Allegato S

Modulo per la creazione di un identificativo ERATV

a. User information *Please choose one of the 2 options below and fill in the corresponding fields.*	
☐ a.1. New user	a.1.1 First name:Click here to enter text. a.1.2 Last name:Click here to enter text. a.1.3 Email:Click here to enter text. a.1.4 Organisation:Click here to enter text. a.1.5 Address:Click here to enter text. a.1.6 Phone:Click here to enter text.
☒ a.2.Existing ERATV user	a.2.1 Email: Click here to enter text.

b. Registration options *Please choose one of the 4 options below and fill in the corresponding fields.*	
☒ b.1 New type	b.1.1 Category: Choose an item. b.1.2 Sub-category: Choose an item. b.1.3 Platform:Click here to enter text.
☐ b.2 New variant based on a type	b.2.1 Type ID[1]:Click here to enter text.
☐ b.3 New version based on type / variant following a change categorised as 15(1)(c) of Regulation (EU) 2018/545	b.3.1 Holder[2]: Click here to enter text. b.3.2 Type ID[3] :Click here to enter text. b.3.3 Applicable rules (TSIs, national rules, other Union law) require renewal/new authorisation[4]?: ☐Yes ☐No b.3.4 Changes description[5]: Click here to enter text. b.3.5 Article 21(12)(b) Directive (EU) 2016/797 triggered[6]?: ☐Yes ☐No b.3.6 B.D.C.[7] impacted: see Annex I (fill checkboxes applicable) b.3.7 Non-application of TSIs (if any): Click here to enter text.
☐ b.4 New version based on type / variant following an extension of the area of use	b.4.1 Type ID[3]: Click here to enter text. b.4.2 Alternative specifications[8]: Click here to enter text.

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

1. General information *Please fill in the corresponding fields.*

[1] Type ID of the type from which the variant derives
[2] Holder of the vehicle type authorisation, pursuant to article 2(6) of Regulation (EU) 2018/545. Only a holder can request the creation of a version
[3] Type ID of the vehicle type or variant of a vehicle type from which the version derives
[4] 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, as amended by Regulation (EU) 2019/776, requires that all types with an on-board ERTMS with baseline 2 (B2) are renewed.
[5] Short but precise description of the changes of the version as compared to the vehicle type or variant of a vehicle type form which the version derives, including indirect impacts in other aspects of the design. Write "Not applicable" if the draft entry does not relate to a change.
[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.
[7] 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) and table 7.1 of CCS TSI (Regulation (EU) 2016/919). Write "Not applicable" if the draft entry does not relate to a change.
[8] 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 this is the case, attach the form TEM_VEA_052 to this form; if not, write "Not applicable"

1.1. Type name:	Click here to enter text.
1.2. Alternative type name:	Click here to enter text.

1.3. Manufacturer *Please fill in the corresponding fields.*	
1.3.1. Manufacturer identification data	
1.3.1.1. Name of organization:	Click here to enter text.
1.3.1.2. Registered business number:	Click here to enter text.
1.3.1.3. Organisation code:	Click here to enter text.
1.3.2. Manufacturer contact data	
1.3.2.1. Address, street and number:	Click here to enter text.
1.3.2.2. Town:	Click here to enter text.
1.3.2.3. Country code:	Click here to enter text.
1.3.2.4. Post code:	Click here to enter text.
1.3.2.5. E-mail address:	Click here to enter text.

4. Technical characteristics of the vehicle *Please fill in the corresponding fields.*	
4.1. General technical characteristics	
4.1.1. Number of driving cabs:	Click here to enter text.

Request date:

Requestor's email:

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)

1. General basic design characteristics

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 b.3.5 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, it is necessary to double check whether Article 21(12)(b) is triggered (potential impact on safety requiring an update of the risk analysis and AsBo assessment)*	☐ Yes (***) ☐ No

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

2.1. Basic design characteristics

Table 17a Regulation (EU) 1302/2014 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 ina change of the 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		
	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		
	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 ina change of the 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 ina change of the 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	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	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

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 behaviour	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	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	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	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	☐ 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	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	Version not allowed	N/A	Fitting/removal of WSP function
4.2.4.8.2 Magnetic track brake	Magnetic track brake	4.7.4.2.1 Magnetic track brake fitted	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)	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	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)	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)	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, o thers)
4.2.8.2.3 Regenerative brake with energy to the overhead contact line	Regenerative brake	4.7.4.3.1 Regenerative brake fitted	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 for DC systems	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
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)	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 or4.2.8.2.9.2.3
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 behaviour	Mean contact force curve	4.10.15 Mean contact force	☐ Yes ☐ No	Change requiring a new assessment of pantograph dynamic behaviour.	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)	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 ofremoving 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)	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
4.2.10.1. General and categorisation	Fire safety category	4.4.1 Fire safety category	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 inmultiple operation.	4.1.5 Maximum number of trainsets or locomotives coupled together in multiple operation.	Version not allowed	N/A	Change of maximum allowed number of trainsets or loco- motives 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)	Version not allowed	N/A	Change in the number of vehicles composing the fixed formation

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.	Version not allowed	N/A	Change of platform height the vehicle is compatible with

2.2. Aspects to be taken into account when assessing Article 21(12)(b)

2.2.1 Changes requiring reassessment of safety requirements

Please notice that Regulation (EU) 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) 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.

2.2.2 Changes requiring a new reliability study

Similarly, paragraph (4a) 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.*"

Both aspects shall be taken into account when declaring whether Article 21(12)(b) of Directive (EU) 2016/797 are triggered when answering field b.3.5 of the request form.

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

3.1. Basic design characteristics

Table 11a Regulation (EU) 321/2013 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	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	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)	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	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	Version not allowed	N/A	Change of rail inclination the vehicle is conform to
4.2.3.6.2 Characteristics of wheelsets	Wheelset gauge	4.1.3 Wheel set gauge	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	4.7.7 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 acalculation. 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	Version not allowed	N/A	New reference case declared
		4.7.2.1.2 Speed (if no reference case is indicated)	Version not allowed		
		4.7.2.1.3 Gradient (if no reference case is indicated)	Version not allowed		
		4.7.2.1.4 Distance (if no reference case is indicated)	Version not allowed		
		4.7.2.1.5 Time (if distance is not indicated) (if no reference case is indicated)	Version not allowed		
4.2.4.3.4 Wheel slide protection (WSP)	Wheel slide protection	4.7.8 Wheel slide protection system	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

3.2. Aspects to be taken into account 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.

4. Vehicles in the scope of Regulation (EU) 2016/919 CCS TSI

4.1. Basic design characteristics

Table 7.1 Regulation (EU) 2016/919 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	Set of specification of Annex A	4.13.1.1 ETCS equipment on-board and the set of specifications from CCS TSI Annex A	Version not allowed	Not Applicable	Not Applicable	Use another Annex A set of specifications
	On-board ETCS implementation	4.13.1.7 ETCS on-board implementation	Version not allowed	Fulfilling all the conditions in point 7.2.1a.2 (change of realisation)	Not Applicable	Not fulfilling all the conditions in point 7.2.1a.2 (Functional change)
	Managing information about the completeness of the train	4.13.1.9 Managing information about the completeness of the train	☐ Yes ☐ No	Not Applicable	Adding or removing train integrity supervision	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	Not Applicable
4.2.4 Mobile communication functions for railways GSM-R 4.2.4.2 Voice and operational communication application	GSM-R Baseline	4.13.2.1 GSM-R Radio voice on board and its Baseline	Version not allowed	Use another Baseline fulfilling all the conditions in point 7.2.1a.3	Not Applicable	Use another Baseline not fulfilling all the conditions in point 7.2.1a.3.
	Voice and operational communication implementation	4.13.2.6 Voice and operational communication implementation	Version not allowed	Fulfilling all the conditions in point 7.2.1a.3 (change of realisation)	Not Applicable	Not fulfilling all the conditions in point 7.2.1a.3 (Functional change)
	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	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	Not Applicable
4.2.4 Mobile communication functions for railways GSM-R 4.2.4.3 Data communication applications for ETCS	GSM-R Baseline	4.13.2.7 GSM-R Radio Data communication on board and its Baseline	Version not allowed	Use another Baseline fulfilling all the conditions in point 7.2.1a.3.	Not Applicable	Use another Baseline not fulfilling all the conditions in point 7.2.1a.3
	Data communication for ETCS implementation	4.13.2.9 Data communication application for ETCS implementation	Version not allowed	Fulfilling all the conditions in point 7.2.1a.3 (change of realisation)	Not Applicable	Not fulfilling all the conditions in point 7.2.1a.3 (Functional change)
4.2.17.2 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	Not Applicable
4.2.4 Mobile communication functions for railways GSM-R 4.2.4.1 Basic communication function	IM 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
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.

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

CCS TSI 7.2.1a.2. Conditions for a change in the On-board ETCS functionality that does not impact the basic design characteristics

Conditions for a change in the On-board ETCS functionality that does not impact the basic design characteristics	Condition fulfilled?
1. The target functionality[9] remains unchanged or is set to the state already expected during the original certification or authorisation	☐ 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

[9] 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

	☐ No
5. An Assessment Body (CSM RA) as specified in point 3.2.1 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[10]	☐ 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.	☐ Yes ☐ No
8. The change shall be part of the configuration management required by Article 5 of Regulation (EU) 2018/545.	☐ Yes ☐ No

4.3. Conditions for a change in the on-board mobile communications functions not impacting basic design characteristics

CCS TSI 7.2.1a.3. Conditions for a change in the on-board mobile communication functions for railways that does not impact the basic design characteristics

Conditions for a change in the on-board mobile communication functions for railways that does not impact the basic design characteristics	**Condition fulfilled?**
The target functionality[11] remains unchanged or is set to the state already expected during the original certification or authorisation.	☐ 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 [12]	☐ Yes ☐ No
4. The change shall be part of the configuration management required by Article 5 of the Regulation (EU) 2018/545.	☐ Yes ☐ No

[10] 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.

[11] 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.

[12] 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.