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User Manual - NSA User

ERATV

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1 Introduction

The current document forms the user manual for the European Registry of Authorised Types of railway Vehicles (**ERATV**) system. The ERATV system allows entering and managing the Vehicle Types (**VT**) and Authorisations for these Vehicle Types that are registered in the Member States (**MS**) of the European Union (**EU**). The National Safety Authority (**NSA**) of each MS is responsible for maintaining the Vehicle Type authorisations for that MS.

A Vehicle Type provides the technical and authorisation information concerning that type of vehicle and can be allocated to a vehicle through the vehicle register in order to describe its abilities.

For Vehicle types created under **Directive 2008/57/EC** (registration regimes "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode") a Vehicle Type can be registered and initially authorised by one NSA. Once published, other NSAs may 'reuse' the Vehicle Type by granting additional authorisations for the Vehicle Type. In this case the NSAs need only to provide information persistent with the authorisation of that Vehicle Type to their MS.

For Vehicle types created under **Directive (EU) 2016/797** (registration regimes "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode"), a Vehicle Type is authorised and registered by an authorising entity. If the authorising entity is the European Union Agency for Railways (**ERA**) (from now on, and only for the purpose of this manual, also referred as NSA (EU)), the User has the opportunity to register an authorised Vehicle Type that covers an area of use of multiple Member States. Once published, other NSAs cannot 'reuse' the Vehicle Type by granting additional authorisations for this Vehicle Type. Only the authorising entity can modify the authorisation.

All registrations or modifications to a Vehicle Type or an authorisation need to be submitted to ERA for publication within a predetermined period of time, according to the ERATV Decision¹. An ERA user may also request clarifications or corrections to be made on the provided data before publishing the data. Once the data have been published it becomes visible to the general public.

The access rights of the user depend on the role that is assigned to the user. Different permissions can be assigned/revoked to/from a role. A default role is assigned to all the public users who access the ERATV web site without credentials. In addition, the logged-in user can manage entities (Vehicle Types, Authorisations) that belong to their own Member State.

The process of creating roles, assigning permissions to them, and afterwards creating users and assigning roles to them is described in "3. Administration, Operation and Maintenance Manual".

¹ <u>Commission Implementing Decision 2011/665/EU on the European register of authorised types of railway vehicles</u> as amended by <u>Commission Implementing Regulation (EU) 2019/776 of 16 May 2019 amending</u> <u>Commission Regulations (EU) No 321/2013, (EU) No 1299/2014, (EU) No 1301/2014, (EU) No 1302/2014, (EU) No 1303/2014 and (EU) 2016/919 and Commission Implementing Decision 2011/665/EU as regards the alignment with Directive (EU) 2016/797 of the European Parliament and of the Council and the implementation of specific objectives set out in Commission Delegated Decision (EU) 2017/1474</u>



1.1 Definitions, Acronyms, and Abbreviations

- ERA: European Union Agency for Railways
- ERATV: European Registry of Authorised Types of railway Vehicles
- VT: Vehicle Type
- EU: European Union
- NSA: National Safety Authority
- MS: Member State
- ECVVR: European Centralised Virtual Vehicle Register
- EVR: European Vehicle Register
- **PDF**: Portable Document Format
- XLS: Excel Document format
- **CSV**: Comma separated document
- Home NSA: The NSA organisation that a user belongs to.
- Home MS: The Member State country that an NSA or User belong to.
- UI: User Interface
- TSI: Technical Specification for Interoperability



2 ERATV user manual

2.1 User experience (system navigation and page composition)

The ERATV system comprises a web-based user interface and is accessible from any computer with an internet browser and network accessibility. The system functionality is presented in a series of web pages which follow a standard template.

EUROPEAN UNION AGENCY FOR RAILWAYS	opean Register of Authorised Types of Vehicles		1	EBA1 NSA Uner X Los al Bearch ERATV Directive (EU) 2016/797 😢	E Help English ¥
Authorisations Requests 10	Notifications 353 Administration			Register new ty	e Register authorisation
51-143-0001-4-001 test Status: Published Latest Update: 01/07	1/2020 12:14:43			23	Application guide PDF, 0 KB
Registration details History of ch	anges Communication				
				Actiona: Correct Error Hodify Data	Copy registration form
Step 1 > General Information	General Information				PDF Excel XML
Stop 2 > Technical Characteristics	 U. Identification of the type 				
Wheel set gauge	0.1 0.2 Type 3D1	51-143-0001-4-001			
General technical characteristics Vehicle kinematic gauge	0.3 Date of record:	01/01/2020			
 Environmental conditions Design mass and loads Rolling stock dynamic behaviour 	* 1. General Information				
• Braking	1.1 Type name:	test			
Geometrical characteristics Equipment	1-2 Alternative type name:	test alt.			
 Noise related characteristics Compatibility with train detection systems 	1.3 Manufacturer's name:	beat Menufacturer			
Step 3	Registration Methods	New Type of a new Platform			
> TSI Conformity	Registered Vehicle Type:				
Step 4 Authorisations	1.4 Category: 1.5 Subcategory:	Freight Wagons Freight vagon			
	1.5 Subarragory: 1.6 Platforms	test Platform			
					J
Terms of Use Copyright Notice Privary Ste	atemati File Venion: 1.8	3		© 2020 Ser	opean Union Agency for Railweys

Figure 1: ERATV Page. Page sections and sub sections

Each web page contains the following sections (see Figure 1: ERATV Page.):

- 1. Header. This section is always visible and contains functionality that should always be available to the user, such as login, logout, and help options. A breadcrumb control and the main navigational options are also presented in this section. Additionally, a language control allows the user to change the User Interface language.
- 2. Content. This section contains the main content page. The content page can also be broken down to the sub-sections seen in Figure 1. These are:
 - a. A content sub section that contains the title of the current content, the status of the Vehicle Type, the Latest Update date which displays the most recent date that there was a change in the Vehicle Type's status or data or accessible authorisations' status (except for "Cancelled") or accessible authorisations' data. Additionally, this sub section contains the available actions on this content.
 - b. A navigation bar that allows quick navigation between the sections of a Vehicle Type registration form. This sub-section only appears for complex content pages.
 - c. The main content area.
- 3. Footer. This section contains static legal links such as "Terms of Use" and "Privacy Statement".

2.1.1 Searching

The user has the ability to perform searches at several locations within the ERATV system. When performing a search, the user must fill a search pattern which is then compared with the value stored in the ERATV system, to provide a hit.



All search fields that accept text input use an exact operator to perform the comparison. For example, if the user provides the search pattern "Jon" then the ERATV system will return records that only contain the string "Jon" in the appropriate field.

It is possible to expand the search by using the wildcard character, which is an asterisk (*). In the previous example, the search pattern "Jon*" would return hits in records such as "Jon", "John", "Jonas", "Jonathan", and so on. The asterisk can be user at any location within the search pattern. For example, the string "*ill*" would return results like "Bill", "Gill", "Gillian" and so on.

This functionality is available to all users.

2.2 Access the ERATV system

2.2.1 User Roles

All published ERATV content is available for the general public. In order to submit draft content to be considered for publication or to perform additional administrative actions, a user account must be used to access the system with a specific user role. Hence, the available user roles are:

- Public user. Can access all published content and may not alter any aspect of the data in the registry.
- NSA Users. Users that may enter new content for their home MS and submit it to ERA for approval and publication. They also need to approve modifications made to VTs for which their home NSA has provided Authorisation. Finally, these users can provide access to an Auxiliary User (see below) to fill in details of a Vehicle Type.
- ERA Users. Users that log in on behalf of the European Union Agency for Railways and can publish content, or request clarifications / corrections of submitted content.
- ERATV Administrators. Users that can alter parameters of the ERATV system. These users have neither access to unpublished content nor submission / approval functionality. For the functionality available to these users, please see "3. Administration, Operation and Maintenance Manual".
- Auxiliary Users. Users that may only enter data on specific Vehicle Types. They can only enter data in Vehicle Types they have been given access to by NSA users and only on specific areas of the registration form.
- Author. The user that created the draft record in ERATV. Please see 2.5.6.3 and 2.5.6.4
- Correspondent. The user that submitted the record for publication or the user that published the record. Please see 2.5.6.3 and 2.5.6.4
- Registering correspondent. The appointed representative of all the NSA Users for a given country authorising entity. Please see 2.6.1.

2.2.2 Public access

To access the application the user has to type the URL of the ERATV system in a web browser. Then the ERATV web site (public web site) is displayed, as the following figure illustrates.



ERATV - European Register of Authorised Types of Vehicles	Image: Constraint of the search and the search of the search and the search of the search o
> ERATV > Welcome to ERATV - European Register of Authorised Types of Vehicles	
Welcome to ERATV - European Register of Authorised Types of Vehicles	Application guide PDF, 0 KB
ERATV is established according to Directive 2008/57/EC of the European Parliament and of the Council Commission Implementing Decision 2011/65/EU of 4 October 2011 on the European register of authorised The register is hosted and maintained by the European Railway Agency (ERA). It contains data on ty 2008/57/EC. View Registered Authorisations (3)	d types of railway vehicles.
Terms of Use Copyright Notice Privacy Statement File Version: 1.6	© 2018 European Union Agency for Railways

Figure 2: ERATV (public) web site

The displayed options depend on the access rights that have been assigned to the default role that is automatically granted to all public users.

The public user may access a list of all published authorisations by performing the following actions highlighted in Figure 2::

- 1) Perform a quick search as described in 2.5.1.
- 2) Perform an advanced search as described in 2.5.2.
- 3) View a list of all the published authorisations as described in 2.5.4.
- 4) Access the system as a registered user by selecting the "Login" link as described in 2.2.3.

2.2.3 Login

In order to login, the user has to click on the "Log In" option available at the header of the public web site. Afterwards, the Login Page is presented (see Figure 3:).

Login	Application guide PDF, 0 KB
User name	
Password	
Forgot your password?	
	Log in

Figure 3: ERATV Login form

In the Login Page, the user should follow the next steps:

- 1. Fill-in the "User name" text field.
- 2. Fill-in the "Password" text field.
- 3. Click on the "Log in" button.

Once the user logs in successfully, the home page of the ERATV system will be presented (see Figure 4).



Once logged-in, the user can also see the names of other users (e.g. authors), who created the draft record in ERATV. The same information is displayed in the *History of changes* section and in the *Communication* section (which user did each action and when). The purpose is to keep the traceability of data creation, submission and publication and to be able to contact a user in case of any need.

Responsibilities for the records submitters are described in the ERATV Terms of Use, section 3.

As shown in the figure below, the registered user has these additional options in the ERATV system:

- 1. Header section:
 - a. Account Settings allows the user to view the user profile as described in 2.2.6
 - b. Logout allows the user to log out from the ERATV system as described in 2.2.5
- 2. Navigation Bar:
 - a. Authorisations for accessing the authorisations held by the NSA of the current user (Home NSA) as described in 2.5.4
 - b. Requests for viewing the requests made to the home NSA (see 2.4.1)
 - c. Notifications for viewing the notifications dispatched to the home NSA (see 2.4.3)
 - d. Events for viewing events registered by the ERATV system. This option is visible by only specific user roles. For details on the events functionality see "3. Administration, *Operation and Maintenance Manual*".
 - e. Administration for managing various aspects of the ERATV system. The contents of this section depend on the user role (see 2.6).

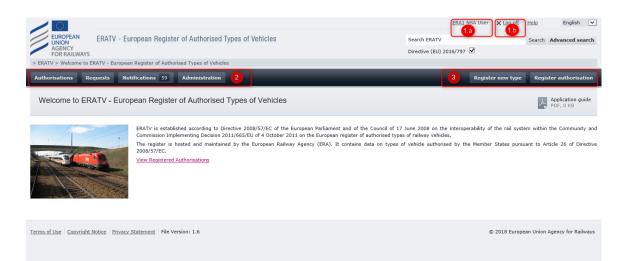


Figure 4: ERATV Registered User home page

- 3. Global Actions
 - a. Register new type allows the user to register a new Vehicle Type for the home NSA (see 2.3.2)
 - b. Register Authorisation for registering a new authorisation for a published Vehicle Type (see 2.3.3).

In the following sections, the above options are described in detail.



2.2.4 Forgot password

In case the user has forgotten their password, they can click on the "Forgot Password" link available at the Login page (see Figure 3:). A form will be displayed (see Figure 5:) in which the user should provide the username and email of the user account.

Forgot Password		PDF, 494 KB
Please note that this function	nality is not supported for ERA and NSA users.	
User name		
E-mail address		
		Reset Password

Figure 5: Forgot password form

An email will be dispatched to the registered email of the provided user account with details of a new password.

As seen in Figure 5:, this functionality is only available to specific user roles due to the Authorisation and Authentication mechanism (Active Directory). Users that cannot retrieve their password through this form should contact their system administrator to retrieve the user account credentials.

2.2.5 Logout

The user may close the session by clicking on the "Log off" link in the header section.

2.2.6 Account settings

The user can view the settings of his/her account by clicking on the "Account settings" link available on the header section (see Figure 4). Then, the profile information page is displayed as shown in Figure 6.

View profile		Application guide PDF, 191 KB
First name	TestName	
Last name	TestLasName	
E-mail address	test_user@test_mail.com	
Address	Box 14	
Phone number	+46 222-22 11 11	
Fax number		
Directory	ERA-EXT	
NSA	NSA SE - Swedish Transport Agency	

Figure 6: Account Profile

Auxiliary Users may also use this page to alter the password provided by NSAs.



2.3 Vehicle Type Authorisations

2.3.1 Introduction

2.3.1.1 Vehicle Type Contents

A vehicle type record contains all the technical details of a Vehicle Type organised in sections. In summary the sections are:

- Section 1: General Information. This contains the general information about the Vehicle Type.
- Section 2: Technical Characteristics. These are the technical details of the Vehicle Type. Due to the large number of technical details, this section is split to sub-sections. The technical parameters that are available for filling in, optionally or mandatory, are set by the parameter applicabilities which depend on several values specified in section 1. For more information see 2.3.1.4.
- Section 3: Conformity with TSI. This section contains details of the conformity of the Vehicle Type to predefined TSIs and the scope of that conformity (full/ partial).
- Section 4: Authorisation Details. This section contains details of the authorisation granted to the Vehicle Type for usage within a Member State. For VTs registered under "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes, this section may be repeated once per MS that authorises the VT. For VTs registered under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes, the authorisation regards only the MS that created the VT. Only the NSA (EU) has the opportunity to add multiple MSs to an authorisation.

The information in sections 1, 2, & 4 are provided once per Vehicle Type.

For VTs registered under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes, the information in section 3 is repeated for each authorisation registered for the specific VT. In effect it is repeated once per authorising MS. For VTs registered under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes, the information in section 3 is provided once per VT and can regard one or more Member States.

Due to complex associations between the data in the above sections, the order of inserting data into the ERATV system differs from the above. The steps to enter the data as shown in Figure 14 are:

- Step 1: General Information
- Step 2: Technical Details
- Step 3: Conformity with TSIs
- Step 4: Authorisation Details

2.3.1.2 Vehicle Type Lifecycle

The lifecycle of a Vehicle Type and of an authorisation requires a workflow to ensure that the published data contain no errors and have been approved by the required parties.

A Vehicle Type cannot exist without an authorisation and vice versa. In effect, the user registers authorisations with the added restriction that for the authorisation of a Vehicle Type, the data of that Vehicle Type need to be provided as well.



The possible VT data statuses are the following: Draft, Submitted, Published, and Cancelled. Figure 7: shows the possible actions that lead from one status to the other.

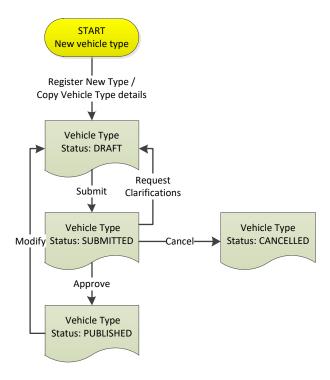


Figure 7: Vehicle Type Lifecycle

2.3.1.3 Authorisation Lifecycle

The authorisation of a Vehicle Type can have the following statuses:

"Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes	"Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes
Active	Valid
Suspended	Suspended
Withdrawn	Revoked
	To be Renewed
Expired	Expired

The possible actions leading from one status to the other are presented in Figure 8 and Figure 9.

The actions described in Figure 8 and Figure 9 are performed through an additional workflow similar to the one described in Figure 7:. For example, in order to suspend an Active Authorisation, the NSA User must create a Draft suspension and submit it to ERA for approval. Upon ERA approval, the suspension is published and hence the Authorisation status becomes Suspended.

All actions presented in Figure 8 and Figure 9 must be approved by ERA, with the exception of the Expiry action which is automatic.

Additionally, when a Vehicle Type is already published and authorised by a number of NSAs, then any subsequent modifications need to be authorised by all NSAs that have authorised it (involved parties), except the originator of the modification. Then and only then, the Vehicle Type



modifications will be presented to ERA for approval. This is applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.

Corrections do not follow that rule. Corrections are considered typographical errors and not a modification to the issued vehicle type authorisation. Therefore, corrections are directly submitted for ERA approval without the need to be approved by involved parties.

For VTs created under to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes, all modifications or corrections of data of a Vehicle Type that has been authorised by multiple NSAs will be communicated to all the MS through the notification mechanism (see section 2.4 for more details).

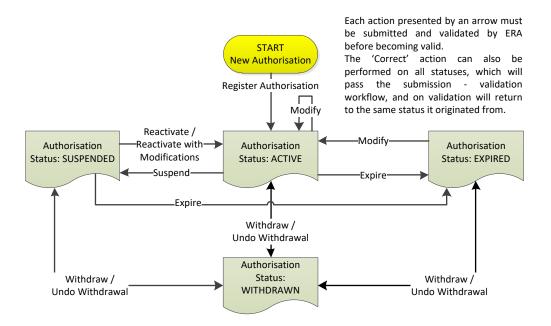


Figure 8: Authorisation Status Lifecycle for VT created under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes



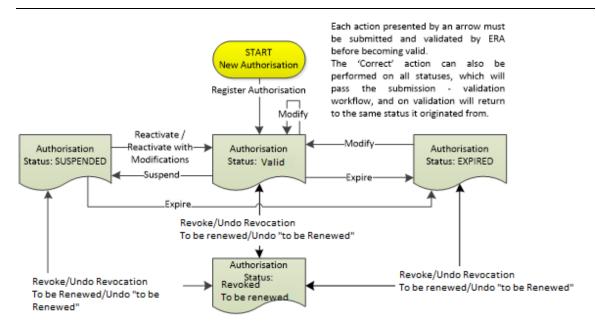


Figure 9: Authorisation Status Lifecycle for VT created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes

2.3.1.4 Parameter applicabilities

The ERATV system contains numerous technical characteristics in order to cover all the different types of vehicles. Not all of these characteristics are necessary for each Vehicle Type. Some characteristics might not apply for certain categories whereas for others the same characteristics might be mandatory. The ERATV system administrator is responsible for setting the parameter applicabilities. Once set, the ERATV system will present a mandatory flag by means of an asterisk * next to the characteristics that a user has to fill in in order to continue. Optional characteristics will be visible to the user but without the mandatory flag, while non-applicable characteristics will not be visible to the user.

2.3.1.5 Vehicle Type configurations

Some parameters in a Vehicle Type may depend on the specified values of other Parameters. For example, parameter '4.10.2 Maximum Power' depends on the values selected for parameter '4.10.1 Energy Supply system', as different supply systems will output different amounts of power.

There are 3 main parameters on which other parameters depend and hence they can cause multiple values for the other characteristics. These main parameters are:

- '4.1.3 Wheel Set Gauge'
- '4.10.1 Energy Supply System'
- CCS on board which is a combination of values from '4.13.1.1 ETCS equipment on-board and its level' and '4.13.1.5 Class B or other train protection, control and warning systems installed'

The parameters that depend on any combination of the 3 main parameters may contain multiple values. These parameters in "General technical characteristics" and "Authorisations" section are displayed ordered by "4.1.3 Wheel set gauge" value, then by "4.10.1 Energy supply system" and finally by "4.13.1.1 ETCS equipment on-board and its level" (system and if applicable version) and



"4.13.1.5 Class B or other train protection control and warning systems installed" in ascending order. A value may be entered for each combination of the selected values for the main parameters (configuration). The configurations for each parameter are determined based on the dependencies of that parameter (example is provided further below).

2.3.2 Registering a new Vehicle Type

In order to register a new Vehicle type, the user must click the "Register new type" button highlighted in point 3 of Figure 4. The new Vehicle type form will be presented to the user as seen in Figure 15. The Vehicle Type registration will take place in four steps as seen on the left side of the figure. These are:

- Step 1.General Information (see 2.3.2.1)Step 2.Technical Characteristics (see 2.3.2.2)
- Step 3. TSI Conformity (see 2.3.2.3)
- Step 4. Authorisations (see 2.3.2.4)

The user must fill in at least all the mandatory fields, which are highlighted in yellow colour, in all the steps before submitting the form to ERA for validation as described in 2.3.2.6. Additionally, the user is able to perform the following actions during the vehicle type registration (Figure 10 and Figure 11)

Actions:	Copy registration form	Grant permission for editing	Cancel registration

Figure 10: Vehicle Type Registration Record Actions

- Copy Registration form. This button creates a new Vehicle Type which is a direct copy of the current one. Any fields that contain values are copied across to the new Vehicle Type. For more details see section 2.3.15.
- Grant permission for editing. An NSA user may grant access to an Auxiliary User for editing the current Vehicle Type by using this button. For more details about Auxiliary Users see section 2.3.17.
- Cancel Registration / Cancel Authorisation. This option allows the user to completely cancel the registration or authorisation. For more details see section 2.3.15.



Figure 11: Vehicle Type Registration Session Actions

- Save as Draft. Selecting this option allows the user to store the information into the ERATV repository for accessing at a later stage. There is no validation that takes place when this button is pressed except during step 1 of the registration process. Once clicked, the data is stored and the form is reloaded.
- Save and Continue. This option is similar to 'Save as draft' with the exception that the data provided in the form are validated before continuing to the next form.
- Cancel Changes. This option allows the user to cancel the pending changes. Clicking the button will reload the form without performing a new save.



In order to retrieve the previously stored Vehicle Type, the user should view the VT details as described in section 2.5.6 or search for the VT as described in sections 2.5.1 and 2.5.2.

To reduce the risk of incorrect data input, the ERATV system will validate the entered data at several points during the registration. If a validation fails at any point, then an informative message will appear to the user either next to the problematic field (see Figure 12) or at the top of the form (see Figure 13).

Registration Method	- Select -		•
A The field "Registration Method" i	s required.		
I	Figure 12: Failed validation – In	lline error	
Wheel set gauge		PDF Excel XML	
All fields marked with an asterisk (*) and	e mandatory		
The following Parameters fixed formation (for fixed		ge, 4.1.12 Number of vehicles composing the	

Figure 13: Failed Validation – Top of page error

The validation points during the registration are:

- 1. End of Step 1
- 2. End of the 3rd Technical Characteristics form (configuration parameter specification)
- 3. Submission of Vehicle Type

When these points are reached, the user must select the option "Save and continue" to initiate the validation.



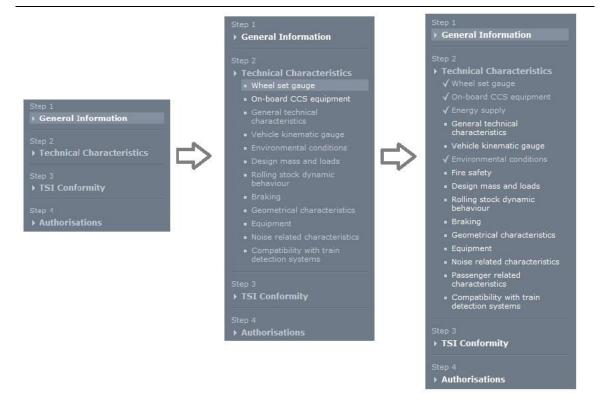


Figure 14: Navigation links during the registration progress

The user may also navigate between the steps of a registration by clicking the quick links from the left hand menu, provided that these are available. The links will become available progressively as soon as each validation point has been performed successfully (see Figure 14).

Additionally, validated steps will be indicated as complete. This will allow the users to quickly view the outstanding steps in the process. An example of validated steps can be seen in the 3rd menu of Figure 14, where a visual indication of completed and validated steps is provided.

Important Note: Navigating back and altering data in previous steps of the registration process might invalidate data that has been provided later in the registration process. When this occurs, a confirmation message will appear informing that data loss might occur. To continue the user must acknowledge the message and press continue. At this point, all affected data will be removed from the system without the possibility to undo this action.

2.3.2.1 Step 1 – General Vehicle Type information

The first step of the registration progress contains parameters that specify the type and category of the Vehicle Type. These details are used to dynamically determine the behaviour of later steps. Making changes to stored values of this step will most likely remove invalid data from the next steps.

This form (Figure 15) contains the following fields:

 Registration Regime: (mandatory) this option denotes under which registration regime (Directive 2008/57/EC, represented by options ("Directive 2008/57/EC" and "Directive 2008/57/EC Exceptional Mode") or Directive (EU) 2016/797, represented by options



("Directive (EU) 2016/797" and "Directive (EU) 2016/797-Exceptional Mode") the Vehicle Type was originally registered. This field affects the applicability of technical parameters for the Vehicle Type. This field has the following options:

- Directive 2008/57/EC
- Directive 2008/57/EC Exceptional Mode
- o Directive (EU) 2016/797
- o Directive (EU) 2016/797 Exceptional Mode
- Country: (mandatory) automatically set to the MS of the home NSA
- Organisation: (mandatory) automatically set to the home NSA
- Correspondent: (mandatory) automatically set to the correspondent specified for the home NSA
- Type ID: (optional) this is the ID of the Vehicle Type. It can be reserved at this point. Alternatively, a Type ID will be allocated on publication. More details for the Type ID are presented in section 2.3.2.1.1.
- Exceptional mode: (mandatory depending on configuration) this field is presented only when the "Directive 2008/57/EC Exceptional" and "Directive (EU) 2016/797 Exceptional Mode" option from the previous field is selected. The user must select one value from the list of available values.
- Registration Method: (mandatory) this is the main method to register the Vehicle Type. This field, along with Registered vehicle type, is presented to the current User in all Vehicle Types regardless the respective Data status (e.g., draft, submitted, published). For more information see section 2.3.2.1.2.
- Registered Vehicle Type: this is a pre-existing vehicle type which will be used to copy its details into this new Vehicle Type. Vehicle Types of any status may be used for this action. This field is either active and mandatory or disabled, depending on the selected registration method. Additionally, this field, along with Registration method, is presented to the current User in all Vehicle Types regardless the respective Data status (e.g., draft, submitted, published). For more information see section 2.3.2.1.2.



IROPEAN ERATV - EUR NION SENCY DR RAILWAYS	ropean Register of Authorised Types of Vehicles		ERAL NGA User X Locaff Hola English Search ERATV Search Advanced t Directive (RU) 2016/797 2
> General Information			
ations Requests 6	Notifications 302 Administration		Register new type Register authori
Draft Latest Update: 23/1	Type. Database ID: 1617) test 10/2019 16:17:13		Application of POPL of the
ation details			
	General Information		Actions: Copy registration form Cancel registra
ral Information	All fields marked with an asterisk (*) are mandatery		
ical Characturistics	VehicleType was saved successfully.		
nical Characteristics met set gauge troy supply neral technical iractaristics	•		
Indexistical inde gauge soles safety ign mass and loads ling stock dynamic sole worker umstrait characteristics openent sanger related rashelitika mathiliky with train exten systemd	Registration Regime: *	O Directive 2008/57/EC O Directive 2008/57/EC - Exceptional Mode 🛞 Directive (EU	U) 2016/757 O Directive (EU) 2016/757 - Exceptional Mode
safety ign mass and loads	Country: *	Sueden	97 10
ng stock dynamic sviour	Organisation: *	NSA SE - Swedish Transport Agency	
ng netrical characteristics	Correspondenti *	Carina Larsson	
privence conger related actoristics	0 Identification of the type		
patibility with train ttion systems	0 Identification of the type 0.1 0.2 0.4 Type ID:		
formity		Reserve ID	
	0.3 Date of records		
sacons .	Registration options		
	Registration Method: *	New Type	×
	Registered Vehide Type		
	1.4 Category: *	Traction vehicles	×
	1.5 Subcategory: *	Locomotive	×
	1.6 Platform: *	1098	v *
	1 General Information		
	1.1 Type name:	test	
	1.2 Alternative type name:		
	1.3 Hanufacturer		
	1.3.1 Manufacturer identification data		
	1.3.1.1 Name of organisation: *	organisation Test	v •
	1.3.1.2 Registered business number:		
	1.3.1.3 Organisation coder		
	1.3.2 Manufacturer contact data 1.3.2.1 Address of organisation, street and numberi		
	1.3.2.2 Towni		
	1.3.2.3 Country code:		
	1.3.2.4 Post code:		
	1.3.2.5 E-mail address:		
	And And A CONTRACT		
	4.1.1 Number of driving cabe: *	0	V
	Save as draft Save & Continue		Cancel Char

Figure 15: Step 1 – Vehicle Type General Information form

- Category: this is the category of the Vehicle Type. Setting this option will filter the available options in the subcategory field. This field is either active and mandatory or disabled, depending on the selected registration method. For more information see section 2.3.2.1.2. The available options are:
 - o Traction Vehicles
 - Hauled Passenger Vehicles
 - o Freight wagons
 - Special wagons
- Subcategory: this is the subcategory of the registered Vehicle Type. This field is used to calculate the applicability of technical parameters of the Vehicle Type as well as to determine the available platforms. This field is either active and mandatory or disabled, depending on the selected registration method. For more information see section 2.3.2.1.2. The options are:
 - Traction Vehicles
 - Locomotive
 - Self-propelled passenger Trainset (incl. rail buses)



- Self-propelled freight Trainset
- Shunter
- Other (tramways, light rail vehicles, etc.)
- Hauled Passenger Vehicles
 - Passenger coach (incl. sleeping cars, restaurant, etc.)
 - Van
 - Car carrier
 - Vehicle for services (e.g. kitchen)
 - Fixed rake of coaches
 - Other
- o Freight Wagons
 - Freight wagon
 - Fixed rake of freight wagons
- Special Wagons
 - Self-propelled special vehicle
 - Hauled special vehicle
- Platform: the platform of the new vehicle. Select a predefined value or click the plus (📩) icon to create a new one. This field is either active and mandatory or disabled, depending on the selected registration method. For more information see section 2.3.2.1.2.
- Type name: (optional) this is the name of the Vehicle Type.
- Alternative type name: (optional) this is an alternative name of the Vehicle Type.
- - Once the Manufacturer's details will be incorporated in a VT, those will not be linked with the respective list of administration panel. Those details will be "copied" to the VT itself. Any alteration in the respective values of the administration panel, will not affect the aforementioned VT regardless its Data status (e.g., published, submitted, draft). Hence, Manufacturer's details may differ from the ones mentioned in the respective section of administration panel. Modifying the respective VT (after its publication) will maintain the existing values of Manufacturer, but triggering the respective list will present the new values (from administration panel) in the VT.



- This field adopts the same behavior as the one mentioned in the Name of organisation applied to "Directive (EU) 2016/797" and "Directive (EU) 2016/797
 Exceptional Mode" registration regimes.
- Registered business number*
- Organisation code*
- Address of organisation, street and number*
- Town*
- Country code*
- Post code*
- E-mail address*
- Number of Driving Cabs: (mandatory) this field specifies the number of driving cabs a Vehicle Type contains and is used to determine the applicability of the technical parameters of the Vehicle Type.

(The abovementioned fields marked with asterisk (*) are applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes)

The user may perform any of the following actions from this form:

- "Save As Draft": this button stores the provided information in the ERATV database. Especially for this step, this option also performs limited validation on the form. Any validation failures will appear inline next to the problematic fields as shown in Figure 12.
- 2. "Save and Continue": stores and fully validates the provided information. The next step in the registration progress is 'unlocked' and presented to the user as shown in Figure 14.
- 3. "Cancel Changes": this option cancels any outstanding changes and reloads the same form with the most recently saved data.
- "Copy Registration": this button allows the user to copy all the provided information to a new Vehicle Type. It becomes visible if the user has stored the Vehicle Type at least once. For more information see section 2.3.15.
- 5. "Grant Permission for editing": by clicking this button the user may grant access to the current Vehicle Type for an Auxiliary User registered with the home NSA. The Auxiliary User will be able to login and fill the technical details section for this Vehicle Type. For more information see section 2.6.3.
- 6. Cancel Registration: this action cancels the registration. The registration status will be changed to 'Cancelled' and will be locked for editing.

The data provided in Step 1 are required to determine how to proceed and what to display in the remaining steps of the registration process. As such, a validation must take place before proceeding to the next step.

2.3.2.1.1 Type ID

Each Vehicle Type in the ERATV system is identified by a unique identifier called the Type ID. This identifier is allocated during VT creation and cannot be altered at any point after the VT is published.

The Type ID identifier depends on some of the VT characteristics. The characteristics are:

- Category
- Subcategory



- Platform
- Registration method: any alteration of its value has direct effect on the previous fields. This field, as previously mentioned, is presented to the current User in all Vehicle Types regardless the respective Data status (e.g., draft, submitted, published).

Once the Type ID has been allocated, then the above characteristics cannot change. If a change is required on the above characteristics, then a new record should be created.

The user may request to reserve a Type ID as soon as the VT is created, or one will be automatically allocated at the time of publication.

The reservation of a Type ID is achieved by using the button "Reserve ID", which is under Section 1: General Information (see 2.3.1.1).

0 Identification of the type		
0.1 0.2 0.4 Type ID:		
	Reserve ID	

Figure 16 - Type ID reservation

The button will only appear after Section 1: General Information has been saved for the first time.

When reserving a Type ID, a confirmation message is displayed. The user must confirm the reservation before it is performed by the system. If the Type ID has been reserved, then the ERATV system will present an informative message with the newly allocated Type ID as seen in Figure 17

General Information



Figure 17: Step 1 – Type ID allocation

2.3.2.1.2 Registration methods under Directive 2008/57/EC - "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode

There are four different registration methods for a new Vehicle Type. In summary these are:

- 1) New registration of new platform
- 2) New registration of registered platform
- 3) New version of registered type
- 4) New configuration/mode of a registered version

New registration of a new platform

This registration method allows a registration of a new Vehicle Type on a platform that has not been used before in the ERATV system. When selecting this option, the following alterations occur in the form of step 1:

• The fields "Category" and Subcategory" are enabled. "Platform" is disabled.



- On selecting a valid "Category" and "Subcategory" the "Platform" field is enabled. The dropdown list is populated with defined Platforms that have not been used in any other Vehicle Types in the ERATV system and are connected with the selected "Category" / "Subcategory" combination. On any change of the "Category" or "Subcategory" fields the "Platform" field is reset and repopulated.
- A plus (1) button appears next to the platform selection control. This allows the user to enter a new platform which will be connected to the selected "Category" / "Subcategory".
- The field "Registered Type" is disabled throughout the above process. If the field contains a value, this is removed.
- On saving the Step 1 form, any pre-existing data in the subsequent steps are removed.

New registration of an existing platform

This registration method allows the user to register a new Vehicle Type on a platform that was previously used in another vehicle registration in the ERATV system. The following take place when this registration method is selected:

- The fields "Category" and Subcategory" are enabled. "Platform" is disabled.
- On selecting a valid "Category" and "Subcategory" the "Platform" field is enabled and populated with defined Platforms that have been used in other Vehicle Types in the ERATV system and are connected with the selected "Category" and "Subcategory". On any change of the "Category" or "Subcategory" fields the "Platform" field is reset and repopulated.
- The field "Registered Type" is disabled. If the field contains a value, then this is removed.
- On saving the Step 1 form, any pre-existing data in the subsequent steps are removed.

New version of registered type

This registration method is used for registering a new version for a pre-existing Vehicle Type. The advantage of this registration method is that it reduces the time needed to fill-in the full registration form as it copies the data from another VT and the user only alters the parameters with different values that signify the new version. On selecting this registration method, the following take place in the step 1 form:

- The fields "Category", "Subcategory" and "Platform" are cleared (if they contain values) and disabled.
- The field "Registered Type" is enabled. The user clicks on the button and a popup appears. The user can search through the search criteria and select any desired registered Vehicle Type with a reserved Type/Version ID number as shown below:



X

Select a Registered Vehicle Type

Type ID)				Manufactu name	rer's	- Select -		~
Type na	ame				Registering	g NSA	- Select -		~
Categor	Ŋ	- Select -		~	Sorting		Type ID		~
Subcate	egory	- Select -		~	SortDirecti	ion	Ascending		~
Searce	ch ▶ R	leset							
Select	Type ID	Type name	Category	Subo	ategory	Manufa	acturer's name	Registering) NSA
Total numb	er of items:	0						<< < [1] > >>
								Page size:	15 💌
Select	Bac	k							



- By clicking on the "Select" button, the popup closes and all fields are updated with the stored values in the corresponding fields of the selected Vehicle Type.
- The system automatically renames the new version as "new version of <type name>". This information is displayed under "0.1 General Information" in the field "Type name".
- On saving the Step 1 form, any pre-existing data in the subsequent steps are removed and the data of the selected VT are copied into this VT.

New configuration/mode of registered version

This method allows the user to specify a new mode of a Vehicle Type from a previously registered version. On selecting this registration method, the following take place:

- The fields "Category", "Subcategory" and "Platform" are cleared (if they contain values) and disabled.
- The field "Registered Type" is enabled. The user clicks on the 🔊 button and the same popup as shown in Figure 18 appears. The user can again search through the search criteria and select any desired registered Vehicle Type with a reserved Type/Version ID number.
- By clicking on the "Select" button, the popup closes and all fields of Step 1 of the current record are updated with the stored values of the selected Vehicle Type.
- The system automatically renames the new version as "new version of <type name>". This information is displayed under "0.1 General Information" in the field "Type name".



• On saving the Vehicle Type, the data from the next steps of the selected Vehicle Type are also copied into the current one.

2.3.2.1.3 Registration methods under Directive (EU) 2016/797 - "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode"

There are six different registration methods for a new Vehicle Type. In summary these are:

- 1) New Type
- 2) New variant of a registered type
- 3) New version of a registered variant
- 4) New version of a registered type
- 5) New variant of a registered type Directive 2008/57/EC
- 6) New version of a registered type Directive 2008/57/EC

New Type

This registration method allows the registration of a new Vehicle Type that has not been used before in the ERATV system. When selecting this option, the following alterations occur in the form of step 1:

- The fields "Category", "Subcategory" and "Platform" are enabled consecutively.
- A plus (📩) button appears next to the platform selection control. This allows the user to enter a new platform.
- The field "Registered Type" is disabled throughout the above process. If the field contains a value, this is removed.
- By clicking on "Save and continue" the ERATV application validates that all mandatory fields are filled with proper values before allowing the User to continue with the application

New variant of a registered type

This registration method allows the user to register a new variant of an existing Vehicle Type. The following take place when this registration method is selected:

- The fields "Category", "Subcategory" and "Platform" are cleared (if they contain values) and disabled.
- The field "Registered Type" is enabled. The user clicks on the button and a popup appears. The user can search through the search criteria and select any desired registered Vehicle Type with a reserved Type ID number as shown on Figure 18: Selection of Registered Vehicle Types popup.
- By selecting an already existing Vehicle type, the popup closes and all fields are updated with the stored values in the corresponding fields of the selected Vehicle Type.
- The ERATV application copies the General Information data of the selected type to this new variant. The authorisation part is not copied from the registered Type. It needs to be filled in completely by the user. The system automatically names the new version as "new variant of <type name>". Only the type name and not the type id is used for auto naming.



New version of a registered variant

This registration method allows the user to register a new version of an existing variant of a Vehicle Type. The following take place when this registration method is selected:

- The fields "Category", "Subcategory" and "Platform" are cleared (if they contain values) and disabled.
- The field "Registered Type" is enabled. The user clicks on the button and a popup appears. The user can search through the search criteria and select any desired registered Vehicle Type with a reserved Type ID number as shown on Figure 18: Selection of Registered Vehicle Types popup.
- By selecting an already existing Vehicle type, the popup closes and all fields are updated with the stored values in the corresponding fields of the selected Vehicle Type.
- The ERATV application copies the General Information data of the selected type to this new version. The authorisation part is copied from the registered type but it remains possible to be modified by the user. The system automatically names the new mode as "new version of <type name>". Only the type name and not the type id is used for auto naming.

New version of a registered type

This method allows the user to specify a new version of a Vehicle Type from a previously registered version. On selecting this registration method, the following take place:

- The fields "Category", "Subcategory" and "Platform" are cleared (if they contain values) and disabled.
- The field "Registered Type" is enabled. The user clicks on the button and a popup appears. The user can search through the search criteria and select any desired registered Vehicle Type with a reserved Type ID number as shown on Figure 18: Selection of Registered Vehicle Types popup.
- By selecting an already existing Vehicle type, the ERATV application copies the General Information data of the selected type to this new version. The authorisation part is copied from the registered type but it remains possible to be modified by the user. The system automatically names the new version as "new version of <type name>". Only the type name and not the type id is used for auto naming.

New variant of a registered type Directive 2008/57/EC

This method allows the user to specify a new variant of a Vehicle Type from another registration regime ("Directive 2008/57/EC" and "Directive 2008/57/EC - Exceptional Mode"). On selecting this registration method, the following take place:

- The fields "Category", "Subcategory" and "Platform" are cleared (if they contain values) and disabled.
- The field "Registered Type" is enabled. The user clicks on the button and a popup appears. The user can search through the search criteria and select any desired registered Vehicle Type with a reserved Type ID number as shown on Figure 18: Selection of Registered Vehicle Types popup.
- The ERATV application automatically names the new mode as "new variant of <type name>". Only the type name and not the type id is used for auto naming. The ERATV



application also copies the remaining details of the selected "Registered Vehicle Type" to the current Vehicle Type to the values of the fields below:

- Registered Vehicle Type
- Category
- Subcategory
- Platform
- Type name
- Alternative type name
- Number of driving cabs

New version of a registered type Directive 2008/57/EC

This method allows the user to specify a new version of a Vehicle Type from another registration regime ("Directive 2008/57/EC" and "Directive 2008/57/EC - Exceptional Mode"). On selecting this registration method, the following take place:

- The fields "Category", "Subcategory" and "Platform" are cleared (if they contain values) and disabled.
- The field "Registered Type" is enabled. The user clicks on the button and a popup appears. The user can search through the search criteria and select any desired registered Vehicle Type with a reserved Type ID number as shown on Figure 18: Selection of Registered Vehicle Types popup.
- The ERATV application automatically names the new mode as "new version of <type name>". Only the type name and not the type id is used for auto naming. The ERATV application also copies the remaining details of the selected "Registered Vehicle Type" to the current Vehicle Type to the values of the fields below:
 - Registered Vehicle Type
 - Category
 - Subcategory
 - Platform
 - Subcategory
 - Type name
 - Alternative type name
- Number of driving cabs

2.3.2.2 Step 2 – Technical characteristics

The technical characteristics step of the registration process contains numerous data fields that need to be populated. To ease the fill-in process, these are divided in several section forms as seen in the left-hand menu shown in Figure 14. The section forms are:

- 1. Wheel Set Gauge
- 2. On-Board CCS Equipment
- 3. Energy Supply
- 4. General technical Characteristics
- 5. Vehicle Kinematic Gauge
- 6. Environmental Conditions
- 7. Fire Safety



- 8. Design mass and Loads
- 9. Rolling Stock Dynamic Behaviour
- 10. Braking
- 11. Geometrical Characteristics
- 12. Equipment
- 13. Noise related characteristics
- 14. Passenger related characteristics
- 15. Compatibility with Train Detection Systems

The sections are related to the registration regime that the User selects under general information. Each technical characteristics' form contains the parameters applicable to the section and several actions.

Each parameter row contains the following items (Figure 19: Step 2.):

- 1. The parameter number and label.
- 2. The mandatory flag: this flag denotes whether the parameter is mandatory. The applicability of the parameter is calculated dynamically as described in 2.3.1.4.
- 3. A help text icon: clicking this icon will display a popup help text window.
- 4. Field with values: this is the parameter field pre-populated with the selected/ entered values. There are different controls that appear at this point according to the type of the parameter. The possible controls are:
 - Simple Text box for text or numeric value: for example, a parameter using this type is "4.1.2.1 Maximum design speed". The numeric value might use a masked input for the data. In that case the user will see the mask on selecting the control. An example of a text box with an input mask can be seen in "4.7.5 Emergency brake : Stopping distance and deceleration profile for each load condition per design maximum speed a: Load condition: working order b: Load condition: normal payload c: Load condition: exceptional payload".
 - Three state drop down for Boolean fields: possible values are True/False/Not Specified. An example is parameter "4.10.11 Automatic dropping device (ADD) fitted".
 - Single selection from a drop-down list: example parameter of this type is "4.13.1.1 ETCS equipment on-board and the set of specifications from CCS TSI Annex A".
 - Single selection from a drop-down list with large number of options or the option to specify a value ("Other (Specify)"): this will be displayed as a selection dialog box as seen in Figure 20. Example parameter is "4.6.5 Rail inclination".
 - Multiple selections from a list with a small number of options: this will be displayed as a list of checkboxes through which the user makes one or more selections. Example parameter is "4.1.3 Wheel set gauge".
 - Multiple selections from a list with a large number of options and /or the option for the user to specify a value ("Other (Specify)"): this will be displayed as a selection dialog box as seen in Figure 20. Example parameter is "4.10.10 Material of pantograph contact strip".
 - Single or multiple selections from a selection dialog box with the option of providing additional data and / or the option for the user to specify a value ("Other (Specify)"):



this will be displayed as a selection dialog box as seen in Figure 20. Example parameter is "4 4.9.1 Type of end coupling".

- 5. Action Icon: if the user is able to perform an action on the record, then an appropriate button will appear next to the field. The possible actions are:
 - Add a new value in case the field accepts multiple values: this is denoted with a plus button (
 - Open the selection dialog box as shown in Figure 20: this can be achieved by clicking the arrow button ().

4.13.1.5 Class B or other train protection control	Q	ALSN (3)	*	k
and warning systems installed (system and if		ASFA		
applicable version) : *				
1 2	3	4	Ŧ	5
	2			2



/pe of end coupling				
Value	Tensil	e force	Compressive force	
None				
✔ Manual	0000.0	222 kN	0011.1123	kN
Semi-Automatic				
Automatic				
Automatic Type 10 / Scha	rfenberg			
Scharfenberg				
Manual coupling SA3				
SA-3 Couplers				
Other (specify)				
Value:				
Save				
Save				

Figure 20: Step 2 – Selection Dialog Box

The actions that are available to the user are:

- 1. "Save As Draft": this button stores the provided information in the repository. No validation is performed.
- 2. "Save and Continue": stores and fully validates the data in this form. The next section in the registration progress is presented to the user.
- 3. "Cancel Changes": this option cancels any outstanding changes and reloads the same form with the most recently saved data.
- 4. "Copy Registration": this button allows the user to copy all the saved information to a new Vehicle Type. For more information see section 2.3.15.

 \mathbf{x}



- 5. "Grant Permission for editing": by clicking this button, the user may grant access to the current Vehicle Type for an Auxiliary User registered with the home NSA. The Auxiliary User will be able to login and fill the technical details section for this Vehicle Type. For more information see section 2.6.3.
- 6. Cancel Registration: this action cancels the registration. The registration status will be changed to 'Cancelled' and will be locked for editing.

2.3.2.2.1 Wheel set gauge

In this form (Figure 21 and Figure 22), the user must define the wheel set gauge details of the Vehicle Type. The form contains the following fields:

- 1. "4.1.3 Wheel set gauge": the user must select from predefined values. It is possible to select more than one value.
 - a. "4.1.3.b Wheel Set Gauge Transformation Method": this option appears if more than one value has been selected for parameter "4.1.3 Wheel Set Gauge". Only one value is permitted (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
 - b. "4.1.11 Wheelset gauge Changeover facility": this option appears if more than one value has been selected for parameter "4.1.3 Wheel Set Gauge" (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- "4.1.12 Number of vehicles composing the fixed formation (for fixed formation only)": [The User must enter a number in the respective field. The value is mandatory for all vehicle categories. If the vehicle is composed of only one car, the indicated value shall be "1" (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).

The selected values in field 4.1.3 are used for determining the available configurations for the Vehicle Type.

If parameter 4.1.3 has already preselected values (from a previous session or by copying data from another registered Vehicle Type), making alterations to these might invalidate data further down the registration process. A warning message will be presented to the user when an alteration to these values is performed.



		Actions:	Copy registration form	Grant permission for editing	Delete registration
	Wheel set gauge				
Step 1	wheel set gauge				
General Information	All fields marked with an asterisk (*) are mandatory				
Step 2	Wheel set gauge : *				
 Technical Characteristics 					
 Wheel set gauge 	4.1.3 Wheel set gauge : *	🔃 🗹 1000mm			Ē
 On-board CCS equipment 		1435mm 1520mm			E
 Energy supply 		1520mm			-
 General technical characteristics 					
 Vehicle kinematic gauge 	4.1.3.b Wheel set Gauge -Transformation method	- Select -			•
 Environmental conditions 	1-				
 Fire safety 					
Design mass and loads	Save as draft Save & Continue				Cancel Changes
 Rolling stock dynamic behaviour 					
= Braking					
 Geometrical characteristics 					
 Equipment 					
 Noise related characteristics 					
 Passenger related characteristics 					
 Compatibility with train detection systems 					
Step 3					
▶ TSI Conformity					
Step 4					
Authorisations					

Figure 21: Technical Characteristics – Wheel Set Gauge section form – Directive 2008/57/EC registration regimes

Step 1	Wheel set gauge		PDF Excel XML
General Information	All fields marked with an asterisk (*) are mandatory		
Step 2		A 7	
Technical Characteristics	4.1.3 Wheel set gauge : *		^
Wheel set gauge		1520mm	
 On-board CCS equipment (for vehicles with a driving cab only) 		1524mm	~
Energy supply			
 General technical characteristics 	4.1.11 Wheelset gauge Changeover facility ^{RC} : *	\rm Test	
 Vehicle gauge 			
 Environmental conditions 	b		
 Fire safety 			
 Design mass and loads 		-	
 Rolling stock dynamic behaviour 	4.1.12 Number of vehicles composing the fixed formation (for fixed formation only) : *		
 Braking 			
 Geometrical characteristics 			
 Equipment 	Save as draft Save & Continue		Cancel Changes
 Passenger related characteristics 			
 Compatibility with train 			

Figure 22: Technical Characteristics – Wheel Set Gauge section form – Directive (EU) 2016/797

2.3.2.2.2 On-board CCS equipment

This section form contains information about the Command and Control Systems (CCS) on board the Vehicle Type.

- 1. "4.13.1 Signalling"
 - a. "4.13.1.1 ETCS equipment on-board and its level": the user must select a single value from predefined list shown on selection. If the value is set to "None", then parameters 4.13.1.2, 4.13.1.3 & 4.13.1.4 are cleared and disabled and the value is not used to generate configurations for the Vehicle Type (applied to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).

"4.13.1.1 ETCS equipment on-board and the set of specifications from CCS TSI Annex A": the user must select a single value from predefined list shown on selection. If the value is set to "None", then parameters 4.13.1.7 & 4.13.1.9 are cleared and disabled (applied to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes).



- b. "4.13.1.2 ETCS baseline.version (x.y)": the user must select a single value from a predefined list. Additionally, the user may provide a version as additional data applied to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes.
- c. "4.13.1.3 ETCS on-board equipment for reception of infill-function information via loop or GSM-R": the user must select a single value from a predefined list applied to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.
- d. "4.13.1.4 ETCS national applications implemented (NID_XUSER of Packet 44)": the user may select multiple values from a predefined list applied to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.
- e. "4.13.1.5 Class B or other train protection, control and warning systems installed": the user may select multiple values from a predefined list and optionally enter a version where applicable, except when selecting the value "None" which can only be selected exclusively.
- f. "4.13.1.6 Special conditions implemented on-board to switch over between different train protection, control and warning systems": the predefined list of available values is generated dynamically based on the selected values of parameters 4.13.1.1 & 4.13.1.5. The user has the option to check multiple values except when selecting the value "None" which can only be selected exclusively (applied to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).
- g. "4.13.1.7 ETCS on-board implementation": a free text field
- h. "4.13.1.8 ETCS System Compatibility": the user must select from predefined list. It is possible to select more than one value.
- i. "4.13.1.9 Managing information about the completeness of the train: the user can select a Boolean value (True / False).
- 2. "4.13.2 Radio"
 - a. "4.13.2.1 GSM-R equipment on board and its version (FRS and SRS)": the user must select a single value from a predefined list. Selecting the value "None" will cause parameters 4.13.2.2 to be cleared and disabled (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).

"4.13.2.1 GSM-R Radio voice on board and its Baseline": the user must select a single value from a predefined list. Selecting the value "None" will cause parameters 4.13.2.6, 4.13.2.10 & 4.13.2.12 to be cleared and disabled (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes).

- b. "4.13.2.2 Number of GSM-R mobile sets in driving cab for data transmission": the user may select a single value from a predefined list (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- c. "4.13.2.3 Class B or other radio systems installed (system and, if applicable, version)": the user may select multiple values from a predefined list and optionally enter a Version number for each selected value, except when selecting the value "None" which can only be selected exclusively.
- d. "4.13.2.4 Special conditions implemented on-board to switch over between different radio systems": the predefined list of available values is generated dynamically based on the selected values of parameters 4.13.2.1 and 4.13.2.3. The user has the option to



select multiple values except when selecting the value "None" which can only be selected exclusively (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).

- e. "4.13.2.5 Radio Voice System Compatibility": the user must select from predefined list.
 It is possible to select more than one value (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- f. "4.13.2.6 Voice and operational communication implementation": this parameter accepts character sting values (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- g. "4.13.2.7 GSM-R Radio Data communication on board and its Baseline" ": the user must select a single value from a predefined list. In case the selected value for "4.13.2.7" is "None", the ERATV application disables "4.13.2.9" & "4.13.2.11". "None" value can only be selected exclusively and not in combination with any other value (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- h. "4.13.2.8 Radio Data System Compatibility" the user may select multiple values from a predefined list (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- "4.13.2.9 Data communication application for ETCS implementation": this parameter accepts character sting values (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- j. "4.13.2.10 Voice SIM Card GSM-R Home Network": the user must select a single value from predefined list (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes).
- k. "4.13.2.11 Data SIM Card GSM-R Home Network" the user must select a single value from predefined list (applied to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- "4.13.2.12 Voice SIM Card support of Group ID 555": the user must select a Boolean value (True / False) (applied to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).

The selected values for parameters 4.13.1.1 and 4.13.1.5 are used to determine the second Configuration setting parameter (CCS on board). Making alterations to either of these parameters might cause data loss further down the registration process. A warning message will be presented to the user when an alteration to these values is performed.



			Actions:	Copy registration form	Grant permission for editing	Delete registration
	On based CCC antiinment					
Step 1	On-board CCS equipment					
General Information	All fields marked with an asterisk (*) are mandatory					
	4.13.1 Signalling : *					
 Wheel set gauge 	4.13.1.1 ETCS equipment on-board and its level : *	-	Level 1			
 On-board CCS equipment Energy supply 						
 General technical 	4.13.1.2 ETCS baseline.version (x.y). If the	•	2.0 (1)			
characteristics	version is not fully compatible it shall be indicated in brackets : *					
	k					
Fire safety			✓ loop			
 Design mass and loads 	4.13.1.3 ETCS on-board equipment for reception of infill-function information via loop or GSM-R : *	-	GSM-R			
 Rolling stock dynamic behaviour 	· · · · · · · · · · · · · · · · · · ·					
= Braking						
	4.13.1.4 ETCS national applications implemented (NID_XUSER of Packet 44) : *	•	MMI Direct			1
	(
 Passenger related characteristics 	k					
 Compatibility with train detection systems 	4.13.1.5 Class B or other train protection control	•	ASFA			
	and warning systems installed (system and if					
Step 3 • TSI Conformity	applicable version) : *					
· isi comornity						
			-			
Authorisations	4.13.1.6 Special conditions implemented on-board to switch over between different train protection control and warning systems. : *		Level 1 ->	ASFA		
	4.13.2 Radio : *					
	4.13.2.1 GSM-R equipment on board and its	•	None			
	version (FRS and SRS) : *					
						•
	k					
	4.13.2.2 Number of GSM-R mobile sets in driving		Select -			_
	cab for data transmission : *		Select -			Ŧ
	4.13.2.3 Class B or other radio systems installed	•	BR 1845			
	(system and if applicable version) : *					
						-
	k					
	4.13.2.4 Special conditions implemented on-board	•				
	to switch over between different radio systems. :	~				
	*					
	Save as draft Save & Continue					Cancel Changes
	Save a contilue					cancer changes

Figure 23: Technical Characteristics – On Board CCS equipment section form – Directive 2008/57/EC registration regimes



				ERA1 NSA User X Lo	ng off Help English V
	opean Register of Authorised Types of Vehicles		Search ERATV		Search Advanced search
AGENCY FOR RAILWAYS > ERATV > Technical Characteristics			Directive (EU) 2	2016/797 🗹	
	fications 17 Administration			Register new	v type Register authorisation
(New registration of Makiala	Turne Detectores ID: (500) Desistering a Math	ista Tura			Application guide
Status: Draft Latest Update: 12/07/20	Type. Database ID: 1582) Registering a Veh 019 17:38:33	icie Type			Application guide PDF, 0 KB
Registration details				_	
		Actions:	Copy registration form	Grant permission for	editing Cancel registration
Step 1	On-board CCS equipment (for vehicles with	a driving cab only)			PDF Excel XML
General Information	All fields marked with an asterisk (*) are mandatory				
Step 2 Technical Characteristics	4.13.1 Signalling : *				
■ Wheel set gauge √ On-board CCS equipment (for which a driving act	$4.13.1.1$ ETCS equipment on-board and the set of specifications from CCS TSI Annex A $^{\rm RC}$; *	Decision 2008/386/EC Set_1			V
	$4.13.1.5$ Class B or other train protection control and warning systems installed (system and if applicable version) $^{\rm RC}$: *				
 Vehicle gauge 	k				
 Environmental conditions Fire safety 		0			
 Design mass and loads Rolling stock dynamic behaviour 	4.13.1.7 ETCS on-board implementation $^{\rm RC}$: *	test			
 Braking Geometrical characteristics 	4.13.1.8 ETCS System Compatibility : *	\rm 😧 None			
 Equipment 					
 Passenger related characteristics Compatibility with train detection systems 	$4.13.1.9$ Managing information about the completeness of the train $^{\rm RC}$: *	() True		V	
Step 3	4.13.2 Radio : *				
TSI Conformity		Decision 2008/386/EC Set_1			
Step 4 Authorisations	4.13.2.1 GSM-R Radio voice on board and its Baseline $^{\rm RC}$:				
	k				
	4.13.2.3 Class B or other radio systems installed	None			
	(system and if applicable version) $\mathbb{R}^{\mathbb{C}}$: *				
	₽.				
	4.13.2.5 Radio Voice System Compatibility : *	🗹 None			
	4.13.2.6 Voice and operational communication	Ð			
	implementation ^{RC} : *	test			
	$4.13.2.7$ GSM-R Radio Data communication on board and its Baseline $^{\rm AC}$: *	Decision 2008/386/EC Set_1			V
	4.13.2.8 Radio Data System Compatibility : *	💷 🗹 None			
	$4.13.2.9$ Data communication application for ETCS implementation $^{\rm RC}$: *	test			
	4.13.2.10 Voice SIM Card GSM-R Home Network : *	GSM-R AL (Albania)			
	4.13.2.11 Data SIM Card GSM-R Home Network : *	GSM-R A (Austria)			
					•
	4.13.2.12 Voice SIM Card support of Group ID 555 : *	True		V	
	Save as draft Save & Continue				Cancel Changes
Terms of Use Copyright Notice Privacy S	tatement File Version: 1.6			© 2018	European Union Agency for Railways

Figure 24: Technical Characteristics – On Board CCS equipment section form - Directive (EU) 2016/797

2.3.2.2.3 Energy supply

This section form contains information about the energy supplies the Vehicle Type can support. It must be filled in two steps:



- a) Specify the supported energy supplies and save the form (either "Save as draft" or "Save and continue").
- b) Specify technical characteristics for each of the selected energy supplies.

The following parameters are available in this section form:

"4.10.1 Energy Supply system (voltage and frequency)*": the user must select multiple values from a predefined list, with the option to specify a value (Option "Other (Specify)").
 * "4.10.1 Energy Supply system" is the parameter name under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes and "4.10.1 Energy Supply system (voltage and frequency)" the name under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes.

This parameter contains these additional validation rules:

- a. If the predefined value "None" is selected, then it is not possible to select any other values for this parameter and the remaining parameters for the form are inactive and not presented.
- b. If the predefined value "Autonomous" is selected, then it is possible to select additional values for this parameter. The remaining energy supply parameters, apart from "4.10.2 Maximum power (to be indicated for each energy supply system the vehicle is equipped for)", are set to inactive and cannot take values for the "Autonomous" energy supply.
- c. If the predefined value "Other (Specify)" is selected, then the user must specify the characteristics of the Other Energy Supply source as well as the type of the current supplied (DC or AC)
- "4.10.2 Maximum power": the user must enter one value for the parameter per energy supply configuration other than "None" (applied to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- "4.10.3 Maximum rated current from the catenary": the user must enter one value for the parameter per energy supply configuration other than "None" and "Autonomous" (applied to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- 4. "4.10.4 Maximum current at standstill per pantograph (to be indicated for each DC systems the vehicle is equipped for)": the user must enter a value for the parameter for each energy supply configuration other than "None" and "Autonomous" which denotes Direct Current (DC) energy supply. This parameter is not applicable for Alternating Current (AC) Energy Supply sources.
- 5. "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)": the user must use the masked input to provide one value for each energy supply configuration other than "None" and "Autonomous".
- 6. "4.10.6 Pantograph head geometry (to be indicated for each energy supply system the vehicle is equipped for)*": the user must select one or more values from a predefined list with the option to also specify a custom value by using the "Other (Specify)" option. This must be performed for each energy supply configuration other than "None" and "Autonomous".

^{*}Name under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes: "4.10.6 Pantograph head (to be indicated for each energy supply system the vehicle is equipped for)"



Name under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes: "4.10.6 Pantograph head geometry (to be indicated for each energy supply system the vehicle is equipped for)"

- 7. "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)": the user must provide a numeric value for each energy supply configuration other than "None" and "Autonomous". If the value specified is one (1) or zero (0), then parameter "4.10.8 Shortest distance between two pantographs in contact with the OCL" for the same energy configuration is cleared and disabled.
- 8. "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)": the user must provide a numeric value for each energy supply configuration other than "None" and "Autonomous".
- "4.10.9 Type of OCL used for the test of current collection performance": the user must select one or more values from the provided list. This must be repeated once per energy supply configuration other than "None" and "Autonomous" (applied to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- 10. "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)": the user must select one or more values or can specify a custom value for each configuration other than "None" and "Autonomous".
- 11. "4.10.11 Automatic dropping device (ADD) fitted (to be indicated for each energy supply system the vehicle is equipped for)": the user must choose a valid value (True or False) from the drop-down list for each configuration other than "None" and "Autonomous".
- "4.10.12 TSI conform energy meter for billing purposes installed on board": the user must choose a valid value (True or False) from the drop-down list for each configuration other than "None" and "Autonomous" (applied to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- "4.10.14 Electric units equipped with power or current limitation function": the user can select a Boolean value (True / False) for each configuration other than "None" and "Autonomous" (applied to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- "4.10.15 Mean contact force": the user must provide a numeric value for each energy supply configuration other than "None" and "Autonomous" (applied to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes).

The selected values in field 4.10.1 are used for determining the available configurations for the Vehicle Type.

If parameter 4.10.1 has already preselected values (from a previous session or by copying data from another registered Vehicle Type), making alterations to these might invalidate data further down the registration process. A warning message will be presented to the user when an alteration to these values is performed.

A validation must succeed at this point before the remaining section forms are 'unlocked'.



Step 1	Energy supply			
General Information				
Step 2	All fields marked with an asterisk (*) are mandatory			
Step 2 Technical Characteristics	4.10.1 Energy supply system : *	DC 3kV		
Wheel set gauge				
 On-board CCS equipment 				
 Energy supply 				
 General technical characteristics 		~		
 Vehicle kinematic gauge 	4.10.2 Maximum power (to be indicated for each energy supply system the vehicle is equipped for)	1500		
 Environmental conditions 	(DC 3kV):			
 Fire safety 		~		
 Design mass and loads 	4.10.3 Maximum rated current from the catenary (to be indicated for each electrical energy supply)	1000		
 Rolling stock dynamic behaviour 	system the vehicle is equipped for) (DC 3kV): *			
 Braking 		_		
 Geometrical characteristics 	4.10.4 Maximum current at standstill per pantograph (to be indicated for each DC systems	1000		
Equipment	the vehicle is equipped for) (DC 3kV): *			
 Noise related characteristics 		_		
 Passenger related 	4.10.5 Height of interaction of pantograph with contact wires (over top of rail) (to be indicated for	0001.50 m to	0002.50 m	
characteristics	each energy supply system the vehicle is			
 Compatibility with train detection systems 	equipped for) (DC 3kV): *			
	4.10.6 Pantograph head (to be indicated for each	1600 mm		
Step 3 • TSI Conformity	energy supply system the vehicle is equipped for)	1300 mm (sc	UK)	
7 ISI Contorning	(DC 3kV): *			
Step 4	k			
Authorisations		~		
	4.10.7 Number of pantographs in contact with the overhead contact line (OCL) (to be indicated for	4 3		
	each energy supply system the vehicle is			
	equipped for) (DC 3kV): *			
	4.10.8 Shortest distance between two	Q 3		
	pantographs in contact with the OCL (to be indicated for each energy supply system the	3		
	vehicle is equipped for; to be indicated for single			
	and if applicable multiple operation) (only if number of raised pantographs is more than 1)			
	(DC 3kV): *			
		🔁 🖂 A		
	4.10.9 Type of OCL used for the test of current collection performance (to be indicated for each	Ψ □ A ▼ B		
	energy supply system the vehicle is equipped for) (only if number of raised pantographs is more	С		
	than 1) (DC 3kV): *			
		•		
	4.10.10 Material of pantograph contact strip the vehicle may be equipped with (to be indicated for	Carbon with a Steel	idditive material	
	each energy supply system the vehicle is equipped for) (DC 3kV): *			
	equipped for) (DC 3KV): -	k		
	4.10.11 Automatic dropping device (ADD) fitted	True		
	(to be indicated for each energy supply system the vehicle is equipped for) (DC 3kV): *	True		
	4.10.12 TSI conform energy meter for billing	()		
	purposes installed on board (DC 3kV): *	False		

Figure 25: Technical Characteristics – Energy Supply section form - Directive 2008/57/EC registration regimes



EUROPEAN UNION FOR RAILWAYS	opean Register of Authorised Types of Vehicles		Search ERATV Directive (EU) 20:	ERAL NSA User X Log_off Helo English V Search Advanced search
Authorisations Requests Notifi	ications 17 Administration			Register new type Register authorisation
(New registration of Vehicle T Status: Draft Latest Update: 15/07/20 Registration details	Type. Database ID: 1582) Registering a Vehicle Type 1915/47:33			POF, 0 KIB
Registi atton uccans		Ac	tions: Copy registration form	Grant permission for editing Cancel registration
Step 1	Energy supply			PDF Excel XML
General Information	All fields marked with an asterisk (\P) are mandatory			
 Technical Characteristics ✓ Wheel set gauge ✓ On-board CCS equipment (for vehicles with a driving cab 	Y Technical Characteristics were saved successfully.			
	$4.10.1$ Energy supply system (voltage and frequency) $^{\rm PC}$: *	DC1.34V (Specific Case IR)		
Vehicle gauge Environmental conditions	b			
 Fire safety Design mass and loads Rolling stock dynamic behaviour 	4.10.4 Maximum current at standstill per pantograph (to be indicated for each DC systems the vehicle is equipped for) DC 1.5kV (Specific Case FR): *	Q 200	A	
behaviour • Braking • Geometrical characteristics • Equipment	$4.10.5$ 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) DC 1.5kV (Specific Case FR) $^\infty$: *	0004.43 m to 0005.21 m		
 Passenger related characteristics Compatibility with train detection systems 	$4.10.6$ Pantograph head geometry (to be indicated for each energy supply system the vehicle is equipped for) DC 1.5kV (Specific Case PR) $^{\rm SC}$: "	1300 mm (sc UK)		
Step 3 TSI Conformity	E			
Step 4 Authorisations	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) DC 1.5kV (Specific Case PR) $%$: *	• 1		
	$4.10.8$ 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 it applicable multiple operation) (out) if number of raised pantographs is more than 1) DC 1.5kV (Specific Case FR) $^{\rm NC}$: *	•	m	
	$4.10.10$ Haterial of pantograph contact strip the vehicle may be equipped with (to be indicated for each energy supply system the vehicle is equipped for) DC 1.5kV (Specific Case FR) $^{\rm CC}$: *	Plan carbon		
	k			
	$4.10.11$ Automatic dropping device (ADD) fitted (to be indicated for each energy supply system the vehicle is equipped for) DC 1.5kV (Specific Case FR) 10 : *	<table-cell> True</table-cell>	Y	
	$4.10.14$ Electric units equipped with power or current limitation function 1000mm / DC 1.5kV (Specific Case FR) / ALSN $^{\rm NC}$: "	Palse	V	
	$4.10.14$ Electric units equipped with power or current limitation function 1000mm / DC 1.5kV (Specific Case FR) / Implementing Regulation (EU) 2019/776 Set_1 $^{\rm H}$: *	<table-cell> False</table-cell>	V	
	$4.10.15$ Mean contact force 1000mm / DC 1.5kV (Specific Case FR) / ALSN $^{\rm HC}$: "	Q ₂	Ν	
	$4.10.15$ Mean contact force 1000mm / DC 1.5kV (Specific Case FR) / Implementing Regulation (EU) 2019/776 Set_1 $^{\rm C}$: *	Q ₃	Ν	
	Save as draft Save & Continue			Cancel Changes
Terms of Use Convright Notice Privacy St	latement File Version: 1.6			© 2018 European Union Apency for Railways

Figure 26: Technical Characteristics – Energy Supply section form - Directive (EU) 2016/797

2.3.2.2.4 General technical characteristics

This section form (Figure 27 and Figure 28) contains the general technical characteristics of the Vehicle Type. The following parameters are available in this form depending on the calculated applicability:

- 1. "4.1.2 Speed"
 - a. "4.1.2.1 Maximum design speed": the user can enter a numeric value for each configuration.
 - b. "4.1.2.2 Maximum speed when empty": the user can enter a numeric value.
- "4.1.4 Conditions of use regarding train formation": the user can select a value from a predefined list (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).
- 3. "4.1.5 Maximum number of trainsets or locomotives coupled together in multiple operation": the user may enter a numeric value for each configuration.
- "4.1.6 Number of elements in the rake of freight wagons": the user can enter a numeric value (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).



- 5. "4.1.7 Letter marking": the user can enter a string value (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).
- "4.1.8 Type meets the requirements necessary for validity of the vehicle authorisation granted by one Member State in other MSs": the user can select a value from a predefined list (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- "4.1.9 Dangerous goods for which the vehicle is suitable": the user can select multiple values from a predefined list or provide a custom value (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- "4.1.10 Structural category": the user can select a single value from the predefined list or provide a custom value (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).

			Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	General technica	al characteristics				
General Information	All fields marked with a	an asterisk (*) are mandatory				
	4.1.2 Speed					
Technical Characteristics	4.1.0.1 Maniana	design speed (1000mm /	0			
 Wheel set gauge On-board CCS equipment 	Autonomous / ASF		4			
 Energy supply 						
 General technical characteristics 	4.1.2.1 Maximum (Autonomous / No)	design speed (1000mm / : *	0			
	4.1.4 Conditions of	f use regarding train formation	🔍 - Select -			-
 Fire safety 						
Design mass and loads	4.1.0 Turn months	the requirements necessary for	🔍 - Select -			•
 Rolling stock dynamic behaviour 		cle authorisation granted by	- Select -			•
	4.1.10 Structural c	ategory : *	•			*
						-
 Passenger related characteristics 						
 Compatibility with train detection systems 						
detection systems	Save as draft	Save & Continue				Cancel Changes
▶ TSI Conformity						
Authorisations						

Figure 27: Technical Characteristics – General Technical Characteristics form - Directive 2008/57/EC registration regimes



ERATV - Technical Characteristics	pean Register of Authorised Types of Vehicles		Search ERATV Directive (EU) 2		telp English V
Authorisations Requests Notif	ications 17 Administration		-	Register new type	Register authorisation
(New registration of Vehicle Status: Draft Latest Update: 15/07/20 Registration details	Type. Database ID: 1582) Registering a Vehicle Type 19 17/01/35				Application guide PDF, 0 KB
		Actions:	Copy registration form	Grant permission for editing	Cancel registration
Step 1 General Information	General technical characteristics				PDF Excel XML
Step 2 → Technical Characteristics √ Wheel set gauge √ On-board CCS equipment (for vehicles with a driving cab only)	4.1.2 Speed : * 4.1.2.1 Haximum design speed 1000mm / DC 600/750V Ground level conductors rails / ALSH: *	9 220	km/h		
only) √ Energy supply √ General technical characteristics	4.1.2.1 Maximum design speed 1000mm / DC 600/750V Ground level conductors rails / Implementing Regulation (EU) 2019/776 Set_1: *	Q 220	km/h		
Vehicle gauge Environmental conditions Fire safety	4.1.5 Maximum number of trainsets or locomotives coupled together in multiple operation. 1000mm / DC 600/750V Ground level conductors rails / ALSN: *	• 2			
Design mass and loads Rolling stock dynamic behaviour Braking	4.1.5 Haximum number of trainsets or locomotives coupled together in multiple operation. 1000mm / DC 600/750V Ground level conductors rails / Implementing Regulation (EU) 2019/776 Set_1: *	Q ₂			
Commetical devectoristic Commetical devectoristic Commetical devectoristic Comparability with train devectoristic devectoristic Step 3 State 4 Authorisations	Save as deal? Save & Continue				Cancel Changes
Terms of Use Copyright Notice Privacy St	atement File Version: 1.6			© 2018 European	n Union Agency for Railways

Figure 28: Technical Characteristics – General Technical Characteristics form - Directive (EU) 2016/797



2.3.2.2.5 Vehicle kinematic gauge

This section form (Figure 29) contains the parameters related to the Vehicle Kinematic Gauge. The form contains the following parameters:

- 1. "4.2.1 Vehicle kinematic gauge": the user can select multiple values from a predefined list.
- "4.2.2 Vehicle kinematic gauge": the user can select multiple values from a predefined list (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).

		Action	: Copy registration form	Grant permission for editing	Delete registration
Step 1 General Information	Vehicle kinematic gauge				
Step 2	All fields marked with an asterisk (*) are mandatory 4.2.1 Vehicle kinematic gauge (interoperable gauge) : *	Q			*
 On-board CCS equipment Energy supply General technical 	k				Ŧ
characteristics Vehicle kinematic gauge Environmental conditions 	4.2.2 Vehicle kinematic gauge (other gauges assessed using the kinematic method) :	Q			~
 Fire safety Design mass and loads Rolling stock dynamic 	k				
behaviour • Braking	Save as draft Save & Continue				Cancel Changes
 Geometrical characteristics Equipment Noise related characteristics 					
 Passenger related characteristics Compatibility with train 					
detection systems Step 3					
 TSI Conformity Step 4 					
Authorisations					





2.3.2.2.6 Environmental conditions

This section form (Figure 30) contains the parameters related to the Vehicle Type environmental conditions. The form contains the following parameters:

- 1. "4.3.1 Temperature range": the user can select multiple values from a predefined list. Additionally, the user can provide custom values by clicking the option "Other (Specify)".
- 2. "4.3.2 Altitude range": the user can select a single value from a predefined list. If the value "AX" is selected, then parameter "4.3.2.1 Altitude range detail" is presented:
 - a. "4.3.2.1 Altitude range detail": the user can enter a numeric value

Both parameters 4.3.2 and 4.3.2.1 are applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes

3. "4.3.3 Snow, ice and hail conditions": the user can select multiple values from a predefined list. Additionally, the user can provide custom values by clicking the option "Other (Specify)".

				Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	Environmental o	conditions					
General Information	All fields marked with	an asterisk (*) are mand:	atory				
Step 2 Technical Characteristics Wheel set gauge	4.3.1 Temperature	e range : *	Q	T(s) (-25 to + T(RIV)	-45)		*
 On-board CCS equipment Energy supply General technical 							-
 General technical characteristics Vehicle kinematic gauge 	4.3.2 Altitude rang	je:*	Q	AX			
 Environmental conditions Fire safety 	4.3.2.1 Altitude ra	nge detail : *	Q	1000			
 Design mass and loads Rolling stock dynamic behaviour 	4.3.3 Snow ice an	d hail conditions : *	Q	severe			
 Braking Geometrical characteristics Equipment 	h						
 Noise related characteristics Passenger related characteristics 	Save as draft	Save & Continue					Cancel Changes
 Compatibility with train detection systems 							
Step 3 FSI Conformity							
Step 4 Authorisations							

Figure 30: Technical Characteristics – Environmental Conditions Form



2.3.2.2.7 Fire Safety

This form (Figure 31) contains the parameters related to the Vehicle Type fire safety. The only parameter provided is parameter "4.4.1 Fire Safety Category". The user can select a value from the predefined list of values.

				Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	Fire safety						
General Information	All fields meshed with	an asterisk (*) are manda	ten				
Step 2	Air fields marked with	an asterisk (*) are manda					
 Technical Characteristics 	4.4.1 Fire safety c	ategory : *	e	OTM as define	ed in 4.2.10.1.2		-
 Wheel set gauge 							
 On-board CCS equipment 							
 Energy supply 	Save as draft	Save & Continue					Cancel Changes
 General technical characteristics 							
 Vehicle kinematic gauge 							
 Environmental conditions 							
 Fire safety 							
 Design mass and loads 							
 Rolling stock dynamic behaviour 							
 Braking 							
 Geometrical characteristics 							
 Equipment 							
 Noise related characteristics 							
 Passenger related characteristics 							
 Compatibility with train detection systems 							
Step 3							
TSI Conformity							
Step 4							
 Authorisations 							

Figure 31: Technical Characteristics – Fire Safety Form

2.3.2.2.8 Design mass and loads

This form (Figure 32) contains the parameters related to the Vehicle Type design mass and loads. The form contains the following parameters:

- "4.5.1 Permissible payload for different line categories": the user can select a line category from a reference list and then enter a number for each selected line. There can be one numeric value per line category selected and multiple line categories may be selected each with its own numeric value. The numeric value is mandatory for each line category.
- 2. "4.5.2 Design mass"
- a. "4.5.2.1 Design mass in working order": the user can enter a numeric value.
- b. "4.5.2.2 Design mass under normal payload": the user can enter a numeric value.
- c. "4.5.2.3 Design mass under exceptional payload": the user can enter a numeric value.
- 3. "4.5.3 Static axle load"
- a. "4.5.3.1 Static axle load in working order": the user can enter a numeric value.
- b. "4.5.3.2 Static axle load under normal payload/ maximum payload for freight wagons": the user can enter a numeric value.
- c. "4.5.3.3 Static axle load under exceptional payload": the user can enter a numeric value.
- d. "4.5.3.4 Position of the axles along the unit (axle spacing) :
 - Main value:
 - a: Distance between axles
 - b: Distance from end axle to the end of the nearest coupling plane
 - c: distance between two inside axles":



the user must use the masked input to provide one value for each distance option (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes).

Additional value (Explanations): the user can provide a text as explanations.

Multiple values: the user can use the "+" button to add multiple set of values. Use the "x" button to remove a set of values.

Both main and additional values are mandatory; The validation will fail if there is a main value without additional one, or an additional value without a main one.

- "4.5.4 Quasi-static guiding force": the user can enter a numeric value for each configuration based on the wheel set gauge (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).
- "4.5.5 Total vehicle mass (for each vehicle of the unit)": the user must provide a numeric value (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- 6. "4.5.6 Mass per wheel": the user must provide a numeric value (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).

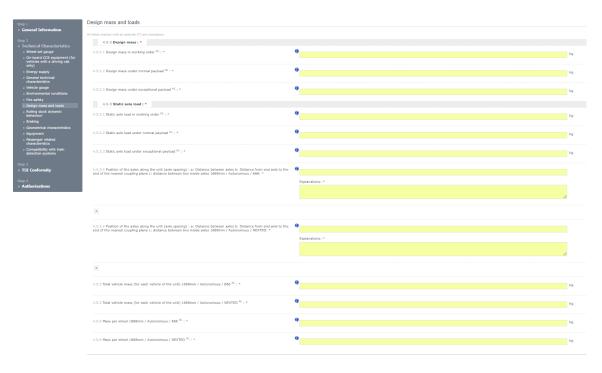


Figure 32: Technical Characteristics – Design Mass and loads form - Directive (EU) 2016/797 registration regimes



Step 1	Design mass and loads		
General Information	All fields marked with an asterisk (*) are mandatory		
Step 2	4.5.2 Design mass : *		
► Technical Characteristics √ Wheel set gauge	4.5.2.1 Design mass in working order ^{IC} : *	22000	kg
 ✓ On-board CCS equipment (for vehicles with a driving cab only) 		72000	Ny
only) √ Energy supply	4.5.2.2 Design mass under normal payload ^{RC} : *	Q 72000	kg
✓ General technical characteristics		72000	Ny
√ Vehicle gauge	4.5.2.3 Design mass under exceptional payload ** : *	72000	kg
✓ Environmental conditions ✓ Fire safety		7200	
√ Design mass and loads	4.5.3 Static axle load : *		
 Rolling stock dynamic behaviour 	4.5.3.1 Static axle load in working order ^{#C} : *	18000	kg
Braking			
 Geometrical characteristics Equipment 	4.5.3.2 Static axle load under normal payload ⁸⁰ : *	18000	kg
 Passenger related characteristics 			
 Compatibility with train detection systems 	$4.5.3.3$ Static axle load under exceptional payload $^{\rm RC}$:	18000	kg
Step 3 TSI Conformity	4.5.3.4 Position of the axles along the unit (axle spacing) : a: Distance between axles	a: 0011.00 m b: 0012.00 m c: 0015.00 m	
Step 4	b: Distance from end axle to the end of the nearest coupling plane c: distance between two inside axles		
Authorisations	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1 #C : *		
	4.5.3.4 Position of the axles along the unit (axle spacing) : a: Distance between axles	a: 0011.00 m b: 0012.00 m c: 0015.00 m	
	a: Distance between axies b: Distance from end axle to the end of the nearest coupling plane c: distance between two inside axles		
	1000mm / AC 25kV-50Hz / None *C : *		
	4.5.5 Total vehicle mass (for each vehicle of the unit) 1000mm / AC 25kV-50Hz / Decision	90000	kg
	2008/386/EC Set_1 *C : *		
	$4.5.5$ Total vehicle mass (for each vehicle of the unit) 1000mm / AC 25kV-50Hz / None $^{\rm NC}$:	90000	kg
	4.5.6 Mass per wheel 1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1 *C : *	90000	kg
	4.5.6 Mass per wheel 1000mm / AC 25kV-50Hz / None ^{RC} : *	90000	kg
	Saus as death Saus & Castinus		

Figure 33: Technical Characteristics – Design Mass and loads form - Directive (EU) 2016/797

2.3.2.2.9 Rolling stock dynamic behaviour

This form (Figure 34) contains the parameters related to the Vehicle Type design mass and loads. The form contains the following parameters:

- a. "4.6.1 Cant deficiency": the user can enter multiple numeric values for each configuration based on the wheel set gauge (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- b. "4.6.2 Vehicle equipped with a cant deficiency compensation system": the user can select either True or False value (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- c. "4.6.4 Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed": the user must use the masked input to insert numeric values (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- d. "4.6.5 Rail inclination": the user must select a single value from predefined list (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).



			Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	Rolling stock dy	namic behaviour				
▶ General Information	All fields marked with	an asterisk (*) are mandatory				
Step 2 > Technical Characteristics • Wheel set gauge • On-board CCS equipment • Energy supply		ncy (maximum uncompensated) for which the vehicle has 000mm): •	•			
General technical characteristics Vehicle kinematic gauge Environmental conditions		oped with a cant deficiency em ("tilting vehicle") : *	0 - Select -			
 Fire safety Design mass and loads Rolling stock dynamic 	Save as draft	Save & Continue				Cancel Changes
behaviour = Braking = Geometrical characteristics						
 Equipment Noise related characteristics Passenger related characteristics 						
 Compatibility with train detection systems 						
Step 3 • TSI Conformity						
Step 4 Authorisations						

Figure 34: Technical Characteristics – Rolling Stock Dynamic behaviour form - Directive 2008/57/EC registration regimes



Step 1	Rolling stock dynamic behaviour		PDF Excel XM
▶ General Information	All fields marked with an asterisk (*) are mandatory		
	4.6.4 Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed 1000mm / AC 25KV-50Hz / Decision 2008/386/EC Set_1 ^{EE} : *	0250.00 km/h - 0250.00 mm	
vehicles with a driving cab only) ✓ Energy supply ✓ General technical characteristics	$4,6,4$ Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed 1000mm / AC 25KV-50Hz / None $^{\rm RC}$: *	• 0250.00 km/h - 0250.00 mm	
	$4.6.5$ Rail inclination 1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1 $^{\rm 8C}$; *	1/30	
 ✓ Design mass and loads Rolling stock dynamic behaviour 			
Braking Geometrical characteristics Equipment	$4.6.5$ Rail inclination 1000mm / AC 25kV-50Hz / None $^{\rm sc}$: *	1/20	
Passenger related characteristics Compatibility with train detection systems	8		
Step 3 • TSI Conformity	Save as draft Save & Continue		Cancel Changes
Step 4 Authorisations			

Figure 35: Technical Characteristics – Rolling Stock Dynamic behaviour form - - Directive (EU) 2016/797

2.3.2.2.10 Braking

This form (Figure 37) contains the parameters related to the breaking characteristics of the Vehicle Type. The form contains the following parameters:

- "4.7.1 Maximum average deceleration *": the user can enter a single numeric value.
 *Name under "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes: "Maximum train deceleration" Name under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes: "Maximum average deceleration"
- 2. "4.7.2 Service braking"
 - a. "4.7.2.1 Brake performance on steep gradients with normal payload"
 - i. "4.7.2.1.1 Reference case of TSI": the user can select a value from the predefined list or remove a previously entered value by selecting the option "-Select-". If a value is selected, then parameters 4.7.2.1.2 to 4.7.2.1.5 are disabled. If the value is removed, then the parameters are re-enabled.
 - ii. "4.7.2.1.2 Speed (if no reference case is indicated)": the user can enter a single numeric value.
 - iii. "4.7.2.1.3 Gradient (if no reference case is indicated)": the user can enter a single numeric value.
 - iv. "4.7.2.1.4 Distance (if no reference case is indicated)": the user can enter a single numeric value. If this parameter has a value, then parameter "4.7.2.1.5 Time" is disabled.
 - v. "4.7.2.1.5 Time (if distance is not indicated) (if no reference case is indicated)": the user can enter a single numeric value. If this parameter has a value, then parameter "4.7.2.1.4 Distance" is disabled.
 - vi. "4.7.2.1.6 Maximum brake thermal energy capacity": the user must provide a numeric value (expressed in kJ instead of kW).
- 3. "4.7.3 Parking brake"
 - a. "4.7.3.1 All vehicles of this type must be equipped with a parking brake": the user can select between values True & False (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).
 - b. "4.7.3.2 Parking brake type": the user can select a value from a predefined list. If value "None" is selected, then Parameter "4.7.3.3 Maximum gradient on which the



unit is kept immobilized by the parking brake alone" is cleared and disabled. For any other value the parameter is enabled (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).

- c. "4.7.3.3 Maximum gradient on which the unit is kept immobilized by the parking brake alone": the user can enter a numeric value.
- d. "4.7.3.4 Parking brake": the user can select a Boolean value (True / False) (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes).
- 4. "4.7.4 Braking systems fitted on the vehicle "
 - a. "4.7.4.1 Eddy current brake"
 - i. "4.7.4.1.1 Eddy current track brake fitted": the user can select between values True & False. If the value is set to False, then parameter "4.7.4.1.2 Possibility of preventing the use of the eddy current brake" is cleared and disabled.

*Name under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes: "Eddy current brake fitted"

Name under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes: "Eddy current track brake fitted"

 ii. "4.7.4.1.2 "Possibility of preventing the use of the eddy current track brake (only if fitted with eddy current track brake)": the user can select between values True & False.

*Name under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes: "Possibility of preventing the use of the eddy current brake (only if fitted with eddy current track brake)"

Name under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes: "Possibility of preventing the use of the eddy current track brake (only if fitted with eddy current track brake)"

- b. "4.7.4.2 Magnetic brake"
 - i. "4.7.4.2.1 Magnetic track brake fitted": the user can select between values True & False. If the value is set to False, then parameter "4.7.4.2.2 Possibility of preventing the use of the magnetic brake" is cleared and disabled.

*Name under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes: "Magnetic brake fitted"

Name under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes: "Magnetic track brake fitted"

 ii. "4.7.4.2.2 Possibility of preventing the use of the magnetic track brake (only if fitted with magnetic brake)". The user can select between values True & False.

*Name under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes: "Possibility of preventing the use of the magnetic brake (only if fitted with magnetic brake)" Name under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes: "Possibility of preventing the use of the magnetic track brake (only if fitted with magnetic brake)"

- c. "4.7.4.3 Regenerative brake (only for vehicles with electrical traction)"
 - i. "4.7.4.3.1 Regenerative brake fitted": the user can select between True & False for each Energy Supply specified configuration. If the value False is selected, then parameter "4.7.4.3.2 Possibility of preventing the use of the regenerative brake" is cleared and disabled.
 - ii. "4.7.4.3.2 Possibility of preventing the use of the regenerative brake (only if fitted with regenerative brake)": the user can select between values True



& False for each Energy supply dependent configuration. This parameter is not available for the Energy Supply "Autonomous" or "None" (see 2.3.2.2.3).

- 5. "4.7.5 Emergency brake : Stopping distance and deceleration profile for each load condition per design maximum speed a: Load condition: working order b: Load condition: normal payload c: Load condition: exceptional payload"; the user must use the masked input to insert numeric values (mandatory fields applied to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration modes). Due to the Transition from single-row value to three row-values, the existing single-row value is copied to the "Working order" value while the other two values ("Normal payload" and "Exceptional payload") are filled with zeroes, if needed.
- 6. "4.7.6 For general operation : Brake weight percentage (lambda) or Braked mass"; the user must use the masked input to insert numeric values. The User can add either a percentage (lambda allows a percentage value higher than 100% up to 999.99%) or the number of tonnes or both values. In order to add only the tonnes, the User shall click on the field and navigate with the keyboard arrows to the desired position. Figure 36 shows the preview of all available modes of the respective parameter (applied to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode" registration regimes).
- "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.": the user must use the masked input to insert numeric values (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes).
- "4.7.8 Wheel slide protection system": the user can select a Boolean value (True / False) (applied only to "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes).

4.7.6 For general operation : Brake weight percentage (lambda) or Braked mass 1000mm / AC 15k0+16.7Hz / ALSN: * Empty	9	(%) or tonnes
C.7.6 For general operation : Brake weight percentage (lambda) or Braked mass 000mm / AC 15X/-16.7Hz / ALSN: * Mouse over	• (%) or tornes	(%) or tonnes
4.7.6 For general operation : Brake weight percentage (lambda) or Braked mass 1000mm / AC 15kV-16.7Mz / ALSN: * Only %	999.99 (%) or tonnes	(%) or tonnes
4.7.6 For general operation : Brake weight percentage (lambda) or Braked mass 1000mm / AC 15KV-16.7mz / ALSN: * Only tonnes	••••••••••••••••••••••••••••••••••••	(%) or tonnes
4.7.6 For general operation : Brake weight percentage (lambda) or Braked mass 1000mm / AC 15K/-16.7Hz / ALSN: * Both	9 399.99 (%) or 9999.99 tonnes	(%) or tonnes

Figure 36: Preview of available modes for parameter 4.7.6



		Actions	Copy registration form	Grant permission for editing	Delete registration
Step 1	Braking				
General Information	All fields marked with an asterisk (*) are mandatory				
Step 2	4.7.2.1 Brake performance on steep gra	idients with nor	mal payload : *		
 Technical Characteristics Wheel set gauge 	4.7.2.1.1 Reference case of TSI : *	0 - Select -			
 On-board CCS equipment Energy supply General technical 	4.7.2.1.2 Speed (if no reference case is indicated)	Q			
characteristics • Vehicle kinematic gauge	4.7.2.1.3 Gradient (if no reference case is	Q			
 Environmental conditions Fire safety 	indicated) : *				
 Design mass and loads Rolling stock dynamic behaviour 	4.7.2.1.4 Distance (if no reference case is indicated) : *	•			
 Braking Geometrical characteristics 	4.7.2.1.5 Time (if distance is not indicated) (if no reference case is indicated) : $\ensuremath{^\ast}$	Q			
 Equipment Noise related characteristics 	4.7.3 Parking brake : *				
 Passenger related characteristics 	4.7.3.2 Parking brake type (if the vehicle is fitted with it) : *	- Select -			
 Compatibility with train detection systems Step 3 	4.7.3.3 Maximum grantient on which the unit is kept immobilized by the parking brake alone (if the vehicle is fitted with it) : *	9			
▶ TSI Conformity	4.7.4.1 Eddy current brake : *				
Step 4 Authorisations	4.7.4.1.1 Eddy current brake fitted : *	• Select -			
	4.7.4.1.2 Possibility of preventing the use of the eddy current brake (only if fitted with eddy current brake) : *	• Select -		¥	
	4.7.4.2 Magnetic brake : *				
	4.7.4.2.1 Magnetic brake fitted : *	• Select -		V	
	4.7.4.2.2 Possibility of preventing the use of the magnetic brake (only if fitted with magnetic brake) : *	- Select -		v	
	Save as draft Save & Continue				Cancel Changes

Figure 37: Technical Characteristics – Braking form - Directive 2008/57/EC registration regimes



	Braking		PDF Exc
Information	All fields marked with an asterisk (*) are mandatory		
al Characteristics set gauge	4.7.1 Maximum average deceleration :	9	m/s²
ard CCS equipment (for as with a driving cab	4.7.2.1 Brake performance on steep gradients with normal payload :		
- y supply	4.7.2.1.1 Reference case of TSI :	🔁 - Select -	•
y supply al technical teristics e gauge	4.7.2.1.2 Speed (if no reference case is indicated) :	Q	km/h
nmental conditions a fety n mass and loads g stock dynamic lour	4.7.2.1.3 Gradient (if no reference case is indicated) :	9	%oo (mm/m)
g etrical characteristics	4.7.2.1.4 Distance (if no reference case is indicated) :	9	km
ment atibility with train ion systems	4.7.2.1.5 Time (if distance is not indicated) (if no reference case is indicated) :	Q	min
formity	4.7.2.1.6 Maximum brake thermal energy capacity 1435mm / DC 1.5kV / 5831	Q	۵.
sations	$4.7.2.1.6~\mbox{Maximum}$ brake thermal energy capacity 1435mm / DC 1.5kV / Decision 2009/561/EC Set_1:	9	ы
	4.7.3 Parking brake :		
	$4.7.3.3~{\rm Maximum}$ gradient on which the unit is kept immobilized by the parking brake alone (if the vehicle is fitted with it) :	9	‱ (mm/m)
	4.7.4.1 Eddy current brake :		
	$4.7.4.1.1$ Eddy current track brake fitted $^{\rm RC}$:	🗣 🔤 - Select -	¥
	$4.7.4.1.2$ Possibility of preventing the use of the eddy current track brake (only if fitted with eddy current track brake) $^{\rm NC}$:	• Select -	¥
	4.7.4.2 Magnetic brake :		
	$4.7.4.2.1$ Magnetic track brake fitted $^{\rm RC}$:	C Select -	T
	$4.7.4.2.2$ Possibility of preventing the use of the magnetic track brake (only if fitted with magnetic brake) $^{\rm MC}$:	• Select -	¥
	4.7.4.3 Regenerative brake (only for vehicles with electrical traction) :		
	$4.7.4.3.1$ Regenerative brake fitted $^{\rm RC}$:	• Select -	٣
	$4.7.4.3.2$ Possibility of preventing the use of the regenerative brake (only if fitted with regenerative brake) $^{\rm RC}$:	🗘 - Select -	¥
	4.7.5 Emergency brake : Stopping distance and deceleration profile for each load condition per design maximum speed a: Load condition: working order b: Load condition: normal payload c: Load condition: exceptional payload 1435mm / DC 1.5K/ / 583:	Q	
	4.7.5 Emergency brake : Stopping distance and deceleration profile for each load condition per design maximum speed as Load conditions working order b: Load conditions normal payload c: Load condition: exceptional payload 1435mm / DC 1.5K/ / Decision 2009/561/EC Set_1:	Q	
	4.7.6 For general operation : Brake weight percentage (lambda) or Braked mass 1433mm / DC 1.5kV / 583:	9	
	4.7.6 For general operation : Brake weight percentage (lambda) or Braked mass 1435mm / DC 1.5kV / Decision 2009/561/EC Set_1:	9	
	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. 1435mm / DC 1.5kV / 583:	Q	
	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. 1435mm / DC 1.5kV / Decision 2009/561/EC Set_1:	Q	
	4.7.8 Wheel slide protection system 1435mm / DC 1.5kV / 583:	Q - Select -	Ŧ
	4.7.8 Wheel slide protection system 1435mm / DC 1.5kV / Decision 2009/561/EC Set_1:	🚯 - Select -	T

Figure 38: Technical Characteristics – Braking form - Directive (EU) 2016/797

2.3.2.2.11 Geometrical characteristics

This form (Figure 39 and Figure 40) contains the parameters related to the geometrical characteristics of the Vehicle Type. The form contains the following parameters:

- 1. "4.8.1 Vehicle length": the user can enter a single numeric value.
- 2. "4.8.2 Minimum in-service wheel diameter": the user can enter a single numeric value, which also automatically fills in the field 4.14.2.6.
- "4.8.3 Shunting restrictions": the user can select between values True & False (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- 4. "4.8.4 Minimum horizontal curve radius capability": the user can enter a single numeric value.



- 5. "4.8.5 Minimum vertical convex curve radius capability": the user can enter a single numeric value.
- 6. "4.8.6 Minimum vertical concave curve radius capability": the user can enter a single numeric value.
- "4.8.7 Height of loading platform": the user can enter a single numeric value (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).
- "4.8.8 Suitability for transport on ferries": the user can select between values True & False (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).

			Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	Geometrical characteristics					
General Information	All fields marked with an asterisk (*) an	e mandatory				
Step 2 Technical Characteristics Wheel set gauge	4.8.1 Vehicle length : *		0			
 On-board CCS equipment Energy supply General technical characteristics 	4.8.2 Minimum in-service wheel dia	meter : *	•			
Vehicle kinematic gauge Environmental conditions Fire safety	4.8.4 Minimum horizontal curve rad *	lius capability :	•			
 Fire safety Design mass and loads Rolling stock dynamic behaviour 	4.8.5 Minimum vertical convex curv capability :	ve radius	•			
 Braking Geometrical characteristics Equipment 	4.8.6 Minimum vertical concave cur capability :	ve radius	0			
 Equipment Noise related characteristics Passenger related characteristics 	4.8.8 Suitability for transport on fer	ries : *	- Select -		×	
 Compatibility with train detection systems 	Save as draft Save & Conti	inue				Cancel Changes
Step 3 FSI Conformity						
Step 4 Authorisations						

Figure 39: Technical Characteristics – Geometrical Characteristics form - Directive 2008/57/EC registration regimes



Step 1	Geometrical characteristics			PDF Excel XHL
General Information	All fields marked with an asterisk $({\ensuremath{\bullet}})$ are mandatory			
Step 2 → Technical Characteristics √ Wheel set gauge	4.6.1 Vehicle length : *	• 122	m	
✓ On-board CCS equipment (for vehicles with a driving cab only) ✓ Energy supply	$4.8.2$ Minimum in-service wheel diameter $^{\rm M2}$:	@ 760	mm	
 ✓ General technical characteristics ✓ Vehicle gauge 	$4.8.4$ Hinimum horizontal curve radius capability $^{\rm NC}$: \bullet	€ 90	m	
 ✓ Environmental conditions ✓ Fire safety ✓ Design mass and loads 	4.8.5 Minimum vertical convex curve radius capability : *	@ ₀	m	
 ✓ Rolling stock dynamic behaviour ✓ Braking ✓ Geometrical characteristics 	4.8.6 Minimum vertical concave curve radius capability1 : *	•	m	
Equipment				
 Passenger related characteristics Compatibility with train 	Save as draft Save & Continue		Cance	el Changes
detection systems				
Step 3 TSI Conformity				
Step 4 Muthorisations				

Figure 40: Technical Characteristics – Geometrical Characteristics form - Directive (EU) 2016/797

2.3.2.2.12 Equipment

This section form (Figure 42 and Figure 43) contains the parameters related to the Vehicle Type's equipment. The form contains the following parameters:

- "4.9.1 Type of end coupling": the user can select multiple values from a predefined list or supply custom values by selecting option "Other (Specify)".
 By selecting any value (except "None" value), the user may provide for each one, two complementary values: "Tensile forces" & "Compressive forces" in decimal number format within the range [0.0001, 9999.9999] expressed in kN (Figure 41:).
- "4.9.2 Axle bearing condition monitoring (hot axles box detection)": the user can select multiple values from a predefined list or supply custom values by selecting option "Other (Specify)".
- 3. "4.9.3 Flange lubrication" (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC
 exceptional mode" registration modes)
 - a. "4.9.3.1 Flange lubrication fitted": the user can select between values True & False. If the value False is selected, then parameter "4.9.3.2 Possibility of preventing the use of the lubrication device" is cleared and disabled.
 - b. "4.9.3.2 Possibility of preventing the use of the lubrication device": the user can select between values True & False.



	Value	Tensile force		Compressive force	
	None				
	Manual				
	Semi-Automatic				
	Automatic				
	Automatic Type 10 / Scharfenberg		kN		kN
	Scharfenberg				
	Manual coupling SA3				
	SA-3 Couplers				
Value	✓ Other				
varue					
Tensil	e force:			kN	
Comr	pressive force:			kN	

Figure 41: Type of end coupling

			Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	Equipment					
General Information	All fields marked with	an asterisk (*) are mandatory				
Step 2						
 Technical Characteristics 	4.9.1 Type of end compressive force	coupling (indicating tensile ar	nd 🔍			*
 Wheel set gauge 	compressive force					
 On-board CCS equipment 	k					Ψ.
 Energy supply General technical 						
characteristics	4.9.2 Axle bearing	condition monitoring (hot ax	les 🌒			*
 Vehicle kinematic gauge 	box detection) : *					
 Environmental conditions 						-
 Fire safety 	k					
 Design mass and loads 	4.9.3 Fland	e lubrication : *				
 Rolling stock dynamic behaviour 			0			
 Braking 	4.9.3.1 Flange lub	rication fitted : *	- Select -		•	
 Geometrical characteristics 						
= Equipment						
 Noise related characteristics 	Save as draft	Save & Continue				Cancel Changes
 Passenger related characteristics 						
 Compatibility with train detection systems 						
Step 3						
TSI Conformity						
Step 4 Authorisations						
Authorisations						

Figure 42: Technical Characteristics – Equipment form - Directive 2008/57/EC registration regimes



Step 1	Equipment			PDF Excel XM
General Information	All fields marked with	h an asterisk (*) are mandatory		
Step 2 → Technical Characteristics √ Wheel set gauge	4.9.1 Type of e	end coupling : *	Hanual (Tensile force: 0010.0000 kN; Compressive force: 0020.0000 kN)	
 On-board CCS equipment (for vehicles with a driving cab only) 	k			
✓ Energy supply ✓ General technical characteristics ✓ Vehicle gauge	4.9.2 Ade bea	ring condition monitoring (hot axles box detection) $^{\rm HC}$: \bullet	Onbeard equipped (CP)	
✓ Environmental conditions✓ Fire safety	×			
✓ Design mass and loads ✓ Rolling stock dynamic behaviour				
✓ Braking ✓ Geometrical characteristics	Save as draft	Save & Continue		Cancel Changes
Equipment Passenger related characteristics				
Compatibility with train detection systems				
Step 3 > TSI Conformity				
Step 4 Authorisations				

Figure 43: Technical Characteristics – Equipment form - Directive (EU) 2016/797

2.3.2.2.13 Noise related characteristics

This form is applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.

This form (Figure 44) contains the parameters related to the noise related characteristics of the Vehicle Type. The form contains the following parameters:

- 1. "4.11.1 Pass-by noise level (dB(A))": the user can enter a single numeric value.
- 2. "4.11.2 Pass-by noise level was measured under reference conditions": the user can select between values True & False.
- 3. "4.11.3 Stationary noise level (dB(A))": the user can enter a single numeric value.
- 4. "4.11.4 Starting noise level (dB(A))": the user can enter a single numeric value.

		Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	Noise related characteristics				
▶ General Information	All fields marked with an asterisk (*) are mandatory				
Step 2 Technical Characteristics Wheel set gauge	4.11.1 Pass-by noise level (dB(A)) :	•			
 On-board CCS equipment Energy supply General technical characteristics 	4.11.2 Pass-by noise level was measured under reference conditions : •	- Select -			
 Vehicle kinematic gauge Environmental conditions 	4.11.3 Stationary noise level (dB(A)) :	Q			
 Fire safety 					
Design mass and loads					
 Rolling stock dynamic behaviour 	Save as draft Save & Continue				Cancel Changes
 Braking 					
 Geometrical characteristics 					
 Equipment 					
 Noise related characteristics 					
 Passenger related characteristics 					
 Compatibility with train detection systems 					
Step 3 FISI Conformity					
Step 4 Authorisations					

Figure 44: Technical Characteristics – Noise Related Characteristics form



2.3.2.2.14 Passenger related characteristics

This form (Figure 45 and Figure 46) contains the parameters related to the Passenger related characteristics for the Vehicle Type's equipment. The form contains the following parameters:

- 1. "4.12.1 General passenger related characteristics" (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes)
 - a. "4.12.1.1 Number of fixed seats": the user can enter a range of numeric values in the format "From [Number] To [Number]".
 - b. "4.12.1.2 Number of toilets": the user can enter a single numeric value.
 - c. "4.12.1.3 Number of sleeping places ": the user can enter a range of numeric values in the format "From [Number] To [Number]".
- "4.12.2 PRM related characteristics" (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes)
 - a. "4.12.2.1 Number of priority seats": the user can enter a range of numeric values in the format "From [Number] To [Number]".
 - b. "4.12.2.2 Number of wheelchair spaces": the user can enter masked numeric values in the format "From [Number] To [Number]".
 - c. "4.12.2.3 Number of PRM accessible toilets": the user can enter a single numeric value.
 - d. 4.12.2.4 Number of wheelchair accessible sleeping places": the user can enter a range of numeric values in the format "From [Number] To [Number]".
- 3. 4.12.3 Passenger access and egress"
 - a. "4.12.3.1 Platform heights for which the vehicle is designed": the user can select multiple values from a predefined list or specify custom values by selecting the "Other (Specify)" value.
 - b. "4.12.3.2 Description of any integrated boarding aids": the user can select multiple values from a predefined list of values (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).
 - c. "4.12.3.3 Description of any portable boarding aids if considered in the design of the vehicle for meeting the PRM TSI requirements": the user can select multiple values from a predefined list or specify custom values by selecting the "Other (Specify)" value (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC exceptional mode" registration modes).

For the parameters with "From [Number] To [Number]" format a validation is applied in case "To[number]" field is less than "From[number]" field.

Message example: "4.12.1.1 Number of fixed seats value in "To" field must be greater than or equal to the value in "From" field"



		Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	Passenger related characteristics				
	All fields marked with an asterisk $(*)$ are mandatory				
Step 2 Technical Characteristics 	4.12.1 General passenger related char	racteristics :			
 Wheel set gauge On-board CCS equipment 	4.12.1.1 Number of fixed seats :	0			
 Energy supply General technical characteristics 	4.12.1.2 Number of toilets :	0			
 Vehicle kinematic gauge Environmental conditions Fire safety 	4.12.1.3 Number of sleeping places :	Q			
Design mass and loads	4.12.2 PRM related characteristics : *				
 Rolling stock dynamic behaviour Braking 	4.12.2.1 Number of priority seats : *	Q			
 Geometrical characteristics Equipment Noise related characteristics 	4.12.2.2 Number of wheelchair spaces : *	0			
 Passenger related characteristics Compatibility with train detection systems 	4.12.2.3 Number of PRM accessible toilets : *	0			
Step 3	4.12.2.4 Number of wheelchair accessible sleeping places : *	0			
Step 4	4.12.3 Passenger access and egress :	*			
→ Authorisations	4.12.3.1 Platform heights for which the vehicle is designed. : $\ensuremath{^{\ast}}$	Q			*
	h.				
	4.12.3.2 Description of any integrated boarding aids (if provided) : *	none moveable semi-auto bridging p	matic ramps		
	4.12.3.3 Description of any portable boarding aid if considered in the design of the vehicle for meeting the PRM TSI requirements : •	s ᡇ			*
	k				
	Save as draft Save & Continue				Cancel Changes

Figure 45: Technical Characteristics – Passenger related characteristics form - Directive 2008/57/EC registration regimes

Step 1	Passenger related characteristics	PDF Excel XML
 General Information 	All fields marked with an asterisk (*) are mandatory	
Step 2 → Technical Characteristics ✓ Wheel set gauge ✓ On-board CCS equipment (for vehicles with a driving cab only) ✓ Energy supply ✓ General technical	4.12.3.1 Platform heights for which the vehicle is designed. ^{KC} : *	
 ✓ Vehicle gauge ✓ Environmental conditions ✓ Fire safety 	Save as draft Save & Continue	Cancel Changes

Figure 46: Technical Characteristics – Passenger related characteristics form - Directive (EU) 2016/797

2.3.2.2.15 Compatibility with train detection systems

This section form (Figure 47 and Figure 48) contains the parameters related to the Vehicle Type's compatibility with train detection systems. The form contains the following parameters:

- 1. "4.14.1 Type of train detection systems for which the vehicle has been designed and assessed": the user can select multiple values from a predefined list of values.
- "4.14.2 Detailed vehicle characteristics related to compatibility with train detection systems" (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes)



- a. "4.14.2.1 Maximum distance between consecutive axles": the user can enter a numeric value.
- b. "4.14.2.2 Minimum distance between consecutive axles": the user can enter a numeric value.
- c. "4.14.2.3 Distance between the first and the last axle": the user can enter a numeric value.
- d. "4.14.2.4 Maximum length of the vehicle nose": the user can enter a numeric value.
- e. "4.14.2.5 Minimum wheel rim width": the user can enter a numeric value.
- f. "4.14.2.6 Minimum wheel diameter": read-only field automatically filled in with the value of field 4.8.2.
- g. "4.14.2.7 Minimum flange thickness": the user can enter a numeric value.
- h. "4.14.2.8 Minimum flange height": the user can enter a numeric value.
- i. "4.14.2.9 Maximum flange height": the user can enter a numeric value.
- j. "4.14.2.10 Minimum axle load": the user can enter a numeric value.
- k. "4.14.2.11 Metal and inductive components-free space between wheels": the user can select a boolean value (True / False).
- I. "4.14.2.12 Wheel material is ferromagnetic": the user can select a boolean value (True / False).
- m. "4.14.2.13 Maximum sanding output (x per y)": the user can enter a numeric value in a masked text box.
- n. "4.14.2.14 Possibility of preventing the use of sanding": the user can select a boolean value (True / False).
- o. "4.14.2.15 Vehicle metal mass": the user can enter a numeric value.
- p. "4.14.2.16 Maximum impedance between opposite wheels of a wheel set": the user can enter a numeric value in a masked text box with 6 decimal digits precision.
- q. "4.14.2.17 Minimum vehicle impedance": the user can enter a numeric value in a masked text box with 6 decimal digits precision for each of the following Energy Supplies if these were selected. The allowable Energy Supplies are:
 - i. "DC 3KV"
 - ii. "DC 1.5 KV"
 - iii. "DC 1.5KV (Specific Case FR)
- r. "4.14.2.18 Electromagnetic interferences caused by return current in the rails": the user can enter a numeric value for each Energy Supply dependent configuration.
- s. "4.14.2.19 Electromagnetic emission of the train with respect to compatibility with train detection systems": the user can enter a numeric value for each Energy Supply dependent configuration.



		Actions:	Copy registration form	Grant permission for editing	Delete registration
Step 1	Compatibility with train detection system	ms			
General Information	All fields marked with an asterisk (*) are mandatory				
Step 2 Technical Characteristics Wheel set gauge On-board CCS equipment	4.14.1 Type of train detection systems for which the vehicle has been designed and assessed : *	track circ axle cour loops none			
 Energy supply General technical 	4.14.2 Detailed vehicle characteristics	related to compa	tibility with train detection :	systems : *	
characteristics Vehicle kinematic gauge Environmental conditions	4.14.2.1 Maximum distance between consecutive axles : $\ensuremath{^{\circ}}$	Q			
 Fire safety Design mass and loads Rolling stock dynamic 	4.14.2.2 Minimum distance between consecutive axles : *	0			
behaviour Braking Geometrical characteristics	4.14.2.3 Distance between the first and the last axle : *	•			
 Equipment Noise related characteristics Passenger related 	4.14.2.4 Maximum length of the vehicle nose : "	•			
characteristics Compatibility with train detection systems	4.14.2.5 Minimum wheel rim width : *	•			
Step 3 • TSI Conformity	4.14.2.6 Minimum wheel diameter : *	0			
Step 4 Authorisations	4.14.2.7 Minimum flange thickness : *	Q			
	4.14.2.8 Minimum flange height : *	0			
	4.14.2.9 Maximum flange height : *	Q			
	4.14.2.10 Minimum axle load : *	Q			
	4.14.2.12 Wheel material is ferromagnetic : •	• Select -			
	4.14.2.16 Maximum impedance between opposite wheels of a wheelset : *	Q			
	Save as draft Save & Continue				Cancel Changes

Figure 47: Technical Characteristics – Compatibility with train detection systems form - Directive 2008/57/EC registration regimes



Step 1	Compatibility with train detection systems	PDF Excel XML
 → General Information Step 2 > Technical Characteristics ✓ Wheel set gauge ✓ On-board CCS equipment (for vehicles with a driving cab only) ✓ Energy supply 	All fields marked with an asterisk (*) are mandatory 4.14.1 Type of train detection systems for which the vehicle has been designed and assessed E : * Cops None	
 ✓ General technical characteristics ✓ Vehicle gauge ✓ Environmental conditions 	Save as draft Save & Continue	Cancel Changes

Figure 48: Technical Characteristics – Compatibility with train detection systems form - Directive (EU) 2016/797

2.3.2.3 Step 3 – TSI conformity

The details entered during this step specify the conformity of this Vehicle Type to existing TSIs. Any number of TSIs may be registered for each of the Vehicle Type's configurations (see 2.3.1.5). The available parameters are:

 "2.1 Conformity with TSI": this parameter is filled by clicking the arrow button () for the required configuration. The TSI selection dialog displayed in Figure 52 is displayed. The user can select multiple TSIs from the list of available TSIs for the selected configuration. The list of available TSIs (see Figure 51 & highlighted point 3 of Figure 52) is dynamically updated according to the selected subcategory of the Vehicle Type. For example, TSI "CR WAG (Dec 2006/861/EC)" is not available for a Vehicle Type with a Passenger subcategory but is available for Freight Wagons subcategories.

Once a TSI entry has been fully specified for this configuration, it is possible to add additional TSI entries by clicking the 'Add' button () as highlighted in point 1 of Figure 52. Similarly, a specified TSI entry may be removed by clicking the 'Remove' button () highlighted in point 2 of Figure 52.

For each selected TSI entry, the following additional data must be provided.

- a. Conformity Scope: this mandatory field (highlighted point 4 of Figure 52) denotes if the Vehicle Type conforms with the TSI fully or partially. If the value "Partial" is selected, then Parameter "2.4 Sections not complied with" is also presented. The field does not appear if the user selects "Not conform to any TSI" in "2.1 Conformity with TSI" menu.
- b. "2.4 Sections not complied with": this field (highlighted point 5 of Figure 52) specifies the sections of the TSI that this Vehicle Type does not comply with. It is visible and mandatory only when the Conformity with the TSI is partial.

After all the TSI entries for the selected configuration have been specified, the user must click the "Update" button to store the alterations and close the TSI selection dialog. To reduce the time needed to fill-in additional configurations, it is possible to 'copy' the specified TSIs to other configurations by clicking the "Apply to subsequent" button (\Box). This will copy all the TSI details to all subsequent configurations under the selected one.



· · · · · · · · · · · · · · · · · · ·						
tegistration details						
			Actions:	Copy registration form	Grant permission for editing	Cancel registratio
Step 1	Conformity with	TSI				PDF Excel
General Information	All fields marked with	an asterisk (*) are mandatory				
Step 2 Technical Characteristics		y with TSI and Sections not	complied with: *			
		for hauled passenger vehicles	and			▲ b
	special vehicles):					
 General technical characteristics 						T
	2.3 Applicabl	e specific cases (specific ca	ses conformity wit	h which has been assessed)):	
	1000mm / Nasa	for hauled passenger vehicles	nnd			_ b
	special vehicles):	for nauled passenger vehicles	and			
						-
 Rolling stock dynamic behaviour 						
 Braking 	2.2 Reference	e of 'EC type examination co	ertificates			
	D (
	if module SB app	type examination certificates' - ied - and/or `design verificatior	1			
	certificate' - if mo	dule SH1 applied:*				
 Compatibility with train detection systems 	+					
TSI Conformity	Save as draft	Save & Continue				Cancel Change

Figure 49: Step 3. Conformity with TSIs form - Directive 2008/57/EC registration regimes

Step 1	Conformity with TSI	PDF Excel XM
General Information	All fields marked with an asterisk (*) are mandatory	
Step 2 Technical Characteristics	2.1 Conformity with TSI and Sections not complied with: *	
✓ Wheel set gauge	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1:	
 ✓ On-board CCS equipment (for vehicles with a driving cab only) 		
✓ Energy supply		
✓ General technical characteristics	1000mm / AC 25kV-50Hz / None:	×
√ Vehicle gauge		
✓ Environmental conditions	2.3 Applicable specific cases (specific cases conformity with which has been assessed):	
√ Fire safety	2.3 Appricable specific cases (specific cases conformity with which has been assessed):	
✓ Design mass and loads	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1:	k
✓ Rolling stock dynamic behaviour		
√ Braking		
✓ Geometrical characteristics	1000mm / AC 25kV-50Hz / None:	h
✓ Equipment		
✓ Passenger related characteristics		
✓ Compatibility with train detection systems	2.2 Reference of 'EC type examination certificates'	
Step 3 > TSI Conformity	EC certificate of verification : Reference of 'EC type examination certificates' (if module SB applied) and/or 'EC	*
	design examination certificates' (if module SH1 applied) :*	
Step 4		
Authorisations		
	Save as draft Save & Continue	Cancel Changes





2.1 Conformity with TSI: *	CR CCS (Dec 2006/679/EC as amended by Dec 2010/79/EC)	
	NULLCR WAG (Dec 2006/861/EC) CR WAG (Dec 2006/861/EC) CR WAG (Dec 2006/861/EC as amended by Dec 2009/107/EC) CR WAG (Dec XXXX)	^
Scope Of Conformity	CR LOC & PAS (Dec 2011/291/EU) HS+CR SRT (Dec 2008/163/EC) HS+CR SRT (Dec 2008/163/EC amended by Dec 2011/291/EU) HS+CR PRM (Dec 2008/164/EC)	
2.4 Section of TSI not complied with:*	Noise TSI (Dec 2006/66/EC) Noise TSI (Dec 2011/229/EU) HS CCS (Dec 2006/860/EC) HS CCS (Dec 2006/860/EC)	Â
*	HS CCS (Dec 2006/860/EC as amended by Dec 2010/79/EC) CR CCS (Dec 2006/860/EC) CR CCS (Dec 2006/679/EC) CR CCS (Dec 2006/679/EC as amended by Dec 2006/860/EC)	= -
	CR CCS (Dec 2006/679/EC as amended by Dec 2007/153/EC) CR CCS (Dec 2006/679/EC as amended by Dec 2008/386/EC) CR CCS (Dec 2006/679/EC as amended by Dec 2009/561/EC)	
	CR CCS (Dec 2006/679/EC as amended by Dec 2010/79/EC) HS and CR CCS (Dec XXXX) HS ENE (Dec 2002/733/EC)	-

Figure 51: Step 3 – Available TSIs for specific configuration

/	
/	EUROPEAN
	UNION AGENCY
	FOR RAILWAYS

2.1 Conformity with TSI:	* 3	HS RST (Dec 2002/735/EC)		× 2
Scope Of Conformity	4	Partial	•	
2.4 Section of TSI not co with:*	mplied 5	 4. CHARACTERISTICS OF THE SUBSYSTEM 4.1. BASIC PARAMETERS OF THE ROLLING STOCK SUBSYSTEM 4.1.1. Maximum track forces (BP4) 4.1.10. Boundary characteristics linked to interior noise (BP20) 		
* 1				

Figure 52: Step 3. TSI popup controls

2. "2.3 Applicable specific Cases": this field contains the applicable specific cases for the selected TSIs (per configuration), conformity with which has been assessed. These cases must be specified per TSI specified in "2.1 Conformity with TSI". When selecting a TSI for the "2.1 Conformity with TSI" field in a specific configuration, then the same TSI will also be added into the appropriate configuration for this field. It is then possible to specify the applicable cases for that TSI. This is achieved by clicking the arrow button () which will open the "Applicable Specific Cases" popup form (Figure 52). The popup will contain a selection list for each of the selected TSIs of this configuration. The user may select any number of applicable cases for each TSI. The list of applicable cases for each TSI depends on the TSI value. If the user selects "Not conform to any TSI" in "2.1 Conformity with TSI" menu, the parameter "2.3 Applicable specific cases" is automatically field with the value "Not Conform to Any TSI" and is not editable.

The data are stored and the popup is removed by clicking the "Update" Button. At that point the list of "2.3 Applicable specific Cases" will be updated to reflect the changes as shown in Figure 53. Similarly to previous functionality, it is possible to 'copy' the selected values to the subsequent TSIs by clicking the "Apply to all" button (



HS RST (Dec 2002/735/EC)	7.3.1. Vehicle loading gauge (Section 4.1.4). Specific case for lines in
ases conformity with which has been assessed):*	 Britain 7.3.1. Vehicle loading gauge (Section 4.1.4). Specific case for trains running on Irish and Northern Irish networks 7.3.2. Boundary characteristics linked to exterior noise (Section 4.1.8) 7.3.3. Maximum pressure variations in tunnels (Section 4.1.13) 7.3.4. Passenger step (Section 4.2.5). Specific case for British lines 7.3.4. Passenger step (Section 4.2.5). Specific case for the lines of the Netherlands network 7.3.5. Wheel-rail contact (wheel profiles) (Section 4.2.10). Specific case for trains running on Irish and Northern Irish and Northern Irish networks 7.3.5. Wheel-rail contact (wheel profiles) (Section 4.2.10). Specific case for trains running on Irish and Northern Irish and Northern Irish networks 7.3.5. Wheel-rail contact (wheel profiles) (Section 4.2.10). Specific case for trains running on Irish and Northern Irish and Northern Irish networks 7.3.5. Wheel-rail contact (wheel profiles) (Section 4.2.10). Specific case for trains running on Irish and Northern Irish networks 7.3.6. Protection against fire and toxic fumes
Update	Clear data Close

Applicable specific cases igure 53: Step 3

2.3 Applicable specific cases (specific cases conformity with which has been assessed):				
1000mm / None (for hauled passenger vehicles and special vehicles):	HS RST (Dec 2002/735/EC) 7.3.1. Vehicle loading gauge (Section 4.1.4). Specific case for lines in Britain	A 	K	



3. "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)": this parameter can take multiple string values (as described earlier by using the 'Add' 📩 or 'Remove' 🛎 buttons). It contains the certificate reference IDs of EC type examination certificates this Vehicle Type has successfully achieved.

*Name under "Directive 2008/57/EC" and "Directive 2008/57/EC - exceptional mode" registration modes: "2Reference of 'EC type examination certificates' - if module SB applied - and/or 'design verification certificate' - if module SH1 applied" Name under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 - Exceptional Mode" registration modes: "EC certificate of verification: Reference of 'EC type examination certificates' (if module SB applied) and/or 'EC design examination certificates' (if module SH1 applied)"



2.3.2.4 Step 4 – Authorisations - Directive 2008/57/EC registration regimes

The most important information held for a Vehicle Type is the authorisations it has been granted for each Member State. During the first registration of the Vehicle Type, it is also authorised for the home NSA. After publication, additional NSAs may authorise the Vehicle Type for usage in their Member States. Each authorisation is presented in 'Tabs' in the content page displayed and sorted by country code as shown in Figure 55. The selected authorisation is highlighted as shown in the figure for 'Greece'.

The fields of the Authorisations form follow a dynamic numbering scheme which is explained in 2.3.2.4.1.



Figure 55: Step 4 – Vehicle Type with multiple Authorisations

Each authorisation form (Figure 56) contains the following fields:

- 1. "Authorising country": this is the MS name of the country this authorisation is about. This is repeated on the Tab's title.
- 2. "Authorisation Status": this is the current status of the authorisation. It cannot be altered by editing the field but can be changed by performing actions on the authorisation (i.e. suspend, reactivate etc.).
- 3. "Validity of Authorisation (until)": this date signifies the date until which the current authorisation is valid. After this date, an active or suspended authorisation status will be automatically changed to 'Expired'. The date can be entered manually or by selecting a date from the calendar control that appears if the calendar button () is pressed. On the date of expiration and x=3 months before expiration, the relevant NSA receives an email informing him/her about the upcoming expiry date. The value "x" is configurable and can be defined in app.config (more information can be found in 2. Installation, Configuration and Deployment Manual.docx, § 6.1.2.3.1 Automatic Notifications Dispatching). If there is no validity time (indefinite authorisation), then check the 'N/A' checkbox that clears the field and disables the calendar button.
- 4. "Coded Restrictions": these are the coded restrictions that apply to this authorisation. For more information on setting the coded restrictions see section 2.3.2.4.2. Each authorisation may have any number of coded restrictions specified for each of the available configurations.
- 5. "Non Coded Restrictions": these are the non-coded restrictions that apply to this authorisation. These are entered through the Non Coded restrictions popup which appears when the arrow () button is pressed. It is possible to add more non-coded restrictions by clicking the 'Add' button () or remove existing ones by clicking the 'Remove' button (). On clicking the 'Update' button, the popup disappears and the specified non-coded restrictions appear in the appropriate configuration non-coded restrictions list. Each authorisation may have any number of non-coded restrictions specified for each of the available configurations.



- 6. "Date of original authorisation": this is the date this authorisation went into effect for the first time. The date can be entered manually or by selecting a date from the calendar control that appears if the calendar button (1911) is pressed.
- 7. "Authorisation holder": this is the organisation that registered the Authorisation. The value must be selected from a drop down list or inserted manually by clicking on the button, filling in the new name in the popup that appears and clicking on the "Save" button to store the name and close the popup.
 - Once the Authorisation Holder's details will be incorporated in a VT, those will not be linked with the respective list of administration panel. Those details will be "copied" to the VT itself. Any alteration in the respective values of the administration panel, will not affect the aforementioned VT regardless its Data status (e.g., published, submitted, draft). Hence, Authorisation Holder's details may differ from the ones mentioned in the respective section of administration panel. Modifying the respective VT (after its publication) will maintain the existing values of Authorisation Holder, but triggering the respective list will present the new values (from administration panel) in the VT.
- 8. "Authorisation document reference": this is the reference of the authorisation document.

73

Figure 56: Step 4 – Vehicle Type Authorisations form - Directive 2008/57/EC registration regimes

Authorisation Country	Italy		•
3.3.2.1 Status:			
3.3.2.2 Validity of Authorisation (until):	V N/A		
3.3.2.3 Coded restrictions:			
1600mm / DC 1.5kV / Level 1		*	k
		-	
1600mm / DC 1.5kV / ATP-VR/RHK		*	k
		-	
1520mm / DC 1.5kV / Level 1		*	k
Ľ			
1520mm / DC 1 5k/ / ATP-//P/PH/			
1520mm / DC 1.5kV / ATP-VR/RHK		*	k
		Ψ	
1524mm / DC 1.5kV / Level 1		^	k
		Ŧ	
1524mm / DC 1.5kV / ATP-VR/RHK		*	k
		-	
3.3.2.4 Non Coded Restrictions:			
		^	k
		Ψ	
1600mm / DC 1.5kV / ATP-VR/RHK		*	k
		Ŧ	
1520mm / DC 1.5kV / Level 1		*	k
		Ψ.	
1520mm / DC 1.5kV / ATP-VR/RHK		*	k
		-	
1524mm / DC 1.5kV / Level 1		*	k
Ľ		-	
1524mm / DC 1 5kV / ATP-VP/PHK			
1524mm / DC 1.5kV / ATP-VR/RHK		<u>^</u>	k
		Ŧ	
3.3.3.1.1 Date of the original authorisation: *	19/09/2013		
3.3.3.3.2 Authorisation holder: *	Juventus		
3.3.3.3 Authorisation document reference: *	WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW		
Sister and a second document reference.			
3.3.3.4 National certificate references:			×
•			
3.3.3.3.5 Parameters for which conformity	to applicable national rules has been assessed: *		
1600mm / DC 1.5kV / Level 1:	Parameters for which conformity to applicable national rules has been assessed 6.0 Environmental conditions and aerodynamic effects 6.1 impact of the Environment on the vehicle 6.1.1 Environmental conditions impacting on the vehicle	·	k
	6.1 Impact of the Environment on the vehicle 6.1.1 Environmental conditions impacting on the vehicle	*	
1600mm / DC 1.5kV / ATP-VR/RHK:		*	k
r.		~	
1520mm / DC 1.5kV / Level 1:		A	k
Ľ			
1520mm / DC 1.5kV / ATP-VR/RHK:		*	k
		Ŧ	
1524mm / DC 1.5kV / Level 1:		*	k
_		v	
1524mm / DC 1.5kV / ATP-VR/RHK:		*	k
E .		Ŧ	
3.3.3.6 Comments:			
3.3.3.6 Comments:			
3.3.3.3.6 Comments:			
0.3.3.3.6 Comments: Comments for internal use:			





- "National Certificates References": these references are the national certificate reference numbers. Multiple values can be inserted by clicking the 'Add' (*) or 'Remove' (*) buttons.
- 10. "Parameters for which conformity to applicable national rules has been assessed": these can be selected for each configuration through the popup (Figure 57) which appears when the arrow button () is clicked. The popup contains a drop down selection, a tree view of the Parameters allowing multiple selections and a "None" option which can be only selected exclusively. Selecting a parent node of the tree will also select all the child nodes as demonstrated in the figure. By clicking on the drop-down menu, a list of national rules is displayed, prepared by ERA Administrator or other NSA users from the same NSA organisation. The NSA user can choose the most appropriate. Once the user clicks on the corresponding selection, they can view only the list of parameters contained to the respective parameter Set. By selecting one of the available lists and clicking on "Create Set", the NSA user can save a new list, which is an exact copy of the initial list. The NSA user can give a new name and select the preferred parameters. Then after clicking on "OK", the system saves the list, which is now viewable in the drop-down list. This filter is viewable, editable and can be deleted by all NSA users who belong to the corresponding NSA organisation.

Clicking the 'Update' button will update the appropriate control. The user has the option to 'copy' the selected parameters for a configuration to the subsequent configurations by clicking the 'Apply to all' button (

Select a Parameter respective Paramete		Select -
Select	References	Parameters
-		None
	-	None
r 🗌	1.0	General documentation
•	1.1	General documentation
	1.1.2	General documentation
▼ 🗹	1.2	Maintenance instructions and requirements
	1.2.1	Maintenance instructions
	1.2.2	The maintenance design justification file
	1.2.2	The maintenance design justification file
-	1.3	Instructions and documentation for operation
	1.3.1	Instructions for operation in normal and degraded modes of the vehicle
	1.4	Track side tests of the complete vehicle

Figure 57: Step 4 – Conformity with National Rules popup - Directive 2008/57/EC registration regimes



- 11. "Comments": these are comments about the Authorisation. On publication of the authorisation these comments will be visible to the public.
- 12. "Comments for internal use": these comments are only visible to users of the authorisation's home NSA.

2.3.2.4.1 Authorisation Parameter numbering scheme

The fields of Step 4 forms follow a dynamic numbering scheme. Each digit in the number displayed specifies some information about this filed. In summary a number will look like:

3.3.3.1.1

Each digit denotes the following information:

Digit 1: this is always set to 3. It denotes that this information is in the 'Authorisation' section of the vehicle type

Digit 2: this digit denotes the current authorisation number of the Vehicle Type. For example, for a Vehicle Type the first authorisation (registered at the time of VT registration) will contain value 1. The second authorisation granted to the same VT will have the number 2 and so on. For the example in Figure 56 there would be 3.1 for Greece, 3.2 for Italy and 3.3 for Poland. For the remainder of this chapter this digit will be represented by X.

Digit 3: this denotes the section of the information of the field. The following values apply:

- 1. Specifies the Member State name of the authorisation. For example the value of field 3.1.1 for Figure 56 is 'Greece'.
- 2. Specifies the Current Authorisation Status. This denotes a section and does not hold any data directly but contains further fields.
- 3. Specifies the Historical entries of the authorisation. This denotes a section and does not contain any data, but contains historical entries.

Digit 4: the meaning of this digit depends on the current section. The following values apply for the current Authorisation Status:

3.X.2.1 : Current Authorisation Status

3.X.2.2 : Current Authorisation Validity Date

3.X.2.3 : Currently active Coded Restrictions

3.X.2.4 : Currently active Non Coded Restrictions

In the historical section of the authorisation, the 4th digit denotes the historical entry section. The original authorisation registration is numbered as 1 and any subsequent change of the authorisation retrieves the next number. For example, an authorisation with a registration and suspension and a reactivation would have the following numbering

3.X.3.1 : This is the Authorisation Original registration record

3.X.3.2 : This is the suspension record

3.X.3.3 : This is the reactivation record

Digit 5: this denotes the field of the historical entry. The number depends on the type of the historical entry. Each historical entry will hold the information displayed in the following table:



Field		Explanation
3.X.3.1	Original authorisation	Heading
3.X.3.1.1	Date of the original authorisation	As introduced when the type authorisation is registered for the first time
	Original validity of authorisation	As above
	Coded restrictions	As above
	Non-coded restrictions	As above
3.X.3.1.2	Authorisation holder	As above
3.X.3.1.3	Authorisation documents references	As above
3.X.3.1.4	National certificate references	As above
3.X.3.1.5	Parameters for which conformity to applicable national rules has been assessed	As above
3.X.3.1.6	Comments	As above
3.X.3.2 3.X.3.2.1	Suspension of authorisation	Heading including indication of type of modification
3.X.3.2.2	Date	Date the suspension came into effect
3.X.3.3 3.X.3.3.1	Reactivation of authorisation	Heading including indication of type of modification
3.X.3.3.2	Date	Date the reactivation came into effect
	Validity of authorisation	If modified
	Coded restrictions	If modified
	Non-coded restrictions	If modified
3.X.3.3.3	Authorisation holder	If modified
3.X.3.3.4	Authorisation documents references	If modified
3.X.3.3.5	National certificate references	If modified
3.X.3.3.6	Parameters for which conformity to applicable national rules has been assessed	If modified
3.X.3.3.7	Comments	If modified
3.X.3.4 3.X.3.4.1	Modification of authorisation	Heading including indication of type of modification
3.X.3.4.2	Date	Date modification came into effect
	Validity of authorisation	If modified
	Coded restrictions	If modified
	Non-coded restrictions	If modified
3.X.3.4.3	Authorisation holder	If modified
3.X.3.4.4	Authorisation documents references	If modified
3.X.3.4.5	National certificate references	If modified
3.X.3.4.6	Parameters for which conformity to applicable national rules has been assessed	If modified
3.X.3.4.7	Comments	If modified
3.X.3.5 3.X.3.5.1	Withdrawal of authorisation	Heading including indication of type of modification



3.X.3.5.2	Date	Date withdrawal came into effect

Table 1: Step 4 – Authorisation Historical Entry details

2.3.2.4.2 Coded Restrictions

In order to unify the method of representing restrictions between Member States and in order to avoid language and localisation issues, ERA has performed a codification of restrictions and of the values that these restrictions can take.

A full explanation of the process and possible values can be found within the document "*List of harmonised and national restriction codes*" published at the ERA Webpage (See 4 References).

In the authorisation section, it is possible to set the coded restrictions and their values per configuration through the Coded Restrictions popup (Figure 58). This appears by clicking the arrow button (\mathbb{N}) next to the selected configuration.

It is possible to then specify or select values for each of the displayed Coded restrictions.

1 Technical Restrictions		
1.1 Minimum curve radius in meters		
1.2 Track circuit restriction		
1.3 Speed restrictions in Km/h (Marked on wagons and coaches but not marked on locos)		
2 Geographical Restrictions		
2.1 Kinematic gauge (coding WAG TSI Annex C)		
2.2 Wheelset gauge	- Select -	[
2.3 No CCS on board		
2.4 ERTMS A on board		
2.5 B-System on board		
3 Environmental Restrictions		
3.1 Climatic zone EN50125/1999	- Select -	[
4 Restrictions on use included i	n the authorization certificate	
4.1 Time based		
4.2 Conditions based (distance travelled, wear, etc)		

Figure 58: Step 4 – Coded Restrictions Popup



2.3.2.5 Step 4 – Authorisations - Directive (EU) 2016/797

The most important information held for a Vehicle Type is the authorisation it has been granted. During the registration of the Vehicle Type, an authorisation needs to be completed. After publication, no one can add authorisations to the Vehicle Type. Each authorisation regards only one Member State, except from the case that NSA (EU) creates a Vehicle Type. Only in this occasion, NSA (EU) can add multiple Member States to the created Vehicle Type.

The fields of the Authorisations form follow a dynamic numbering scheme which is explained in 2.3.2.5.1

Each authorisation form (Figure 61) contains the following fields:

 "3.0 Area of use": the user must select multiple values from the Networks' predefined list and optionally enter neighbouring station(s). If the creator of the VT is the NSA (EU), then they are allowed to add multiple Member States to the authorisation and thereinafter the respective Networks and neighbouring stations. The neighbouring stations are to be introduced with the following format:

MemberStateA(NeighbourStation1,NeighbourStation2,)+MemberStateR(NeiabbourStation3)

Networks	BEnetwork
Neighbouring Station(s)	FR(Valenciennes, Lille)+DE(Aachen)
	ing station(s); the format introduced shall be as: n1,NeighbourStation2,)+MemberStateB(NeighbourStation3))+DE(Aachen)
MemberStateA (NeighbourStatio	on1,NeighbourStation2,)+MemberStateB(NeighbourStation3)
MemberStateA (NeighbourStatio	on1,NeighbourStation2,)+MemberStateB(NeighbourStation3)
MemberStateA (NeighbourStatio	on1,NeighbourStation2,)+MemberStateB(NeighbourStation3)

Example: FR(Valenciennes, Lille)+DE(Aachen)

Figure 59 - Network selection and neighbouring station(s) record

The format of the area of use is:



MS1(Network1,Network2,...)+MS2(NeighbourStation1,NeighbourStation2,...)+MS3(NeighbourStation3)+...,MS4(Network3,Network4,...)+MS5(NeighbourStation4)+MS6(NeighbourStation5)+...,MS5(Network5)

Legend:

+ will introduce neighbouring stations

, will separate MSs/Networks/Neighbouring Stations included in the area of use
() will contain the possible networks of a MS or the names of the neighbouring station, separated by comma.

For the above example, the area of use would result in:

BE(BEnetwork)+FR(Valenciennes, Lille)+DE(Aachen)

Authorisation	
All fields marked with an asterisk (*) are mandatory	
3.0 Area Of Use: *	BE(BEnetwork)+FR(Valenciennes, Lille)+DE(Aachen)

Figure 60 - Area of use

- 2. "3.1.1 Member State of Authorisation": Read only field which is filled automatically from the Member State of the logged in NSA User. If the creator is the NSA (EU) then this field is filled from the Member States of "3.0 Area of use".
- 3. "3.1.2.1 Status": this is the current status of the authorisation. It cannot be altered by editing the field but can be changed by performing actions on the authorisation (i.e. suspend, reactivate etc.).
- 4. "3.1.2.2 Validity of Authorisation (until)": this date signifies the date until which the current authorisation is valid. After this date, a valid or suspended authorisation status will be automatically changed to 'Expired'. The date can be entered manually or by selecting a date from the calendar control that appears if the calendar button (¹¹/₁₀) is pressed. On the date of expiration and x=3 months before expiration, the relevant NSA receives an email informing him/her about the upcoming expiry date. The value "x" is configurable and can be defined in app.config (more information can be found in 2. Installation, Configuration and Deployment Manual.docx, § 6.1.2.3.1 Automatic Notifications Dispatching). If there is no validity time (indefinite authorisation), then check the 'N/A' checkbox that clears the field and disables the calendar button.
- 5. "3.1.2.3 Coded conditions for use and other restrictions": these are the coded restrictions that apply to this authorisation. For more information on setting the coded restrictions see section 2.3.2.5.2. Each authorisation may have any number of coded restrictions specified for each of the available configurations.



- 6. "3.1.2.4 Non-coded conditions for use and other restrictions": these are the non-coded restrictions that apply to this authorisation. These are entered through the Non-Coded restrictions popup which appears when the arrow (▲) button is pressed. It is possible to add more non-coded restrictions by clicking the 'Add' button (▲) or remove existing ones by clicking the 'Remove' button (▲). On clicking the 'Update' button, the popup disappears and the specified non-coded restrictions appear in the appropriate configuration non-coded restrictions list. Each authorisation may have any number of non-coded restrictions specified for each of the available configurations.
- 7. "3.1.3.1.1. Date of original authorisation": this is the date this authorisation went into effect for the first time. The date can be entered manually or by selecting a date from the calendar control that appears if the calendar button (11) is pressed.
- 8. "3.1.3.1.2 Authorisation holder": this is the organisation that registered the Authorisation. The value must be selected from a drop-down list or inserted manually by clicking on the
 - button, filling in:
 - a. "3.1.3.1.2.1.1 Name of organisation": a free text field
 - b. "3.1.3.1.2.1.2 Registered business number": a free text field
 - c. "3.1.3.1.2.1.3 Organisation code": alphanumeric code
 - d. "3.1.3.1.2.2.1 Address of organisation, street and number": a free text field
 - e. "3.1.3.1.2.2.2 Town": a free text field
 - f. "3.1.3.1.2.2.3 Country code": Code as in EC interinstitutional Style Guide
 - g. "3.1.3.1.2.2.4 Post code": alphanumeric code
 - h. "3.1.3.1.2.2.5 E-mail address": Email

and clicking on the "Save" button to store the name and close the popup.

- 9. "3.1.3.1.3 Authorisation document reference": this is the reference of the authorisation document.
- 10. "3.1.3.1.4 Certificate of verification: Reference of type examination or design examination type": the User enters a value and is able to select the option 'Add' to add multiple values for this parameter or remove existing ones by clicking the 'Remove' button (^{IMD}).



AGENCY	uropean Register of Authorised Types of Vehicles	Search ERATV Sea	rch Advanced se
FOR RAILWAYS TV > Authorisations			
	tifications 17 Administration		tegister authoris:
lew registration of Vehicle itus: Draft Latest Update: 18/07,	e Type. Database ID: 1582) Registering a Vehicle	Туре	Application g
gistration details		Actions: Copy registration form	Cancel registrat
	Authorisation		PDF Exc
p 1 General Information	All fields marked with an asterisk (*) are mandatory		
p 2 Technical Characteristics	SE		
	3.0 Area Of Use: *	SE(Name of network)+Here the User can add the neighbouring Station	
✓ Energy supply ✓ General technical characteristics	3.1 Authorisation in: * 3.1.1 Member state of authorisation: *	Sweden(SE)	
	3.1.2 Current status: 3.1.2.1 Status:		
	3.1.2.2 Validity of Authorisation (until): •	☑ N/A	
	3.1.2.3 Coded conditions for use and other restrictions: 1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1	1.2 Track circuit restrictions	k
		2.2 Wheelset gauge 2.2.1 Variable gauge 1435/1520	
p 3 ISI Conformity	1000mm / AC 25kV-50Hz / None	2.5.2 Class 8 radio system 2.5.201 UIC Radio Chapter 1-4	k
p 4 Authorisations			
	3.1.2.4 Non-coded conditions for use and other restricti	ions:	
	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1	The User can add the Non Coded Restrictions	k
	1000mm / AC 25kV-50Hz / None		k
	3.1.3.1.1 Date of the original authorisation: *	18/07/2019	
	3.1.3.1.2 Authorisation holder: *		
	3.1.3.1.2.1 Authorisation holder identification data: *		
	3.1.3.1.2.1.1 Name of organisation: *	Siemens	~
	3.1.3.1.2.1.2 Registered business number: *	554121	
	3.1.3.1.2.1.3 Organisation code:		
	3.1.3.1.2.2 Authorisation holder contact data: *		
	3.1.3.1.2.2.1 Address of organisation, street and number: *		
		Essen	
		45147	
	3.1.3.1.2.2.5 E-mail address: *	info@siemens.de	
	3.1.3.1.3 Authorisation document reference: • •	ILT-2019/33155	
	3.1.3.1.4 Certificate of verification : Reference of type	SE01190002	x
	examination or design examination type: •		
	3.1.3.1.5 Parameters for which conformity to applicable	national rules has been assessed: *	
	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1 / SE	1.12. Maintenance instructions and requirements 1.2.1 Maintenance instructions 1.2.2.7 The maintenance design justification file 4.0 Braking	~ ~
	1000mm / AC 25kV-50Hz / None / SE:	5.1 Access 5.1.1 Exterior doors 5.1.2 Interior doors 5.1.3 Clearways	\$ \$
	3.1.3.1.6 Comments:		
	3.1.3.1.7 Reference to the written declaration by the proposer referred to in Article 3(11) of Regulation (EU) $402/2013$	Here the User shall add the Reference of type examination or design examination type	
	Comments for internal use:		

Figure 61: Vehicle Type Authorisations form - Directive (EU) 2016/797



11. "3.1.3.1.5 Parameters for which conformity to applicable national rules has been assessed": these can be selected for each configuration and each Member State through the popup (Figure 62) which appears when the arrow button () is clicked. The popup contains a drop-down selection, a tree view of the Parameters allowing multiple selections and a "None" option which can be only selected exclusively. Selecting a parent node of the tree will also select all the child nodes as demonstrated in the figure. By clicking on the drop-down menu, a list of national rules is displayed, prepared by ERA Administrator or other NSA users from the same NSA organisation. The NSA user can choose the most appropriate. Once the user clicks on the corresponding selection, they can view only the list of parameters contained to the respective parameter Set. By selecting one of the available lists and clicking on "Create Set", the NSA user can save a new list, which is an exact copy of the initial list. The NSA user can give a new name and select the preferred parameters. Then after clicking on "OK", the system saves the list, which is now viewable in the drop-down list. This filter is viewable, editable and can be deleted by all NSA users who belong to the corresponding NSA organisation.

Clicking the 'Update' button will update the appropriate control. The user has the option to 'copy' the selected parameters for a configuration to the subsequent configurations by clicking the 'Apply to all' button (

Select a Parameter Set to respective Parameters	view it's - Select	-
Select	References	Parameters
•		None
	-	None
•	1.0	General documentation
	1.1	General documentation
~	1.2	Maintenance instructions and requirements
\checkmark	1.2.1	Maintenance instructions
\checkmark	1.2.2	The maintenance design justification file
•	1.3	Instructions and documentation for operation
	1.3.1	Instructions for operation in normal and degraded modes of the vehicle
	1.4	Track side tests of the complete vehicle
•	2.0	Structure and mechanical parts
•	2.1	Vehicle structure
		CL

Figure 62: Conformity with National Rules popup - Directive (EU) 2016/797

12. "3.1.3.1.6 Comments": these are comments about the Authorisation. On publication of the authorisation these comments will be visible to the public



- 13. "3.1.3.1.7 Reference to the written declaration by the proposer referred to in Article 3(11) of Regulation (EU) 402/2013": a free text field
- 14. "Comments for internal use": these comments are only visible to users of the authorisation's home NSA.

2.3.2.5.1 Authorisation Parameter numbering scheme

The fields of Step 4 forms follow a dynamic numbering scheme. Each digit in the number displayed specifies some information about this filed. In summary a number will look like:

3.1.3.1.1

Each digit denotes the following information:

Digit 1: this is always set to 3. It denotes that this information is in the 'Authorisation' section of the vehicle type

Digit 2: this digit denotes the current authorisation number of the Vehicle Type. For Vehicle Types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes, this digit is 1.

Digit 3: this denotes the section of the information of the field. The following values apply:

- 1. Specifies the Current Authorisation Status. This denotes a section and does not hold any data directly but contains further fields.
- 2. Specifies the Historical entries of the authorisation. This denotes a section and does not contain any data, but contains historical entries.

Digit 4: the meaning of this digit depends on the current section. The following values apply for the current Authorisation Status:

3.1.2.1 : Current Authorisation Status

3.1.2.2 : Current Authorisation Validity Date

- 3.1.2.3 : Currently active Coded Restrictions
- 3.1.2.4 : Currently active Non Coded Restrictions

In the historical section of the authorisation, the 4th digit denotes the historical entry section. The original authorisation registration is numbered as 1 and any subsequent change of the authorisation retrieves the next number. For example, an authorisation with a registration and suspension and a reactivation would have the following numbering

- 3.1.3.1 : This is the Authorisation Original registration record
- 3.1.3.2 : This is the suspension record
- 3.1.3.3 : This is the reactivation record

Digit 5: this denotes the field of the historical entry. The number depends on the type of the historical entry.



2.3.2.5.2 Coded Restrictions

In order to unify the method of representing restrictions between Member States and in order to avoid language and localisation issues, ERA has performed a codification of restrictions and of the values that these restrictions can take.

A full explanation of the process and possible values can be found within the document "*List of harmonised and national restriction codes*" published at the ERA Webpage (See 4 References).

In the authorisation section, it is possible to set the coded restrictions and their values per configuration through the Coded Restrictions popup (Figure 63). This appears by clicking the arrow button (\mathbb{N}) next to the selected configuration.

It is possible to then specify or select values for each of the displayed Coded restrictions.

1 Technical restriction related t	co construction	
1 Minimum curve radius in meters		
2 Track circuit restrictions		
3 Speed restrictions in Km/h		
4 Use in multiple operation aximum number of trainsets thorised to be coupled together to erate as a single train)		
2 Geographical restriction		
l Kinematic gauge (coding WAG I)		
2 Wheelset gauge	Variable gauge 1435/1668 Gauge 1000 Gauge 1435 Gauge 1520 Gauge 1524	^
3 No CCS on board		

Figure 63: Step 4 – Coded Restrictions Popup - Directive (EU) 2016/797

2.3.2.6 Submission of registration form

Submission of a registration can only be performed from the final step by clicking the "Submit form" button shown here.

Submit form

At the time of submission, the following take place:

- Validation of the entire form: if validation fails, then an error will appear as shown in 2.3.2.
- Search through the registered Vehicle Types for duplicate records.

The comparison for duplication will take place with all other Submitted or Published registrations of types initially for Category, Sub-Category, Number of driving cabs, Area



of Use (only for "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration regimes), and Member State of authorisation (only for "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration regimes) fields. If these fields have the same values, then all fields of section 4 (Technical Characteristics) are compared.

For the comparison to be performed, both Vehicle Types must contain a value for the compared parameter and in the same configuration if those are used. If only one of the two Vehicle Types contains a value, then this parameter is ignored in the comparison. If at least one parameter has a different value, then the comparison does not return a match. If all the comparisons (that are not ignored) return a match, then the Vehicle Type is considered a duplicate.

When a duplicate Vehicle Type is detected, the ERATV system displays a warning message to the user (Figure 64). The user has the option to either ignore the duplication and continue with the submission or return to the draft Vehicle Type and alter the data. Also, the user can click on the links to access the possible duplicates and review their data. In case the possible duplicate is in draft mode from another NSA, the user may not have access to it, in which case no link will be available (only the ERATV Type ID as plain text).

Possible duplicates detected

The Vehicle Type registration has brackets the number of paramete		e of the following registered Vehicle Types (in
<u>31-003-0001-5-001 UK2 (5)</u> <u>31-004-0001-3-001 UK4 (4)</u>		
Comments		~
		*
Vehicle Types marked with (*) are submitted by other NSAs		
Ignore and proceed with submission	Edit registration form	

Figure 64: Vehicle Type Registration – Indication of duplication

• If both previous actions complete successfully, then a Validation request and email are dispatched to ERA to validate the submitted Vehicle Type. The Vehicle Type is now non-editable. Additionally the Vehicle Type Details form now allows the user to view further information about the Vehicle Type, such as the history of changes (see 2.5.6.3) and or



the communication records exchanged regarding this Vehicle Type (see 2.5.6.4) by presenting several tabs in the Vehicle type header as shown in Figure 65)



Figure 65: View Vehicle Type Details - Types of Details

In case the URL contains the Vehicle Type as a parameter, the user has the ability to modify this parameter and get a list with all the Vehicle Types starting with the value of parameter (Figure 66).

Type ID : '11-001'	× +					- 0
)→ ୯ 🏠	i era-dev/eratv10	6Production/home/view/11-001		110% ···· 🗵 🖒 🔍 Search		III\ 🗉 🔹
					Log on Help	English
EUROPEAN	ERATV - European Reg	ister of Authorised Types of Vel	nicles	Search ERATV	Search	Advanced search
AGENCY FOR RAILWAYS	s			Directive (EU) 2016/797 🗹		
ERATV > Type ID : '1						
Type ID : '11-0	01'				人 4	Application guide PDF, 0 KB
Type ID : '11-0	01'				5	Application guide PDF, 0 KB
ype ID	Type Name	Member States	Last Update	Authorisation Status	Data Status	PDF, 0 KB Actions
уре ID 1-001-0001-3-001	Type Name Euro 4000 Type II v-f	F/B France	26/11/2013	Active (France)	Data Status Published	Actions
Type ID : '11-0 ype ID 11-001-0001-3-001 11-001-0001-3-002	Type Name	F/B France			Data Status	PDF, 0 KB Actions
ype ID	Type Name Euro 4000 Type II v-f	F/B France 014 France	26/11/2013	Active (France)	Data Status Published	Actions
ype ID (1-001-0001-3-001 (1-001-0001-3-002	Type Name Euro 4000 Type II v-f Euro 4000 Type II V2	F/B France 014 France	26/11/2013 01/12/2014	Active (France) Active (France)	Data Status Published Published	Actions
ype ID 1-001-0001-3-001 1-001-0001-3-002 1-001-0001-3-003 1-001-0002-1-001	Type Name Euro 4000 Type II v-f Euro 4000 Type II V2 Euro 4000 Type II_TE	/B France 014 France 8L1+ France, Belgium France	26/11/2013 01/12/2014 05/01/2016	Active (France) Active (France) Active (France), Active (Belgium)	Data Status Published Published Published	Actions
ype ID 11-001-0001-3-001 11-001-0001-3-002 11-001-0002-1-001 11-001-0003-9-001	Type Name Euro 4000 Type II v-f Euro 4000 Type II V2 Euro 4000 Type II_TE Euro 4000 Type II Euro 4000 Tristandar	/B France 014 France 8L1+ France, Belgium France	26/11/2013 01/12/2014 05/01/2016 26/11/2013	Active (France) Active (France) Active (France), Active (Belgium) Active (France)	Data Status Published Published Published Published	Actions
ype ID 1-001-0001-3-001 1-001-0001-3-002 1-001-0001-3-003 1-001-0002-1-001	Type Name Euro 4000 Type II v-f Euro 4000 Type II V2 Euro 4000 Type II_TE Euro 4000 Type II Euro 4000 Tristandar	/B France 014 France 8L1+ France, Belgium France	26/11/2013 01/12/2014 05/01/2016 26/11/2013	Active (France) Active (France) Active (France), Active (Belgium) Active (France)	Data Status Published Published Published Published	Actions

Figure 66: List of Vehicle types starting with parameter

2.3.3 Register a new authorisation

This section regards only "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.

Any NSA is able to authorise a registered Vehicle Type for use in the NSA's home Member State.

Once an authorisation is registered for a Vehicle Type for a specific Member State, it is not possible to create a new authorisation. In this case, the existing authorisation must be altered to reflect the latest details.

As specified in 2.3.1.2, each authorisation has a finite number of states it can go through during its lifecycle. The possible statuses and workflow between them are shown in Figure 67.



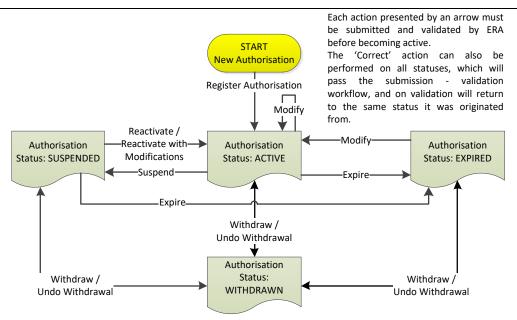


Figure 67: Register Authorisation – Authorisation Status Workflow

In order to register a new authorisation, an NSA user must click the 'Register Authorisation' button visible in the navigation bar of the header (as seen in Figure 1: ERATV Page.).

The next step in the process is locating the Vehicle Type that will be authorised. The "Register Authorisation to a Registered Type/Version" form appears as shown in Figure 68. This form allows the user to perform a search for a Vehicle Type that user's home NSA has not previously authorised.

Register Authorisation	to a Registered Type/Vers	ion				Application gu PDF, 0 KB
Type ID or Name Manufacturer			Member State		Austria Belgium Bulgaria Channel Tunnel*	_
Type category	- Select -		Free text			
TSI type and conformity with	- Select -		Sort by		Last Update	•
Authorisation Status	- Any Status -	V	Sort order		Descending	▼
Search Reset						
ype / Version ID	Type / Version Name	Authorisation Status / MS		Last Update	Manufacturer's name	Actions
-009-0001-2-001	Test VT 2	Active (Greece)		10/31/2012	Siemens AG	
I number of items: 1						<< < [1]
					Page size: 15 💌 Export	list: - Select - 💌 🔘

Figure 68: Register Authorisation – Select Registered Vehicle Type

The form contains a search criteria section and a results section. The user performs a search and then selects one of the Vehicle Types returned in the results to authorise.



The search can be performed without specifying any search criteria. In that case, all available for authorisation Vehicle Types will be returned. Alternatively, it is possible to specify the search criteria by using the provided controls. For text search patterns, the wildcard character (*) can be used.

The section contains the following search criteria:

- Type ID or Name: a string search pattern that searches in the Vehicle Type's Type/Version ID number or name for an exact match (unless wildcards are used).
- Manufacturer: a string search pattern that searches in the Vehicle Type's manufacturer name.
- Vehicle Type's Category: selection from the list of available categories
- TSI Type: selection from list of TSIs that the resulting Vehicle Types must conform with (partially or fully)
- Authorisation Status: this is the status of any of the authorisations this Vehicle Type contains. This criterion is usually used in conjunction with the next one.
- Member State: the Member State(s) by which the Vehicle Types have been authorised.
- Free Text: this is a free-text field that searches for the provided string similar to the Simple Search pattern described in 2.5.1.

Additionally, the results sort field and order may be specified. The available sort order is ascending and descending. The available sort fields are:

- Last Updated
- Type/Version ID
- Type Name

Once the required search criteria values have been specified, the search action is initiated by clicking the 'Search' button. If more than one search criteria have been specified, then these will be combined and the resulting Vehicle Type(s) will need to satisfy all of them.

It is possible to reset the search action by clicking the 'Reset' button which clears the search criteria section of the form but not the results section.

The results section contains a grid with the results and navigation buttons that allow the user to navigate between the result pages, should the number of results be greater than the Page size specified. Additionally, the user has the option to export the search results as described in 2.5.5.

To continue the authorisation process the user must select one of the Vehicle Types presented in the results section and click the action icon. At this point, the new authorisation form will be presented to the user. The form must be filled-in as described in 2.3.2.4 and saved before its submission.

The new authorisation record will be created at the time of first save of the authorisation form as shown in Figure 69. It is possible to continue filling the authorisation details in multiple sessions. At any point, the user may click the 'Cancel' button to disregard the latest changes (since the last save) performed on the authorisation and return the data to the previously saved status. Alternatively, the user may click 'Cancel Authorisation' button to cancel the authorisation registration altogether. This will change the authorisation status to 'Cancelled' and change the



record to read-only. No further additions to that authorisation can be made unless a new authorisation is registered for the same Vehicle Type for the users home NSA.



Actions: Copy registration form Cancel authorisation 01 Copy registration form Eancel authorisation 02 Autorisation EP2 Excel 320 03 Copy registration form Eancel authorisation 04 Copy registration form End copy registration form End copy registration 05 Copy registration form End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration End copy registration End copy registration 05 Copy registration <th>tus: Published Latest Update: 1</th> <th></th> <th></th> <th>Application guide PDF, 0 KB</th>	tus: Published Latest Update: 1			Application guide PDF, 0 KB
Arrithment Arrithment <th>jistration details History c</th> <th>of changes Communication</th> <th></th> <th></th>	jistration details History c	of changes Communication		
		-	Actions: Copy registration form Ca	
	General Information			PDF Excel XMI
 Along and and a set of a set o		•		
 Along and and a set of a set o	 Energy supply General technical characteristics 	GR IT PL UK		
• • • • • • • • • • • • • • • • • • •		Authorisation Country	United Kingdom	×
		3.4.2.1 Status:		
	 Rolling stock dynamic behaviour Braking 	3.4.2.2 Validity of Authorisation (until):	V/A	
Displace 1<	 Noise related characteristics Compatibility with train detection systems 	1600mm / DC 1.5kV / Level 1		
		1600mm / DC 1.5kV / ATP-VR/RHK		
Image: Image				~
Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000 Ightmar / Do L 1607 / APP-90/90000	Authorisations	1520mm / DC 1.5kV / Level 1		~ h
133mm / OC 1.30/ / Krwith 1 133mm / OC 1.30/ / Krwith 1 100mm / OC 1.30/ / Krwith 1 123mm / OC 1.				~
132mm / 02 1.30V / Level 1 1 132mm / 02 1.30V / Level 1 1 100mm / 02 1.30V / Level 1 1 100mm / 02 1.30V / Level 1 1 132mm / 02 1.30V / Level 1 1 133mm / 02 1.30V / Level 1 1 133mm / 02 1.30V / Level 1 1 1311		1520mm / DC 1.5kV / ATP-VR/RHK		* b
Lishen / DC 1.50 / ATP-VARION: Lishe / Athena / DC 1.50 / ATP-VARION: Lishe /				-
1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 1111 11111 1111 1111 <td></td> <td>1524mm / DC 1.5kV / Level 1</td> <td></td> <td>* <u>h</u></td>		1524mm / DC 1.5kV / Level 1		* <u>h</u>
1.1.2.1 Hus Caldad Statisticstate 100mm / DC 1.500 / ATP-V0/000C 100mm / DC 1.500 / ATP-V0/000C <				~
Lightern / DC 1.16V / ATP-VA/Ret Lightern / DC 1.16V /		1524mm / DC 1.5kV / ATP-VR/RHK		~ b
Lightern / DC 1.16V / ATP-VA/Ret Lightern / DC 1.16V /				~
Libborn / DC 1.180 / ATP-VA/Ref Libborn		3.4.2.4 Non Coded Restrictions:		
Ideam CDC 1.84/ ATP-VR/Red Ideam CD 1.84/ ATP-VR/Red <td< td=""><td></td><td>1600mm / DC 1.5kV / Level 1</td><td></td><td>~ <u>h</u></td></td<>		1600mm / DC 1.5kV / Level 1		~ <u>h</u>
Image: Image				-
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Signer / DC 1.58/ / ATP-VR/BHK Signer / DC 1.58/ / ATP-VR/BHK Signer / DC 1.58/ / Level 1 Signer / DC 1				w
134mm / DC 1.5kV / Level 1 134mm / DC 1.5kV / ATP-VR/RHX 134mm / DC 1.5kV / ATP-VR/RHX 134mm / DC 1.5kV / ATP-VR/RHX 134mm / DC 1.5kV / Level 1 130mm / DC 1.5kV / ATP-VR/RHK: 1311 Letter down		1520mm / DC 1.5kV / Level 1		
1334mm / DC 1.35V / Level 1 1354mm / DC 1.35V / ATP-VR/RMX 1354mm / DC 1.35V / ATP-VR/RMX 14.31.1 Date of the original automisation: * 14.31.2 Automisation holder: * Pan 14.31.1 Automisation holder: * Pan 14.31.1 Automisation document references: * A.3.1.1 Parameters for which conformity to applicable national rules has been assessed: * 14.31.1 Parameters for which conformity to applicable national rules has been assessed: * 14.31.1 Parameters for which conformity to applicable national rules has been assessed: * 14.31.1 Parameters for which conformity to applicable national rules has been assessed: * 14.31.1 Parameters for which conformity to applicable national rules has been assessed: * 150mm / DC 1.35V / Level 1: 150mm / DC 1.35V / ATP-VR/RHK: <		1520mm / DC 1.5kV / ATP-VR/RHK		
1324mm / DC 1.5kV / ATP-VR/RHX		1524mm / DC 1.5kV / Level 1		
1.4.3.1.1 Date of the original authorisation: * 11/12/2013 1.4.3.1.2 Authorisation holder: * Pan 1.4.3.1.2 Authorisation holder: * Pan 1.4.3.1.4 National certificate reference: * A.A. 1.4.3.1.5 Parameters for which conformity to applicable national rules has been assessed * * 1.600mm / DC 1.5kV / Level 1: Permeters for which conformity to applicable national rules has been assessed * 1.600mm / DC 1.5kV / ATP-VR/RH4: Permeters for which conformity to applicable national rules has been assessed * 1.300mm / DC 1.5kV / ATP-VR/RH4: Permeters for which conformity to applicable national rules has been assessed * 1.300mm / DC 1.5kV / ATP-VR/RH4: Permeters for which conformity to applicable national rules has been assessed * 1.300mm / DC 1.5kV / ATP-VR/RH4: Permeters for which conformity to applicable national rules has been assessed * 1.300mm / DC 1.5kV / ATP-VR/RH4: Permeters for which conformity to applicable national rules has been assessed * 1.300mm / DC 1.5kV / ATP-VR/RH4: Permeters for which conformity to applicable national rules has been assessed *				~
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3.4.3.1.2 Authorization document references: Pan 3.4.3.1.3 Authorization document references: AAA 3.4.3.1.4 National certificate references: Image: Control of the second sec				
3.4.3.1.3 Authorisation document references: Image: Control of the second s				
S.4.3.1.4 National certificate references: Image: Control of the				
A.J.1.1 Parameters for which conformity to applicable national rules has been assessed: A.J.1.2 Parameters for which conformity to applicable national rules has been assessed:		3.4.3.1.3 Authorisation document reference: *	aa aa	
2.4.3.1.5 Parameters for which conformity to applicable national rules has been assessed: * 1600mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 1600mm / DC 1.5kV / ATP-VR/RHK: Parameters for which conformity to applicable national rules has been assessed 1500mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 1500mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 1500mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 1500mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 1500mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 1500mm / DC 1.5kV / ATP-VR/RHK: Parameters for which conformity to applicable national rules has been assessed 1510mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 1512mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 1512mm / DC 1.5kV / ATP-VR/RHK: Parameters for which conformity to applicable national rules has been assessed 15131 Deter toor 1510mm 1524mm / DC 1.5kV / ATP-VR/RHK: Parameters for which conformity t				×
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1520mm / DC 1.5kV / Level 1: Perameters for which conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national rules has been assessed Image: Conformity to applicable national			Parameters for which conformity to applicable national rules has been assessed 5.0 Fassenger related tems 5.1 Access 5.1 Efforte dons	
1520mm / DC 1.5kv / ATP-VR/RHK: Parameters for which conformity to applicable national rules has been assessed Image: Solid S			Parameters for which conformity to applicable national rules has been assessed 5.0 Passenger related tems 5.1 Access	
1524mm / DC 1.5kV / Level 1: Parameters for which conformity to applicable national rules has been assessed 15.0 Service 5.0 Service 15.1 Service 11.1 Service for which conformity to applicable national rules has been assessed 15.3 Amm / DC 1.5kV / ATP-VR/RHK: Parameters for which conformity to applicable national rules has been assessed 15.4 Service 5.0 Parameters for which conformity to applicable national rules has been assessed 15.4 Service door 5.0 Parameters for which conformity to applicable national rules has been assessed 15.1 Service door 5.0 Parameters for which conformity to applicable national rules has been assessed			Parameters for which conformity to applicable national rules has been assessed 5.0 Paraeroge related tems 5.1 Sectors 2010 (2010) (2010	
1534mm / DC 1.5kV / ATP-VR/RHK: Parameters for which conformity to applicable national rules has been assessed Parameters for which conformed tens Parameters Parameters for which conformed tens Parameters Para		1524mm / DC 1.5kV / Level 1:	Parameters for which conformity to applicable national rules has been assessed 5.0 Parameters related tems 5.1 Across	
3.4.3.1.6 Comments:		1524mm / DC 1.5kV / ATP-VR/RHK:	Parameters for which conformity to applicable national rules has been assessed 5.0 Passencer related tems	
.1] Comments for internal use:		3.4.3.1.6 Comments:		
Comments for internal use:				
		Comments for internal use:		

Figure 69: Register Authorisation – Authorisation Saved



Submit Authorisation

When the user has finished filling-in the authorisation details, the form needs to be submitted for validation by clicking the 'Submit' button.

This will cause the authorisation to become read-only and will dispatch a request and email to ERA with the validation request.

ERA has the ability to request additional clarifications for the authorisation in which case a 'Request for clarifications' will be sent to the NSA user and the authorisation record will be returned to 'Draft' status and be editable by the NSA.

If no further clarifications are needed, ERA validates the authorisation and a notification is sent to all NSA organisations that are involved with this Vehicle Type, informing them of the new authorisation. Also the record will be accessible from the public after publication.

2.3.4 Modify an existing Vehicle Type / Authorisation

At some point during the Vehicle Type's lifecycle, there might be the need to modify the record. The ERATV system allows the modification to a Vehicle Type after it has been published.

For vehicle types created under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes, the fact that a Vehicle Type might has been authorised by a number of Member States complicates the modification process. All NSAs which have authorised a Vehicle Type must first approve any proposed modifications before these are passed to ERA for validation.

In order to initiate the modification process, the user must navigate to the Vehicle Type's details. The form shown in Figure 70 highlights the allowable actions that an involved NSA may perform on the Vehicle Type. The user must select the 'Modify Data' Button.

13-037-0002-3-001-001 CC Status: Published Latest Update: 22	ppy of Registering a Vehicle Type //07/2019 16:11:58					Application guide PDF, 0 KB
Registration details History of	changes Communication			_		
			Actions:	Correct Error	Modify Data	Copy registration form
Step 1	General Information					PDF Excel XML
General Information	 0. Identification of the type 					
Technical Characteristics Wheel set gauge						
 wneel set gauge On-board CCS equipment (for vehicles with a driving cab only) 	0.1 0.2 0.4 Type ID: 0.3 Date of record:	13-037-0002-3-001-001 22/07/2019				
 Energy supply General technical characteristics 	 I. General Information 					
 Vehicle gauge Environmental conditions Fire safety 	1.1 Type name:	Copy of Registering a Vehicle Type				
 Design mass and loads 	1.2 Alternative type name:					

Figure 70: Published Vehicle Type – Allowed actions

The ERATV system will then create a new modification record for the Vehicle Type in 'Draft' status and present that to the user. The user can then proceed with modifying the Vehicle Type's data. When the modifications are completed, the user must click the 'Submit' button and the bottom of the Step 4 form seen in Figure 56 and Figure 61.

At this point (for vehicle types created under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes), a request and email will be dispatched to all the remaining involved NSAs that have published an authorisation for this Vehicle Type, regardless of the authorisation's status at the time of modification. All NSAs must approve these modifications. Once all approvals have been granted (and for vehicle types created under "Directive (EU)



2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes after the submission), a request and email will be dispatched to ERA to validate the modifications within an appropriate timeframe. The modified data will come into effect and will be published after ERA has validated the modification request. A notification message will be dispatched to all involved parties at that point, informing them that the data are now published.

2.3.5 Correct an existing Vehicle Type / Authorisation

It is also possible to correct the details of a Vehicle Type or an authorisation in case these were introduced into the system by error. Corrections to a Vehicle Type's data follow the same principles as the modification actions but do not require approval by all involved NSAs (for vehicle types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes). Instead, one of the involved parties can press the 'Correct Error' button displayed in Figure 70 or the 'Correct Authorisation Error' button shown in Figure 71 and Figure 72.

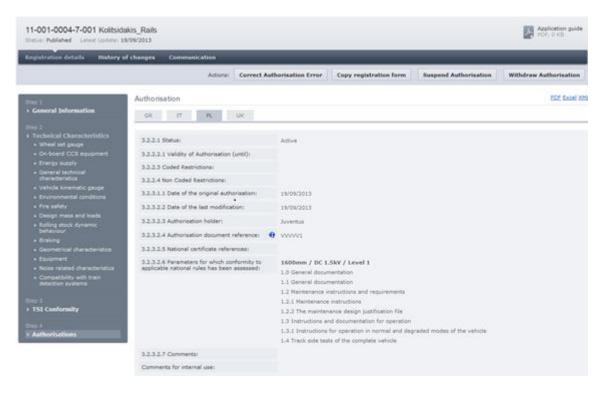


Figure 71: Correct Authorisation – Authorisation actions - Directive 2008/57/EC registration regimes



13-037-0002-3-001-001 Cop Status: Published Latest Update: 22/	by of Registering a Vehicle Type 97/2019 17:15:12						Application guide PDF, 0 KB
Registration details History of c	hanges Communication						
			Actions: Copy reg	gistration form	Suspend Authorisation	Revoke Authorisation	To Be Renewed Authorisation
Step 1 General Information Step 2	Authorisation						PDE Excel 281.
 Technical Characteristics Wheel set gauge 	3.0 Area Of Use:	SE(Name of network)+Test Neighbouring Station					
 On-board CCS equipment (for vehicles with a driving cab only) 	 3.1 Authorisation in 						
. Energy supply							
General technical characteristics	3.1.1 Member state of authorisation:	Sweden(SE)					
 Vehicle gauge Environmental conditions Fire safety Design mass and loads 							
 Rolling stock dynamic behaviour 	3.1.2.1 Status:	Valid					
Braking Geometrical characteristics	3.1.2.2 Validity of Authorisation (until):						
 Equipment Passenger related characturitizat Compatibility with train distriction systems Step 3 TSI Conformity Step 4 Authorizations 	3.1.2.3 Coded conditions for use and other restrictions:	IODmm / AC 3243-5841; / Decision 2008/366/CC 54_1 Technical interior indials to canarylation Tachon and anticon indials to canarylation Tota Oracle anticologies Tota Ora					
	3.1.2.4 Non-coded conditions for use and other restrictions:	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1 The User can add the Non Coded Restrictions					

Figure 72: Correct Authorisation – Authorisation actions - Directive (EU) 2016/797

A draft record of the Vehicle Type /Authorisation is created and presented to the user. The user can then proceed with correcting the Vehicle Type's data. When the corrections are completed, the user must click the 'Submit' button at the bottom of the Step 4 form seen in Figure 56 and Figure 61. The corrections are then dispatched to ERA for validation. Once validated, the corrections come into effect and are published. Additionally, a notification message is dispatched to all involved parties, informing them about the alterations of the record's data.

2.3.6 Suspend an Authorisation

An NSA has the option to temporary suspend an Authorisation that was granted to a Vehicle Type. Only active/valid Authorisations can be suspended. This can be achieved by clicking the 'Suspend Authorisation' button that is available from the actions of an Authorisation record shown in Figure 71 and Figure 72.

A popup similar to the one at Figure 73 will appear. The user must provide the date that the suspension is active from and some optional comments. The date can be provided either manually or by using the calendar that appears by clicking the calendar icon (3)



Suspension Date	31	
Comments		

Figure 73: Suspend Authorisation – Popup

The suspension date must be equal or larger than the Authorisation activation date of the Authorisation being suspended.

Once the user clicks the 'Suspend Authorisation' button available in the suspension popup, a request and email will be dispatched to ERA for approval. If approved, the Authorisation in question will be suspended effective as of the provided date.

2.3.7 Withdraw an authorisation

The withdrawal of an authorisation regards only Vehicle types created under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.

Similarly to the suspension functionality, an NSA user has the ability to withdraw an Authorisation. This causes the Authorisation to be withdrawn but still be visible to the public. A withdrawal can occur on Authorisations of any status (active, suspended and expired).

In order to withdraw an authorisation on a Vehicle Type, the user must click the 'Withdraw Authorisation' button as seen in Figure 71. The withdrawal popup will appear (Figure 74). The user must provide a withdrawal date and an optional comment and click the 'Withdraw Authorisations' button. The date can be entered manually or selected by clicking on the calendar icon (1).

The withdrawal date must be the same or later than the effective date of the previous action on the Authorisation. For example, if a suspended Authorisation is to be withdrawn and the suspension effective date is 1st Oct. 2012, then the Withdrawal date must be 1st Oct. 2012 or later.



1946 131	

Figure 74: Withdraw Authorisation – Popup

Once the 'Withdraw Authorisation' button in the withdrawal popup is clicked, then a new Authorisation withdrawal record will be created and submitted to ERA for approval. On approval, a notification will be dispatched to all involved parties informing them of the Withdrawal.

2.3.8 Revoke an Authorisation

The revocation of an authorisation regards only Vehicle types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes.

An NSA has the option to temporary revoke an Authorisation that was granted to a Vehicle Type. This can be achieved by clicking the 'Revoke Authorisation' button that is available from the actions of an Authorisation record shown in Figure 71 and Figure 72.

A popup similar to the one at Figure 75 will appear. The user must provide the date that the revocation is active from and some optional comments. The date can be provided either manually or by using the calendar that appears by clicking the calendar icon (1).



Revocation Date	21 31	
Comments		

Figure 75: Revoke Authorisation – Popup

The revocation date must be equal or larger than the Authorisation activation date of the Authorisation being revoked.

Once the user clicks the 'Revoke Authorisation' button available in the revocation popup, a request and email will be dispatched to ERA for approval. If approved, the Authorisation in question will be revoked effective as of the provided date.

2.3.9 Authorisation "to be renewed"

The action "to be renewed" of an authorisation regards only Vehicle types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes.

An NSA has the option to temporary set the status "to be renewed" to an Authorisation that was granted to a Vehicle Type. This can be achieved by clicking the 'To Be Renewed Authorisation' button that is available from the actions of an Authorisation record shown in Figure 71 and Figure 72.



Be Renewed Authorisat	on	
To Be Renewed Date	900 31	
Comments		
To Be Renewed Authorisation	Cancel	
to be kenewed Authorisation	Cancer	

Figure 76: "To be renewed" Authorisation – Popup

The "to be renewed" date must be equal or larger than the Authorisation activation date of the Authorisation being renewed.

Once the user clicks the 'To Be Renewed Authorisation' button available in the popup, a request and email will be dispatched to ERA for approval. If approved, the Authorisation in question will be renewed effective as of the provided date.

2.3.10 Reactivate an Authorisation

A suspended Authorisation can be reactivated by the NSA user. The user accesses the suspended Authorisation record as shown in Figure 77 and Figure 78 and selects the 'Reactivate Authorisation' button. This will cause a 'Reactivation authorisation' popup to appear as shown in Figure 79.

The user must enter the effective date of the reactivation and an optional comment. The date should be the same or later than the effective date of the Authorisation suspension. It can be entered manually or by clicking the calendar icon (
).



11-001-0004-7-001 Kolitsida Status: Published Latest Update: 19	-	Application guide PDF, 0 KB
Registration details History of	f changes Communication	
		Actions: Copy registration form Withdraw Authorisation Reactivate Authorisation
Step 1	Authorisation	PDF Excel XML
▶ General Information	GR IT PL UK	
Step 2 → Technical Characteristics ■ Wheel set gauge ■ On-board CCS equipment	3.1.2.1 Status: 3.1.2.2.1 Validity of Authorisation (until):	Suspended 12/12/2013
 Energy supply General technical characteristics 	3.1.2.3 Coded Restrictions:	1600mm / DC 1.5kV / Level 1 1 Technical Restrictions
 Vehicle kinematic gauge Environmental conditions Fire safety 		 1.1 Minimum curve radius in meters: 4 1.2 Track circuit restriction: True 1.3 Speed restrictions in Km/h (Marked on wagons and coaches but not marked on locos): 4
 Design mass and loads Rolling stock dynamic behaviour 		2 Geographical Restrictions 2.1 Kinematic gauge (coding WAG TSI Annex C): 4 2.2 Wheelset gauge: Variable gauge 1435/1520
 Braking Geometrical characteristics Equipment 		2.3 No CCS on board: True 2.4 ERTMS A on board: True
 Noise related characteristics Compatibility with train detection systems 		2.5 B-System on board: 4 3 Environmental Restrictions 3.1 Climatic zone EM50125/1999: T1
Step 3 • TSI Conformity		4 Restrictions on use included in the authorization certificate 4.1 Time based: True 4.2 Conditions based (distance travelled, wear, etc): True
Step 4 Authorisations		1600mm / DC 1.5kV / ATP-VR/RHK 1 Technical Restrictions 1.1 Minimum curve radius in meters: 4

Figure 77: Suspended Authorisation record actions - Directive 2008/57/EC registration regimes

13-037-0002-3-001-001 Cop Status: Published Latest Update: 23/0				Application guide PDF, 0 KB
Registration details History of ch	ang	es Communication		
			Actions: Copy registration form Revoke Authorisation To Be Renewed Authorisation	Reactivate Authorisation
Step 1 General Information		thorisation se		PDF Excel XML
Step 2 Technical Characteristics Wheel set gauge	i	3.0 Area Of Use:	SE(Name of network)+Test Neighbouring Station	
 On-board CCS equipment (for vehicles with a driving cab only) 	÷	3.1 Authorisation in		
Energy supply General technical characteristics		3.1.1 Member state of authorisation:	Sweden(SE)	
 Vehicle gauge Environmental conditions Fire safety 	÷	3.1.2 Current status		
 Design mass and loads Rolling stock dynamic behaviour 		3.1.2.1 Status:	Suspended 20190722	
 Braking Geometrical characteristics Equipment 		3.1.2.2 Validity of Authorisation (until): 3.1.2.3 Coded conditions for use and other restrictions:	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1	
 Passenger related characteristics Compatibility with train detection systems 			1 Technical retriction related to construction 1.2 Tack driven relationsen: Technical retrictionsen: Technical relationsen: Technical retrictions 2 Geographical retrictions 2.2 Whether large 2.2.4 Warahle gauge 1435/1520	
Step 3			100mm / AC 3255 5581 / Marc Transport Kula / Marc 2 Grangeshalen and Kula / Marc Marc Marc Marc Marc Marc Marc 2.5 S System on load 2.2.2 Cate fir dia system . 2.5.201 UIC Radae Chapter 1-4	
Authorisations		3.1.2.4 Non-coded conditions for use and other restrictions:	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1 The User can add the Non Coded Restrictions	

Figure 78: Suspended Authorisation record actions - Directive (EU) 2016/797



Reactivation Date	
Comments	\Diamond

Figure 79: Reactivation Authorisation popup

Once the effective date and comment are filled-in, the user must select one of the following actions:

- Reactivate authorisation: this causes a reactivation of the authorisation combined with modifications to the Vehicle Type data. On selecting this option, the Vehicle Type will be opened in modification mode as described in 2.3.4. The user may make modifications to any section of the Vehicle Type registration. On submission by the NSA user, a request and email are sent to all involved parties, if more than one involved party (NSA), to approve the modifications (only applicable for Vehicle Types created under "Directive 2008/57/EC" and "Directive 2008/57/EC Exceptional Mode" registration regimes). The request and email are only sent to ERA afterwards, when all involved NSAs have approved the modifications.
- Reactivate without modification of data: this option creates a reactivation request accompanied with an email and submits it automatically to ERA for approval. The date specified in Figure 79 is used as the "Effective From" date of the reactivation request. No further approvals or actions are required by any NSA users.

2.3.11 Undo Authorisation Withdrawal

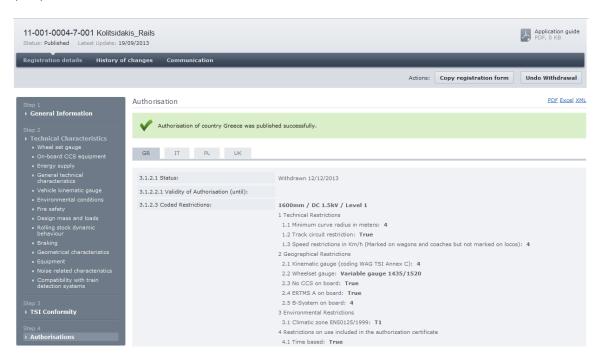
The Undo Authorisation withdrawal of an authorisation regards only Vehicle types created under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.

As specified earlier, an NSA may only have one Authorisation per Vehicle Type. Due to this rule, and also in order to be able to rectify possible erroneous withdrawals, the user must have the option to undo an Authorisation withdrawal. The action to undo a withdrawal should return the Authorisation to the status it had before it was withdrawn. To undo an Authorisation withdrawal, the user must select the 'Undo Withdrawal' button as seen in Figure 80.

Once the 'Undo Withdrawal' button is clicked, the 'Undo Withdrawal' popup appears as shown in Figure 81. The user must enter the date that the Withdrawal revocation will be effective from,



as well as any additional comments. The date provided must be equal or later than the withdrawal date of the Authorisation and can be entered manually or selected after clicking the calendar icon (
¹¹).





Undo Withdrawal date	31	
Comments		

Figure 81: Undo Authorisation Withdrawal. Popup

Once the popup fields have been populated, the user must click the 'Undo Withdrawal' button to submit the record for authorisation by ERA.



2.3.12 Undo Authorisation Revocation

The "Undo Authorisation Revocation" action regards only Vehicle types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes.

A revoked Authorisation can be undone by the NSA user. The user accesses the revoked Authorisation record as shown in Figure 82 and selects the 'Undo Revocation' button. This will cause a 'Undo Authorisation Revocation' popup to appear as shown in Figure 83.

The user must enter the effective date of the "revocation undone" and an optional comment. The date should be the same or later than the effective date of the Authorisation revocation. It can be entered manually or by clicking the calendar icon (🛅).

13-037-0002-3-001-001 Cc Status: Published Latest Update: 23					Application guide PDF, 0 KB
Registration details History of	chan	ges Communication			
			Actions: Copy registration	n form	Undo Revocation
Step 1	A	uthorisation			PDF Excel XML
General Information	h	SE			
Step 2		3.0 Area Of Use:	SE(Name of network)+Test Neighbouring Station		
 On-board CCS equipment (for vehicles with a driving cab only) 		3.1 Authorisation in			
Energy supply General technical characteristics Vehicle gauge		3.1.1 Member state of authorisation:	Sweden(SE)		
Environmental conditions Fire safety Design mass and loads	<u> </u>	3.1.2 Current status			
 Rolling stock dynamic behaviour 		3.1.2.1 Status:	Revoked 20190723		
 Braking Geometrical characteristics Equipment 		3.1.2.2 Validity of Authorisation (until): 3.1.2.3 Coded conditions for use and other restrictions:	1000mm / AC 25kV-50Hz / Decision 2000/386/EC Set_1		

Figure 82: Revoked Authorisation record actions

Undo Revocation Date	800 31	
Comments		\bigcirc

Figure 83: Undo Authorisation Revocation – Popup

Once the popup fields have been populated, the user must click the 'Undo Revocation' button to submit the record for authorisation by ERA.

2.3.13 Undo Authorisation "To Be Renewed"

The Undo Authorisation "To Be Renewed" action regards only Vehicle types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes.



A "to be renewed" Authorisation can be undone by the NSA user. The user accesses the "to be renewed" Authorisation record as shown in Figure 84 and selects the 'Undo "To Be Renewed"" button. This will cause a 'Undo Authorisation "to be renewed"' popup to appear as shown in Figure 85.

The user must enter the effective date of the "to be renewed" undone' action and an optional comment. The date should be the same or later than the effective date of the Authorisation "to be renewed". It can be entered manually or by clicking the calendar icon (🛅).

	13-037-0002-3-001-001 Copy of Registering a Vehicle Type Status: Published Latest Update: 23/07/2019 12:52:40								
Registration details History of c	hanges Communication								
		Actions: Copy registration form	Undo "To Be Renewed"						
Step 1	Authorisation		PDF Excel XML						
General Information	SE								
Step 2 Technical Characteristics									
 Wheel set gauge 	3.0 Area Of Use:	SE(Name of network)+Test Neighbouring Station							
 On-board CCS equipment (for vehicles with a driving cab only) 	 3.1 Authorisation in 								
 Energy supply 									
 General technical characteristics 	3.1.1 Member state of authorisation:	Sweden(SE)							
Vehicle gauge									
 Environmental conditions Fire safety 	 3.1.2 Current status 								
 Design mass and loads 	STILL CONTINUE STATUS								
 Rolling stock dynamic behaviour 	3.1.2.1 Status:	To be renewed 20190723							
 Braking Geometrical characteristics 	3.1.2.2 Validity of Authorisation (until):								
Geometrical characteristics Equipment	3.1.2.3 Coded conditions for use and other restrictions:	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1							

Figure 84: Undo Authorisation "To Be Renewed" - Allowable actions

Undo "To Be Renewed" Date	31	
Comments		$\langle \rangle$

Figure 85: Undo Authorisation "To Be Renewed" popup

Once the popup fields have been populated, the user must click the 'Undo "to be renewed" button to submit the record for authorisation by ERA.

2.3.14 History of changes in authorisations section

Below the section "Comments for internal use" the user can view the history of authorisation changes. When the User sends an authorisation to the Agency for review, the "Submission of



Initial Registration" caption is created. After the validation of the authorisation by the ERATV User, a second caption appears, named "Initial Registration" containing all authorisation parameters of the newly created authorisation, which are also displayed in the "Submission of Initial Registration" caption.

If the User proceeds with a modification of an authorisation, the "Submission of Modification" caption will be created, containing only the changes regarding the authorisation parameters. If a parameter was filled in with data before the modification and afterwards remained empty, no change will be displayed under "Submission of Modification". After the validation of the authorisation by the ERATV User, a new caption will be appeared named "Modification", containing the information which is also displayed under "Submission of modification". The same approach is followed to all actions concerning changes in authorisation parameters. Public users are not able to view the "Submission of …" captions.

SE	
3.1.2.1 Status:	
3.1.2.2 Validity of Authorisation (until):	
3.1.2.3 Coded Restrictions:	1520mm / Autonomous / ALSN 1 Technical Restrictions 1.2 Track circuit restriction: True
3.1.2.4 Non Coded Restrictions:	1520mm / Autonomous / None sdfasdf
3.1.3.1.1 Date of the original authorisation:	01/08/2018
3.1.3.11.2 Date of the last modification:	07/08/2018
3.1.3.11.3 Authorisation holder:	LDZ ritošā sastāva serviss, Ltd.
3.1.3.11.4 Authorisation document reference:	• reactiby
3.1.3.11.5 National certificate references:	Vyzkumny Ustav Železnični, 09.09.2011., Nr.COV/1/B/11/RST/NE/0011
3.1.3.11.6 Parameters for which conformity to applicable national rules has bee assessed:	n 1520mm / Autonomous / ALSN 0.0 None 1520mm / Autonomous / ALSN, KPD-3PV 0.0 None 1520mm / Autonomous / None 0.0 None
3.1.3.11.7 Comments:	reactiby
Comments for internal use:	internal comment
3.1.3.1 Submission of Initial Registration	
3.1.3.1 Initial Registration	
3.1.3.2 Submission of Correction	
3.1.3.2 Correction	
3.1.3.3 Submission of Modification	
3.1.3.3 Modification	
3.1.3.4 Submission of Suspension	

Figure 86: History of changes in authorisation - Directive 2008/57/EC registration regimes



risation

Au	thorisation	
	SE	
	3.0 Area Of Use:	SE(Name of network)+Test Neighbouring Station
•	3.1 Authorisation in	
	3.1.1 Member state of authorisation:	Sweden(SE)
•	3.1.2 Current status	
	3.1.2.1 Status: 3.1.2.2 Validity of Authorisation (until):	To be renewed 20190723
	3.1.2.3 Coded conditions for use and other restrictions:	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1 1 Technical restriction related to construction 1.2 Track circuit restrictions: True 2 Geographical restriction 2.2 Wheelset gauge: 2.2.1 Variable gauge 1435/1520 1000mm / AC 25kV-50Hz / None 2 Geographical restriction 2.5 B System on board 2.5.2 Class B radio system: 2.5.201 UIC Radio Chapter 1-4
	3.1.2.4 Non-coded conditions for use and other restrictions:	1000mm / AC 25kV-50Hz / Decision 2008/386/EC Set_1 The User can add the Non Coded Restrictions
Þ	3.1.3 Historical	
•	3.1.3.1 Submission of Initial Registration	
Þ	3.1.3.1 Initial Registration	
Þ	3.1.3.2 Modification	
•	3.1.3.2 Submission of Suspension	
Þ	3.1.3.2 Suspension	
Þ	3.1.3.3 Submission of Revocation	
Þ	3.1.3.3 Revocation	
•	3.1.3.4 Submission of Undo Revocation	
Þ	3.1.3.4 Undo Revocation	
Þ	3.1.3.5 Submission of To Be Renewed	
Þ	3.1.3.5 To Be Renewed	

Figure 87: History of changes in authorisation - Directive (EU) 2016/797

2.3.15 Copy Registration Form

In order to reduce the time needed for registering a new Vehicle Type, the user may perform a 'copy' from an existing record. This functionality is available from any Vehicle Type regardless its status. It is not possible to perform the copy action to Authorisation records individually, only to whole Vehicle Type records.

To copy the registration data of a Vehicle Type, the user must click the 'Copy registration' button that appears in the content header (see Figure 1: ERATV Page. sub section 2.a). Immediately, a new draft Vehicle Type will be created and the data from the current record will be copied into it. All fields are copied except the following:

Copy registration form

General Information Step:



- Country: the country of the current NSA user will be automatically entered in this field.
- Organisation: the organisation of the currently logged-in user will be automatically entered in this field.
- Correspondent: the default correspondent of the selected organisation will be automatically entered in this field.
- Type ID: this number is unique per Vehicle Type and will not be copied. A new one must be reserved as described in 2.3.2.1.1.
- Date of record: this is the date of the first publication of the Vehicle Type. This will be set automatically when the VT is published.
- Type Name. This will hold a new value with the format "Copy of <Original Vehicle Type Name>".
- Authorisation Step:
 - Date of original authorisation
 - Status (read-only, automatically set to 'draft' by the system)
 - Authorisation Document Reference

Once the record details have been copied, the text "Copy of" is added in the Vehicle Type's name in order to be indicated that it has been copied from another Vehicle Type. The user may then submit the new Vehicle Type or modify it as described in 2.3.2

2.3.16 Cancel a Vehicle Type registration / authorisation

The user may cancel any draft registration or Authorisation if it is no longer needed. The cancelled application will receive the status 'Cancelled' and will not be available for edit. A cancelled Vehicle Type registration will appear in the list of authorisations for NSA users and ERA. The public users cannot see a 'cancelled' authorisation.

For a Vehicle Type this functionality is accessible by clicking the 'Cancel Registration' button that appears in the content header of the record (see Figure 1: ERATV Page. sub section 2.a). To cancel an Authorisation record, the user must click on the 'Cancel Authorisation' button that appears on the same location, when viewing the Authorisation request.

Cancel registration

Cancel authorisation

2.3.17 Auxiliary Users

To assist with the registration process of a new Vehicle Type, the NSA user may allow additional users to log into the ERATV system and edit/insert a Vehicle Type's technical characteristics details. These 'auxiliary' users are defined by the NSA user as described in the Administration section of the current manual (see section 2.6.2).

The NSA user is in position to selectively grant access for an Auxiliary User to a particular section of any Vehicle Type registered in their home MS. The following sections of a Vehicle Type are accessible by Auxiliary Users:

- Technical Characteristics
- Conformity with TSI
- Both of above



The users cannot perform any other actions on the ERATV system. Once an Auxiliary User account has been registered by a NSA user, then it can access only Vehicle Types of the registering NSA. Also a Vehicle Type can be associated with only one Auxiliary User, but an Auxiliary User can be granted permission to many Vehicle Types.

2.3.17.1 Grant permission for editing

An Auxiliary User can access a Vehicle Type for editing using one of two different methods:

2.3.17.1.1 Grant permission through Vehicle Type registration

From steps 2 and 3 of the Vehicle Type registration form: the NSA user must click the 'Grant permission for editing' button which will cause the popup shown in Figure 88 to appear. The NSA user must then select one of the Auxiliary Users from the list (the list contains the Auxiliary Users created by all NSAs), specify his/her Access Rights from the list and-click the 'Save' button to grant the permission. If an Auxiliary User is already associated with this Vehicle Type, then the Auxiliary User list will have the account preselected. Finally, by clicking the 'Cancel' button the process is cancelled and the popup disappears.

ant permission for e	editing	
Type / Version ID	51-001-0003-0-001	
Type Name	Test3 TV3	
Auxiliary Users	Test User	
Access Rights	- No Access Rights Selected -	
Save Canc	el	

Figure 88: Grant permission for editing

2.3.17.1.2 Grant permission through Auxiliary User Administration

From the Auxiliary User administration page: the NSA user can click the '*Add/Remove Association* to Vehicle Type' link that appears in the Auxiliary User Edit screen (see Figure 121) which will cause the 'Add/ Remove Association to Vehicle Type' page to appear as shown in Figure 89. If the respective Auxiliary User account is not associated with any Vehicle Types, a visual indication 'The user account is not associated with any Vehicle Type' appears.

From this page, the NSA user may define the Auxiliary User's access rights for one or more of the available Vehicle Types and then click 'Save'. A confirmation message will appear at the top of the page. The NSA user may also disassociate Vehicle Types by unchecking the desired access right of the respective Vehicle Type and clicking 'Save'. Again, a confirmation message will appear. Finally, clicking 'Back' will return the user to Auxiliary User Edit screen (see Figure 121).



Vehicle Type Associations for Auxiliary User "test@example.com"

i The user account is not associated with any Vehicle Types.

Type/Version Number	Type Name	Access "Technical Characteristics"	Access "Conformity with TSI"
31-001-0001-9-002	Test GXA VT2		
31-001-0001-9-003	Test GXA VT1		
11-002-0001-1-002	Test History		
11-002-0001-1-003	Test History		
(New registration of Vehicle Type. Database ID: 16)	Test History		
(New registration of Vehicle Type. Database ID: 17)	Test History		
11-003-0001-9-001	test		
(New registration of Vehicle Type. Database ID: 21)	test5		
(New registration of Vehicle Type. Database ID: 22)	TEST Special Conditions		
(New registration of Vehicle Type. Database ID: 23)	TEST SC2		
(New registration of Vehicle Type. Database ID: 24)			
(New registration of Vehicle Type. Database ID: 25)	Test GXA VT2		
(New registration of Vehicle Type. Database ID: 42)	test1		
13-002-0001-9-001	test1		

Save Back to previous page

Figure 89: Auxiliary User – Vehicle Type Associations

2.3.17.2 Auxiliary User access

Auxiliary Users can access the system in the same manner as all other registered users by using the Login page described in 2.2.3. The user credentials of the user are provided by the NSA user who is also responsible for the maintenance of the Auxiliary User account as described in 2.6.2.

Once an Auxiliary User has successfully logged in, the welcome screen is presented along with the available actions as seen in Figure 90:.

	intratest@test.gr Auxiliary User 🗙 Log off Help English 🔽
EUROPEAN ERATV - European Register of Authorised Types of Vehicles	Search ERATV Search Advanced search
AGENCY FOR RAILWAYS	Directive (EU) 2016/797 🗹
> ERATV > Welcome to ERATV - European Register of Authorised Types of Vehicles	
Authorisations	
Welcome to ERATV - European Register of Authorised Types of Vehicles	Application guide PDF, 0 KB
ERATV is established according to Directive 2008/57/EC of the European Parliament and of the Council of 17 Commission Implementing Decision 2011/665/EU of 4 October 2011 on the European register of authorised types The register is hosted and maintained by the European Railway Agency (ERA). It contains data on types o 2008/57/EC.	of railway vehicles.
Terms of Use Copyright Notice Privacy Statement File Version: 1.6	© 2018 European Union Agency for Railways

Figure 90: Auxiliary User access

To access the Vehicle Types for which permission to edit was granted, the Auxiliary User must select the 'Authorisations' button shown above. ERATV system will then display the 'List of own Authorisations' for the country the Auxiliary User is registered for, as displayed in Figure 91. The list will contain all currently published Authorisations and the draft Authorisations to which the user was granted permission. For example, in Figure 91 the Auxiliary User can view the details of 2 valid, 1 to be renewed, and 1 revoked authorisation. Clicking the actions icon (



authorisation will open that record in Step 2 of the registration process (Figure 92). The data for Steps 1 and 3 are also provided but in a read-only mode for reference. No Authorisation data (step 4) are presented at any point. The user must fill in the Step 2 data and save the Vehicle Type by clicking the 'Save as Draft' or 'Save and continue' buttons. The NSA user is then responsible to provide the final information about the Authorisation data (Step 4) and submit the Vehicle Type for validation to ERA. Once the Vehicle Type is submitted, then it will no longer be visible for the Auxiliary User.

List of own Author	risations (Europ	ean Union)								内	Application guide PDF, 0 KB
Directive (EU) 2016/797					Regi	stering Correspondent					
Type ID or Name					Last	update			5		
Authorisation document	reference (EIN)				Sort	Ьγ	Last	Update			~
Cancelled vehicle types					Sort	order	Desc	ending			~
Authorisation Status		- Any Status -		~							
Data Status		- Any Status -		*							
Registering Entity		NSA EU European Union		~							
Authorised area of use/	country	European Union		V							
> Search > Reset	Search Fields	Go to Advanced search									
Type ID	Authorisation docum	nent reference (EIN)	Vehicle Type Name	Vehicle Type Status	Authorisation Statu	s Data Status	Last update	Authorised area of use/country	Registering Entity	Registering Correspondent	Actions
11-002-0012-8-001-001	v!#@#@\$\$@#%#~ with auxiliary with M	Checkin' VT MODIFICATION ISA EU	Copy of I#@#@\$\$@#%#~Checkin' VT MODIFICATION with auxiliary with NSA EU	Published	Valid	Modification Published	23/10/2019	European Union	NSA EU European Union	EU European Union	<u>1</u>
11-002-0016-9-001-001	EIN:0\$0#&*(*)()_	·><":"\{}	DO not touch "Issue 17: Not all results for a Member State are displayed - View Registered Authorisations public - NEW registration regime test originator Z, 3.1.1 X ,Y, W	Published	Valid	Initial Registration Published	21/10/2019	European Union	NSA EU European Union	EU European Union	<u> </u>
11-002-0015-1-001-001	displayed - View Re	ults for a Member State are gistered Authorisations public egime test originator Z, 3.1.1	DO not touch "Issue 17: Not all results for a Member State are displayed - View Registered Authorisations public - NEW registration regime test originator Z, 3.1.1 Z"	Published	Valid	Initial Registration Published	21/10/2019	European Union	NSA EU European Union	EU European Union	



Status: Draft Latest Update: 11/1/2	012		Application guid PDF, 0 KB
Step 1 • General Information	Wheel set gauge	(*) ara mandatory	
	Wheel set gauge :		
 Technical Characteristics Wheel set gauge On-board CCS equipment Energy supply General technical characteristics 	4.1.3 Wheel set gauge :	 I000mm 1435mm 1520mm 1524mm 	
Vehicle kinematic gauge Environmental conditions Fire safety	Save as draft Save 8	Continue	Cancel Changes
 Fire safety Design mass and loads 			
 Rolling stock dynamic behaviour 			
 Passenger related characteristics 			
 Compatibility with train detection systems 			
TSI Conformity			

Figure 92: Auxiliary User – Edit step 2



2.4 Requests / Notifications

The ERATV system must support the communication between users in order to facilitate the required workflow. Communication is performed by using Requests and Notifications messages.

Requests are messages that are dispatched by the ERATV system automatically when a user performs an action to a recipient NSA. Requests require the recipient to perform an action within a specific time frame.

Notifications are messages that are dispatched in a similar manner, but no action is required by the recipient NSA.

These messages are dispatched to organisations rather than individual users. To that effect, a request dispatched to an NSA will be viewable by all user accounts registered to that NSA. The messages are characterised by Read / Unread status. Once a user from the recipient organisation views the message, then this is considered 'Read'. In case of requests, an additional status of "Answered/Unanswered" is available. "Answered" are the requests for which the actions have been performed whereas "Unanswered" are those for which the actions are pending. Finally, all messages have a type as described in 2.4.2.

When a message is dispatched, then it appears within the ERATV system and simultaneously is dispatched through email to all the user accounts of the recipient NSA. To access the messages from within the ERATV system, the user must select the appropriate action button as shown in Figure 93. The number within the Requests or Notifications button denotes the number of unread messages that are present. Clicking these buttons will present the corresponding list as described in 2.4.1 and 2.4.3.

> ERATV > Welcome to ERATV - European Register of Authorised Types of Vehicles Authorisations Reguests Notifications 49 Administration Register new type Register authorisations



The following example further illustrates the workflow of requests and notification (only for "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).

- A published Vehicle Type with 3 authorisations is modified by one of the authorising NSAs. The NSA user makes the required modifications to the Vehicle Type data and submits the VT for approval and publication.
- The ERATV system will then create and dispatch one request of type "ModificationsApprovalRequest" to the two remaining involved parties, in order for them to view and approve the proposed modifications.
- When an NSA approves the modifications, a Notification message is dispatched to all the involved parties.
- When the last approval is performed, then an additional Request of type "ModificationValidationRequest" is dispatched to ERA in order to view and validate the modifications.
- Once the modifications are published then a "ModificationPublished" notification is dispatched to all involved parties.



All requests and notifications are accompanied with emails. All email notifications contain the Type ID (or if It is not available the internal ID) both in subject and body. Specifically, the body of the email contains a link to the corresponding type (e.g. http://eratv.era.europa.eu/ERATV/GeneralInfo/View/460).

2.4.1 View list of requests

The List of requests form contains two main sections (Figure 94):

- 1. The search and filtering criteria section
- 2. The results section

List of Requests								Į	Application g PDF, 191 KB
Directive (EU) 2016/797	8			Due date (from-to)			11	55	
ype ID				Organisation		- Any NSA -			•
ubject				Date Received(from - to)			5	53	
pe	- Any Type -	٠		Sort by		Due Date			
atus	- Any Status -	•							
orrespondent									
rrrespondent Search >> Reset Search Fields				0		> View	Archived Folder) Arc	chive Selected	rk Selected As "
Search > Reset Search Fields	Subject		Date	Due Date	Туре	Correspondent	Organisation	Status	Actions
Search	Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001.		02/08/2019	2 16/08/2019	Clarification	Correspondent Test User	Organisation ERA	Status Answered	Actions
Rearch) Reset Search Fields Type ID <u>13-037-0003-1-001-001</u> <u>13-037-0003-1-001-001</u>	Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001.	_	02/08/2019 02/08/2019	2 16/08/2019 16/08/2019	Clarification	Correspondent Test User Test User	Organisation ERA ERA	Status Answered Answered	Actions Q Q
Search) Reset Search Fields Type ID 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001	Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001.		02/08/2019 02/08/2019 02/08/2019	2 16/08/2019 16/08/2019 16/08/2019	Clarification Clarification Clarification	Correspondent Test User Test User Test User	Organisation ERA ERA ERA	Status Answered Answered Answered	Actions CP CP CP
Search > Reset Search Fields Type ID 12-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001	Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001.		02/08/2019 02/08/2019 02/08/2019 02/08/2019	2 16/08/2019 16/08/2019 16/08/2019 16/08/2019	Clarification Clarification Clarification Clarification	Correspondent Test User Test User Test User Test User	Organisation ERA ERA ERA ERA	Status Answered Answered Answered Answered	Actions T T T
Search) Reset Search Fields Type ID 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001	Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001.		02/08/2019 02/08/2019 02/08/2019	2 16/08/2019 16/08/2019 16/08/2019	Clarification Clarification Clarification	Correspondent Test User Test User Test User	Organisation ERA ERA ERA	Status Answered Answered Answered	Actions Q Q Q
Search > Reset Search Fields Type 10 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001 13-037-0003-1-001-001	Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001. Clarifications required for Authorisation of Vehicle Type 13-037-0003-1-001-001.		02/08/2019 02/08/2019 02/08/2019 02/08/2019	2 16/08/2019 16/08/2019 16/08/2019 16/08/2019	Clarification Clarification Clarification Clarification	Correspondent Test User Test User Test User Test User	Organisation ERA ERA ERA ERA	Status Answered Answered Answered Answered	Actions T T T

Figure 94: Requests. List of requests

The search and filtering criteria section has a number of criteria that can be used to filter the list of available results. The user must provide some criteria and click the "Search" option to filter the results displayed in the results section. Clicking the "Reset" link will reset the search criteria to the default values as shown in Figure 94. Performing a search using the default search criteria will return all available requests sorted by the due date of the request.

The available search criteria are:

- Directive (EU) 2016/797 checkbox
- Type ID: the ID of the Vehicle Type for which the request was dispatched.
- Subject: the subject of the request
- Type: the type of the request. A list of available types is presented in 2.4.2
- Status: the status of the request. Available values are "Answered" / "Unanswered".
- Correspondent: the correspondent (user) that first dispatched the request
- Due Date: the due date of the request. This criterion can take 2 values (from to) to specify a period.
- Organisation: the organisation that dispatched the request
- Date Received: the date the request was received. This criterion can take 2 values (from – to) to specify a period.
- Sort order: this field allows the user to sort the results that are returned by the search action. The available sort options are:
 - Date of Request
 - Due Date (default sort order)



- o Type ID
- Type of request
- Status of request (Answered / Unanswered)

The results section contains a grid with the results and navigational controls for moving through the result pages. Also, it is possible to specify the number of results pre results page through the "Page Size" drop down list.

Each request record holds the following information:

- Type ID. The user may click on the active link to view the Vehicle Type details.
- Subject (of Request)
- Date (of request registration)
- Due Date (of request)
- Type (of request)
- (Registering) Correspondent (User)
- (Registering) Organisation
- Status (of request)
- Actions (Icon). This icon will prompt the user to view the request details (, or end depending on Status of Request) as shown in Figure 94. Clicking this icon, the Request details will be presented as described in the following section (2.4.2).

At this point the unread requests remain in bold in the search results.

Each request record has a checkbox on its left. The user may select any desired requests and click on the "Archive Selected" link to put them in the List of Archived Requests or click on the "Mark Selected as Read" to change their style from bold (Unread) to normal (Read). The List of Archived Requests has the same format as the List of Requests described in this section and contains only the archived requests. The user can access it by clicking on the "View Archived Folder" link.

2.4.2 View Request Details

The Request details form provides more details about the request to the user as shown in Figure 95:. Depending on the type of the request, different information is displayed. For the clarification request the following items are included in the Request details popup:

- Type
- Clarification question
- Clarification Text



Гуре	Clarification
Clarification question	Clarifications required for Authorisation of Vehicle Type <u>13-037-0002-3-001-001</u> . Please check the parameter 4.2.1
Clarification Text	

Figure 95: Requests – Details

Additionally, the user has the option to perform an action from the request details popup. The available actions depend on the type of the request viewed and the security role granted to the user. The available actions for NSA users are presented in the following table (Table 2).

Request type	Allowable actions		
Modification approval	The user can press the Approve button and provide an approval comment, to approve the modification made to the Vehicle Type (applied only to "Directive 2008/57/EC, and "Directive 2008/57/EC – exceptional mode" registration modes).		
Clarification	The user enters the response to the clarification request and presses the Comment button.		
ReactivationModificationApprovalRequest	Same as modification approval but this time it's for the reactivation. The user can press the Approve button (also add a comment for the approval) to approve the modification made to the Vehicle Type (applied only to "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes).		

Table 2: Requests – Allowed actions per request type



2.4.3 View List of Notifications

The list of notifications follows a similar approach as the list of requests with 2 sections presented in the page (see Figure 96).

The first section contains some filtering options that allow the user to reduce the number of notifications presented in the list. The available search criteria are:

- Directive (EU) 2016/797 checkbox
- Type ID: the ID of the Vehicle Type for which the notification was sent.
- Notification Type: the type of the notification. For a list of available notification types.
- Organisation: the authorising Organisation name.
- Correspondent: the correspondent user.
- Date Period (from to): a time period within which the notification was registered. If only the "from" date is provided, then the ERATV system will return results that were registered from that date until today. Similarly, if only the "To" date is provided then the system will return all notifications registered up until the date specified.
- Sort by: this is the field that the notifications will be sorted by. The available options are:
 - o Date
 - Status (Read / Unread)
 - Type ID Number
 - Notification Type
 - o NSA
 - o Correspondent

The user may specify the search criteria and click the "Search" button to initiate the search action. Alternatively, the user may click the "Reset" button to clear the search criteria section. Any already presented results will not be affected by the reset action.

View Notifications									Application guide PDF, 191 KB
Directive (EU) 2016/797	2				Correspondent				
Type ID					Date period (from - to)		11	<u>.</u>	
Notification Type	- Any Status -			•	Sort by	Date			•
Organisation	- Select -			•					
> Search > Reset Search Fields						0	> View Archived Folder	> Archive Selected	Mark Selected As "Read"
Notification Type		Туре	ID		Organisation	•	Correspondent		Date
Vehicle Type Cancelled		11-0	02-0004-5-001-002		ERA	2	Test User		13/09/2019
Authorisation Suspended		11-0	46-0007-5-001-001		ERA		Test User		13/09/2019
Authorisation Modification Pr	ublished	11-0	46-0007-5-001-001		ERA		Test User		13/09/2019
Authorisation Reactivated		<u>13-0</u>	37-0002-3-001-001		ERA		Test User		12/09/2019
Authorisation Suspended		13-0	37-0002-3-001-001		ERA		Test User		12/09/2019

Figure 96: Notifications – List of notifications

The results section (point 2 at Figure 96) contains all the notifications that satisfy the search criteria. By default, all the notifications are presented when the list is accessed and the default search criteria are specified. Records in the results grid that are indicated with bold are notifications that have not been read by any user in the particular NSA.

The grid contains the following columns:

- Notification Type: the type of notification.
- Type ID: the ID of the vehicle type. The user may click on the active link to view the Vehicle Type details.



- Organisation: the authorising Organisation name
- Correspondent: the correspondent user
- (Notification) Date: the date the notification was dispatched

The user has the option to click on the link presented in the notification type column. This will present the notification record details in a popup window as described in 2.4.4. Once a notification has been read, it will not remain in bold in the search results.

Each notification record has a checkbox on its left. The user may select any desired notifications and click on the "Archive Selected" link to put them in the List of Archived Notifications or click on the "Mark Selected as Read" to change their style from bold (Unread) to normal (Read). The List of Archived Notifications has the same format as the List of Notifications described in this section and contains only the archived notifications. The user can access it by clicking on the "View Archived Folder" link.

2.4.4 View Notification Details

The notification details popup window contains all the details of a received notification as shown in Figure 97. The contents of each notification record depend on the type of the notification.

lotification type:	Vehicle Type Cancelled
ubject:	Vehicle Type 11-002-0004-5-001-002 was cancelled by ERA.
ype ID	11-002-0004-5-001-002
ype Name	new version of Random Test 47
escription	Modification for for Vehicle Type <u>11-002-0004-5-001-002</u> was cancelled by ERA.
iewed date:	16/09/2019
iewed by user:	Test User
created date	13/09/2019
created by	Test User 2

Figure 97: Notifications – Notification Details popup

The following information is available:

- Notification Type: this is the type of the Notification
- Subject. If available, the subject will be presented in the language selected for the user interface.
- Type ID: this is the ID of the Vehicle Type of the authorisation. The user may click on the active link to view the Vehicle Type details.
- (Vehicle) Type Name
- Description: a small description of the notification. If available, the description will be presented in the language selected for the user interface.



- Viewed Date: this is the date that the notification was viewed for the first time by one registered user of the current NSA
- Viewed by user: this is the user that viewed the notification for the first time
- Created Date: this is the date the notification was created
- Created By: this is the user that performed the action that triggered the notification



2.5 Access Vehicle Types / Authorisations

An NSA user is able to view the details of Vehicle Types and Authorisations by using a number of different methods.

2.5.1 Quick search

To perform a quick search the user must provide a search pattern in the Quick Search Text box highlighted in point 1 of Figure 98: Quick Search. The search pattern will be compared with the following fields of the authorisations:

- Type ID
- Type Name
- Manufacturer Name
- Comments
 - o External comments in the Authorisation section
 - o Internal comments only if the home NSA of the user is authorisation originator



Figure 98: Quick Search

If the User wants to search only for Vehicle Types created under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes, the checkbox "Directive (EU) 2016/797" shown in Figure 98 step 4 must be unchecked. Otherwise, the system will return results only for Vehicle Types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes.

When the search pattern is provided, the user will click the "Search" button (point 2 in Figure 98: Quick Search) to initiate the search action.

At this point the ERATV system will display the Advanced Search form and display the results in the results section (highlighted as section 2 in Figure 99) with the functionality described in 2.5.2.2.

2.5.2 Advanced Search

The advanced search form allows any user to perform a complex search on the Authorisations repository.

As an alternative of simple search, the user can click on "Advanced search" button (point 3 of Figure 98) in the header of ERATV application. The advanced search form is divided into 2 main sections as shown in Figure 99:

- 1. The search criteria section
- 2. The results section



Advanced Search									PDF, 0 Ki	ion guide 18
Directive (EU) 2016/797	2					Data status	- Any Status -			×
Type ID or name						NSA				
Authorisation document reference (EIN)						Author				
Cancelled vehicle types						Technical Characteristics				~ b
Deactivated Vehicle Types										
Manufacturer										
Authorisation holder										v
Category	· Select ·			~		Last update (from - to)				
SubCategory	- Select -			~		Issued by ERA				
Registration Regime	- Any Type -			~		Area of Use				
Conformity with TSI (full or partial)	- Select -			~		Sort by	Type ID			v
Member State	Austria Belgium			*						-
	Bulgaria Channel Tunnel* Croatia					Sort order	Ascending			v
	Croatia			·						
Comments										
Authorisation status	- Any Status -			~						
Search Reset						1				
Type ID	Authorisation document reference	Type Member	Authorisation	Data	Last	Manufacturer's name	Authorisation holder's name	Organisation	Author	Actions
(New registration of Vehicle Type. Database	(EIN) 10#\$%^&*()_+	Name States	Status	Status Draft	Update 03/02/2020	newTESTmanuQuickAdvancedSearch#\$@##@%\$%	4\$\$7	NSA CT - The Channel Tunnel	ERA2	4
ID: 1387) (New registration of Vehicle Type, Database				Draft	15/05/2019	organisation Test Check issue of Manufacturers and		Intergovernmental Commission NSA GR - Railway Safety Department	ERAS	
ID: 1352)						Authorisation holders		Directorate for Preight Transport General Secretariat for Transport Ministry of Development, Competitiveness, Infrastructure, Transport and Networks		-
(New registration of Vehicle Type. Database ID: 1353)				Draft	16/03/2020	organisation Test Check issue of Manufacturers and Authorisation holders		NSA GR - Railway Safety Department Directorate for Freight Transport General Secretariat for Transport Ministry of Development, Competitiveness, Infrastructure, Transport and Networks	ERAS	<u> </u>
(New registration of Vehicle Type. Database ID: 1359)				Draft	29/05/2019	organisation Test Check issue of Manufacturers and Authorisation holders		NSA DE	ERA5	<u> </u>
(New registration of Vehicle Type. Database ID: 1361)				Draft	29/05/2019	organisation Test Check issue of Manufacturers and Authorisation holders		NSA GR - Railway Safety Department Directorate for Freight Transport General Secretariat for Transport Ministry of Development, Competitiveness, Infrastructure, Transport and Networks	ERAS	2
(New registration of Vehicle Type. Database ID: 1362)				Draft	30/05/2019	organisation Test Check issue of Manufacturers and Authorisation holders		NSA DE	ERA5	
(New registration of Vehicle Type. Database ID: 1363)	5			Draft	13/09/2019	organisation Test Check issue of Manufacturers and Authorisation holders	EU (org test)	NSA EU European Union	ERA5	<u>a</u>
(New registration of Vehicle Type. Database ID: 1372)	1			Draft	30/09/2019	organisation Test Check issue of Manufacturers and Authorisation holders	DK (SNCF)	NSA DK - Trafikstyrelsen	ERAS	
(New registration of Vehicle Type. Database ID: 1375)	IUHS785			Draft	18/09/2019	organisation Test Check issue of Manufacturers and Authorisation holders	EL (org test)	NSA GR - Railway Safety Department Directorate for Freight Transport General Secretariat for Transport Ministry of Development, Competitiveness, Infrastructure, Transport and Networks	ERAS	<u>ם</u>
(New registration of Vehicle Type. Database ID: 1377)				Draft	01/10/2019	organisation Test Check issue of Manufacturers and Authorisation holders	DE (A/S RĪGAS VAGONBŪVES RŪPNĪCA)	NSA DE	ERA4	<u> </u>
(New registration of Vehicle Type. Database ID: 1379)				Draft	01/10/2019	organisation Test Check issue of Manufacturers and Authorisation holders		NSA DE	ERA4	<u> </u>
(New registration of Vehicle Type. Database ID: 1380)		wer		Draft	14/10/2019	organisation Test Check issue of Manufacturers and Authorisation holders		NSA DE	ERA4	<u> </u>
(New registration of Vehicle Type. Database ID: 1381)		asd		Draft	01/10/2019	organisation Test Check issue of Manufacturers and Authorisation holders		NSA DE	ERA4	<u> </u>
(New registration of Vehicle Type. Database ID: 1382)				Draft	01/10/2019	organisation Test Check issue of Manufacturers and Authorisation holders		NSA DE	ERA4	<u> </u>
(New registration of Vehicle Type. Database ID: 1393)		ti		Draft	01/10/2019	organisation Test Check issue of Manufacturers and Authorisation holders		NSA DE	ERA4	<u>1</u>
Total number of items: 623									<< < [1]	221 > >>

Figure 99: Advance Search – Search form sections

2.5.2.1 Search Criteria section

This section contains all the criteria that a user may populate to perform a search. The following criteria are available (see Figure 100):

- Directive (EU) 2016/797 checkbox: if it is checked, it displays all the Vehicle Types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes. If it is not checked it displays all the Vehicle Types created under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.
- Type ID or name: the Type ID or the name of the Vehicle Type or the Alternative Type Name or the Platform Name
- Authorisation document reference (EIN): text field; this search field of parameter "3.1.3.1.3 Authorisation document reference" should be flexible, allowing wildcards and not expecting an exact match.
- Cancelled Vehicle Types: this checkbox filter displays all the cancelled vehicle types registrations only.
- Deactivated Vehicle Types: this checkbox filter displays all the deactivated vehicle types only
- Manufacturer: free text; searches all VTs' Manufacturers that contain the provided text



- Authorisation holder: free text; searches all VTs' Authorisation holders that contain the provided text
- Category: the category of the Vehicle Type
- Subcategory
- Registration Regime: this can take one of the type version values:
 - If the "Directive (EU) 2016/797" checkbox is unchecked:
 - Directive 2008/57/EC
 - Directive 2008/57/EC Exceptional
 - If the "Directive (EU) 2016/797" checkbox is checked:
 - Directive (EU) 2016/797
 - Directive (EU) 2016/797 Exceptional Mode
- Exceptional Mode: only visible if the Registration Regime is set one of the exceptional modes options.
- Conformity with TSI (full or partial): selection from the list of available TSIs. The conformity of the TSI (full or partial) is not taken under consideration.
- Member States: the Member States where this Vehicle Type was registered. If more than one are selected, then the search will look for Vehicle Types that are registered in any of the selected Member States.
- Comments: External or Internal for all Authorisations for the same Member State as registered in the home NSA
- Authorisation Status: the current status of the Authorisations (expired, suspended etc.). The values of this drop-down list depend on the Directive (EU) 2016/797 checkbox. If a Vehicle Type contains one Authorisation with the specified status, then it will be returned by the search.
- Data Status: the status of the record (draft, submitted, published, cancelled)
- NSA: the Authorising NSA name
- Author: the user that registered the Authorisation (the user that created the *draft* record)
- Technical characteristics: a list of technical characteristics and their values (see 2.5.2.1.1)
- Last Updated (from to): a time period within which this Authorisation was last modified. Providing only the "from" date will return Authorisations that were updated after the specified date. Similarly specifying the "to" date will return Vehicle Types that were updated up until that date.
- Issued by ERA: if this checkbox is checked, then the application will only search within the types issued by ERA
- Area of Use: this field can be used to search all authorisations' Area of Use that contains the provided text.
- Sort by: this is the field that the results will be ordered by. Possible values are:
 - Type/Version ID
 - o Type Name
 - Last Updated
 - o Author
 - o Publication Status
 - o Manufacturer
 - o NSA



• Sort order: the sort order that will be applied to the sort field. Available values are ascending and descending.

Advanced Search					Application gui PDF, 0 KB
Directive (EU) 2016/797			Date status	- Any Status -	v
Type ID or name			NSA		
Authorisation document reference (EIN)			Author		
Cancelled vehicle types			Technical Characteristics		× (b)
Deactivated Vehicle Types					
Manufacturer					
Authorisation holder					w.
Category	- Select -	~	Last update (from - to)	<u>.</u>	28
SubCategory	- Select -	~	Issued by ERA		
Registration Regime	- Any Type -	~	Area of Use		
Conformity with TSI (full or partial)	- Select -	~	Sort by	Type ID	~
Member State	Austria Belgium Bulgaria Channel Tunnel [®]		Sort order	Ascending	۷
Comments					
Authorisation status	- Any Status -	*			

Figure 100: Advanced Search – Search criteria section

The user can set any number of search criteria. When more than one of the criteria are specified, the search action will return Authorisations that satisfy all the specified criteria.

After the search criteria have been set, the user may initiate the search action by clicking the "Search" button. Alternatively, clicking the "Reset" button will cause the search criteria section to be reverted to the default status i.e. all the search criteria values will be removed. Clicking the "Reset" button will not affect the results section.

2.5.2.1.1 Specifying Technical characteristics search criteria

The technical characteristics criterion can contain value comparisons for any of the technical characteristics. To set the criterion the user must click the arrow icon (\bigcirc) next to the criterion (shown in Figure 100). The popup that appears (shown in Figure 101) allows the user to specify technical characteristics and their values to search for. If more than one technical characteristics are represented, the system will look for Vehicle Types that satisfy at least one of the technical characteristics search criteria provided.



Technical Characteristics	filters			X
Parameter		Operator	Value	
Wheel set gauge	а	b Equals 💌	C 1000mm v	Remove 2
Save 3 4 Close 1	Add filter			

Figure 101: Advance Search – Technical Characteristics specification popup

The user may perform the following actions on this pop up:

- 1. Add a filter.
- 2. Remove a filter.
- 3. Save the currently specified filters and continue the search specification.
- 4. Close the Technical Characteristics filters popup, without updating the technical characteristics criterion.

When adding a filter, the user must specify the following information:

a. Specify the Technical characteristic to search for: this is performed by typing the name of the characteristics. The ERATV system will display recommendations that the user may select from, as shown in Figure 102.

Parameter	Operator	Value					
number of			Remove				
Number of fixed seats							
Number of toilets							
Number of sleeping places							
Number of priority seats							
Number of pantographs in contact with the overhead contact line system the vehicle is equipped for)	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 of wheelchair spaces							
Number of PRM accessible toilets							
Number of wheelchair accessible sleeping places							
Number of GSM-R mobile sets in driving cab for data transmission	1						
Number of driving cabs							



- b. Specify the comparison operator to be applied: the available operators for each technical characteristic depend on the type of the selected technical characteristic. The operators are:
 - i. Equals: an exact match is required.
 - ii. Greater than: a number that the value is greater than
 - iii. Greater or equal than: a number that the value is greater or equal than
 - iv. Less than: a number that the value is less than
 - v. Less or equal than: a number that the value is less or equal than
 - vi. In range (From To): two numbers that the value is between
 - vii. Contains: a string of characters that is contained within the value
- c. Specify the value to compare against: if the selected operator was the "In range", then two values need to be specified.

If the Parameter is "Type of end coupling" and the value is other than "None", the user may provide for each one, two complementary values: "Tensile forces" & "Compressive forces", in decimal number format within the range [0.0001, 9999.9999] expressed in kPa (Figure 103: Technical Characteristics filters).

Technical Characteristics filters

Parameter	Operator	Value	
Type of end coupling (indicating	Equals 🔻	Manual Tensile force:	Remove
		Compressive force:	

Save	Close	Add filter
------	-------	------------

Figure 103: Technical Characteristics filters

An example of specified technical characteristics can be seen in the next figure.

Technical Characteristics filters

Parameter	Operator	Value	
Wheel set gauge	Equals 💌	1435mm 💌	Remove
Wheel set Gauge -Transformation method	Equals 💌	Bogie / axle change 💌	Remove

Figure 104: Advance Search – Technical characteristics example



2.5.2.2 Results Section

The results of the search actions are presented in the results section shown in Figure 105. The results are presented in a table grid. The grid contains the following columns:

- Type ID: this is the type ID of the Vehicle Type. If one is not allocated, then the internal ID will be presented instead. This is shown in the first line of Figure 105.
- Authorisation document reference (EIN). As it concerns the old registration regimes (Directive 2008/57/EC and Directive 2008/57/EC - Exceptional Mode) and the fact that one Vehicle type could have more than one authorisation with different EIN codes, the preview of the EIN codes will be the concatenation of all the available EIN codes of the Vehicle Type for each authorisation separated by comma.
- Type Name: the name provided to the Vehicle Type
- Member States: the Member States that have provided an Authorisation for this VT
- Authorisation Status: the status of each Authorisation provided to the VT
- Data status: the data status of the VT
- Last update: the latest update of the VT. This date displays the most recent date that there was a change in the Vehicle Type's status or data or accessible authorisations' status (except for "Cancelled") or accessible authorisations' data.

Type ID	Authorisation document reference (EIN)	Type Name	Member States	Authorisation Status	Data Status	Last Update	Manufacturer's name	Authorisation holder's name	Organisation	Author	Actions
11-001-0015-3- 001-002	583	new version of Copy of new version of 11- 001-0001-3-010 Create New VT - Parameter 4.7.5 4.7.8 d.7.6 4.7.2.1.6 - Registration Method New Version of a registered Type Directive 2008/57/EC - ERATV MS	Greece	Suspended 20200122 (Greece)	Published	22/01/2020	newakiTESTeuaki manufacturer 2	EL (newakiOEO)	NSA GR - Railway Safety Department Directorate for Freight Transport General Secretariat for Transport Ministry of Development, Competitiveness, Infrastructure, Transport and Networks	ERA5	•
11-002-0005-2- 001-014	3	ne2w name try	Greece	Suspended 20191018 (European Union)	Published	18/10/2019	organisation Test Check issue of Manufacturers and Authorisation holders	EU (org test)	NSA EU European Union	ERATIVIDIS	
Total number of items:	2									3 ** * [[1] > >>
									Page size: 15 Y Export list:	- Select - 🗸	ок
										2	

Figure 105: Advance Search – Results section and actions

- Manufacturer's name: the name of the manufacturer that was provided when the VT was registered
- Authorisation holder's name: the name(s) of the authorisation holder(s) for each member state authorisation
- Organisation: the organisation that registered the VT
- Author: The User that registered the Vehicle Type (the user that created the *draft* record)
- Actions: the actions button () allows the user to enter into the VT details as described in 2.5.6.

Additionally, the user may perform the following actions on the search results:

- 1. Alter the page size: this will refresh the results grid and the number of pages will be adjusted accordingly.
- 2. Export the results into a file: for more information see chapter 2.5.5.
- 3. Navigate through the results pages.
- 4. Navigate to the Vehicle Types' details by hitting on the "Action" 🛄 link.
 - *a.* In case the user is public, the "Action" link points to the view mode of the published Vehicle Type. The URL contains the ID of the Vehicle Type.
 - b. In case the user is authenticated and not authorized to edit the Vehicle Type, the "Action" link points to the view mode of the Vehicle Type, along with the navigation pane and allowing further actions.



c. In case the user is authenticated and authorized to edit the Vehicle Type, the "Action" link points to edit mode of the Vehicle Type.

2.5.3 View List of Registered Authorisations

If the user clicks on "View Registered Authorisations" link in the home page, as displayed in the Figure 2: ERATV (public) web site, the system displays a page like in Figure 106. In this page, only authorisations of published Vehicle Types are displayed in the list.

					PDF, 0 KB
Directive (EU) 2016/797			Last Update		-
Type ID or Name			Sort by	Last Update	~
authorisation document reference (EIN)			Sort order	Descending	~
Deactivated Vehicle Types					
uthorisation Status	- Any Status -	¥			
Member States	Austria Belgium Belgium Channel Tunnel* Channel Tunnel*	Ĵ			
Search Elds) Go to Advanced search				
pe ID	Authorisation document reference (EIN)	Type Name		Authorisation Status	Last Update
002-0012-8-001-001	v!#@#@\$\$@#%#~Checkin' VT MODIFICATION with auxiliary with NSA EU	Copy of 1#0#0\$\$0#%	#~Checkin' VT MODIFICATION with auxiliary with NSA EU	Valid (European Union)	23/10/2019
-002-0016-9-001-001	EIN123456789	"Issue 17: Not all results Authorisations public - N	s for a Member State are displayed - View Registered IEW registration regime test originator Z, 3.1.1 X ,Y, W	Valid (European Union)	21/10/2019
-002-0015-1-001-001	Issue 17: Not all results for a Member State are displayed - View Registered Authorisations public - NEW registration regime test originator \mathbb{Z}_2 3.1.1 \mathbb{Z}	"Issue 17: Not all results Authorisations public - N	s for a Member State are displayed - View Registered IEW registration regime test originator Z, 3.1.1 Z"	Valid (European Union)	21/10/2019
-002-0015-1-001-001 -002-0014-4-001-001	Issue 17: Not all results for a Member State are displayed - View Registered Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty	"Issue 17: Not all results Authorisations public - N qwerty583	s for a Member State are displayed - View Registered EW registration regime test originator \mathbb{Z}_r 3.1.1 \mathbb{Z}^*	Valid (European Union) Valid (European Union)	21/10/2019 21/10/2019
002-0014-4-001-001	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z	Authorisations public - N	s for a Member State are displayed - View Registered EW registration regime test originator Z, 3.1.1 Z"		
002-0014-4-001-001 027-0003-2-001-001	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty	Authorisations public - N qwerty583	s for a Member State are displayed - View Registered EW registration regime test originator Z, 3.1.1 Z"	Valid (European Union)	21/10/2019
002-0014-4-001-001 027-0003-2-001-001 002-0005-2-001-017	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisations public - N qwerty583 test	s for a Member State are displayed - View Registered EW registration regime test originator Z, 3.1.1 Z'	Valid (European Union) Valid (Sweden)	21/10/2019 21/10/2019
	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisations public - N qwerty583 test test	s for a Nember State are displayed - View Registered EW registration regime test originator 2, 3.1.1 2"	Valid (European Union) Valid (Sweden) Valid (Sweden)	21/10/2019 21/10/2019 21/10/2019
002-0014-4-001-001 027-0003-2-001-001 002-0005-2-001-017 002-0005-2-001-016	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisetions public - N qwertyS83 test test test	sfor a Hember State are displayed - View Repittened IWW registration regime test enginetic 2, 31.1.2	Valid (European Union) Valid (Sireden) Valid (Sireden) Valid (Sireden)	21/10/2019 21/10/2019 21/10/2019 18/10/2019
002-0014-4-001-001 002-0003-2-001-001 002-0005-2-001-017 002-0005-2-001-016 002-0005-2-001-014	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisations public - N qwartyS83 test test test test	s for a Hember State are displayed - View Registered $\mathcal{B}(\mathcal{B})$ regarding the second state of the secon	Valid (European Union) Valid (Sweden) Valid (Sweden) Valid (Sweden) Suspended 20191018 (European Union)	21/10/2019 21/10/2019 21/10/2019 18/10/2019 18/10/2019
002-0014-4-001-001 022-0003-2-001-001 0002-0005-2-001-017 0002-0005-2-001-016 0002-0005-2-001-016	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisations public - N qwerty583 test test test test	sfor a Hember State are displayed - View Repetered EW registration regime test enginetic 2, 3.1.1 2"	Valid (European Linon) Valid (Sinedon) Valid (Sinedon) Sispende 20151018 (European Linon) Valid (Sinedon)	21/10/2019 21/10/2019 21/10/2019 18/10/2019 18/10/2019 18/10/2019
002-0014-4-001-001 022-0005-2-001-001 002-0005-2-001-017 002-0005-2-001-017 002-0005-2-001-014 002-0015-001-014 002-0013-4-001-001	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisations public - N QwertyS83 test test test test test test test	s for a Hember State are displayed - View Registered EW registration regime test organistic 2, 3.1.1 2	Valid (European Union) Valid (Stredon) Valid (Stredon) Valid (Stredon) Supenfed 20151018 (European Union) Valid (Stredon) Valid (European Union)	21/10/2019 21/10/2019 18/10/2019 18/10/2019 18/10/2019 18/10/2019 17/10/2019
001-014-4-01-001 027-002-2-001-001 002-005-2-001-012 002-0055-2-001-015 002-0055-2-001-015 002-005-2-001-015 002-005-2-001-015	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisations public - N qwartyS83 test test test test test test test tes	sfor a Hember State are displayed - View Registered EW regulation regime test enginetic 2, 3.1.1 2"	Valid (European Union) Valid (Smeden) Valid (Smeden) Valid (Smeden) Sistemetod 253108 (European Union) Valid (Smeden) Valid (European Union) Valid (European Union)	21/10/2019 21/10/2019 21/10/2019 18/10/2019 18/10/2019 18/10/2019 17/10/2019 17/10/2019
001-014-4-01-001 002-0013-2-001-001 002-0005-2-001-012 002-0005-2-001-014 002-0005-2-001-015 002-0005-2-001-015 002-0015-2-001-012 002-0005-2-001-012	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisations public - N qwarty583 test test test test test test test tes	s for a Hember State are displayed - View Registered EW registration regime test originator 2, 3.1.1 Z	Valid (European Union) Valid (Streeden) Valid (Streeden) Valid (Streeden) Suspended 20151018 (European Union) Valid (European Union) Valid (European Union) Valid (European Union)	21/10/2019 21/10/2019 21/10/2019 18/10/2019 18/10/2019 18/10/2019 12/10/2019 17/10/2019
001-014-4-001-001 002-0012-2-001-001 002-0052-2-001-012 002-0052-2-001-014 002-0052-2-001-014 002-0052-2-001-014 002-0052-2-001-012 002-0052-2-001-012 002-0055-2-01-011	Authorisations public - NEW registration regime test originator Z, 3.1.1 Z qwerty $<\!$	Authorisations public - N querryS83 test test test test test test test tes	s for a flember State are digayed - View Registered EW regatization regime test organistic 2, 3.1.1 2	Valid (European Union) Valid (Smeden) Valid (Smeden) Valid (Smeden) Sizepended 201308 (European Union) Valid (Smeden) Valid (European Union) Valid (European Union) Valid (European Union)	21/10/2019 21/10/2019 21/10/2019 18/10/2019 18/10/2019 17/10/2019 17/10/2019 17/10/2019

Figure 106 – List of registered authorisations form

By default, when first opened, the search section will not have any search criteria specified (except from "Directive (EU) 2016/797" checkbox – it will be checked) and the results section form will contain all the registered Authorisations of the published Vehicle Types.

The user may be redirected to the details of the Vehicle Type and the respective authorisation in view mode. The URL has the format:

<<base URL>>/Home/View/<<ID>> like in Figure 107.

https://eratv.era.europa.eu/ERATV/Home/View/11-075-0001-7-001

Figure 107- List of registered authorisations, URL

The user may also restrict the results of the authorisations displayed, by defining one or more search criteria and click on "Search" link.

Additionally, the user can reset the already defined search criteria by clicking on "Reset Search Fields" and begin a new search.

The user can navigate to the "Advanced search" page by clicking the link "Go to advanced search" (Figure 106).



The grid contains the following information about each authorisation record:

- 1. Type ID: the id of the Vehicle Type. The user may click on the active link to view the Vehicle Type details.
- 2. Authorisation document reference (EIN).
- 3. Type Name: this is the name of the Vehicle Type.
- 4. Member States: the Member States that have provided an Authorisation for this VT
- 5. Authorisation Status: this is the status of the Authorisation.
- 6. Last update: this is the most recent date that there was a publication of the Vehicle Type or a validation of an authorisation.
- 7. Manufacturer's name: the name of the manufacturer that was provided when the VT was registered.
- 8. Actions: this column is not available for public users.

2.5.4 View List of Authorisations

The "List of own Authorisations" page contains all the Authorisation records (regardless of status) that an MS holds. The form contains 2 sections as seen in Figure 108:

- 1. The search criteria section
- 2. The results section

By default, when first opened, the search section will not have any search criteria specified and the results section form will contain all the registered Authorisations of the home NSA.

	prisations (Europ	bean Union)								PDF	lication gui
Directive (EU) 2016/79	7	¥			Regist	ering Correspondent					
Type ID or Name					Last u	pdate				1 14	
Authorisation document	t reference (EIN)				Sort b	У	Last U	pdate			~
Cancelled vehicle types	5				Sort o	rder	Desce	nding			~
Authorisation Status		- Any Status -		×							
Data Status		- Any Status -		~							
Registering Entity		- Any NSA -		~							
Authorised area of use/	/country	European Union		V.							
		Go to Advanced search	Vehicle Type Name	Vehicle Type	Authorisation Status	Data Status	Last	Authorised area of	Registering Entity	Registering	A
Search	tt Search Fields)	Go to Advanced search							0		
• Search	Authorisation docum	nent reference (EIN) Checkin' VT MODIFICATION	Vehicle Type Name Copy of I#B#B\$\$B#%#~Checkin' VT MODIFICATION with auxiliary with NSA EU	Vehicle Type Status Published	Authorisation Status Valid	Data Status Modification Published	Last update 23/10/2019	Authorised area of use/country European Union	Registering Entity NSA EU European Union	Registering Correspondent EU European Union	Ac
002-0012-8-001-001 002-0016-9-001-001	Authorisation docum vi#@#@\$\$@#%#~ with auxiliary with N EIN123456789	nent reference (EIN) Checkin' VT MODIFICATION SA EU	Copy of I#9#9559#%#~Checkin VT MODIFICATION with auxiliary with NSA EU "Issue 37: Not all results for a Member State are displayed - View Registered Authonisations public - REW registration regime test originator 2, 3.1.1 X, V, W	Status Published Published	Valid Valid	Modification Published Initial Registration Published	update 23/10/2019 21/10/2019	European Union European Union	2 Registering Entity NSA EU European Union NSA EU European Union	Correspondent EU European Union EU European Union	9
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Figure 108: Authorisations – List of own authorisations form

The search criteria section contains the following filters:

 Directive (EU) 2016/797 checkbox: if it is checked, it displays all the Vehicle Types created under "Directive (EU) 2016/797" and "Directive (EU) 2016/797 – Exceptional Mode" registration modes. If the checkbox is not checked it displays all the Vehicle Types created under "Directive 2008/57/EC" and "Directive 2008/57/EC – exceptional mode" registration modes.



- 2. Type ID or Name: the ID or the name of the Vehicle Type. This filter will only look through allocated Type / Version IDs.
- Authorisation document reference (EIN): text field; this search field of parameter "3.1.3.1.3 Authorisation document reference" should be flexible, allowing wildcards and not expecting an exact match.
- 4. Cancelled Vehicle Types: this checkbox filter displays all the cancelled vehicle types registrations only.
- Authorisation Status: the current status of the Authorisations (expired, suspended etc.). The values of this drop-down list depend on the Directive (EU) 2016/797 checkbox. If a Vehicle Type contains one Authorisation with the specified status, then it will be returned by the search.
- 6. The data status: selection from the following list:
 - a. Draft
 - b. Submitted
 - c. Published
 - d. Cancelled
 - e. Deactivated
- 7. Registering NSA / organisation: the NSA that registered the Vehicle Type originally
- 8. Authorised area of use/country: the country which has provided the Authorisations. This is fixed to the home country of the user account.
- 9. Registering correspondent: the user representing the country authorising entity that registered the Authorisation
- 10. Last update Date from to: the period within which the Authorisation was last modified. If the only the "from" date is provided, then the search will return authorisations from that date until today. If only the "to" date is provided, then the search will return Authorisations until the date specified.
- 11. Sort By: the field which will be used to sort the results. Selection from the following list:
 - a. Type ID
 - b. Type Name
 - c. Authorisation Status
 - d. Data Status
 - e. Last Update
 - f. Correspondent
- 12. Sort Order: the order of sorting in combination with the Sort By field. Available values are "Ascending" and "Descending". Descending is the default value.

The administrator may provide any combination of the above search criteria and click the "Search" button. Alternatively, clicking the "Reset" button will return the search criteria to their default values. Clicking on "Go to advanced search", the user is navigated to the advanced search page.

The results section contains a grid that holds the Authorisations returned from the search action. Additionally, there are navigation controls to move between the results pages and a selection to specify the size of each result page.

The grid contains the following information about each authorisation record:



- 1. Type ID: the id of the Vehicle Type. If a Type ID is not yet allocated on the Vehicle Type, then the internal database ID is displayed to distinguish between the different records. The user may click on the active link to view the Vehicle Type details.
- 2. Authorisation document reference (EIN). As it concerns the old registration regimes (Directive 2008/57/EC and Directive 2008/57/EC Exceptional Mode), one Vehicle type could have more than one authorisation depending on different Member States and/or different Statuses. As it concerns the new registration regimes ("Directive (EU) 2016/797" and "Directive (EU) 2016/797 Exceptional Mode"), one Vehicle type could have more than one authorisation with different EIN code depending on the different Statuses. Regardless the selected registration regime, each authorisation will be presented in one new row in the list of (own) Authorisations along with its respective EIN code.
- 3. Vehicle Type Name: this is the name of the Vehicle Type.
- 4. Vehicle Type Status: this is the general data status of the registration record.
- 5. Authorisation Status: this is the status of the Authorisation.
- 6. Data Status: this is the detailed data status of the registration record.
- 7. Last update: this is the most recent date that there was a change in the Vehicle Type's status or data or accessible authorisations' status (except for "Cancelled") or accessible authorisations' data.
- 8. Authorised area of use/country: the country of the Authorisation. This should be set to the home MS.
- 9. Registering NSA / Organisation: this is the organisation that registered the Vehicle Type originally.
- 10. Registering Correspondent: the user representing the country authorising entity that registered the Vehicle Type originally.
- 11. Actions: the possible actions on the Authorisation record. The actions depend on the current status of the Authorisation.

It is also possible to export the list of Authorisations in the results grid. The user must first select the export format from the available list (CSV, XML or XLSX) and then click the "OK" button to initiate the export process. The exported file contains all the available results and not only the page's that the user was viewing at the time the export got initiated.

2.5.5 Export Search results

The search results section allows the user to export the records returned from the search action as demonstrated in Figure 105 point 2. Search results can be exported also while viewing the list of registered authorisations (see 2.5.3) or while viewing the list of own authorisations (see 2.5.4)

Once the search has been performed and the results section contains at least one record, the user needs to perform the following steps to export the results along with the corresponding criteria, if any.

- 1. Select an export file format from the appropriate drop-down list shown in point 2 in Figure 105. The available format options are:
 - a. CSV (comma separated file)
 - b. XML
 - c. XLSX (Excel File)



2. Click the OK button.

The ERATV system will prompt the user to open or save a file using the standard dialog of the internet browser. The file contains all the available results and not only the page's that the user was viewing at the time the export got initiated.

2.5.6 View Vehicle Type / Authorisation details

The User may request different type of information to view about the Vehicle Type as shown in Figure 65.

2.5.6.1 Smart URLs for View Vehicle Type

The User may review the list of all the Vehicle Types whose ID begins with a specific value by typing the following URL:

<<base URL>>/Home/View/<<part of Version number ID>>

For example, if the User enters the URL << base URL>>/Home/View/11-001-0001, the ERATV will display the following list of Vehicle types (see Figure 109).

Type ID : '11-001-00	001'				A	Application guide PDF, 0 KB
Type ID	Type Name	Member States	Last Update	Authorisation Status	Data Status	Actions
11-001-0001-3-001	Euro 4000 Type II v-F/B	France	26/11/2013	Active (France)	Published	
11-001-0001-3-002	Euro 4000 Type II V2014	France	01/12/2014	Active (France)	Published	
11-001-0001-3-003	Euro 4000 Type II_TBL1+	France, Belgium	05/01/2016	Active (France), Active (Belgium)	Published	
otal number of items: 3						<< < [1] > 3
					Pag	je size: 15 🔽



The User may click on the "Action" Link of each element of the list, in order to be navigated to the details of the Vehicle Type for the selected parameter.

- *a)* In case the user is public, the "Action" link points to the view mode of the published Vehicle Type. The URL contains the ID of the Vehicle Type.
- b) In case the user is authenticated and not authorized to edit the Vehicle Type, the "Action" link points to the view mode of the Vehicle Type, along with the navigation pane and allowing further actions.
- *c)* In case the user is authenticated and authorized to edit the Vehicle Type, the "Action" link points to edit mode of the Vehicle Type.

2.5.6.2 Registration Details

When accessing the Vehicle Type details in view mode, the ERATV system will display the same forms as the ones used during the registration of a Vehicle Type which were described in 2.3.2.1, 2.3.2.2, 2.3.2.3 and 2.3.2.4.

The Vehicle Type details are presented in a read-only mode and no changes to the data are possible. Empty fields will not be presented in order to reduce complexity of the Vehicle Type details forms.



2.5.6.2.1 Allowable Actions

The user can perform the following actions from a Vehicle Type / Authorisation details form (as shown in Figure 110, Figure 111 & Figure 112):

- Correct an Error in the Vehicle Type data (see 2.3.5);
- Modify the Vehicle Type data (see 2.3.4);
- Copy the Vehicle Type data to a new Vehicle Type (see 2.3.15);
- Deactivate a Vehicle Type. This option is only available in withdrawn and/or cancelled authorisations;

Actions:	Correct Error	Modify Data	Copy registration form

Figure 110: View Vehicle Type Details – allowed actions steps 1-3

- Correct an error in the Authorisation data (see 2.3.5);
- Modify data (see 2.3.4);
- Suspend an Authorisation (see 2.3.6);
- Withdraw an Authorisation (see 2.3.7);
- Revoke Authorisation (see 2.3.8);
- To Be Renewed Authorisation (see 2.3.9);
- Reactivate an Authorisation with or without modifications to the Vehicle Type data (see 2.3.10);
- Undo an Authorisation withdrawal (see 2.3.11);
- Undo Authorisation Revocation (see 2.3.12);
- Undo Authorisation "To Be Renewed" (see 2.3.13).

Actions:	Copy registration	form Suspend A	Authorisation	Withdraw Authorisation
Figur	e 111: View Vehicle Type	details – Allowed actions	step 4 - Directive 2008/	57/EC registration regimes
Actions:	Copy registration form	Suspend Authorisation	Revoke Authorisation	To Be Renewed Authorisation

Figure 112: View Vehicle Type details – Allowed actions step 4 - Directive (EU) 2016/797

Additionally, in the view Vehicle Type details form, an indication will appear when there is a duplicate Vehicle Type as shown in Figure 113 (see 2.3.2.6).



Figure 113: View Vehicle Details – Indication of duplicate types

The user has the option to view helpful information about the technical characteristics of the Vehicle Type by clicking the help icon (\bigcirc) that is available next to each technical parameter.



2.5.6.2.2 Print Vehicle Type details

The user is able to print the Vehicle Type details by using the standard print functionality of the internet browser.

2.5.6.2.3 Export Registration Details

The user may export the Vehicle Type registration details in a single page format from any of the four sections of the registration form by clicking on any of the three <u>PDF Excel XML</u> links, depending on the desired export format. A standard Windows dialog opens and the user clicks on the "OK" button to initiate the export process. For the numeric parameters with unit of measurement (e.g. m, km, kg), the value and the unit appear in separate columns (for PDF and XLSX) or in separate tag (for XML). The name of the file contains the Type ID and the status, i.e. DRAFT, SUBMITTED etc. The format of the file name is like below: "VehicleType_<Type/Version ID>_<Type Status>.<file extension>"

2.5.6.3 View History of Changes

This tab presents a history of all changes that have been applied to the Vehicle Type.

11-001-0001-3-006 (Status: Published Latest U	Duzounidis_Rails pdate: 27/09/2013				Application guide PDF, 0 KB
Registration details	listory of changes Communication				
ist of historical records					
Creation Date	Action	Historical record status	Organisation	Author	View
19/09/2013 17:07:51	Vehicle Type Initial Registration	Submitted	OSE	ERATV User 3	View Changes
19/09/2013 17:08:50	Vehicle Type Initial Registration	Published	OSE	ERATV User 3	View Changes
19/09/2013 17:30:55	Authorisation Initial Registration	Published	Office of Rail Regulation	ERATV User 2	View Changes
19/09/2013 17:31:50	Vehicle Type Modification	Draft	OSE	ERATV User 2	View Changes
19/09/2013 17:33:27	Vehicle Type Modification	Published	OSE	ERATV User 2	View Changes
19/09/2013 18:17:05	Vehicle Type Modification	Cancelled	OSE	ERATV User 1	View Changes
27/09/2013 16:19:44	Vehicle Type Correction	Submitted	OSE	ERATV User 3	View Changes
27/09/2013 16:25:32	Vehicle Type Correction	Published	OSE	ERATV User 3	View Changes
27/09/2013 16:25:34	Authorisation Correction	Published	OSE	ERATV User 3	View Changes
27/09/2013 16:25:34	Authorisation Correction	Published	Office of Rail Regulation	ERATV User 3	View Changes
27/09/2013 16:27:28	Vehicle Type Correction	Submitted	OSE	ERATV User 3	View Changes
27/09/2013 16:28:53	Vehicle Type Correction	Published	OSE	ERATV User 3	View Changes
27/09/2013 16:28:55	Authorisation Correction	Published	OSE	ERATV User 3	View Changes
27/09/2013 16:28:55	Authorisation Correction	Published	Office of Rail Regulation	ERATV User 3	View Changes
27/09/2013 16:54:15	Vehicle Type Modification	Draft	OSE	ERATV User 1	View Changes

Figure 114: View Vehicle Details - History of changes

Figure 114 displays the list of historical records of the specific Vehicle Type. The information presented is:

- Creation Date and time of the historical record
- Action that triggered the historical record to be created
- Historical record status
- Organisation
- Author (the user that created the draft record)
- Actions Column (View historical record details)



The user that created the record ("Author") may be different from the user that submitted the record and from the user that validated and published the record. The information about the latest is included within the tab "Communication" (see 2.5.6.4).

By clicking on the 'View Changes', the 'Historical Record Details' form is presented as shown in Figure 115.

Historical Record Det	ails				
Creation Date		27/09/2013 16:19:44			
Action		Correction			
Historical Record Status		Submitted			
Organisation		OSE			
Author		ERATV User 3			
Comments					
17/09/2013 16:19:44			19/09/2013 18:17:05		
Manufacturer	Olympiacos		Manufacturer	AEG	

Figure 115: View Vehicle Details - Historical Record Details

The Vehicle Type Historical record details form contains the following information:

- Creation Date
- Action
- Historical Record Status
- Organisation
- Author (the user that created the draft record)
- Comments

At the bottom of the '*Historical Record Details*' page, the altered parameters and the fulfilled correction activities are presented, grouped by the creation date. Therefore, the user is informed about the accomplished modifications related to the specific Vehicle Type.

Note: For published vehicle types, the system displays all the changes in parameters related to Technical Characteristics and TSI Conformity, as occurs for submitted vehicle types.

2.5.6.4 View Communication

This form presents the history of the communication records that have been fulfilled for the current Vehicle Type. The displayed information is sorted by date/time.

This page indicates, under "Correspondent", who was the user that submitted and published the record, which may differ from the "Author" (the user that originally created the draft record). The "Author" user is indicated within the tab "History of changes" (see 2.5.6.3)



oon maneaton
Subject/Description: Vehicle Type Correction submitted from Rete Ferroviaria Italian Correction Validation Request Date: 30/04/2013 15:44:39 Organisation: Rete Ferroviaria Italian Correspondent: ERATV User 5 (TV5) Historical records: <u>20/04/2013 15:44:39</u>
 Subject/Description: Modification of the Vehicle Type '11-002-0001-1-001' was published. Modification Published Date: 08/04/2013 12:23:39 Organisation: ERA Correspondent: ERATV User 1 (TV1) Historical records: 08/04/2013 12:23:39
 Subject/Description: Modification validation Modification validation Date: 08/04/2013 12:22:35 Organisation: ERA Correspondent: ERATV User 1 (TV1) Historical records: <u>08/04/2013 12:22:35</u>
 Subject/Description: Vehicle Type Modification submitted from ERA for approval Modification approval Date: 08/04/2013 12:18:55
 Subject/Description: Authorisation for Vehicle Type '11-002-0001-1-001' was published for Poland. Authorisation Published Date: 08/04/2013 12:18:10 Organisation: ERA Correspondent: ERATV User 1 (TV1) Historical records: 08/04/2013 12:18:10
Subject/Description: Authorisation submitted from Poland Authorisation validation Date: 08/04/2013 12:17:54 Organisation: ERA Correspondent: ERATV User 1 (TV1) Historical records: <u>08/04/2013 12:17:54</u>
 Subject/Description: Authorisation for Vehicle Type '11-002-0001-1-001' was published for Greece. Authorisation Published Date: 08/04/2013 12:16:33 Organisation: ERA Correspondent: ERATV User 1 (TV1) Historical records: 08/04/2013 12:16:33
Subject/Description: Authorisation submitted from Greece Authorisation validation Date: 08/04/2013 12:16:15 Organisation: ERA Correspondent: ERATV User 1 (TV1) Historical records: <u>08/04/2013 12:16:15</u>
 Subject/Description: Vehicle Type '11-002-0001-1-001' was published for Rete Ferroviaria Italian. Vehicle Type Published Date: 08/04/2013 12:14:46 Organisation: ERA Correspondent: ERATV User 1 (TV1) Historical records: 08/04/2013 12:14:46
Subject/Description: Vehicle Type submitted from Rete Ferroviaria Italian Vahicle Type Submitted Date: 08/04/2013 12:14:35 Organisation: ERA Correspondent: ERATV User 1 (TV1) Historical records: <u>08/04/2013 12:14:35</u>

Figure 116: View Vehicle Details – Communication

The form may contain multiple communication records as shown in Figure 116. Each record contains the following information:

- Subject/ Description: is a short description of the communication record.
- Communication record Date
- Organisation

Communicatio

- Correspondent: the user that realised the action that triggered the communication, e.g. submit a record, publish a record, etc. It may be a different user from the "Author", who is the user who created originally the draft record.
- Historical records: is the date and time of the communication record. Once the user clicks on the date and time link, the respective *'Historical Record Details'* page as shown in Figure 115 will open.

By clicking on any record, the selected record expands displaying a more detailed description. Especially for "Vehicle Type Modification submitted for approval" communication records, the detailed description includes a summary screen of all approvals already granted by NSAs.



2.6 Administration

The administration section allows the NSA user to administer the ERATV system. The administrative options that are available to the NSA user are shown in Figure 117 are:

- NSA
- Auxiliary Users
- Auxiliary Users Permissions

Administration
NSAs
Auxiliary Users
Auxiliary Users Permissions

Figure 117: Administration – NSA User Options

2.6.1 NSA maintenance

The NSA user has read only access to the List of NSAs, for reference purposes. Once the user clicks the NSAs option from Figure 117, the list of Registered NSAs appears as shown in Figure 118. The users indicated in this list are the appointed representatives for each country authorising entity. They are referred to also as "Registered correspondent" for each country authorising entity.

Each NSA record in the list contains the following information:

- Country: the country of the NSA record
- Organisation: the name of the NSA organisation
- Contact Person: the main contact person in the NSA
- E-mail: the email that the NSA should be contacted at (not necessarily the email of the contact person)
- Phone: the telephone number that the NSA should be contacted at (not necessarily the telephone number of the contact person)
- Status: Active or Inactive

NSAs					AP	pplication guide DF, 191 KB
NSAs	List of NSAs					
	Country	Organisation	Contact Person	E-mail	Phone	Status
Auxiliary Users Permissions	European Union	European Union Agency for Railways	ERA Staff	servicedesk@era.europa.eu	+33 (0) 32 70 96 500	Active
	Austria	NSA - AT Bundesministerium für Verkehr, Innovation und Technologie	NSA AT User	NSA_AT@era.at	+43123456789	Active
	Belgium	NSA BE	NSA BE User	NSA_BE@era.be	+3222773970	Active

Figure 118: Administration – List of NSAs

The NSA user has no actions on this list.



2.6.2 Auxiliary Users maintenance

Each NSA may define Auxiliary Users in order to assist with the registration process. Normally the Auxiliary User accounts are assigned to employees of the manufacturing companies of the Vehicle Types. The List of Auxiliary users is accessible by clicking the "Auxiliary Users" link from the left-hand menu as shown in Figure 117. The list is then presented as shown in Figure 119.

uxiliary users						PDF, 0	ition gui KB
SAs	Full name			Role	Auxiliary User		~
	Organisation			Status			~
uxiliary Users Permissions	E-mail address			Sort By	E-mail address		~
	National Safety Authority	NSA EU European Union	~	Sort Order	Ascending		~
	51210103 - Million 19700	rch fields	arv liser				
	•			E-mail address	National Safety Authority	Status	
	Full name		Organisation	E-mail address	National Safety Authority	Status	Ed
	•			E-mail address auxiliaraki@auxiliaraki.com AUXnewaki@AUXnewaki.gr	National Safety Authority NSA EU European Union NSA EU European Union	Status Active Inactive	E
	Full name auxiliarakias auxiliarakoulis	Xnewaki@AUXnewaki.gr	Organisation NSA auxiliarakoulis	auxiliaraki@auxiliaraki.com	NSA EU European Union	Active	
	Full name auxiliarakias auxiliarakoulis AUXnewaki@AUXnewaki.gr AUX	Xnewaki@AUXnewaki.gr	Organisation NSA auxiliarakoulis AUXnewaki@AUXnewaki.gr	auxiliaraki⊜auxiliaraki.com AUXnewaki@AUXnewaki.gr	NSA EU European Union NSA EU European Union	Active Inactive	E
	Full name auxiliarakias auxiliarakoulis AUXnewaki@AUXnewaki.gr AU EUROPA LEAGUE EUROPA LEAG	Xnewaki@AUXnewaki.gr GUE	Organisation NSA auxiliarakoulis AUXnewaki@AUXnewaki.gr EUROPA LEAGUE	auxiliaraki@auxiliaraki.com AUXnewaki@AUXnewaki.gr EUop@test.gr	NSA EU European Union NSA EU European Union NSA EU European Union	Active Inactive Active	E

Figure 119: Auxiliary Users – List of Auxiliary Users

The list contains a search criteria section and a results section. The user may define search criteria to filter the list of users or simply select the search action without defining any search criteria. In that case all Auxiliary Users registered to the home NSA will be displayed.

The search criteria that are available in the criteria sections are:

- Full Name: the full name of the Auxiliary User
- Organisation: the organisation of the Auxiliary User. Please note that this is not the current NSA, but rather the company the Auxiliary User is employed at.
- E-mail address: the email address of the Auxiliary User
- National Safety Authority: this is the NSA the user is registered at. The value is defaulted to the NSA of the currently logged-in user account and cannot be altered. Each user can search only for Auxiliary Users in the same NSA.
- Role: the role is set by default and fixed to the value 'Auxiliary User'.
- Status: the status of the Auxiliary User account. This can take the values:
 - Active: the account is active.
 - Inactive: the account was disabled.
 - Inactive through NSA: the account is active but the NSA it was registered for is inactive. As a result, the user cannot access the ERATV system either.
- Sort By: the field that will be used to sort the results. The following options are available:
 - E-Mail address
 - Full Name
 - Organisation
 - o Status
- Sort Order: Possible values are ascending and descending.

The NSA user may perform the following actions in this form.



- 1. Search: perform a search action based on the inserted search criteria. A search without any search criteria will return all Auxiliary Users for the home NSA.
- 2. Reset: reset the search criteria to the default values.
- 3. Create new auxiliary user: clicking this link allows the NSA user to create a new Auxiliary User account as specified in 2.6.3.
- 4. Edit Auxiliary User account: this link allows the NSA user to edit an Auxiliary User account through the Edit Auxiliary screen as described in 2.6.4.

2.6.3 Create new Auxiliary Users

In order to create a new Auxiliary User, the NSA user must click the appropriate link from the List of Auxiliary Users as presented in Figure 119 and fill-in the following form (Figure 120)

lational Safety Authority	NSA SE - Swedish Transport
-mail address	
assword	
ssword confirmation	
st name	
st name	
rganisation	
Idress	
one	
x number	
atus	Active •
Save	

Figure 120: Auxiliary Users – Create user

The required information is:

- E-mail address: the email will also be used as the Auxiliary User account name and it should be provided every time the user attempts to logon into the ERATV system. The email address must be unique in the ERATV system.
- Password / Password Confirmation: this is the password of the Auxiliary User account and must be provided in order to log into the ERATV system.
- First Name: the first name of the Auxiliary user
- Last Name: the last name of the auxiliary user
- Organisation: this is the company the Auxiliary User is employed at. Usually this refers to the name of a manufacturer organisation.
- Address: this is the correspondence address that the Auxiliary User can be contacted at.
- Phone: this is the telephone number that the Auxiliary User can be contacted at.
- Fax: this is a fax number that the Auxiliary User can be contacted at.
- Status: this is the status of the new Auxiliary User. An Auxiliary User can be created with status inactive and at a later stage be enabled for access to the ERATV system

All of the above fields with the exception of the fax number are mandatory. Upon providing the required information the user should click the 'Save' option. The new Auxiliary User will be created and the user will be returned to the List of Auxiliary Users.



2.6.4 Edit Auxiliary Users

The NSA user may alter any of the details of an Auxiliary User account. The information that can be altered is (see Figure 121):

- E-mail address: this is provided only as reference and cannot be altered.
- Password / Password Confirmation: this is the password of the Auxiliary User account and must be provided in order to log into the ERATV system.
- First Name: the first name of the Auxiliary User
- Last Name: the last name of the Auxiliary User
- Organisation: this is the company the Auxiliary User is employed at. Usually this refers to the name of a manufacturer organisation.
- Address: this is the correspondence address that the Auxiliary User can be contacted at.
- Phone: this is the telephone number that the Auxiliary User can be contacted at.
- Fax: this is a fax number that the Auxiliary User can be contacted at.
- Status: this is the status of the new Auxiliary User. An Auxiliary User can be created with status inactive and at a later stage be enabled for access to the ERATV system

To save the new details the NSA user must click the "Save" link.

Edit auxiliary user			Application guide PDF, 191 KB
NSAs Auxiliary Users Auxiliary Users Permissions	National Safety Authority E-mail address Password	NSA SE - Snedah Transport Agency intrafed@text.gr	
	Password confirmation First name Last name Organisation	Fill in here the First Name of the auxiliary User Fill in here the Last Name of the auxiliary User Fill in here the organisation of the auxiliary User	
	Address Phone Fax number	#dfress 76 +30 2310 478487 +30 2310 478488	
	Status	Active	Ŧ

Save

Add/Remove Association to Vehicle Type

Figure 121: Auxiliary Users – Edit User

Additionally, the NSA user may associate Auxiliary Users to draft Vehicle Types by clicking the "Add/Remove Association to a Vehicle Type". The association screen will then be presented and the NSA user will be able to manage the associations to this Auxiliary User as described in section 2.3.17.1.

2.6.5 Auxiliary Users Permissions

The NSA user clicks on "Administration" button and then visits the "Auxiliary Users Permissions" page from the navigation pane on the left of the main screen (Figure 117). By default, the table shows the "Auxiliary user to vehicle types" screen. The application displays a table showing all the available auxiliary users and their association (if exists) with a draft vehicle type created by an NSA user from the same NSA organisation as the User.(Figure 122: Auxiliary users to Vehicle Types)). The table is sorted by the Last Name of the auxiliary user.

Information of every row in the table:

1. Full name of the auxiliary user



- 2. Email address of the auxiliary user
- 3. NSA which created the auxiliary user
- 4. Organisation that the auxiliary user belongs to
- 5. Vehicle Type Number
- 6. Vehicle Type Name
- 7. Status of the auxiliary user
- 8. Access "Technical Characteristics": A tick indicates that the auxiliary user can access the Technical Characteristics of the Vehicle Type, Editable
- 9. Access "Conformity with TSI": A tick indicates that the auxiliary user can access the Conformity with TSI section of the Vehicle Type, Editable.
- 10. "Grant Permission" Link to insert association with a Vehicle Type
- 11. Activate/Deactivate Auxiliary User account.
- 12. Unlock user. This link will appear only if an auxiliary user is locked out. The link appears at the right, after "Grant Permission" and "Activate/Deactivate".

Full name	E-mail address	National Safety Authority	Organisation	Type ID	Type Name	Status	Access "Technical Characteristics"	Access "Conformity with TSI"			
					Create New VT - Registration Method New Variant of a registered Type - NSA EUaki	Active			Grant Permission	Activate/Deactivate	
					Copy of Copy of new version of	Inactive				Activate/Deactivate	
						Active			Grant Permission		<u>Unlock</u> <u>user</u>

Figure 122: Auxiliary users to Vehicle Types

Apart from associating auxiliary users to Vehicle Types, the NSA user may perform the following actions in this form.

- Activate/Deactivate Auxiliary User account. This link will activate (if deactivated) or deactivate (if actived) an Auxiliary User account. Clicking the link changes the status of the corresponding user account and updates the list to present the altered user account status.
- 2. Unlock user. This link will appear if an auxiliary user is locked out after five failed attempts to log in. Clicking the link unlocks the user, so that is made possible to log back in right after. The link then disappears.

To associate an auxiliary user with a new Vehicle Type, click on "Grant Permission". A pop-up window opens (Figure 123). The auxiliary user's information is not editable. Select a Vehicle Type from the respective dropdown list and the access rights for the selected Vehicle Type and click on Save (Figure 124). The pop-up closes and a new row is inserted in the table. Every row of the table displays association of an auxiliary user with a single vehicle type.



Auxiliary User name	Auxialiry User	
Type Name	new version of Euro 4000 Type II V2014 with database id:1604	
Auxiliary Permission	Technical Characteristics	



ant permission for edi	ting	
Auxiliary User name	Test Auxiliary User	
Type Name	Test 2	•
	- Select - Test 1	
Auxiliary Permission	Test 2 Test 3 Test 4 Test 5 Test 6	
	lest 6	

Figure 124: Grant permission for editing – Access Rights

At the bottom of the page of Figure 122, the user clicks on the link "Vehicle Types to auxiliary users" and the application displays a table showing the draft Vehicle Types, created by the NSA organization of the authenticated user, and the potential association with auxiliary user (Figure 125).

Information of every row in the table:

- 1. Type ID
- 2. Type Name
- **3.** Full name of the auxiliary user
- 4. Email address of the auxiliary user



- 5. NSA which created the auxiliary user
- 6. Organisation that the auxiliary user belongs to
- 7. Access "Technical Characteristics": A tick indicates that the auxiliary user can access the Technical Characteristics of the Vehicle Type, Editable.
- 8. Access "Conformity with TSI": A tick indicates that the auxiliary user can access the Conformity with TSI section of the Vehicle Type, Editable.
- 9. "Grant Permission" Link to change the associated auxiliary user.

ype ID	Type Name	Full name	E-mail address	National Safety Authority	Organisation	Access "Technical Characteristics"	Access "Conformity with TSI"	
(New registration of Vehicle Type. Database ID: 1546)	new version of Random Test N93	Test User 0	intravas@test.gr	NSA SE - Swedish Transport Agency	Test organisation	8		Grant Permission
(New registration of Vehicle Type. Database ID: 1548)	test54	Test User 1	Test1@de.transport.com		Transportation			Grant Permission
(New registration of Vehicle Type. Database ID: 1604)	new version of Euro 4000 Type II V2014	Test User 2	testuser2@testrail.com		Rail Europe	2		Grant Permission
(New registration of Vehicle Type. Database ID: 1610)	Copy of Copy of Random Test N93	Test User 3	testuser3@testrail.com		Organisation SA	2	2	Grant Permission
(New registration of Vehicle Type. Database ID: 1625)	Copy of selenium test							Grant Permission
(New registration of Vehicle Type. Database ID: 1657)	Copy of selenium test							Grant Permission
(New registration of Vehicle Type. Database ID: 1678)	Test Type							Grant Permission
(New registration of Vehicle Type. Database ID: 1797)	Copy of Copy of deactivate test after modify							Grant Permission
11-046-0004-2-001-001	Copy of deactivate test after modify							Grant Permission
11-048-0002-2-001-001	Test	Full name 1	fulltest@test.gr	NSA SE - Swedish Transport Agency	Test Organisation	×		Grant Permission
13-087-0002-8-001-001	Name of type							Grant Permission
15-003-0001-5-001	Test	intratest@test.gr intratest@test.gr	intratest@test.gr	NSA SE - Swedish Transport Agency	intratest	2		Grant Permission
51-143-0001-4-001	Test modification	Test User 4	Testing@transport.com		Rail organisation	×		Grant Permission
Save > Auxiliary users to Vehicle Types								

Figure 125: Vehicle Types to Auxiliary users

If the user clicks on this link, a pop-up opens like Figure 126. The Vehicle Type ID and Name are not editable.

The NSA user reviews the list of auxiliary users. Only the auxiliary users created by the NSA that the authenticated user belongs to, are displayed in the table. The list is ordered by Last Name. Every row in the list contains the Full name and the Organisation of the auxiliary user. If the user places the cursor over a row, a pop-up shows: Full name, email, organization, Country, NSA that created the auxiliary user.

Afterwards, they choose an auxiliary user from the list and specifies the access rights, ie "Technical Characteristics" and/or "Conformity with TSI". Finally, they presse Save and the table is updated with the new information.

An identical pop up window opens when an NSA user clicks on "Grant Permission for editing" while editing a Vehicle Type.



Type ID	51-143-0001-4-001	
Type Name	Type Name	
Auxiliary Users	Test User 2 - Test Organisation 2	
Access Rights	- Select - Test User 1 - Test Organisation 1 Test User 2 - Test Organisation 2 Test User 3 - Test Organisation 3	Î
	Test User 4 - Test Organisation 4 Test User 5 - Test Organisation 5 Test User 6 - Test Organisation 6 Test User 7 - Test Organisation 7	_
	Test User 7 - Test Organisation 7 Test User 8 - Test Organisation 8 Test User 9 - Test Organisation 9 Test User 10 - Test Organisation 10	
	Test User 11 - Test Organisation 11 Test User 12 - Test Organisation 12 Test User 13 - Test Organisation 13	
	Test User 14 - Test Organisation 14 Test User 15 - Test Organisation 15 Test User 16 - Test Organisation 16	
	Test User 17 - Test Organisation 17 Test User 18 - Test Organisation 18 Test User 19 - Test Organisation 19	•

Figure 126: Grant permission for editing – select auxiliary user



2.7 Help

The complexity of the ERATV system makes imperative the existence of different methods to get access to help. A user may access help with any of the following methods:

- Through the Application Guide
- Through the online context-sensitive help pages
- Through the help clauses that appear within the technical parameters

2.7.1 Application Guide

The Application Guide is a PDF document that is created and can be updated at regular intervals by the ERATV Administrator. The generation of the Application Guide document can be performed within the ERATV system and it incorporates the help text clauses from the technical characteristics. The Application Guide will be created in the selected language, provided that a version for that language has been generated by the Administrator.

To download the Application Guide document, the user clicks the appropriate button that is available at all times in the ERATV system as highlighted in Figure 127.

EUROPEAN ERATV - EUR	ropean Register of Authorised Types of Vehicles	Search ERATV	Log on Help English V
AGENCY FOR RAILWAYS	n Register of Authorised Types of Vehicles		
Welcome to ERATV - Europ	ean Register of Authorised Types of Vehicles		Application guide PDF, 0 KB
	ERATV is established according to Directive 2008/57/EC of the European Parliament and of Commission Implementing Decision 2011/655/EU of 4 October 2011 on the European registr The register is hosted and maintained by the European Railway Agency (ERA). It contains 2008/57/EC. <u>View Registered Authorisations</u>	er of authorised types of railway vehicles.	. ,
Terms of Use Copyright Notice Privacy	Statement File Version: 1.5		© 2018 European Union Agency for Railways

Figure 127: Help – Application Guide Download Icon

2.7.2 Context-sensitive help

The context-sensitive help pages are available at all times in the ERATV system by clicking the help link as presented in Figure 128.

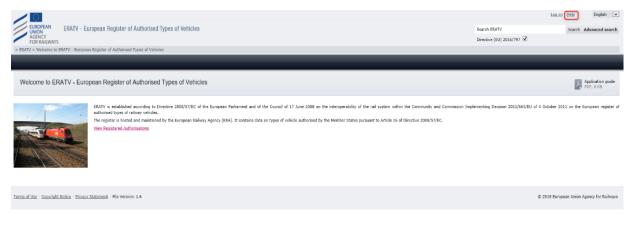


Figure 128: Help – Context sensitive help link



Upon clicking the link, a popup help page will appear with information on the currently displayed page and on the actions the user may perform. The help text will be provided in the language of the user interface of the ERATV system if available, otherwise by default in the English language.

2.7.3 Technical Parameters help

To assist during the registration process, a help icon (\P) is available next to each technical characteristic as shown in Figure 129:. The user is able to quickly view the help text for a specific parameter while in the process of filling in its value. The help text will be presented in a popup window inline. If available, the help text will be presented in the language selected for the user interface.

11-011-0001-2-001 Maestr Status: Draft Latest Update: 10/16				Application guide PDF, 494 KB
Registration details				
		Wheel set gauge : [character string] Selection	c Actions:	Copy registration form
Step 1 General Information	Wheel set gauge	from predefined list		
Step 2 • Technical Characteristics • Wheel set gauge • On-board CCS equipment • Energy supply	Wheel set gauge : * 4.1.3 Wheel set gauge : *	 1000mm 1435mm 1520mm 1524mm 		A III
 General technical characteristics Vehicle kinematic gauge Environmental conditions Fire safety 	4.1.3.b Wheel set Gauge -Transformation methor: *	ad 🗣 Automatic		
 Design mass and loads Rolling stock dynamic 	Save as draft Save & Continue			Delete registration

Figure 129: Help – Inline help text

Similarly, when viewing the details of a Vehicle Type the same icon (•) will be available as shown in Figure 130.

Section 4: Technical Characteristics					
Wheel set gauge					
4.1.3 Wheel set gauge	Q	Wheel set gauge 1435mm			
4.10.1 Energy supply system	Q	Energy supply system DC 1.5kV			
4.10.2 Maximum power (to be indicated for each energy supply system the vehicle is equipped for)	Q	1000V AC 50Hz Maximum power (to be indicated for each energy supply system the vehicle is equipped for) (DC 1.5kV) 6			
		Maximum power (to be indicated for each energy supply system the vehicle is equipped for) (1000V AC 50Hz) 10			
4.10.3 Maximum rated current from the catenary (to be indicated for each electrical energy supply system the vehi is equipped for)	ide ᡇ	Maximum rated current from the catenary (to be indicated for each electrical energy supply system the vehicle is equipped for) (DC 1.5kV) 99999			
	L	Maximum rated current from the catenary (to be indicated for each electrical energy supply system the vehicle is equipped for) (1000V AC 50Hz) 99999			

Figure 130: Help – Inline help text on published content



3 Troubleshooting

Not applicable.



4 References

- COMMISSION IMPLEMENTING DECISION of 4 October 2011 on the European register of authorised types of railway vehicles (notified under document C(2011) 6974) 8/10/2011 <u>http://eur-lex.europa.eu/legal-</u> <u>content/EN/TXT/?uri=uriserv:OJ.L .2011.264.01.0032.01.ENG</u>
- Commission Implementing Regulation (EU) 2019/776 of 16 May 2019 (Official Journal L139I, page 108 of date 27 May 2019 <u>http://eur-lex.europa.eu/legal-</u> <u>content/EN/TXT/?uri=uriserv:OJ.L_.2011.264.01.0032.01.ENG</u>
- List of harmonised and national restriction codes: <u>https://www.era.europa.eu/sites/default/files/registers/docs/list_harmonised_national</u> <u>restriction_codes_en.pdf</u>
- ERATV Administration, Operation and Maintenance Manual