**REQUEST TO THE AGENCY FOR THE CREATION OF A (DRAFT) TYPE/VARIANT/VERSION IN ERATV**

This form shall be used to request to the Agency the creation of a draft entry in ERATV for a:

1. **vehicle type authorisation** (including versions or types to be authorised following an extension of the area of use) when the Agency is going to be the authorising entity. Pursuant to Article 14(2) of Regulation (EU) 2018/545, only the holder of the vehicle type authorisation can decide whether to create a new type or a:
   * variant of an existing type in case of new authorisation, or
   * version following an extension of the area of use.

If the applicant is not the holder, a new type shall be created.

In this case, there is no need to fill-in the Annex I of the form. Template [TEM\_VEA\_060](https://www.era.europa.eu/system/files/2022-11/era1209-134_tem_vea_060_values_for_eratv_parameters_en_0.docx) should be also filled in.

1. **version following a change** categorised pursuant to article 15(1)(c) of Regulation (EU) 2018/545, when:
   * the area of use concerns more than one Member State, or
   * the Agency was the authorising entity that issued the authorisation of the related vehicle type or variant or version.

Pursuant to article 15(4) of the Regulation (EU) 2018/545, only the holder of the vehicle type authorisation can request the creation of a version (of a vehicle type or of a variant of a vehicle type) following a change categorised pursuant to article 15(1)(c) of the Regulation. If the applicant is not the holder, a new type shall be created and authorised.

The requests will be processed on the basis of information provided by the holder of the vehicle type authorisation and will not constitute an approval of the categorisation performed by the entity managing the change. The publication of the ERATV record will be performed according to the quality requirements applicable to ERATV, without assessing any supporting document provided. The holder of the vehicle type authorisation is responsible for the integrity of the data provided to the Agency. The Agency shall be responsible for checking the consistency of the data provided by the holder of the vehicle type authorisation.

The Agency may raise questions concerning the classification of the change if it cannot achieve reasonable assurance that the applicant has fulfilled its responsibilities concerning the process for analysis and categorisation of the change in application of Articles 13 and 15 of Regulation (EU) 2018/545 and Article 21(12) of Directive (EU) 2016/797 in the following cases:

* As part of the checks performed to ensure the consistency of the data provided by the holder of the vehicle type authorisation for the publication of a version following a change categorised pursuant to article 15(1)(c) of Regulation (EU) 2018/545, and
* During the assessment of applications for authorisation for placing on the market of vehicles in conformity to a version published following a change categorised pursuant to article 15(1)(c) of Regulation (EU) 2018/545. In this case, when the applicant fails to sufficiently substantiate how the entity managing the change arrived at its conclusion for the classification of the change, the Agency may withdraw the publication of the version in ERATV.

Annex I of this form should be filled in. In addition, template [TEM\_VEA\_060](https://www.era.europa.eu/system/files/2022-11/era1209-134_tem_vea_060_values_for_eratv_parameters_en_0.docx) should be also filled in for the ERATV parameters (basic design characteristics) impacted by the change.

1. **version compiling already published versions and/or types authorised following an extension of the area of use** (see section 3.8.4.2 of the VA Guidelines ([ERA1209/222](https://www.era.europa.eu/system/files/2024-02/ERA1209-222%20Guidelines%20for%20PA%20VA%202.1.pdf?t=1720607088)) for the conditions to be met for requesting the creation of a compiled version).

In this case, there is no need to fill-in the Annex I of the form. However, Annex 2 of this form shall be filled in.

Pursuant to Regulation (EU) 2018/764 [[1]](#footnote-1), as of 1 October 2024, the Agency will levy fees for the publication of entries in ERATV in cases b) and c) above. The information related to billing information (section h) only needs to be filled-in in such cases.

After filling in the form, please follow the instructions provided in the following FAQ entries, available at ERA website:

* Cases (a) and (b): https://www.era.europa.eu/can-we-help-you/faq/292\_en?target\_id=2676
* Case (c): https://www.era.europa.eu/can-we-help-you/faq/292\_en?target\_id=2672

More information about ERATV is available at: <https://www.era.europa.eu/domains/registers/eratv_en>

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| **a. User information**  *Please choose one of the 2 options below and fill in the corresponding fields.* | |
| a.1. OSS user email: | Click here to enter text.  If you don´t have an OSS account, please register yourself:  <https://srm-portal.powerappsportals.com/RegisterPage/> |

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| **b. Parent type information**  *Please fill in information about the types from which variants/versions derive* | |
| b.1. Registered vehicle type | Click here to enter text.  Not applicable for a first authorisation. For a new authorisation, extension of the area of use or versions following 15(1)(c) changes, this refers to the type ID of the type/variant from which the new type/variant/version derives (parent type). For a compilation of versions, this refers to the type ID of the type/variant from with all versions to be compiled derive. |
| b.2. Holder of the type authorisation | Click here to enter text.  Not applicable in case of first authorisation. In case of new authorisation, extension of the area of use or versions following 15(1)(c) changes, this refers to the holder of the vehicle type authorisation from which the new type/ variant/version derives (parent type). For a compilation of versions, this refers to the holder of the vehicle type authorisation from with all versions to be compiled derive. |

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| **c. Registration options** [[2]](#footnote-2)  *Please choose one of the 6 options below and fill in the corresponding fields.* | |
| c.1 New type | New type following a first authorisation  (new type to be authorised is the result of a first authorisation)  New type following new authorisation  (new type to be authorised is the result of a new authorisation  New type following an extension of the area of use  (new type to be authorised is the result of an extension of the area of use)  New type from an existing version  (new type to be authorised is the result of a new authorisation and/or an extension of the area of use from an existing version, where such versions was created as a result of a change classified pursuant to Article 15(1)(c ) of Regulation (EU) 2018545, addition of ESCs/RSCs or extension of the area of use) |
| c.2 New variant based on an existing type | This option can be selected together with c.1 for cases where a single OSS application will cover both a new type and a new type/variant of such type, for the authorisation case “First authorisation”; 2 draft types will be created. The type names and alternative type names can be included in e.1.1 & e.1.2, separated by commas, semi-colon, etc.  It is also possible to submit two independent filled-in templates, one selecting c.1 only and another one selecting c.2 only. In this case, please explain this in the filled-in template for the child type/variant, in field c.2 The choice is to be made by the applicant. |
| c.3 New version[[3]](#footnote-3) based on an existing type / variant, following:   * a change categorised as 15(1)(c) of Regulation (EU) 2018/545, or * the addition of an ESC and/or RSC statement | c.3.1 Applicable rules (TSIs, national rules, other Union law) require Yes No  renewal/new authorisation[[4]](#footnote-4)?:  c.3.2 Description of the changes[[5]](#footnote-5): Click here to enter text.  c.3.3 Article 21(12)(b) Directive (EU) 2016/797 triggered[[6]](#footnote-6)?: Yes No  c.3.4 Rationale for answer in c.3.3 [[7]](#footnote-7): Click here to enter text.  c.3.5 B.D.C.[[8]](#footnote-8) impacted: see Annex I (fill checkboxes applicable)  c.3.6 Non-application of TSIs (if any): Click here to enter text.  c.3.7 Coded restrictions: Click here to enter text.  c.3.8 Non-coded restrictions: Click here to enter text.  c.3.9 Reference to the written declaration by the proposer: Click here to enter text.  c.3.10 References to the type examination certificates: Click here to enter text. |
| c.4 New version based on type / variant following an extension of the area of use | c.4.1 Alternative specifications[[9]](#footnote-9): Click here to enter text. |
| c.5 New type/variant based on an existing type & new type/version following an extension of the area of use | Combined request for a new authorisation with a request for an authorisation for an extended area of use, pursuant to Article 14(3)(b). 2 draft types will be created. |
| c.6 New version compiling existing ERATV records which were the result of:   * extensions of the area of use (version and/or types); * addition of ESCs; * addition of RSCs, and/or * 15(1)(c) changes. | c.6.1 Type IDs of ERATV records to compile :Click here to enter text.  c.6.2 Holder of the ERATV records to be compiled: Click here to enter text.  c.6.3 Is the holder the same for all ERATV records to be compiled?: Yes No  c.6.4 Do all records to be compiled have the same design[[10]](#footnote-10)?: Yes No n.a.  c.6.5 ERATV values: see Annex II (fill checkboxes applicable)  c.6.6 Coded restrictions for the compiled version: Click here to enter text.  c.6.7 Non-coded restrictions for the compiled version: Click here to enter text.  c.6.8 Area of use of the compiled version: Click here to enter text.  c.6.9 Reasons for the compiled version[[11]](#footnote-11): Click here to enter text.  c.6.10 Scope of the compilation request:  Versions following extensions of the area of use only  Types following extensions of the area of use only  Types and versions following extensions of the area of use only  Versions following 15(1)(c) changes only  Versions following addition of ESC/RSC statements only  Combination of the above  c.6.11 Cumulative effect of 15(1)(c) changes considered[[12]](#footnote-12): Yes No n.a. |

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| **d. Concerned authorising entity (see introductory text of the template)**  *Please choose one of the 2 options below; add comments if necessary.* | |
| d.1 European Union Agency for Railways | Click here to enter text. |
| d.2 NSA | Click here to enter text. |

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| **e. General information**  *Please fill in the corresponding fields.* | |
| * 1. Type name: | Click here to enter text. |
| * 1. Alternative type name: | Click here to enter text. |
| 1.4. Category | Click here to enter text. |
| 1.5. Subcategory | Click here to enter text. |
| 1.6. Platform | Click here to enter text. |

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| **f. Manufacturer**  *Please fill in the corresponding fields.* | |
| * + 1. Manufacturer identification data | |
| * + - 1. Name of organization: | Click here to enter text. |
| * + - 1. Registered business number: | Click here to enter text. |
| * + - 1. Organisation code: | Click here to enter text. |
| * + 1. Manufacturer contact data | |
| * + - 1. Address, street and number: | Click here to enter text. |
| * + - 1. Town: | Click here to enter text. |
| * + - 1. Country code: | Click here to enter text. |
| * + - 1. Post code: | Click here to enter text. |
| * + - 1. E-mail address: | Click here to enter text. |

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| **g. Technical characteristics of the vehicle**  *Please fill in the corresponding fields.* | |
| * 1. General technical characteristics | |
| * + 1. Number of driving cabs: | Click here to enter text. |

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| **h. Billing information**  *As of 1 October 2024, the Agency will levy fees for the publication of 15(1)(c) versions or compilation of versions entries in ERATV . Please fill in the corresponding fields only in such cases.* | |
| h.1. Legal denomination: | Click here to enter text. |
| h.2. Acronym: | Click here to enter text. |
| h.3. VAT number: | Click here to enter text. |
| h.4. National registration number: | Click here to enter text. |
| h.5. Street address: | Click here to enter text. |
| h.6. City: | Click here to enter text. |
| h.7. Postal code: | Click here to enter text. |
| h.8. Country: | Click here to enter text. |
| h.9. Phone: | Click here to enter text. |
| h.10. Financial email: | Click here to enter text. |
| h.11. Purchase order number/other billing requirements: | Click here to enter text. |

Request date: Click here to enter a date.

Requestor’s email: Click here to enter text.

***Annex I: Basic Design Characteristics impacted by the change (to be filled in only in case or request for creation of a version based on type / variant following a change categorised as 15(1)(c) of Regulation (EU) 2018/545)***

# I.1. General basic design characteristics

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| --- | --- |
| **Basic design characteristics according to Article 48(1)(c) of Regulation (EU) 2018/545** | **Basic design characteristic impacted?** |
| Area of use of the vehicle  (\*) Please notice that If the area of use of the vehicle is extended, it is not possible to register a version in ERATV; an authorisation for the extended area of use is required. | Yes (\*)  No |
| Conditions for use of the vehicle and other restrictions (coded and non-coded restrictions in ERATV)  (\*\*)Please notice that when declaring whether Article 21(12)(b) of Directive (EU) 2016/797 is triggered or not in section c.3.3 of the form, the impact of changes in the conditions for use and other restrictions (if any) shall be taken into account. If Article 21(12)(b) is triggered because of the change in conditions for use and other restrictions, it is not possible to register a version in ERATV; a new authorisation is required. | Yes (\*\*)  No |
| Reference, pursuant to the provisions of Article 16 of Regulation (EU) No 402/2013, including the document identification and the version, to the written declaration by the proposer referred to in Article 3(11) of Regulation (EU) No 402/2013, covering the vehicle type  (\*\*\*) If the reference to the risk declaration by the proposer concerning the change is different as compared to the type, and this is not caused by editorial aspects but by the fact that the risk assessment or the assessment report from the assessment body (AsBo) has been changed, please double check how did you arrive to the conclusion that Article 21(12)(b) is triggered (potential impact on safety requiring an update of the risk analysis and AsBo assessment) and provide the necessary description in field c.3.4 | Yes (\*\*\*)  No |

# I.2. Vehicles in the scope of Regulation (EU) 1302/2014 (LOC&PAS TSI)

**I.2.1. Basic design characteristics**

Table 17a Regulation (EU) 1302/2014 LOC&PAS TSI

Basic design characteristics related to basic parameters set out in the LOC&PAS TSI

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TSI clause** | **Related basic design characteristic(s)** | **ERATV parameter** | **Basic design characteristic impacted?** | **Changes impacting the basic design characteristic and not classified as 21(12)(a) of Directive (EU) 2016/797** | **Changes impacting the basic design characteristic and classified as 21(12)(a) of Directive (EU) 2016/797** |
| 4.2.2.2.3 End coupling | Type of end coupling | 4.9.1 Type of end coupling | Yes  No | Change of end coupler type | N/A |
| 4.2.2.10 Load conditions and weighed mass  4.2.3.2.1 Axle load parameter | Design mass in working order | 4.5.2.1 Design mass in working order | Yes  No | Change in any of the corresponding basic design characteristics resulting in a change of the EN line category(ies) the vehicle is compatible with | N/A |
| Design mass under normal payload | 4.5.2.2 Design mass under normal payload | Yes  No |
| Design mass under exceptional payload | 4.5.2.3 Design mass under exceptional payload | Yes  No |
| Operational mass in working order (\*) | 4.5.2.4 Operational mass in working order | Yes  No |
| Operational mass under normal payload (\*) | 4.5.2.5 Operational mass under normal payload | Yes  No |
| Maximum design speed (km/h) | 4.1.2.1 Maximum design speed | Yes  No |
| Static axle load in working order | 4.5.3.1 Static axle load in working order | Yes  No |
| Static axle load under exceptional payload | 4.5.3.3 Static axle load under exceptional payload | Yes  No |
| Vehicle length | 4.8.1 Vehicle length | Yes  No |
| Static axle load under normal payload | 4.5.3.2 Static axle load under normal payload | Yes  No |
| Position of the axles along the unit (axle spacing) | 4.5.3.4 Position of the axles along the unit (axle spacing) | Yes  No |
| EN line category(ies) (\*) | 4.5.1.1 EN line category(ies) | Yes  No |  |  |
| Total vehicle mass (for each vehicle of the unit) | 4.5.5 Total vehicle mass (for each vehicle of the unit) | Yes  No | Change in any of the corresponding basic design characteristics resulting in a change of the EN line category(ies) the vehicle is compatible with | Change of more than ± 10 % |
| Mass per wheel | 4.5.6 Mass per wheel | Yes  No | Change in any of the corresponding basic design characteristics resulting in a change of the EN line category(ies) the vehicle is compatible with or  Change of more than ± 10 % | N/A |
| 4.2.3.1 Gauging | Reference profile | 4.2.1 Reference profile | Yes  No  (If yes, version not allowed) | N/A | Change of reference profile the vehicle is conform to |
|  | Minimum vertical convex curve radius capability | 4.8.5 Minimum vertical convex curve radius capability | Yes  No | Change in minimum vertical convex curve radius capability the vehicle is compatible with of more than 10 % | N/A |
|  | Minimum vertical concave curve radius capability | 4.8.6 Minimum vertical concave curve radius capability | Yes  No | Change in minimum vertical concave curve radius capability the vehicle is compatible with of more than 10 % | N/A |
| 4.2.3.3.1 Rolling stock characteristics for the compatibility with train detection systems | Compatibility with train detection systems | 4.14.1 Type of train detection systems for which the vehicle has been designed and assessed | Yes  No  (If yes, version not allowed) | N/A | Change of declared compatibility with one or more of the three following train detection systems:   * Track circuits * Axle counters * Loop equipment |
| Flange lubrication (\*) | 4.9.3.1 Flange lubrication fitted | Yes  No | Fitting/removal of the flange lubrication function | N/A |
| Possibility of preventing the use of flange lubrication (\*) | 4.9.3.2 Possibility of preventing the use of the lubrication device (only if fitted with flange lubrication) | Yes  No  (If yes, version not allowed) | N/A | Fitting/removal of the control preventing the use of flange lubrication |
| 4.2.3.3.2 Axle bearing condition monitoring | On-board detection system | 4.9.2 Axle bearing condition monitoring (hot axles box detection) | Yes  No | Fitting of detection system on-board | Removal of declared on- board detection system |
| 4.2.3.4. Rolling stock dynamic behavior | Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed | 4.6.4 Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed | Yes  No  (If yes, version not allowed) | N/A | Increase in maximum speed of more than 15 km/h or change of more than ± 10 % in maximum admissible cant deficiency |
|  | Rail inclination | 4.6.5 Rail inclination | Yes  No  (If yes, version not allowed) | N/A | Change of rail inclination(s) the vehicle is conform to (\*) |
| 4.2.3.5.2.1. Mechanical and geometric characteristics of wheelsets | Wheelset gauge | 4.1.3 Wheel set gauge | Yes  No  (If yes, version not allowed) | N/A | Change of track gauge the wheelset is compatible with |
| 4.2.3.5.2.2 Characteristics of wheels | Minimum required in- service wheel diameter | 4.8.2 Minimum in-service wheel diameter | Yes  No | Change of minimum required in-service diameter of more than ± 10 mm | N/A |
| 4.2.3.5.2.3 Automatic variable gauge systems | Wheelset gauge changeover facility | 4.1.11 Wheelset gauge changeover facility | Yes  No | Change in the vehicle leading to a change in the changeover facility(ies) the wheelset is compatible with | Change of track gauge(s) the wheelset is compatible with |
| 4.2.3.6. Minimum curve radius | Minimum horizontal curve radius capability | 4.8.4 Minimum horizontal curve radius capability | Yes  No | Increase of minimum horizontal curve radius of more than 5 m | N/A |
| 4.2.4.5.1 Braking performance - General requirements | Maximum average deceleration | 4.7.1 Maximum average deceleration | Yes  No | Change of more than ± 10 % on the maximum average brake deceleration | N/A |
| 4.2.4.5.2 Braking performance – Emergency braking | Stopping distance and deceleration profile for each load condition per design maximum speed. | 4.7.5 Emergency brake: Stopping distance and deceleration profile for each load condition per design maximum speed  4.7.6 For general operation: Brake weight percentage (lambda) or Braked mass | Yes  No | Change of stopping distance of more than ± 10 %.  Note: Brake weight percentage (also called ‘lambda’ or ‘braked mass percentage’) or braked mass may also be used and can be derived (directly or via stopping distance) from deceleration profiles by a calculation.  The allowed change is the same (± 10 %) | N/A |
| 4.2.4.5.3 Braking performance – Service braking | Stopping distance and maximum deceleration for the load condition ‘design mass under normal payload’ at the design maximum speed | 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. | Yes  No | Change of stopping distance of more than ± 10 % | N/A |
| 4.2.4.5.4 Braking performance – Thermal capacity | Maximum brake thermal energy capacity  or  Thermal capacity in terms of maximum line gradient, associated length and operating speed | 4.7.2.1.1 Reference case of TSI | Yes  No | N/A  Change of maximum gradient, associated length or operating speed for which the brake system is designed in relation with brake thermal energy capacity | Change of maximum brake thermal energy >= 10 % |
| 4.7.2.1.2 Speed (if no reference case is indicated) | Yes  No |
| 4.7.2.1.3 Gradient (if no reference case is indicated) | Yes  No |
| 4.7.2.1.4 Distance (if no reference case is indicated) | Yes  No |
| 4.7.2.1.5 Time (if distance is not indicated) (if no reference case is indicated) | Yes  No |
| 4.7.2.1.6 Maximum brake thermal energy capacity | Yes  No  (If yes, version not allowed) |
| 4.2.4.5.5 Braking performance – Parking brake | Maximum gradient on which the unit is kept immobilized by the parking brake alone (if the vehicle is fitted with it) | 4.7.3.3 Maximum gradient on which the unit is kept immobilised by the parking brake alone (if the vehicle is fitted with it) | Yes  No | Change of declared maximum gradient of more than ± 10 % | N/A |
| 4.2.4.6.2. Wheel slide protection system | Wheel slide protection system | 4.7.8 Wheel slide protection system | Yes  No  (If yes, version not allowed) | N/A | Fitting/removal of WSP function | WSP |
| 4.2.4.8.2 Magnetic track brake | Magnetic track brake | 4.7.4.2.1 Magnetic track brake fitted | Yes  No  (If yes, version not allowed) | N/A | Fitting/removal of magnetic track brake function |
| Possibility of preventing the use of the magnetic track brake | 4.7.4.2.2 Possibility of preventing the use of the magnetic track brake (only if fitted with magnetic brake) | Yes  No  (If yes, version not allowed) | N/A | Fitting/removal of the brake control allowing the activation/deactivation of magnetic track brake |
| 4.2.4.8.3 Eddy current track brake | Eddy current track brake | 4.7.4.1.1 Eddy current track brake fitted | Yes  No  (If yes, version not allowed) | N/A | Fitting/removal of the eddy current track brake function |
| Possibility of preventing the use of the eddy current track brake | 4.7.4.1.2 Possibility of preventing the use of the eddy current track brake (only if fitted with eddy current track brake) | Yes  No  (If yes, version not allowed) | N/A | Fitting/removal of the brake control allowing the activation/deactivation of eddy current track brake |
| 4.2.6.1.1 Temperature | Temperature range | 4.3.1 Temperature range | Yes  No | Change of temperature range (T1, T2, T3) | N/A |
| 4.2.6.1.2 Snow, ice and hail | Snow, ice and hail conditions | 4.3.3 Snow, ice and hail conditions | Yes  No | Change of the selected range ‘snow, ice and hail’ (nominal or severe) | N/A |
| 4.2.8.2.2 Operation  within range of voltages and frequencies | Energy supply system (voltage and frequency) | 4.10.1 Energy supply system (voltage and frequency) | Yes  No  (If yes, version not allowed) | N/A | Change of voltage(s)/ frequency(ies) of the energy supply system (AC 25 kV-50 Hz, AC 15 kV-16,7 Hz, DC 3 kV, DC 1,5 kV, DC 750 V, third rail, others) |
| 4.2.8.2.3 Regenerative brake with energy to the overhead contact line | Regenerative brake | 4.7.4.3.1 Regenerative brake fitted | Yes  No  (If yes, version not allowed) | N/A | Fitting/removal of regenerative brake function |
|  | Possibility of preventing the use of the regenerative brake when fitted | 4.7.4.3.2 Possibility of preventing the use of the regenerative brake (only if fitted with regenerative brake) | Yes  No | Fitting/removing the possibility of preventing the use of regenerative brake | N/A |
| 4.2.8.2.4 Maximum power and current from the overhead contact line | Applicable to Electric units with power higher than 2 MW only:  Power or current limitation function | 4.10.14 Electric units equipped with power or current limitation function | Yes  No | Power or current limitation function fitted/removed | N/A |
| 4.2.8.2.5 Maximum current at standstill | Maximum current at standstill per pantograph for each DC system the vehicle is equipped for | 4.10.4 Maximum current at standstill per pantograph (to be indicated for each DC systems the vehicle is equipped for) | Yes  No | Change of the maximum current value by 50 A without exceeding the limit set in the TSI | N/A |
| Vehicle equipped with electric energy storage for traction purposes and equipped with the function of charging with OCL at standstill (\*) | 4.10.16 Vehicle equipped with electric energy storage for traction purposes and with the function of charging with OCL at standstill | Yes  No | Adding or removing the function | N/A |
| 4.2.8.2.9.1.1 Height of interaction with contact wires (RST level) | Height of interaction of pantograph with contact wires (over top of rail) | 4.10.5 Height of interaction of pantograph with contact wires (over top of rail) (to be indicated for each energy sup- ply system the vehicle is equipped for) | Yes  No | Change of height of interaction allowing/no longer allowing mechanical contact with one of the contact wires at heights above rail level between:  4 800 mm and 6 500 mm  4 500 mm and 6 500 mm  5 550 mm and 6 800 mm  5 600 mm and 6 600 mm | N/A |
| 4.2.8.2.9.2 Pantograph head geometry (IC level) | Pantograph head geometry | 4.10.6 Pantograph head geometry (to be indicated for each energy supply system the vehicle is equipped for) | Yes  No  (If yes, version not allowed) | N/A | Change of pantograph head geometry to or from one of the types defined in clauses 4.2.8.2.9.2.1, 4.2.8.2.9.2.2 or 4.2.8.2.9.2.3 |
| 4.2.8.2.9.4.2 Contact strip material | Contact strip material | 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) | Yes  No | New contact strip as per 4.2.8.2.9.4.2(3) | N/A |
| 4.2.8.2.9.6 Pantograph contact force and dynamic behavior | Mean contact force curve | 4.10.15 Mean contact force | Yes  No | Change requiring a new assessment of pantograph dynamic behavior. | N/A |
| 4.2.8.2.9.7 Arrangement of pantographs (RST level) | Number of pantograph and shortest distance between two pantographs | 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) | Yes  No  (If yes, version not allowed) | N/A | Where the spacing of 2 consecutive pantographs in fixed or predefined formations of the assessed unit is reduced by means of removing a vehicle |
| 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) | Yes  No  (If yes, version not allowed) |
| 4.2.8.2.9.10 Pantograph lowering (RST level) | Automatic dropping device (ADD) | 4.10.11 Automatic dropping device (ADD) fitted (to be indicated for each energy supply system the vehicle is equipped for) | Yes  No | Automatic dropping device (ADD) function fitted/ removed | N/A |
| 4.2.9.3.7 Derailment detection and prevention  signal processing (\*) | Presence of derailment  prevention and detection signal processing | 4.15.2 Presence of derailment prevention and detection signal processing | Yes  No | Fitting/removing of prevention/detection function | N/A |
| 4.2.9.3.7a On-board derailment detection and  prevention function (\*) | Presence of derailment  prevention and detection  function | 4.15.3 Presence of derailment prevention and detection function | Yes  No | Fitting/removing of prevention/detection function | N/A |
| 4.2.10.1. General and categorisation | Fire safety category | 4.4.1 Fire safety category | Yes  No  (If yes, version not allowed) | N/A | Change of fire safety category |
| 4.2.12.2. General documentation -number of units in multiple operation | Maximum number of trainsets or locomotives coupled together in multiple operation. | 4.1.5 Maximum number of trainsets or locomotives coupled together in multiple operation. | Yes  No  (If yes, version not allowed) | N/A | Change of maximum allowed number of trainsets or locomotives coupled together in multiple operation |
| 4.2.12.2. General documentation – number of vehicles in a unit | For fixed formations only: Vehicles composing the fixed formation | 4.1.12 Number of vehicles composing the fixed formation (for fixed formation only) | Yes  No  (If yes, version not allowed) | N/A | Change in the number of vehicles composing the fixed formation |

*(\*) Only for LOC&PAS TSI as amended by Regulation (EU) 2023/1694*

Table 17b Regulation (EU) 1302/2014 LOC&PAS TSI

Basic design characteristics related to basic parameters set out in the PRM TSI

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TSI clause** | **Related basic design characteristic(s)** | **ERATV parameter** | **Basic design characteristic impacted?** | **Changes impacting the basic design characteristic and not classified as 21(12)(a) of Directive (EU) 2016/797** | **Changes impacting the basic design characteristic and classified as 21(12)(a) of Directive (EU) 2016/797** |
| 4.2.2.11. Step position for vehicle access and egress | Platform heights for which the vehicle is designed | 4.12.3.1 Platform heights for which the vehicle is designed. | Yes  No  (If yes, version not allowed) | N/A | Change of platform height the vehicle is compatible with |

Table 17c Regulation (EU) 1302/2014 LOC&PAS TSI.

Changes to basic parameters for which compliance with TSI requirements is mandatory for rolling stock not holding an EC type or design examination certificate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TSI clause** | **Related basic design characteristic(s)** | **ERATV parameter** | **Basic design characteristic impacted?**  (If yes, version not allowed) | **Changes impacting the basic design characteristic and classified as 21(12)(a) of Directive (EU) 2016/797** |
| 4.2.3.1 Gauging | Reference profile | 4.2.1 Reference profile | Yes  No  (If yes, version not allowed) | Change of reference profile the vehicle is conform to |
| 4.2.3.3.1 Rolling stock characteristics for the compatibility with train  detection systems | Compatibility with train detection systems | 4.14.1 Type of train detection systems for which the vehicle has been designed and assessed | Yes  No  (If yes, version not allowed) | Change of declared compatibility with one or more of the three following train detection systems:   * Track circuits * Axle counters * Loop equipment |
| 4.2.3.3.2 Axle bearing condition monitoring | On-board detection system | 4.9.2 Axle bearing condition monitoring (hot axles box detection) | Yes  No  (If yes, version not allowed) | Fitting/Removal of declared on-board detection system |
| 4.2.3.5.2.1. Mechanical and geometric characteristics of wheelsets | Wheelset gauge | 4.1.3 Wheel set gauge | Yes  No  (If yes, version not allowed) | Change of track gauge the wheelset is compatible with |
| 4.2.3.5.2.3 Automatic variable gauge systems | Wheelset gauge changeover facility | 4.1.11 Wheelset gauge changeover facility | Yes  No  (If yes, version not allowed) | Change of track gauge(s) the wheelset is compatible with |
| 4.2.8.2.3 Regenerative brake with energy to the overhead contact line | Regenerative brake | 4.7.4.3.1 Regenerative brake fitted | Yes  No  (If yes, version not allowed) | Fitting/removal of regenerative brake function |

Table 17d Regulation (EU) 1302/2014 LOC&PAS TSI.

Changes to basic parameters of the PRM TSI for which compliance with TSI requirements is mandatory for rolling stock not holding an EC type or design examination certificate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TSI clause** | **Related basic design characteristic(s)** | **ERATV parameter** | **Basic design characteristic impacted?** | **Changes impacting the basic design characteristic and classified as 21(12)(a) of Directive (EU) 2016/797** |
| 4.2.2.11. Step position for vehicle access and egress | Platform heights for which the vehicle is designed | 4.12.3.1 Platform heights for which the vehicle is designed | Yes  No  (If yes, version not allowed) | Change of platform height the vehicle is compatible with |

**I.2.2. Aspects to be considered when assessing Article 21(12)(b)**

**I.2.2.1 Changes requiring reassessment of safety requirements**

Please notice that Regulation (EU) No 1302/2014 LOC&PAS TSI states in section 7.1.2.2 paragraph 4, “*Without prejudice of the general safety judgement mandated in article 21(12)(b) of Directive (EU) 2016/797, in case of changes requiring reassessment of the safety requirements set out in clauses 4.2.3.4.2, 4.2.3.5.3, 4.2.4.2.2, 4.2.5.3.5, 4.2.5.5.8 and 4.2.5.5.9, the procedure set out in clause 6.2.3.5 shall be applied. Table 17 sets out when a new authorisation is required*.”

Table 17 Regulation (EU) No 1302/2014 LOC&PAS TSI

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Vehicle originally assessed against… | | | | |
|  | | First method of clause 6.2.3.5(3) | Second method of clause 6.2.3.5(3) | No CSM on  RA applied |
| Change assessed against… | First method of clause 6.2.3.5(3) | No new authorisation required | Check (1) | No new authorisation required |
| Second method of clause 6.2.3.5(3) | Check (1) | Check (1) | Check (1) |
| No CSM on RA applied | Not possible | Not possible | Not possible |

(1) The word ‘Check’ means that the applicant will apply Annex I of the CSM on RA in order to demonstrate that the changed vehicle ensures an equal or higher level of safety. This demonstration shall be independently assessed by an assessment body as defined in CSM on RA. If the body concludes that the new safety assessment demonstrates a lower level of safety or the result is unclear, the applicant shall request an authorization for placing on the market.

The conditions above are linked to Article 21(12)(c) of Directive (EU) 2016/797: particular conditions laid down in the TSIs that trigger a new authorisation. The analysis on whether Article 21(12)(b) of Directive (EU) 2016/797 is triggered or not should be performed independently. In other words, meeting the requirements in clause 7.1.2.2 of LOC&PAS TSI does not automatically mean that Article 21(12)(b) of Directive (EU) 2016/797 is not triggered.

Both aspects shall be considered when declaring whether Article 21(12)(b) of Directive (EU) 2016/797 are triggered when answering field c.3.3 of the request form.

**I.2.2.2 Changes requiring a new reliability study**

Similarly, paragraph (4a) of section 7.1.2.2 of LOC&PAS TSI states “*Without prejudice of the general safety judgement mandated in Article 21(12)(b) of Directive (EU) 2016/797, in case of changes impacting requirements set out in 4.2.4.9, 4.2.9.3.1 and 4.2.10.3.4 which require a new reliability study, a new authorisation for placing in the market shall be required unless the NoBo concludes that the safety-related requirements covered by the reliability study are improved or maintained. The NoBo will consider in its judgement the revised maintenance and operation documentation, where required.*”

The conditions above are linked to Article 21(12)(c) of Directive (EU) 2016/797: particular conditions laid down in the TSIs that trigger a new authorisation. The analysis on whether Article 21(12)(b) of Directive (EU) 2016/797 is triggered or not should be performed independently. In other words, meeting the requirements in clause 7.1.2.2 of LOC&PAS TSI does not automatically mean that Article 21(12)(b) of Directive (EU) 2016/797 is not triggered.

Both aspects shall be considered when declaring whether Article 21(12)(b) of Directive (EU) 2016/797 are triggered when answering field c.3.3 of the request form.

# I.3. Vehicles in the scope of Regulation (EU) 321/2013 (WAG TSI)

**I.3.1. Basic design characteristics**

Table 11a Regulation (EU) 321/2013 WAG TSI

Basic design characteristics related to basic parameters set out in the WAG TSI

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TSI clause** | **Related basic design characteristic(s)** | **ERATV parameter** | **Basic design characteristic impacted?** | **Changes impacting the basic design characteristic and not classified as 21(12)(a) of Directive (EU) 2016/797** | **Changes impacting the basic design characteristic and classified as 21(12)(a) of Directive (EU) 2016/797** |
| 4.2.2.1.1 End coupling | Type of end coupling | 4.9.1 Type of end coupling | Yes  No | Change of end coupler type | N/A |
| 4.2.3.1 Gauging | Reference profile | 4.2.1 Reference profile | Yes  No  (If yes, version not allowed) | N/A | Change of reference profile the vehicle is conform to |
|  | Minimum vertical convex curve radius capability | 4.8.5 Minimum vertical convex curve radius capability | Yes  No | Change in minimum vertical convex curve radius capability the unit is compatible with of more than 10 % | N/A |
|  | Minimum vertical concave curve radius capability | 4.8.6 Minimum vertical concave curve radius capability | Yes  No | Change in minimum vertical concave curve radius capability the unit is compatible with of more than 10 % | N/A |
| 4.2.3.2. Compatibility with load carrying capacity of lines | Permissible payload for different line categories | 4.5.1 Permissible payload for different line categories | Yes  No | Change of any of the vertical loading characteristics resulting in a change of the line category(ies) the wagon is compatible with | N/A |
| 4.2.3.3 Compatibility with train detection systems | Compatibility with train detection systems | 4.14.1 Type of train detection systems for which the vehicle has been designed and assessed | Yes  No  (If yes, version not allowed) | N/A | Change of declared compatibility with one or more of the three train detection systems:   * Track circuits * Axle counters * Loop equipment |
| 4.2.3.4 Axle bearing condition monitoring | On-board detection system | 4.9.2 Axle bearing condition monitoring (hot axles box detection) | Yes  No  (If yes, version not allowed) | N/A | Fitting/Removal of on-board detection system |
| 4.2.3.5 Running safety | Combination of maximum speed and maximum cant deficiency for which the unit was assessed | 4.6.4 Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed | Yes  No  (If yes, version not allowed) | N/A | Increase in maximum speed of more than 15 km/h or change of more than ± 10 % in maximum admissible cant deficiency |
|  | Rail inclination | 4.6.5 Rail inclination | Yes  No  (If yes, version not allowed) | N/A | Change of rail inclination the vehicle is conform to |
| 4.2.3.5.3 Derailment detection and prevention function (\*) | Presence and type of derailment detection and prevention function(s) | 4.15.1 Presence and type of derailment detection and prevention function(s) | Yes  No | Fitting/removing of prevention/detection function | N / A |
| 4.2.3.6.2 Characteristics of wheelsets | Wheelset gauge | 4.1.3 Wheel set gauge | Yes  No  (If yes, version not allowed) | N/A | Change of track gauge the wheelset is compatible with |
| 4.2.3.6.3 Characteristics of wheels | Minimum required in-service wheel diameter | 4.8.2 Minimum in-service wheel diameter | Yes  No | Change of minimum required in-service diameter of more than 10 mm | N/A |
| 4.2.3.6.6 Automatic variable gauge systems | Wheelset gauge changeover facility | 4.1.11 Wheelset gauge changeover facility | Yes  No | Change in the unit leading to a change in the changeover facility(ies) the wheelset is compatible with | Change of track gauge(s) the wheelset is compatible with |
| 4.2.4.3.2.1 Service brake | Stopping distance | 4.7.6 For general operation: brake weight percentage (lambda) or Braked mass  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. | Yes  No | Change of stopping distance of more than ± 10 %  *Note:* Brake weight percentage (also called ‘lambda’ or ‘braked mass percentage’) or braked mass may also be used and can be derived (directly or via stopping distance) from deceleration profiles by calculation.  The allowed change is the same (± 10 %) | N/A |
|  | Maximum deceleration for the load condition ‘design mass under normal payload’ at the maximum design speed | 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. | Yes  No | Change of more than ± 10 % on the maximum average brake deceleration | N/A |
| 4.2.4.3.2.2 Parking brake | Parking brake | 4.7.3.4 Parking brake | Yes  No | Parking brake function installed/removed | N/A |
| 4.2.4.3.3 Thermal capacity | Thermal capacity expressed in terms of   * Speed * Gradient * Brake distance | 4.7.2.1.1 Reference case of TSI | Yes  No  (If yes, version not allowed) | N/A | New reference case declared |
| 4.7.2.1.2 Speed (if no reference case is indicated) | Yes  No  (If yes, version not allowed) |
| 4.7.2.1.3 Gradient (if no reference case is indicated) | Yes  No  (If yes, version not allowed) |
| 4.7.2.1.4 Distance (if no reference case is indicated) | Yes  No  (If yes, version not allowed) |
| 4.7.2.1.5 Time (if distance is not indicated) (if no reference case is indicated) | Yes  No  (If yes, version not allowed) |
| 4.2.4.3.4 Wheel slide protection (WSP) | Wheel slide protection | 4.7.8 Wheel slide protection system | Yes  No  (If yes, version not allowed) | N/A | Fitting/removal of WSP function |
| 4.2.5 Environmental conditions | Temperature range | 4.3.1 Temperature range | Yes  No | Change of temperature range (T1, T2, T3) | N/A |
|  | Snow, ice and hail conditions | 4.3.3 Snow, ice and hail conditions | Yes  No | Change of the selected range ‘snow, ice and hail’ (nominal or severe) | N/A |

(\*) *Only for WAG TSI as amended by Regulation (EU) 2023/1694*

Table 11b Regulation (EU) 321/2013 WAG TSI

Changes to basic parameters for which compliance with TSI requirements is mandatory for rolling stock not holding an EC type or design examination certificate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TSI clause** | **Related basic design characteristic(s)** | **ERATV parameter** | **Basic design characteristic impacted?** | **Changes impacting the basic design characteristic and classified as 21(12)(a) of Directive (EU) 2016/797** |
| 4.2.3.1 Gauging | Reference profile | 4.2.1 Reference profile | Yes  No | Change of reference profile the vehicle is conform to |
| 4.2.3.3 Compatibility with train detection system | Compatibility with train detection systems | 4.14.1 Type of train detection systems for which the vehicle has been designed and assessed | Yes  No | Change of declared compatibility with one or more of the three train detection systems:   * Track circuits * Axle counters * Loop equipment |
| 4.2.3.4 Axle bearing condition monitoring | On-board detection system | 4.9.2 Axle bearing condition monitoring (hot axles box detection) | Yes  No | Fitting/Removal of on-board detection system |
| 4.2.3.6.2 Characteristics of wheelsets | Wheelset gauge | 4.1.3 Wheel set gauge | Yes  No | Change of track gauge the wheelset is compatible with |
| 4.2.3.6.6 Automatic variable gauge systems | Wheelset gauge changeover facility | 4.1.11 Wheelset gauge changeover facility | Yes  No | Change of track gauge(s) the wheelset is compatible with |

**I.3.2. Aspects to be considered when assessing Article 21(12)(b)**

**Without prejudice of the general safety judgement mandated in article 21(12)(b)** of Directive (EU) 2016/797, in case of changes requiring reassessment of the safety requirements set out in clauses 4.2.4.2 for the brake system, a new authorization for placing on the market will be required unless one of the following conditions are met:

* The brake system fulfils the conditions of C.9 and C.14 of Appendix C after change or,
* Both the original and changed brake systems fulfil the safety requirements set out in clause 4.2.4.2.

The conditions above are linked to Article 21(12)(c) of Directive (EU) 2016/797: particular conditions laid down in the TSIs that trigger a new authorisation. The analysis on whether Article 21(12)(b) of Directive (EU) 2016/797 is triggered or not should be performed independently. In other words, meeting the requirements in clause 7.2.2.2 (and 4.2.4.2) of WAG TSI does not automatically mean that Article 21(12)(b) of Directive (EU) 2016/797 is not triggered.

# I.4. Vehicles in the scope of Regulations (EU) 2016/919 or (EU) 2023/1695 (CCS TSI)

**I.4.1. Basic design characteristics**

Table 7.1 Regulation (EU) 2016/919 or (EU) 2023/1695 (CCS TSI)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TSI clause** | **Related basic design characteristic(s)** | **ERATV parameter** | **Basic design characteristic impacted?** | **Changes not impacting the basic design characteristics 15(1)(b) of Regulation (EU) 2018/545** | **Changes impacting the basic design characteristic inside acceptable range 15(1)(c) of Regulation (EU) 2018/545** | **Changes impacting the basic design characteristic outside acceptable range 15(1)(d) of Regulation (EU) 2018/545** |
| 4.2.2 On-board ETCS functionality | ETCS equipment on-board and the set of specification of CCS TSI Appendix A | 4.13.1.1 ETCS equipment on-board and the set of specifications from CCS TSI Annex A | Yes  No  (If yes, version not allowed) | Not Applicable | Not Applicable | Use another Appendix A set of specifications |
| Envelope of legally operated ETCS system versions (\*\*) | 4.13.1.11 Envelope of legally operated ETCS system versions | Yes  No  (If yes, version not allowed) | Not Applicable | Not Applicable | Installation or start the operational use of ETCS  Modification of the envelope of legally operated ETCS system versions from set of specifications in Appendix A. |
| ETCS on-board implementation | 4.13.1.7 ETCS on-board implementation | Yes  No  (If yes, version not allowed) | Fulfilling all the conditions in point 7.2.1a.2 (change of realisation) (\*) or 7.2.2.2 (change of realisation identifier) (\*\*) | Not Applicable | Not fulfilling all the conditions in point 7.2.1a.2 (Functional  change) (\*) or 7.2.2.2 (change of functional identifier) (\*\*) |
| Managing information about the completeness of the train (not from driver) | 4.13.1.9 Managing information about the completeness of the train (not from driver) | Yes  No | Not Applicable | Adding or removing train integrity supervision | Not Applicable |
| Safe consist length information from on-board necessary to access the line and  SIL (\*\*) | 4.13.1.10 Safe consist length information from on-board necessary to access the line and corresponding SIL | Yes  No | Not Applicable | Adding or removing safe consist length information | Not Applicable |
| 4.2.17.1 ETCS System Compatibility | ETCS System Compatibility | 4.13.1.8 ETCS System Compatibility [ | Yes  No | Not Applicable | Adding or removing ESC statements, after checking by a NoBo (\*)  Adding or removing an ESC statement fulfilling all the conditions in point 7.2.2.4 (\*\*) | Not Applicable (\*)  Adding or removing an ESC statement fulfilling all the conditions in point 7.2.2.4 (\*\*) |
| 4.2.4 Mobile communication  functions for railways RMR  4.2.4.2 Voice and operational communication application | GSM-R Radio voice on board and its Baseline | 4.13.2.1 GSM-R Radio voice on board and its Baseline | Yes  No  (If yes, version not allowed) | Use another Baseline fulfilling all the conditions in point 7.2.1a.3 (\*) or 7.2.2.3 (\*\*) | Not Applicable | Installation or start the operational use of GSM-R cab radio (\*\*)  Use another Baseline not fulfilling all the conditions in point  7.2.1a.3 (\*) or 7.2.2.3 (\*\*) |
| GSM-R Voice and operational communication implementation | 4.13.2.6 Voice and operational communication implementation | Yes  No  (If yes, version not allowed) | Fulfilling all the conditions in point 7.2.1a.3 (change of realisation) (\*) or 7.2.2.3 (change of realisation identifier) (\*\*) | Not Applicable | Not fulfilling all the conditions in point 7.2.1a.3 (\*) (Functional change) or 7.2.2.3 (change of functional identifier) (\*\*) |
| GSM-R Voice SIM Card support of Group ID 555 | 4.13.2.12 Voice SIM Card support of Group ID 555 | Yes  No | Not Applicable | Change the SIM Card support of group ID 555 | Not Applicable |
| 4.2.17.2 Radio System  Compatibility (\*)  4.2.17.3 ETCS and Radio System Compatibility (\*\*) | Radio Voice System  Compatibility | 4.13.2.5 Radio Voice System Compatibility | Yes  No | Not Applicable | Adding or removing  RSC statements, after  checking by a NoBo (\*)  Adding or removing an RSC statement fulfilling all the conditions in point 7.2.2.4 (\*\*) | Not Applicable (\*)  Adding or removing an RSC statement not fulfilling all the conditions in point 7.2.2.4 (\*\*) |
| 4.2.4 Mobile communication  functions for railways GSM-R  4.2.4.3 Data communication applications for ETCS(\*)  4.2.4.3.1.1 GSM-R data communication for ETCS (\*\*)  4.2.4.3.2.1 GSM-R data communication for ATO (\*\*) | GSM-R Radio Data communication on board and its Baseline | 4.13.2.7 GSM-R Radio Data communication on board and its Baseline | Yes  No  (If yes, version not allowed) | Use another Baseline fulfilling all the conditions in point 7.2.1a.3 (\*) or 7.2.2.3 (\*\*). | Not Applicable | Installation or start the operational use of GSM-R EDOR (\*\*)  Use another Baseline not fulfilling all the conditions in point  7.2.1a.3 (\*) or 7.2.2.3 (\*\*) |
| GSM-R Data communication  for ETCS and ATO (\*\*) implementation | 4.13.2.9 Data communication application for ETCS implementation | Yes  No  (If yes, version not allowed) | Fulfilling all the conditions in point 7.2.1a.3 (change of realisation) (\*) or 7.2.2.3 (change of realisation identifier) (\*\*) | Not Applicable | Not fulfilling all the conditions in point 7.2.1a.3 (Functional  change) (\*) or 7.2.2.3 (change of functional identifier) (\*\*) |
| 4.2.17.2 Radio System  Compatibility (\*)  4.2.17.3 ETCS and Radio System Compatibility (\*\*) | Radio Data System Compatibility | 4.13.2.8 Radio Data System Compatibility | Yes  No | Not Applicable | Adding or removing RSC statements, after checking by a NoBo (\*)  Adding or removing an RSC statement fulfilling all the conditions in point 7.2.2.4 (\*\*) | Not Applicable (\*)  Adding or removing an RSC statement not fulfilling all the conditions in point 7.2.2.4 (\*\*) |
| 4.2.4 Mobile communication functions for railways RMR  4.2.4.1 Basic communication function (\*)  4.2.4.1.1 GSM-R Basic communication  function (\*\*) | Voice SIM Card GSM-R Home Network | 4.13.2.10 Voice SIM Card GSM-R Home Network | Yes  No | Not Applicable | Replacement of a TSI compliant GSM-R SIM Card by another TSI compliant GSM-R SIM Card with a different GSM-R Home Network | Not Applicable |
| Data SIM Card GSM-R Home Network (\*\*) | 4.13.2.11 Data SIM Card GSM-R Home Network | Yes  No | Not Applicable | Replacement of a TSI compliant GSM-R SIM Card by another TSI compliant GSM-R SIM Card with a different GSM-R Home Network | Not Applicable |
| 4.2.18 On-Board ATO functionality (\*\*) | On-board ATO system version | 4.13.3.1 On-board ATO system version | Yes  No | Not Applicable | Change of the ATO system version fulfilling all the conditions in point 7.2.2.3. | Add or remove the ATO part of the CCS on-board subsystem  Start the operational use of ATO  Change of the ATO system version not fulfilling all the conditions in point 7.2.2.3. |
| On-board ATO implementation | 4.13.3.2 On-board ATO implementation | Yes  No | Fulfilling all the conditions in point 7.2.2.3 (change of realisation identifier) | Not Applicable | Not fulfilling all the conditions in point 7.2.2.3 (change of functional identifier) |
| 4.2.6.1 ETCS and Class B train protection (\*) | Class B train protection legacy system | 4.13.2.11 Data SIM Card GSM-R Home Network | Yes  No | The requirements for Class B system are the responsibility of the relevant Member State. | The requirements for Class B system are the responsibility of the relevant Member State. | Add or remove Class B train protection systems.  The requirements for Class B system are the responsibility of the relevant Member State. |
| 4.2.5.1 Radio communication with the train (\*) | Class B radio legacy system | 4.13.2.3 Class B or other radio systems installed (system and, if applicable, version) | Yes  No | The requirements for Class B system are the responsibility of the relevant Member State. | The requirements for Class B system are the responsibility of the relevant Member State. | Add or remove Class B radio legacy systems.  The requirements for Class B system are the responsibility of the relevant Member State. |
| 7.2.5 Legacy  systems (\*\*) | Class B or other train  protection, control  and warning legacy  systems installed  (system and, if  applicable, version) | 4.13.1.5 Class B or other train protection, control and warning legacy systems installed (system and, if applicable, version) | Yes  No | The requirements for Class B system are the responsibility of the relevant Member State. | The requirements for Class B system are the responsibility of the relevant Member State. | Add or remove Class B train protection systems.  The requirements for Class B system are the responsibility of the relevant Member State |
| Class B or other radio  legacy systems  installed (system and,  if applicable, version) | 4.13.2.3 Class B or other radio legacy systems installed (system and, if applicable, version) | Yes  No | The requirements for Class B system are the responsibility of the relevant Member State. | The requirements for Class B system are the responsibility of the relevant Member State. | Add or remove Class B radio legacy systems.  The requirements for Class B system are the responsibility of the relevant Member State. |

*(\*) Only for CCS TSI (EU) 2016/919, as amended*

*(\*\*) Only for CCS TSI (EU) 2023/1695*

**I.4.2. Conditions for a change in the on-board ETCS not impacting basic design characteristics**

| **Conditions for a change in the On-board ETCS functionality that does not impact the basic design characteristics**  §7.2.1a.2 of Regulation (EU) 2016/979 (as amended) or §7.2.2.2 of Regulation (EU) 2023/1695 | **Condition fulfilled?** |
| --- | --- |
| 1. The target functionality[[13]](#footnote-13) remains unchanged or is set to the state already expected during the original certification or authorisation (\*)  1. The target functionality12 remains unchanged or is set to the state already expected during the original certification or authorisation. Target functionality is considered unchanged when applying the specification maintenance (error correction) process described in point 7.2.10 which includes the implementation of error corrections or the implementation of mitigation measures (\*\*) | Yes  No |
| 2. The interfaces relevant for safety & technical compatibility remain unchanged or are set to the state already expected during the original certification or authorisation | Yes  No |
| 3. The result of the safety judgement (e.g., safety case according to EN 50126) remains unchanged | Yes  No |
| 4. No new safety related application conditions (SRAC) or interoperability constraints have been added due to the change | Yes  No |
| 5. An Assessment Body (CSM RA) as specified in point 3.2.1 (\*) / 4.2.1 (\*\*) has independently assessed the applicant's risk assessment and within it the demonstration that the change does not adversely affect safety. The applicant's demonstration shall include the evidence that the change actually corrects the causes of the initial deviation of the functionality | Yes  No |
| 6. The change is performed under a quality management system approved by a notified body (e.g., according to modules CH1, SH1, CD, SD). For other modules (e.g., CF, SF) it shall be justified that the verification performed remains valid[[14]](#footnote-14) (\*)  6. Depending on the type of change (\*\*):   1. in the case where the change is made due to a product error: The change is performed under a quality management system approved by a notified body. For other modules it shall be justified that the verification performed remains valid 13 2. in the case where the change is made due to the specification maintenance process (there are updated specifications in Appendix A Table A 2 with the descriptions of the error correction): an updated EC design examination or EC type examination certificate for the Interoperability Constituents or Subsystem with the implementation of error corrections is needed. In this case the provisions of point 6.3.3 (3) apply. | Yes  No |
| 7. The individual configuration management defines a ‘system identifier’ (as defined in 7.2.1a.1.11) and the functional part has not been changed after the change (\*)  7. The individual configuration management defines a ‘system identifier’ (as defined in 4.2.20.3) and the ‘functional identifier’ of the ‘system identifier’ has not been changed after the change (\*\*) | Yes  No |
| 8. The change shall be part of the configuration management required by Article 5 of Regulation (EU) 2018/545 | Yes  No |

*(\*) §7.2.1a.2 of CCS TSI (EU) 2016/919, as amended*

*(\*\*) §7.2.2.2 of CCS TSI (EU) 2023/1695*

**I.4.3. Conditions for a change in the on-board mobile communications functions for railways (EDOR and/or cab radio)** **or in the ATO on-board functionality not impacting basic design characteristics**

|  |  |
| --- | --- |
| **Conditions for a change in the on-board mobile communication functions**  **for railways that does not impact the basic design characteristics**  §7.2.1a.3 of Regulation (EU) 2016/979 (as amended) or §7.2.2.3 of Regulation (EU) 2023/1695 | **Condition fulfilled?** |
| 1. The target functionality[[15]](#footnote-15) remains unchanged or is set to the state already expected during the original certification or authorisation (\*)  1. The target functionality14 remains unchanged or is set to the state already expected during the original certification or authorisation. Target functionality is considered unchanged when applying the specification maintenance (error correction) process described in point 7.2.10, which includes either the implementation of error corrections or the implementation of mitigation measures (\*\*) | Yes  No |
| 2. The interfaces relevant for technical compatibility remain unchanged or are set to the state already expected during the original certification or authorisation | Yes  No |
| 3. The change is performed under a quality management system approved by a notified body (e.g., according to modules CH1, SH1, CD, SD). For other modules (e.g., CF, SF) it shall be justified that the verification performed remains valid[[16]](#footnote-16) (\*)  3. Depending on the type of change (\*\*):   1. in the case where the change is made due to a product error: The change is performed under a quality management system approved by a notified body. For other modules it shall be justified that the verification performed remains valid15 2. in the case where the change is made due to the specification maintenance process (there are updated specifications in Appendix A Table A 2 with the descriptions of the error correction): an updated EC design examination or EC type examination certificate for the Interoperability Constituents or Subsystem with the implementation of error corrections is needed. In this case the provisions of point 6.3.3(3) apply | Yes  No |
| 4. The change shall be part of the configuration management required by Article 5 of the Regulation (EU) 2018/545 | Yes  No |

*(\*) §7.2.1a.3 of CCS TSI (EU) 2016/919, as amended*

*(\*\*) §7.2.2.3 of CCS TSI (EU) 2023/1695*

**I.4.4. Conditions for a change in the on-board subsystem regarding ETCS or Radio system compatibility that does not impact the basic design characteristics**

|  |  |
| --- | --- |
| **Conditions for a change in the on-board mobile subsystem regarding ETCS or**  **Radio system compatibility that does not impact the basic design characteristics**  §7.2.2.4 of Regulation (EU) 2023/1695 | **Condition fulfilled?** |
| 1. No safety related application conditions (SRAC) or interoperability constraints related to the technical compatibility with the network have been added or removed due to the addition or removal of an ESC or RSC statement. | Yes  No |
| 2. No interoperability constraints (restrictions or conditions for use) related to the technical compatibility with the network have been added or removed due to the ESC or RSC statement | Yes  No |

***Annex II: Values for ERATV (to be filled in only in case or request for creation of a compiled version)***

Please fill in the values for the different parameters of the ERATV records to be compiled. Add / remove columns as needed.

***II.1. General information about the ERATV records to be compiled***

When the values are the same for all ERATV records, it is only necessary to write the value for the parameter in the column for ERATV record 1.

|  | Differences between versions? | ERATV record 1 | ERATV record 2 | ERATV record 3 | ERATV record 4 | ERATV record 5 | ERATV record 6 | ERATV record 7 | ERATV record 8 | ERATV record 9 | ERATV record 10 | Comments |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Category | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  |  |
| 2. Subcategory | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  |  |
| 3. Platform | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  |  |
| 4. Area of use (MS, networks in each MS and neighbouring stations) | ☐ Yes  ☐ No  ☐ n.a. |  |  |  |  |  |  |  |  |  |  | Not applicable in case of compilation of versions following changes classified pursuant to Article 15(1)(c) of Regulation (EU) 2018/545. |
| 5. Reference of the written declaration covering requirements capture (including version and date) | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  |  |
| 6. Authorising entity | ☐ Yes  ☐ No  ☐ n.a. |  |  |  |  |  |  |  |  |  |  | Not applicable in case of compilation of versions following changes classified pursuant to Article 15(1)(c) of Regulation (EU) 2018/545. |
| 7. TSIs complied with | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  | Please indicate also non-application of TSIs, alternative specifications, selection of requirements from newer versions and other sections not complied with. |
| 8. National rules complied with | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  |  |
| 9. References of the type or design examination certificates | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  |  |
| 10. Date of authorisation | ☐ Yes  ☐ No  ☐ n.a. |  |  |  |  |  |  |  |  |  |  | Not applicable in case of compilation of versions following changes classified pursuant to Article 15(1)(c) of Regulation (EU) 2018/545. |
| 11. Date of creation of the ERATV entry | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  |  |
| 12. Reference of the authorisation document | ☐ Yes  ☐ No  ☐ n.a. |  |  |  |  |  |  |  |  |  |  | Not applicable in case of compilation of versions following changes classified pursuant to Article 15(1)(c) of Regulation (EU) 2018/545. |
| 13. ESCs (ETCS System Compatibility) | ☐ Yes  ☐ No  ☐ n.a. |  |  |  |  |  |  |  |  |  |  | Not applicable in case of vehicles not fitted with ETCS. |
| 14. RSCs (Radio System Compatibility) | ☐ Yes  ☐ No  ☐ n.a. |  |  |  |  |  |  |  |  |  |  | Not applicable in case of vehicles not fitted with GSM-R radio. |
| 15. Transitions between neighbouring MSs (cross-border operation) covered | ☐ Yes  ☐ No |  |  |  |  |  |  |  |  |  |  | When the values are the same for all ERATV records to be compiled, it is only necessary to write the value for the parameter in the row for ERATV record 1. Then describe the differences, if any, for the remaining records to be compiled. When there are no differences, please write “No difference”. Please include the condition for use and other restrictions form the parent type/variant from which all ERATV records to be compiled derive, making a difference between them and the ones that are applicable only to each ERATV record to be compiled. |

***II.2 Conditions for use and other restrictions***

When the values are the same for all ERATV records to be compiled, it is only necessary to write the value for the parameter in the row for ERATV record 1. Then describe the differences, if any, for the remaining records to be compiled. When there are no differences, please write “No difference”. Please include the condition for use and other restrictions form the parent type/variant from which all ERATV records to be compiled derive, making a difference between them and the ones that are applicable only to each ERATV record to be compiled.

|  | Coded restrictions | Non-coded restrictions | Comments |
| --- | --- | --- | --- |
| ERATV record 1 |  |  |  |
| ERATV record 2 |  |  |  |
| ERATV record 3 |  |  |  |
| ERATV record 4 |  |  |  |
| ERATV record 5 |  |  |  |
| ERATV record 6 |  |  |  |
| ERATV record 7 |  |  |  |
| ERATV record 8 |  |  |  |
| ERATV record 9 |  |  |  |
| ERATV record 10 |  |  |  |

***II.3. Values for the ERATV technical parameters of the ERATV record to be compiled***

When the values are the same for all ERATV records to be compiled, it is only necessary to write the value for the parameter in the column for ERATV record 1.

Please note that there is **no need to fill-in the values for the parameters that are not impacted** as compared to the parent type/variant form which all ERATV records to be compiled derive. In such case, indicate “No” in the column “Parameter impacted?” and leave empty all other cells for the concerned parameter.

When a given parameter does not apply to the concerned vehicle type (e.g., “4.1.1 Number of driving cabs” for a wagon), mark “n.a.” in the column “Parameter impacted?” and leave empty all other cells for the concerned parameter.

| Values for ERATV technical parameters | | Category of vehicle | Parameter impacted? | Differences between records? | ERATV record 1 | ERATV record 2 | ERATV record 3 | ERATV record 4 | ERATV record 5 | ERATV record 6 | ERATV record 7 | ERATV record 8 | ERATV record 9 | ERATV record 10 | Comments |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4.1.1 | Number of driving cabs | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.1.2.1 | Maximum design speed | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.1.3 | Wheel set gauge | All | Yes  No  n.a. | Yes  No |  |  |  |  |  |  |  |  |  |  |  |
| 4.1.5 | Maximum number of trainsets or locomotives coupled together in multiple operation. | Traction vehicles | Yes  No  n.a. | Yes  No |  |  |  |  |  |  |  |  |  |  |  |
| 4.1.11 | Wheelset gauge changeover facility | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.1.12 | Number of vehicles composing the fixed formation (for fixed formation only) | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.2.1 | Reference profile | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.3.1 | Temperature range | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.3.3 | Snow, ice and hail conditions | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.4.1 | Fire safety category | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.1 | Permissible payload for different line categories | Freight wagons | Yes  No  n.a. | Yes  No.  n.a. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.1.1 (\*) | EN line category(ies) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.2.1 | Design mass in working order | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.2.2 | Design mass under normal payload | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.2.3 | Design mass under exceptional payload | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.2.4 (\*) | Operational mass in working order | Traction & hauled passenger vehicles | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.2.5 (\*) | Operational mass under normal payload | Traction & hauled passenger vehicles | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.3.1 | Static axle load in working order | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.3.2 | Static axle load under normal payload | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.3.3 | Static axle load under exceptional payload | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.3.4 | Position of the axles along the unit (axle spacing):  a: Distance between axles  b: Distance from end axle to the end of the nearest coupling plane  c: distance between two inside axles | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.5 | Total vehicle mass (for each vehicle of the unit) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.5.6 | Mass per wheel | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.6.4 | Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.6.5 | Rail inclination | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.1 | Maximum average deceleration | Traction & special vehicles | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.2.1.1 | Reference case of TSI | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.2.1.2 | Speed (if no reference case is indicated) | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.2.1.3 | Gradient (if no reference case is indicated) | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.2.1.4 | Distance (if no reference case is indicated) | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.2.1.5 | Time (if distance is not indicated) (if no reference case is indicated) | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.2.1.6 | Maximum brake thermal energy capacity | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.3.3 | Maximum gradient on which the unit is kept immobilized by the parking brake alone (if the vehicle is fitted with it) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.3.4 | Parking brake | Freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.4.1.1 | Eddy current track brake fitted | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.4.1.2 | Possibility of preventing the use of the eddy current track brake (only if fitted with eddy current track brake) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.4.2.1 | Magnetic track brake fitted | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.4.2.2 | Possibility of preventing the use of the magnetic track brake (only if fitted with magnetic brake) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.4.3.1 | Regenerative brake fitted | Traction & special vehicles | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.4.3.2 | Possibility of preventing the use of the regenerative brake (only if fitted with regenerative brake) | Traction & special vehicles | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.5 | Emergency brake: Stopping distance and deceleration profile for each load condition per design maximum speed | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.6 | For general operation:  Brake weight percentage (lambda) or Braked mass | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 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. | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.7.8 | Wheel slide protection system | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.8.1 | Vehicle length | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.8.2 | Minimum in-service wheel diameter | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.8.4 | Minimum horizontal curve radius capability | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.8.5 | Minimum vertical convex curve radius capability | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.8.6 | Minimum vertical concave curve radius capability | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.9.1 | Type of end coupling | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.9.2 | Axle bearing condition monitoring (hot axles box detection) | All | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.9.3.1 (\*) | Flange lubrication fitted | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.9.3.2 (\*) | Possibility of preventing the use of the lubrication device (only if fitted with flange lubrication) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.10.1 | Energy supply system (voltage and frequency) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.10.4 | Maximum current at standstill per pantograph (to be indicated for each DC systems the vehicle is equipped for) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 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) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.10.6 | Pantograph head geometry (to be indicated for each energy supply system the vehicle is equipped for) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 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) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 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) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 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) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.10.11 | Automatic dropping device (ADD) fitted (to be indicated for each energy supply system the vehicle is equipped for) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.10.14 | Electric units equipped with power or current limitation function | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.10.15 | Mean contact force | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.10.16 (\*) | Vehicle equipped with electric energy storage for traction purposes and with the function of charging with OCL at standstill | Traction & special vehicles | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.12.3.1 | Platform heights for which the vehicle is designed. | Traction & hauled passenger vehicles | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.1.1 | ETCS equipment on-board and the set of specifications from CCS TSI Annex A | All except freight wagons  Traction and special vehicles (\*) | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.1.5 | Class B or other train protection, control and warning legacy systems installed (system and, if applicable, version) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.1.7 | ETCS on-board implementation | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.1.8 | ETCS System Compatibility | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.1.9 | Managing information about the completeness of the train (not from driver) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.1.10 (\*) | Safe consist length information from on-board necessary to access the line and corresponding SIL | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.1.11 (\*) | Envelope of legally operated ETCS system versions | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.1 | GSM-R Radio voice on board and its Baseline | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.3 | Class B or other radio systems installed (system and, if applicable, version) | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.5 | Radio Voice System Compatibility | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.6 | GSM-R Voice and operational communication implementation | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.7 | GSM-R Radio Data communication on board and its Baseline | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.8 | Radio Data System Compatibility | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.9 | GSM-R Data communication application for ETCS and ATO implementation | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.10 | Voice SIM Card GSM-R Home Network | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.11 | Data SIM Card GSM-R Home Network | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.2.12 | GSM-R Voice SIM Card support of Group ID 555 | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.3.1(\*) | On-board ATO system version | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.13.3.2(\*) | On-board ATO implementation | All except freight wagons | Yes  No  n.a. | Yes  No. |  |  |  |  |  |  |  |  |  |  |  |
| 4.14.1 | Type of train detection systems for which the vehicle has been designed and assessed | All | Yes  No  n.a. | Yes  No |  |  |  |  |  |  |  |  |  |  |  |
| 4.15.1(\*) | Presence and type of derailment detection and prevention function(s) | Freight wagons |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.15.2(\*) | Presence of derailment prevention and detection function | Traction vehicles |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.15.3(\*) | Presence of derailment prevention and detection signal processing | Traction vehicles |  |  |  |  |  |  |  |  |  |  |  |  |  |

*(\*) Only for Regulation (EU) 2023/1696*

1. Commission Implementing Regulation (EU) 2018/764 of 2 May 2018 on the fees and charges payable to the European Union Agency for Railways and their conditions of payment (OJ L 129, 25.5.2018, p. 68–72), as amended by Commission Implementing Regulation (EU) 2021/1903 of 29 October 2021 (*OJ L 387, 3.11.2021, p. 126–132*) and Commission Implementing Regulation (EU) 2024/2018 of 26 July 2024 (OJ L, 2024/2018, 29.7.2024) [↑](#footnote-ref-1)
2. When a new type is created under option c.1 as a result of a new authorisation or an extension of the area of use (when the holder so decides, or when the entity managing the change is not the holder of the vehicle type authorisation), option c.2, option c.3 or option c.4, the exceptional mode option in ERATV will be used. This allows to leave empty mandatory parameters in ERATV. When a new type is created as a result of a first authorisation, the normal mode of ERATV will be used [↑](#footnote-ref-2)
3. For a version of a version that was authorised under Directive 2008/57/EC (third Railway Package), the registration method to be used in ERATV is “New version of a registered type Directive 2008/57/EC”. Versions of versions created under Directive (EU) 2016/797 (fourth Railway Package) are not allowed. Similarly, variants of versions created under Directive (EU) 2008/57/EC are not allowed. [↑](#footnote-ref-3)
4. Please verify that the applicable rules (TSIs, national rules, other legislation of the union) do not render the type authorisation invalid. In particular, if the change concerns CCS, please notice that CCS TSI (Regulation (EU) 2023/1695) limits the possibility to use types with an on-board ERTMS with baseline 2 (BL2, system version 0.Y, 1.0, and 1.1) to manufacture new vehicles. [↑](#footnote-ref-4)
5. Short but precise description of the changes of the version as compared to the parent type or variant, with enough level of detail to understand the technical impact of the change (e.g., technical modifications needed in the vehicle) . Write “Not applicable” if the draft entry does not relate to a change (e.g., version following the addition of an ESC - ERTMS System compatibility - statement). If there is no enough space in the form to properly describe the change, please include the description in a standalone document, include the reference to the document in c.3.2 and attach the document to this form. Even in this case, please provide a short description. [↑](#footnote-ref-5)
6. See sections 1.2 & 2.2 of Annex I of this document for further details. Choose “No” if the draft entry does not relate to a change (e.g., version following the addition of an ESC). [↑](#footnote-ref-6)
7. Please describe the process followed to arrive to the conclusion that the change does not have the potential for impacting safety adversely (before its implantation, verification and validation). In particular, when the written declaration referred to in Annex I I.1 is different, and this is due to a change in the AsBo report [↑](#footnote-ref-7)
8. Basic Design Characteristics, as described in tables 17a & 17b of LOC&PAS TSI (Regulation (EU) 1302/2014 , table 11a of WAG TSI (Regulation (EU) 321/2013), table 7.1 of CCS TSI (Regulation (EU) 2023/1695) and Article 48(c) of Regulation (EU) 2018/545. Write “Not applicable” if the draft entry does not relate to a change. [↑](#footnote-ref-8)
9. Only if provisions of §7.1.4 of LOC&PAS TSI or 7.2.2.4 of WAG TSI concerning extension of the area of use of vehicles authorised in accordance with Directive 2008/57/EC or in operation before 19 July 2010 apply, and the applicant will make use of alternative specifications. If not, write “Not applicable” [↑](#footnote-ref-9)
10. Not applicable in case of compilation of versions created following changes classified pursuant to Article 15(1)(c) of Regulation (EU) 2018/545 [↑](#footnote-ref-10)
11. Short and concise explanation. No need to provide evidence [↑](#footnote-ref-11)
12. The cumulative effect of the different 15(1)(c) changes for the same ERATV parameter as compared to the type/variant from which all versions derive should be considered when analysing the thresholds allowed in the applicable TSIs [↑](#footnote-ref-12)
13. Target functionality refers to the ETCS functionality that has been evaluated in the subsystem EC certificate. The Technical Opinions published by the Agency that correct errors in the TSI are considered to define the functionality state already expected during the original certification or authorisation [↑](#footnote-ref-13)
14. All activities required for a modification which are performed outside a quality management system approved by a notified body might require additional examinations or tests by the notified body. [↑](#footnote-ref-14)
15. Target functionality refers to the mobile communication functionality that has been evaluated in the subsystem EC certificate. The Technical Opinions published by the Agency that correct errors in the TSI are considered to define the functionality state already expected during the original certification or authorisation. [↑](#footnote-ref-15)
16. All activities required for a modification which are performed outside a quality management system approved by a notified body might require additional examinations or tests by the notified body. [↑](#footnote-ref-16)