between two pantographs in contact with the OCL (to be indicated for each energy supply system the vehicle is equipped for; to be indicated for single and, if applicable, multiple operation) (only if number of raised pantographs is more than 1)	[Number] [m]	Y	Y	N	Y	Y
4.10.10	Material of pantograph contact strip the vehicle may be equipped with (to be indicated for each energy supply system the vehicle is equipped for)	[Character string] for [energy supply system automatically prefilled in] From a predefined list (multiple selection possible)	Y	Y	N	Y	Y
4.10.11	Automatic dropping device (ADD) fitted (to be indicated for each energy supply system the vehicle is equipped for)	[Boolean] Y/N	Y	Y	N	Y	Y
4.10.14	Electric units equipped with power or current limitation function	[Boolean] Y/N	Y	N	N	Y	Y
4.10.15	Mean contact force	[Number] [N]	Y	Y	N	Y	Y
<b>4.12</b>	<b>Passenger related characteristics</b>	<b>Heading (no data)</b>					
4.12.3.1	Platform heights for which the vehicle is designed.	[Number] from predefined list (multiple selection possible)	Y	Y	N	N	Y
<b>4.13</b>	<b>On-board CCS equipment (for vehicles with a driving cab only)</b>	<b>Heading (no data)</b>					
<b>4.13.1</b>	<b>Signalling</b>	<b>Heading (no data)</b>					
4.13.1.1	ETCS equipment on-board and the set of specifications from CCS TSI Annex A	[Character string] From a predefined list	Y	N	N	Y	Y

▼ **M1**

	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
4.13.1.5	Class B or other train protection, control and warning systems installed (system and, if applicable, version)	[Character string] From a predefined list (more than one option possible)	Y	N	N	Y	Y
4.13.1.7	ETCS on-board implementation	[Character string]	Y	N	N	Y	Y
4.13.1.8	ETCS System Compatibility	[Character string] From a predefined list (more than one option possible)	Y	N	N	Y	N
4.13.1.9	Managing information about the completeness of the train	[Boolean] Y/N	Y	N	N	Y	Y
<b>4.13.2</b>	<b>Radio</b>	<b>Heading (no data)</b>					
4.13.2.1	GSM-R Radio voice on board and its Baseline	[Character string] From a predefined list	Y	N	N	Y	Y
4.13.2.3	Class B or other radio systems installed (system and, if applicable, version)	[Character string] From a predefined list (more than one option possible)	Y	N	N	Y	Y
4.13.2.5	Radio Voice System Compatibility	[Character string] From a predefined list (more than one option possible)	Y	N	N	Y	N
4.13.2.6	Voice and operational communication implementation	[Character string]	Y	N	N	Y	Y
4.13.2.7	GSM-R Radio Data communication on board and its Baseline	[Character string] From a predefined list	Y	N	N	Y	Y

▼ **M1**

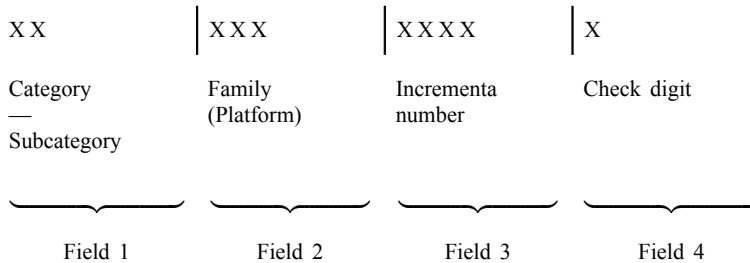
	Parameter	Data format	Applicability to vehicle categories (Yes, No, Optional, Open Point)				Parameters for technical compatibility between Vehicle and the network(s) of area of use
			1. Traction vehicles	2. Hauled passenger vehicles	3. Freight wagons	4. Special vehicles	
4.13.2.8	Radio Data System Compatibility	[Character string] From a predefined list (more than one option possible)	Y	N	N	Y	N
4.13.2.9	Data communication application for ETCS implementation	[Character string]	Y	N	N	Y	Y
4.13.2.10	Voice SIM Card GSM-R Home Network	[Character string] From a predefined list	Y	N	N	Y	N
4.13.2.11	Data SIM Card GSM-R Home Network	[Character string] From a predefined list	Y	N	N	Y	N
4.13.2.12	Voice SIM Card support of Group ID 555	[Boolean] Y/N	Y	N	N	Y	N
<b>4.14</b>	<b>Compatibility with train detection systems</b>	<b>Heading (no data)</b>					
4.14.1	Type of train detection systems for which the vehicle has been designed and assessed	[Character string] From a predefined list (more than one option possible)	Y	Y	Y	Y	Y



## ANNEX III

## STRUCTURE OF TYPE NUMBER

Each type of vehicle shall receive a number consisting of 10 digits with the following structure:



Where:

Field 1 (digits 1 and 2) is assigned according to category and subcategory of the vehicle type in accordance with the following table:

Code	Category	Subcategory
11	Traction vehicles	Locomotive
12		Reserved
13		Self-propelled passenger trainset (incl. rail-buses)
14		Reserved
15		Self-propelled freight trainset
16		Reserved
17		Shunter
18		Reserved
19		Other (tramways, light rail vehicles, etc.)
31		Hauled passenger vehicles
32	Reserved	
33	Van	
34	Reserved	
35	Car carrier	
36	Reserved	
37	Vehicle for services (e.g. kitchen)	
38	Reserved	
39	Fixed rake of coaches	
40	Reserved	
41	Other	
42-49	Reserved	

**▼ B**

Code	Category	Subcategory
51	Freight wagons (hauled)	Freight wagon
52		Reserved
53		Fixed rake of freight wagons
54-59		Reserved
71	Special vehicles	Self-propelled special vehicle
72		Reserved
73		Hauled special vehicle
74-79		Reserved

Field 2 (digits from 3 to 5) is assigned according to the family to which the type of vehicle belongs. For new families (i.e. families not yet registered in ERATV) digits are progressively incremented by one unit each time an application for registration of a vehicle type belonging to a new family is received by the Agency.

Field 3 (digits from 6 to 9) is a progressive number incremented by one unit each time an application for registration of a vehicle type belonging to a given family is received by the Agency.

Field 4 (digit 10) is a check digit determined in the following manner (Luhn algorithm or modulus 10):

- the digits in the even positions of the basic number (fields from 1 to 9 counting from the right) are taken at their own decimal value,
- the digits in the odd positions of the basic number (counting from the right) are multiplied by 2,
- the sum formed by the digits in even position and by all the digits which constitute the partial products obtained from the odd positions is then established,
- the units digit of this sum is retained,
- the complement required to bring the units digit to 10 forms the check-digit; should this units digit be nought, then the check-digit will also be nought.

Examples of determining the check digit:

1 — Let the basic number be	3	3	8	4	4	7	9	6	1
Multiplication factor	2	1	2	1	2	1	2	1	2
	6	3	16	4	8	7	18	6	2

Sum:  $6 + 3 + 1 + 6 + 4 + 8 + 7 + 1 + 8 + 6 + 2 = 52$

The units digit of this sum is 2.

The check-digit number will therefore be 8 and the basic number thus becomes the registration number 33 844 7961 — 8.



**▼B**

2 — Let the basic number be	3	1	5	1	3	3	2	0	4
Multiplication factor	2	1	2	1	2	1	2	1	2
	6	1	10	1	6	3	4	0	8

Sum:  $6 + 1 + 1 + 0 + 1 + 6 + 3 + 4 + 0 + 8 = 30$

The units digit of this sum is 0.

The check-digit number will therefore be 0 and the basic number thus becomes the registration number 31 513 3204 — 0.

If the type examination certificate or design examination certificate covers more than one version of the vehicle type, each of these versions shall be identified by an incremental three-digit number.