Annex 1 to REC ERA 1218-2

Amendments in Annex I of Commission Implementing Regulation (EU) 2023/1695 of 10 August 2023 on the technical specification for interoperability relating to the control-command and signalling subsystems of the rail system in the European Union and repealing Regulation (EU) 2016/919:

(1) The word 'and' is deleted in Chapter 1, point 1.1 (2) resulting in '*special vehicles, such as on-track machines, if equipped with a driving cab intended to be used in running mode on its own wheels*.'

(2) In chapter 4, Table 4.1. in the row corresponding to 'Control-Command and Signalling Trackside' – 'Voice radio communication', points '4.2.5.1' and '4.2.7' are substituted by '4.2.5.1.1'

(3) In chapter 4, Table 4.1. row corresponding to 'Control-Command and Signalling Trackside' – 'Data radio communication' point '4.2.7' is substituted by '4.2.7.3'

(4) Section '4.2.2.1 ETCS primary functions' is added right after section '4.2.2 On-Board ETCS functionality'

(5) Section '4.2.2.2 Other ETCS functions' is added right before the paragraph 'The main functionality is supported by other functions…'

(6) 4.2.2 (8) is amended as follows:

(8) "Communicating with the ATO. See Appendix A, Table A 1, 4.2.2 h.

This function includes:
(a) managing the ATO output;
(b) providing data to be used by the ATO;
(c) managing ATO transitions."

(7) 4.2.3 a blank space is introduced in paragraph four between 'b' and 'and' in the sentence '… Table A 1, 4.2.3 band their performance…'

(8) Second paragraph of 4.2.17.2 is amended as follows:
'The list of ESC Types is published and maintained by the European Union Agency for Railways in the technical document 4.2.17 a 'ESC/RSC technical document, TD/011REC1028'. See Appendix A, Table A 1,. The NoBo shall assess new or modified types related to changes in the CCS trackside subsystem according to Table 6.3 row 10. The Agency shall analyse the changes to existing types consisting of the complete or partial removal of types and/or checks, or that are editorial. The analysis by the Agency shall be done within 2 months of receipt thereof, unless a longer period is agreed between the Agency and the Infrastructure Manager but not exceeding 4 months in total. The technical document will be updated within 10 working days after positive analysis.'

(9) Second paragraph of 4.2.17.4 is amended as follows:

'The list of RSC Types is published and maintained by the European Union Agency for Railways in the technical document 'ESC/RSC technical document, TD/011REC1028'. See

Appendix A, Table A 1, 4.2.17 a. The NoBo shall assess new or modified types related to changes in the CCS trackside subsystem according to Table 6.3 row 10. The Agency shall analyse the changes to existing types consisting of the complete or partial removal of types and/or checks, or that are editorial. The analysis by the Agency shall be done within 2 months of receipt thereof, unless a longer period is agreed between the Agency and the Infrastructure Manager but not exceeding 4 months in total. The technical document will be updated within 10 working days after positive analysis.'

(10) In 4.2.20.3 sentence 'The ERTMS (ETCS, RMR, ATO) functionality of an Interoperability Constituent or a subsystem shall be described with a 'system identifier',' is replaced by 'The ERTMS (ETCS, RMR, ATO) functionality of Interoperability Constituents and CCS subsystems shall be described with a 'system identifier','

(11) In 4.3.2, row

Train braking performance and characteristics	4.2.2 4.2.18	Braking performance	LOC & PAS TSI Emergency braking LOC & PAS TSI Service braking Wagon TSI	4.2.4.5.2 4.2.4.5.3 4.2.4.1.2

is substituted by

Train braking performance and characteristics	4.2.2 4.2.18	Braking performance	LOC & PAS TSI Emergency braking LOC & PAS TSI Service braking Wagon TSI	4.2.4.5.2 4.2.4.5.3 4.2.4.3.2

(12) Table 5.1 row 1, in the column 'Characteristics' section 'Interfaces' the last paragraph adds the reference to 'Table A.2' resulting in:
'*Note for train interface:* The implementation of all functions described in Appendix A Table A 2 Index 7 document is mandatory at Interoperability Constituent level.'

(13) In chapter 6, 6.2.4.1 (1) and (2) are amended as follows:

(1) a representative specimen of the interoperability constituent has been submitted to a full set of test sequences including all test cases necessary to check the functions referenced in point 4.2.2 (On-Board ETCS functionality). The applicant is responsible to define the test cases and their organisation in sequences, if this is not included in specifications referenced in this TSI; these tests were carried out in a laboratory accredited in accordance with Regulation (EC) No 765/2008 of the European Parliament and of the Council ([14]) and the standards referred to in Appendix A, Table A 4 to carry out tests with the use of the test architecture and the procedures specified in Appendix A, Table A 1,

(2) (2) 4.2.2 c.

[14] Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p. 30).

(14) In Table 6.3, row 7, column 'Supporting evidence', first paragraph is amended as follows:
'Evidence of compatibility of equipment from existing installations (for train detection systems types already in use); perform tests according to standards (for new train detection systems types on the line).'

(15) In chapter 7, 7.2.2.1, footnote '([16])' is removed.

(16) Table 7.1, row 7, column 3 '. Changes not impacting the basic design characteristics according to 15(1)(b) of Implementing Regulation (EU) 2018/545' the term 'Baseline' is replaced by 'Baseline Release'.

(17) Table 7.1, row 9, column 3 '. Changes not impacting the basic design characteristics according to 15(1)(b) of Implementing Regulation (EU) 2018/545' the term 'Baseline' is replaced by 'Baseline Release'.

(18) 7.2.3.2 (8) the reference to '7.2.1b.1.7.' is replaced by '7.2.3.1 (6)'.

(19) 7.2.4.1.1 (4) the following text is added:

'Any vehicle in production phase shall meet the CCS on-board subsystem requirements after the deadline stated in the column production phase. This is independent of whether the associated vehicle type design phase is completed before or after the CCS TSI entered into force. As such, an implementation requirement within the production phase should be taken into account in the overall planning of a vehicle project.'

(20) 7.2.4.1.2. (2) is amended as follows:

'For projects in design phase by 28 September 2023, the notified body shall issue the EC type or design examination certificate according to the following rules:

For changes in the CCS TSI 2023/1695 that are not referenced in Appendix B, conformity with the initial assessment framework CCS TSI 2016/919 including all the amendments leads to conformity to the certification framework. The Notified Body shall issue the EC type or design examination certificate referring to the certification framework without additional assessment.

For changes in the CCS TSI 2023/1695 that are referenced in Appendix B, their application is mandatory according to the transition regime defined in this Appendix B. During the defined transition period, the Notified Body may issue the EC type or design examination certificate referring to the certification framework without additional assessment. The Notified Body shall list in the EC type or design examination certificate all the points (from Table B1.1) assessed according to the initial assessment framework.'

(21) 7.2.4.1.3 content is amended as follows:

'From 28 September 2023, the EC type or design examination certificate for the subsystem remains issued according to CCS TSI 2016/919 including all the amendments valid unless it is required to be revised according to the specific transition regime of CCS TSI 2023/1695 change as defined in Appendix B. '

(22) 7.2.4.2, second paragraph is amended as follows:

‘From 28 September 2023 , the EC type or design examination certificate for the subsystem issued according to CCS TSI 2016/919 including all the amendments remains valid unless it is required to be revised according to the transition regime for CCS TSI 2023/1695 including all amendments changes as defined in Appendix B (Table B2).

For EC type or design examination certificate for the subsystem issued against other versions of the CCS TSI a specific gap analysis shall be performed identifying any differences between the other version of the CCS TSI and the CCS TSI 2016/919 including all amendments, within the scope of the changes proposed to the subsystem. The authorising entity shall judge whether these differences impact the validity of the current certificates. For the differences between CCS TSI 2016/919 including all amendments and CCS TSI 2023/1695 including all amendments, they should be managed according to the transition regime for CCS TSI 2023/1695 including all amendments changes as defined in Appendix B (Table B2).’

(23) 7.2.4.3, is amended as follows:

‘EC design or type certificates of interoperability constituents already placed on the market based on CCS TSI 2016/919 including all the amendments remain valid after 28 September 2023, unless a requirement is applicable at CCS subsystem which impacts the interoperability constituent (as specified in Table B1.1 or Table B2 of Appendix B) or unless explicitly otherwise specified in Table B3 of Appendix B.

During this transition period, these interoperability constituents are permitted to be placed on the market without a new design or type examination.’

(24) 7.2.9 in the fourth paragraph term ‘intent’ is replaced by ‘intend’.

(25) 7.2.10.1 term ‘next’ in the first paragraph is removed.

(26) 7.2.10.3.1, second paragraph is amended as follows:

‘The Infrastructure Manager shall register in the related RINF (32) parameter which error corrections are applicable (i.e. the errors preventing normal service in the network) for the on-board. Error corrections shall be registered: for the first time no later than 6 months after the latest date between 28 September 2023 and the publication by the Agency of the Baseline Compatibility Analysis (BCA) including the answers to the questionnaires; and whenever there is a change in the applicable error corrections due to new or upgrade trackside implementation within the infrastructure manager’s network.’

(27) 7.3.1.2, in condition 2, the term ‘intent’ is replaced by ‘intend’

(28) 7.3.1.3 in the third paragraph the term ‘intent’ is replaced by ‘intend’

(29) 7.4.1 third paragraph is amended as follows:

‘The trackside installations shall comply with the harmonised engineering rules and shall be operated without restriction under the operating rules set out in the Appendix A of Implementing Regulation (EU) 2019/773.’

(32) The Network Statement can be used as tool in case RINF is not upgraded yet to notify this change.

(30) 7.4.1.2 first paragraph is amended as follows:

‘Networks that implement and operate ETCS lines according to former set #1 as in Annex A, Table A2.1 of previous versions of this TSI before the entry into force of this TSI and with more than 1.000 km or 25% in operation or under construction in the Core Network Corridors before 31 December 2020, can exceptionally continue to use those ETCS specifications for the placing into service for 7 year after 28 September 2023 for new projects and for 10 years after 28 September 2023 for upgraded or renewal projects in the network under the following conditions:’

(31) 7.4.1.2 sixth paragraph is amended as follows:

‘Networks that implement or operate ETCS lines according to former set #2 or set #3 as in Annex A, Table A2.2 and Table A2.3 of previous versions of this TSI, can exceptionally use any of those specifications for the placing into service for 7 years after 28 September 2023 for new projects and for 10 years after 28 September 2023 for upgraded or renewal projects in the network under the following conditions:’

(32) 7.4.1.2. in the ninth paragraph the term ‘and’ is replaced by ‘or’

(33) 7.4.1.3 in the third paragraph the term ‘intent’ is replaced by ‘intend’

(34) Table A 1 is amended as follows:

Reference in Chapter 4	Index number (see Table A 2)
4.1	
4.1 a	Intentionally deleted
4.1 b	Intentionally deleted
4.1 c	3, 102
4.2.1	
4.2.1 a	27, 104
4.2.2	
4.2.2 a	14, 104
4.2.2 b	4, 13, 60, 104
4.2.2 c	31, 37 b, 37 c, 37 d, 104
4.2.2 d	20
4.2.2 e	6, 104

Reference in Chapter 4	Index number (see Table A 2)
4.2.2 f	7, 81, 82, 104
4.2.2 g	Intentionally deleted
4.2.2 h	84, 87, 104
4.2.3	
4.2.3 a	14
4.2.3 b	4, 13, 60
4.2.4	
4.2.4 a	64, 65
4.2.4 b	66
4.2.4 c	67
4.2.4 d	68
4.2.4 e	73, 74
4.2.4 f	32, 33
4.2.4 g	48
4.2.4 h	69, 70
4.2.4 i	Intentionally deleted
4.2.4 j	71, 72
4.2.4 k	75, 76
4.2.4 l	93, 94, 95, 99
4.2.4 m	93, 94, 95
4.2.4 n	96
4.2.4 o	97
4.2.5	
4.2.5 a	64, 65
4.2.5 b	10a, 10b, 10d, 34, 39, 40, 104
4.2.5 c	19, 20
4.2.5 d	9, 43
4.2.5 e	16, 50

Reference in Chapter 4	Index number (see Table A 2)
4.2.5 f	93, 94, 95, 104
4.2.5 g	Intentionally deleted
4.2.5 h	86, 10a, 10d, 33, 34, 104
4.2.5 i	86, 10a, 10c, 10d, 92, 94, 95, 104
4.2.5 j	10a, 10b, 10c, 10d, 39, 40, 92, 94, 95
4.2.6	
4.2.6 a	8, 25, 26, 36 c, 49, 52, 104
4.2.6 b	29, 45
4.2.6 c	46
4.2.6 d	10a, 10b, 10d, 34, 104
4.2.6 e	10a, 20, 104
4.2.6 f	Intentionally deleted
4.2.6 g	92, 10a, 10b, 10c, 10d, 104
4.2.6 h	87, 89, 104
4.2.6 i	90, 104
4.2.6 j	10a, 10d, 34, 104
4.2.6 k	92, 10a, 10c, 10d, 104
4.2.6 l	92, 93, 99, 94, 95, 104
4.2.7	
4.2.7 a	12
4.2.7 b	63
4.2.7 c	34, 10a, 10b, 10d
4.2.7 d	9
4.2.7 e	16
4.2.7 f	92, 10a, 10b, 10c, 10d
4.2.7 g	34, 10a, 10d
4.2.7 h	92, 10a, 10c, 10d
4.2.8	

Reference in Chapter 4	Index number (see Table A 2)
4.2.8 a	10d, 11, 79, 83, 104
4.2.9	
4.2.9 a	23
4.2.10	
4.2.10 a	77 (point 3.1)
4.2.11	
4.2.11 a	77 (point 3.2)
4.2.12	
4.2.12 a	6, 104
4.2.13	
4.2.13 a	32, 33
4.2.13 b	93, 94
4.2.14	
4.2.14 a	5, 104
4.2.15	
4.2.15 a	38
4.2.15 b	101
4.2.17	
4.2.17 a	103
4.2.18	
4.2.18 a	84, 85, 104
4.2.18 b	98

Reference in Chapter 4	Index number (see Table A 2)
4.2.18 c	88
4.2.18 d	87, 104
4.2.19	
4.2.19 a	84, 85
4.2.19 b	98

(35) Table A 2 is amended as follows:

- Id 31 column version ‘3.1.0’ is replaced by ‘4.0.0’
- Id 37b column version ‘3.3.0’ is replaced by ‘4.0.0’
- Id 37c column version ‘3.2.0’ is replaced by ‘4.0.0’
- Id 37d column version ‘3.3.0’ is replaced by ‘4.0.0’
- Id 38 column version ‘2015’ is replaced by ‘2025’
- Id 84 column version ‘1.0.0’ is replaced by ‘1.1.0’
- Id 85 column version ‘1.0.0’ is replaced by ‘1.1.0’
- Id 98 column version ‘Reserved’ is replaced by ‘1.0.0’
- Id 101 column version ‘1’ is replaced by ‘2’
- Id 104 column Name of Specification is amended as follows:

‘ERTMS/ETCS & ERTMS/ATO Exceptions for on-board reduced envelopes of ETCS system versions’

- Id 104 column version ‘Reserved’ is replaced by ‘1.0.0’

(36) Table B1.1 is replaced by:

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
CCS On-Board Error corrections							
1	Appendix A + point 7.2.10.3	No mandatory implementation of error corrections published in technical opinions	CCS Subsystems with mandatory implementation of registered error corrections for functionality ETCS up to system version 2.1 and GSM-R.	For legal releases (with maintenance of specifications) published before 1 January 2026: If one or more registered errors in RINF are identified for the area of use for which a new authorisation is required: the CCS subsystem integrated into a vehicle type shall implement the necessary error corrections at the latest 6 months after the update of the concerned interoperability constituents. *Note:* If one or more registered errors in RINF are identified for the area of use for which no new authorisation is required, the CCS subsystem integrated into a vehicle type is considered compliant with the update of the concerned interoperability constituents (as defined in Table B3).		For legal releases (with maintenance of specifications) published before 1 January 2026: If one or more registered errors in RINF are identified for the area of use: the CCS subsystem integrated into a vehicle shall implement the necessary error corrections the latest - 1 year after the update of the concerned interoperability constituents (as defined in Table B3) in the case no new authorisation is required; or - 1 year after the update of the vehicle type in the case a new authorisation is required;	

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
				For legal releases (with maintenance of specifications) published after 1 January 2026: If one or more registered errors in RINF are identified for the area of use for which a new authorisation is required: the CCS subsystem integrated into a vehicle type shall implement the full maintenance package of error corrections at the latest 6 months after the update of the concerned interoperability constituents. *Note:* If one or more registered errors in RINF are identified for the area of use for which no new authorisation is required, the CCS subsystem integrated into a vehicle type is considered compliant with the update of the concerned interoperability constituents (as defined in Table B3).		For legal releases (with maintenance of specifications) published after 1 January 2026: If one or more registered errors in RINF are identified for the area of use: the CCS subsystem integrated into a vehicle shall implement the full maintenance package of error corrections the latest - 1 year after the update of the concerned interoperability constituents (as defined in Table B3) in the case no new authorisation is required; or - 1 year after the update of the vehicle type in the case a new authorisation is required;
<u>ETCS On-Board implementation</u>							

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
2	Points 7.4.2.1, and 7.4.3	7.4.2.1.2. and 7.4.3(2) grants exemptions for new vehicles to be equipped with ETCS	7.4.2.1.2. and point 7.4.3(2) deleted. All newly built vehicles shall be equipped with ETCS.	Directly applicable *Note:* Design phase started after TSI enters into force here relates to 'RST design phase' for vehicles without ETCS. For special vehicles applicable from 1 January 2026 unless Member States have issued decisions in accordance with 7.4.3.2.	Applicable if design phase ends on or after 1 January 2028 *Note:* Design phase started before TSI enters into force here relates to 'RST design phase' for vehicles without ETCS. For special vehicles applicable if design phase ends on or after1 January 2030 unless Member States have issued decisions in accordance with 7.4.3.2.	Applicable for newly built vehicles placed on the market 1 January 2030 For special vehicles applicable for newly built vehicles placed on the market from 1 January 2030 unless Member States have issued decisions in accordance with 7.4.3.2.	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
3	Points 7.4.2.2 and 7.4.3.	7.4.2.2 only applicable to upgrade of existing high-speed vehicles	7.4.2.2 applicable to vehicle type and/or vehicles requiring a new authorisation	Directly applicable For special vehicles applicable unless Member States have issued decisions in accordance with 7.4.3.2: - if design phase starts on or after 1 January 2026; or - if design phase ends on or after 1 January 2030.	Applicable if design phase ends on or after 1 January 2028 *Note:* Remains directly applicable to high-speed vehicles according to previous CCS TSI. For special vehicles applicable if design phase ends on or after 1 January 2030 unless Member States have issued decisions in accordance with 7.4.3.2.	Not applicable *Note:* Remains directly applicable to high-speed vehicles according to previous CCS TSI.	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
4	Point 7.4.2.3 (3)	7.4.2.4 extension area of use: exemptions to install ETCS in point (3)	7.4.2.3 extension area of use: exemptions deleted in point (3) *Note:* the implementation requirements of CCS TSI 2016/919 in 7.4.2.4 point (3) remain directly applicable.	Not applicable	Not applicable	Not applicable	Applicable from 1 January 2030, except if no installation of ETCS is indicated in RINF for the subsequent five years in the new area of use and the area of use is limited to two Member States
ETCS system versions							

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
5	Intentionally deleted						
6	Appendix A - 7.4.2.4.1 and 7.4.2.4.2 for envelope of legally operated ETCS system versions from 1.0 up to 2.2.	Not applicable	On-board implementation of notified ETCS functions from system version 2.2.	Design phase started on or after notification from IM and notification is done on or after 1 January 2025: the ETCS system version 2.2 is directly applicable.	The ETCS system version 2.2 is applicable if the design phase is not ended within the latest date between following dates: - 1 January 2030; - 5 years after the notification date from the IM.	Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
				Design phase started before notification from IM or notification is done before 1 January 2025: the ETCS system version 2.2 is applicable if the design phase is not ended within the latest date between following dates: - 1 January 2030; - 5 years after the notification date from the IM.			

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
7	Appendix A - 7.4.2.4.1, 7.4.2.4.2 and 7.4.1.3 for envelope of legally operated ETCS system versions from 1.0 up to 3.0	Not applicable	On-board implementation of notified ETCS functions from system version 3.0([1]).	Not applicable. *Note:* Transition regime after entry into force of CCS TSI amendment([2]): Design phase started after notification from IM and notification is done 2 years after entry into force of the CCS TSI amendment: the ETCS system version 3.0 is directly applicable.	Not applicable. *Note:* Transition regime after entry into force of CCS TSI amendment([2]): The ETCS system version 3.0 is applicable if the design phase has not ended within the latest date between following dates: - 5 years after entry into force of the CCS TSI amendment; - 5 years after the notification date from the IM.	Not applicable. *Note:* Transition regime after entry into force of CCS TSI amendment([2]): the notified ETCS system version 3.0 is mandatory when required for compatibility with the ETCS trackside implementation of ETCS TS 3.0.	Not applicable. *Note:* Transition regime after entry into force of CCS TSI amendment([2]): the notified ETCS system version 3.0 is mandatory when required for compatibility with the ETCS trackside implementation of ETCS TS 3.0.
				Design phase started before notification from IM or notification is done before			

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
				entry into force of CCS TSI amendment: see transition regime in column 'Design phase started before TSI set into force'.			
8	Intentionally deleted						
Former sets of specifications #2 and #3							

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
9	Appendix A - Table A 1 and Table A 2 7.4.2.4.1 and 7.4.2.4.2 7.4.2.3 (7)	Annex A – Table A 1 - Table A 2 2 – Set of specification #2 The minimum reduced on-board envelope is the envelope up to ETCS system version 2.0.	The specifications in Appendix A - Table A 1and Table A 2 does not include ETCS system version 2.0, since the minimum reduced on-board envelope is the envelope up to ETCS system version 2.1.	Applicable if design phase starts on or after 28 September 2026; or if design phase ends on or after 1 January 2030. In any case the error correction provisions in point 7.2.10 shall be respected with its corresponding transition period. No constraint shall be exported to the other subsystem.	Applicable if design phase ends on or after 1 January 2030 In any case the error correction provisions in point 7.2.10 shall be respected with its corresponding transition period. No constraint shall be exported to the other subsystem.	Applicable on newly built vehicles placed on the market from 1 January 2030 In any case the error correction provisions in point 7.2.10 shall be respected with its corresponding transition period. No constraint shall be exported to the other subsystem.	Not applicable In any case the error correction provisions in point 7.2.10 shall be respected with its corresponding transition period. No constraint shall be exported to the other subsystem.

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
10	Appendix A - Table A 1 and Table A 2	Annex A – Table A 1 and Table A 2 3 – Set of specification #3	The specifications in Appendix A - Table A 1 and Table A 2 have the agreed error corrected version of former set #3	Applicable - if design phase starts on or after 28 September 2026; or - if design phase ends on or after 1 January 2030.	Applicable if design phase ends on or after 1 January 2030 In any case the error correction provisions in point 7.2.10 shall be respected with its corresponding transition period. No constraint shall be exported to the other subsystem.	Applicable on newly built vehicles placed on the market from 1 January 2032 In any case the error correction provisions in point 7.2.10 shall be respected with its	Not applicable In any case the error correction provisions in point 7.2.10 shall be respected with its corresponding transition period.

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
				In any case the error correction provisions in point 7.2.10 shall be respected with its corresponding transition period. No constraint shall be exported to the other subsystem.		corresponding transition period. No constraint shall be exported to the other subsystem.	No constraint shall be exported to the other subsystem.
CMD							
11	4.2.2 (b) – Cold Movement Detection	CMD Optional	CMD Mandatory	Directly applicable when ETCS is installed for the first time into a vehicle design.	Applicable if design phase ends after 1 January 2028 when ETCS is installed for the first time into a vehicle design.	Applicable on newly built vehicles placed on the market from 1 January 2030.	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
ATO On-Board Implementation							
12	4.2.18 + Point 7.2.9.2	Not applicable	ATO on-board specification and implementation requirements	Design phase started on or after notification from IM and notification is done on or after 1 January 2025: ATO on-board requirements are directly applicable. Design phase started before notification from IM or notification is done before 1 January 2025: ATO On-board requirements are applicable if the	ATO on-board requirements are applicable if the design phase is not ended within the latest date between following dates: - 1 January 2030; - 5 years after the notification date from the IM.	Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
				design phase is not ended within the latest date between following dates: - 1 January 2030; - 5 years after the notification date from the IM.			
CCS On-Board Modularity							
13	4.2.6.5.1 CCS Consist network communication layers Index 90 + point 5.2.2.2	Not applicable	Mandatory implementation of Ethernet based platform New requirement in case of grouping of Interoperability Constituents defined in table 5.1	Applicable on newly developed vehicle designs requiring first authorisation - if design phase starts on or after 28 September 2025; or - if design phase ends on or	Applicable on newly developed vehicle designs requiring first authorisation if design phase ends on or after 28 September 2030	Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
				after 28 September 2030.			
14	4.2.2.2(7)-4.2.18 (3) Forwarding information /orders and receiving state information from rolling stock: 4.2.6.5.1 CCS Consist	Not applicable	Mandatory implementation of on-board interfaces between CCS subsystem and RST subsystem	Applicable on newly developed vehicle designs requiring first authorisation - if design phase starts on or after 28 September 2025; or	Applicable on newly developed vehicle designs requiring first authorisation if design phase ends on or after 28 September 2030	Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
	network communication layers Appendix A – CCS and RST interfaces Indexes 81, 82, 88, 90			- if design phase ends on or after 28 September 2030.			
FRMCS On-Board implementation:							
15	Point 7.3.2.2	Not applicable	FRMCS on-board implementation ([3])	Not applicable. *Note:* Transition regime after TSI amendment: Design phase started after notification from IM and notification is done after 2 years	Not applicable. *Note:* Transition regime after TSI amendment: FRMCS on-board is applicable if the design phase is not ended within the latest date between following dates:	Not applicable. *Note:* The FRMCS on-board implementation is mandatory when required for compatibility with FRMCS	Not applicable. *Note:* The FRMCS on-board implementation is mandatory when required for compatibility with FRMCS only trackside implementation

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
				of the entry into force of CCS TSI amendment: FRMCS on-board implementation is directly applicable.	- 5 years after the CCS TSI amendment; - 5 years after the notification date from the IM.	only trackside implementation	
				Design phase started before notification from IM: see transition regime in column 'Design phase started before TSI set into force'.			
Partial fulfilment:							

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
16	Point 6.1.1.2	Points 6.1.1.3 and 6.4.3 are deleted.	With respect to 6.1.1.2 it is no longer possible to exclude mandatory functionalities, interfaces or performance except if listed in Appendix G.	Applicable - if design phase ends on or after 28 September 2030 If partial fulfilment is used, a condition for use shall be included in their authorisation to put on the market enforcing compliance at the next upgrade of the vehicle train protection part. Functions included in system version 2.2 and 3.0 not implemented due to the application of partial fulfilment as long as the missing functions are not required for the intended area of use – provided such functions would be implemented at the earlier of the following conditions: (a) At the next reauthorisation resulting from another change to the vehicle train protection (ETCS) system; (b) At the next upgrade to a higher system version of the ETCS train protection part.		Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
DMI indication translation							
17	Appendix E	No mandatory harmonised translation of DMI indications	Harmonised translation of DMI indications.	Directly applicable	Applicable if design phase ends on or after 28 September 2030.	Not applicable	Not applicable
ESC/RSC Statements							

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
18	4.2.17 ETCS and Radio System Compatibility 6.2.4.3 ETCS and radio system compatibility checks for Interoperability Constituent 6.3.3.1 ETCS and Radio System Compatibility checks	First version of the ESC/RSC Statements requirements.	Updated requirements for the assessment of the ESC/RSC statements including the ESC/RSC IC Statement..	Applicable if design phase ends after 28 March 2024.	Applicable if design phase ends after 28 March 2024.	Not applicable	Not applicable
System identifier							

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
19	4.2.20.3 System identifier Table 6.2.1 row 2d	Not applicable	NoBo check for system identifier.	Applicable if design phase ends after 28 March 2024.	Applicable if design phase ends after 28 March 2024.	Not applicable	Not applicable
Subsystem certificate and integration between parts							
20	4.2.6 On-board interfaces internal to CCS. Table 6.2.1 row 3 6.4 Provisions in case of the partial assessment	Not explicitly addressed in the table.	Integration between parts of the subsystem. Structure of the subsystem certificates *Note:* It is not a new requirement but a clarification.	Directly applicable	Directly applicable	Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
	of TSI requirements						
Appendix D template							
20	6.5.1 Content of EC certificates 6.5.2 Content of EC declarations	Not applicable	Mandatory use of the Appendix D template in the EC certificates and EC declarations..	Applicable if design phase ends after 28 March 2024.	Applicable if design phase ends after 28 March 2024.	Not applicable	Not applicable
Specific cases							

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2023	Design phase started before 28 September 2023	Production phase	Vehicle in operation
22	Point 7.7.2 7.7.2.9 Italy 7.7.2.12 Ireland 7.7.2.14 Austria	7.6.2 Previous version of the specific cases.	Update of the specific cases by introducing new requirements for the CCS on-board subsystem on certain Member States.	Directly applicable	Directly applicable	Applicable for newly built vehicles placed on the market from 01st January 2030	Not applicable

([1]) *Note:* If the Member State has agreed with the stakeholders to implement the new ETCS system version 3.0 after entry into force of the CCS TSI amendment ([2]) (see clause 7.4.4), the IM shall notify the dates when the ETCS on-board system version 3.0 shall be a mandatory on-board requirement according to clause 7.4.1.3. All vehicles using these lines shall need to implement the ETCS on-board system version 3.0.

([2]) This concerns CCS TSI new legal release with FRMCS Baseline 1 Release 1.

([3]) *Note:* If the Member State has agreed with the stakeholders to implement FRMCS (see clause 7.4.4), the IM shall notify the dates when the FRMCS on-board system shall be a mandatory on-board requirement according to clause 7.3.1. All vehicles using these lines shall need to implement the FRMCS on-board system.

(37) Table B1.1 b is added right after Table B1.1:

Table B1.1b

Transition Regime for CCS On-Board Subsystem

No	TSI point(s)	TSI point(s) in previous version 2023/1695	Explanation on CCS TSI 2025/xxxx change	Transition regime			
				Design phase started after [Amendment 2025 date EiF]	Design phase started before TSI [Amendment 2025 date EiF]	Production phase	Vehicle in operation
Test specifications							
1	Appendix A Table A 2 Index 98	Index 98 was reserved.	The final version of the document is included.	Applicable if design phase ends after 01st January 2026 if the ATO part (ATO Baseline 1 Release 1) is implemented.	Applicable if design phase ends after 01st January 2026 if ATO part (ATO Baseline 1 Release 1) is implemented.	Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2023/1695	Explanation on CCS TSI 2025/xxxx change	Transition regime			
				Design phase started after [Amendment 2025 date EiF]	Design phase started before TSI [Amendment 2025 date EiF]	Production phase	Vehicle in operation
2	Appendix A Table A 2 Index 31, 37b, 37c and 37d.	Indexes 31 and 37b, 37c and 37d were not including all defined ETCS system versions.	The updated versions of the document are included.	Applicable if design phase ends after 01st January 2026 if ETCS B4R1 is implemented.	Applicable if design phase ends after 01st January 2026 if ETCS B4R1 is implemented.	Not applicable	Not applicable
Reduced envelopes							

No	TSI point(s)	TSI point(s) in previous version 2023/1695	Explanation on CCS TSI 2025/xxxx change	Transition regime			
				Design phase started after [Amendment 2025 date EiF]	Design phase started before TSI [Amendment 2025 date EiF]	Production phase	Vehicle in operation
3	Appendix A Table A 2 Index 104, 84, 85	Index 104 was reserved. ATO On-board implementation based on index 84, 85 v1.0.0.	The final version of the document is included, and second row from Appendix G is removed. Table A1 references to index 104 are completed were necessary. ATO On-board implementation based on index 84, 85 v1.1.0.	Applicable if design phase ends after 01st January 2026 if ETCS Baseline 4 Release 1 or ATO Baseline 1 Release 1 is implemented.	Applicable if design phase ends after 01st January 2026 if ETCS Baseline 4 Release 1 or ATO Baseline 1 Release 1 is implemented.	Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2023/1695	Explanation on CCS TSI 2025/xxxx change	Transition regime			
				Design phase started after [Amendment 2025 date EiF]	Design phase started before TSI [Amendment 2025 date EiF]	Production phase	Vehicle in operation
4	Appendix E	Appendix E	Addition of missing terms	Sames as the Table B1.1 row 17			
5	Appendix B - Table B1.1	Appendix B - Table B1.1 clarifications	Clarifications and corrections on the transition regime.	Directly applicable			

(38) Table B1.2 is amended as follows:

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on CCS TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2025	Design phase started before 28 September 2025	Production phase	Vehicle in operation
1	Index 77	V4 - Frequency management not fully defined for the vehicle	V5 – Frequency management fully defined for the vehicle	Directly applicable with the exception of point 3.2.2. This point is applicable on newly developed vehicle designs requiring a first authorisation as defined in Article 14 point 1(a) of Commission Implementing Regulation (EU) 2018/545 if design phase starts on or after 28 September 2025 or if design phase ends on or after 28 September 2030; Applicable on modified vehicles designs requiring a new authorisation as defined in Article 14 point 1(d) of Commission Implementing Regulation (EU) 2018/545 if design phase ends on or after 28 September 2030;	Applicable if design phase ends on or after 28 September 2030.	Not applicable	Not applicable

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on CCS TSI 2023/1695 change	Transition regime			
				Design phase started after 28 September 2025	Design phase started before 28 September 2025	Production phase	Vehicle in operation
2	Point 7.7.2 7.7.2.5 Lithuania, Latvia and Estonia 7.7.2.7 Luxembourg 7.7.2.9 Italy 7.7.2.12 Ireland 7.7.2.13 Bulgaria	7.6.2 Previous version of the specific cases.	Update of the specific cases by introducing new requirements for the RST subsystem on certain Member States.	Directly applicable.	Applicable if design phase ends on or after 28th September 2030.	Not applicable	Not applicable

(39) Table B1.2b is added right before Table B2

Table B1.2b

Transition Regime for RST Subsystem

No	TSI point(s)	TSI point(s) in previous version 2023/1695	Explanation on CCS TSI 2025/xxxx change	Transition regime			
				Design phase started after [Amendment 2025 date EiF]	Design phase started before TSI [Amendment 2025 date EiF]	Production phase	Vehicle in operation
1	Appendix B - Table B1.2	Appendix B - Table B1.2 clarifications	Clarifications and corrections on the transition regime.	Directly applicable			

(40) Table B2 is amended as follows:

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on CCS TSI 2023/1695 change	Transition Regime
CCS Trackside Error Corrections				
1	Appendix A + Points 7.4.1.2 and 7.2.10.3	Set 1, 2 and 3 of specifications without error corrections	Table A2 includes the maintenance of the functions into 1 set of specifications.	CCS Trackside Subsystems, which are in advanced stage of development or in operation, shall implement the identified set of corrections for the unacceptable errors as described in point 7.2.10.1 within: - 2 years and 6 months after the latest date between the 28 September 2023 and the publication by the Agency of the Baseline Compatibility Analysis (BCA) including the answers to the questionnaires in case no new authorisation is required: - 3 years after the latest date between the 28 September 2023and the publication by the Agency of the Baseline Compatibility Analysis (BCA) including the answers to the questionnaires in case a new authorisation is required: CCS Trackside Subsystems placed into service after 28 September 2023, which are not in advanced stage of development, shall directly comply with the maintained set of specifications of this TSI.
CCS Trackside Enhancements				
2	ETCS: Appendix A; + point 7.4.1.3	Not applicable	New ETCS functions from system version 2.2 to 3.0	If implemented (optional trackside function), directly applicable for ETCS equipped lines
3	ETCS: Point 4.2.1 Table 6.3 row 3 Appendix A; Table A.2 - Index 38, 101	Marker-board definition based on 06E068	EN 16494 and engineering rules for harmonised marker boards	Directly applicable if: - Marker Boards are installed for the first time in a line being equipped with ERTMS (which are not in advanced stage of development), even when a Class B system is also installed at the same time; or - Marker Boards are installed during renewal or upgrading (which are not in advanced stage of development) of the infrastructure subsystem in a line equipped with ERTMS. Detailed provisions for applicable requirements for fitting the harmonised Marker Boards are stated in the Appendix A – Table A.2 – Index 101 document.
4	4.2.19	No specifications	ATO Trackside Implementation	If implemented (optional trackside function), directly applicable for ATO GoA1/2 implementation on ETCS equipped lines

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on CCS TSI 2023/1695 change	Transition Regime
5	FRMCS radio system	No specifications	New set of FRMCS specifications	If implemented (optional trackside function), directly applicable for FRMCS projects when FRMCS specifications are completed and published with an amendment of this CCS TSI.
Partial fulfilment:				
6	Not applicable	Points 6.1.1.3 and 6.4.3 are deleted.	When implemented, all functions, performance and interfaces or performance shall comply with the Chapter 4 (including the specifications referred to in Appendix A).	7 years after the entry into force of the TSI.After the 28 September 2030.
Former set of specifications set #1, #2 and #3				
7	Appendix A - Table A 2	Annex A - Table A 2 1 – Set of specification #1, Table A 2 2 – Set of specification #2 Table A 2 3 – Set of specification #3	Table A 2 includes the maintenance of the functions into 1 set of specifications.	Requirements and deadlines defined in point 7.4.1.2.
ESC/RSC definitions				
8	4.2.17 ETCS and Radio system compatibility Table 6.3 Row 10	Agency analysis of the IM submissions.	NoBo assessment of the new or updated ESC/RSC definition	Applicable from 28 September 2024.
System identifier				

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on CCS TSI 2023/1695 change	Transition Regime
9	4.2.20.3 System identifier Table 6.3 row 2e	Not applicable	Check for system identifier	Applicable from 28 March 2024.
Appendix D template				
10	6.5.1 Content of EC certificates 6.5.2 Content of EC declarations	Not applicable	Mandatory use of the Appendix D template.	Applicable from 28 March 2024.

(41) Table B2b is added right after Table B2

Table B2b

Transition regime for CCS Trackside Subsystem

No	TSI point(s)	TSI point(s) in previous version 2023/1695	Explanation on CCS TSI 2025/xxxx change	Transition Regime for TSI 2025/xxxx
Test specifications				
1	Appendix A Table A 2 Index 98	Index 98 was reserved.	The final version of the document is included.	Applicable from 01st January 2026 if the ATO part (ATO Baseline 1 Release 1) is implemented.
ATO				
2	4.2.19	ATO Trackside implementation based on index 84, 85 v1.0.0	ATO Trackside implementation based on index 84, 85 v1.1.0	Applicable from 01st January 2026 if the ATO part (ATO Baseline 1 Release 1) is implemented.
Harmonised Marker Boards				
3	ETCS: Appendix A; Table A.2 - Index 38, 101	EN 16494 2015 and engineering rules for harmonised marker boards v1-	EN 16494 2025 and engineering rules for harmonised marker boards v2-	Directly applicable if: - Marker Boards are installed for the first time in a line being equipped with ERTMS (which are not in advanced stage of development), even when a Class B system is also installed at the same time; or - Marker Boards are installed during renewal or upgrading (which are not in advanced stage of development) of the infrastructure subsystem in a line equipped with ERTMS. Detailed provisions for applicable requirements for fitting the harmonised Marker Boards are stated in the Appendix A – Table A.2 – Index 101 document.
4	Appendix B - Table B2	Appendix B - Table B2 clarifications	Clarifications and corrections on the transition regime.	Directly applicable

(42) Section B3 is amended as follows:

Table B3

Transition regime for CCS Interoperability Constituents

According to point 7.2.4.3 transition periods defined for CCS Subsystems are applicable for the Interoperability Constituents unless specified in this table.

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on CCS TSI 2023/1695 change	Transition Regime
1	Appendix A + point 4.2.20.1 + point 7.2.10.2	Technical opinions on Art. 10 errors are not legally binding	Implementation of error corrections into ERTMS on-board Interoperability Constituents for existing CCS subsystems for functionality ETCS up to system version 2.1 and GSM-R.	If one or more registered errors are identified for the area of use specified in the authorisation of the vehicle: a) for legal releases (with error correction specifications) published before 1 January 2026: ERTMS on-board Interoperability Constituents integrated into a vehicle shall implement the necessary error corrections within the area of use specified in the authorisation, the latest 18 months after the registration in RINF of the applicable CR; b) for legal releases (with error correction specifications) published after 1 January 2026 onwards: ERTMS on-board Interoperability Constituents integrated into a vehicle shall comply with the maintained set of specifications of this TSI 18 months after the registration in RINF of the applicable CR. This transition regime can be handled flexibly in agreement with the applicant for the EC verification of the on-board subsystem and the railway undertaking as long as the overall transition regime (as per Table B1.1 plus as per Table B3) is met. *Note:* If no errors are registered for the concerned area of use, error corrections will be mandatory implemented according to the transition regime linked to the point of partial fulfilment.

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on CCS TSI 2023/1695 change	Transition Regime
2	Appendix A + point 4.2.20.1 + point 7.2.10.2	Technical opinions on Art. 10 errors are not legally binding	Implementation of error corrections into ERTMS Trackside Interoperability Constituents for new CCS trackside projects for functionality, ETCS up to system version 2.1 and GSM-R.	ERTMS Trackside Interoperability Constituents, integrated into a CCS Trackside Subsystem for which the project is not in advanced stage of development, shall directly comply with the maintained set of specifications of this TSI.
3	Appendix A + point 4.2.20.1 + point 7.2.10.2	Technical opinions on Art. 10 errors are not legally binding	Implementation of error corrections into ERTMS Trackside Interoperability Constituents for existing CCS trackside projects (i.e. trackside subsystem in advanced stage of deployment or in operations)	ERTMS Trackside Interoperability Constituents, integrated into a CCS Trackside Subsystem for which the project is in advanced stage of development or being integrated in a CCS Trackside Subsystem in operation, shall implement the identified set of corrections for the unacceptable trackside errors within 2 years after the latest date between the entry into force of the TSI and the publication by the Agency of the Baseline Compatibility Analysis (BCA) including the answers to the questionnaires.
4	Appendix A, Table A.2 Index 90, 92 + 5.2.2.2 + 4.2.2.2 (7) + 4.2.6	N/A	Implementation of Ethernet based communication for integration with ATO On-Board IC and FRMCS On-Board IC	New ETCS On-Board Interoperability Constituents placed on the market within 2 years after entry into force of the TSI shall implement the Ethernet based connections required for ATO and FRMCS interfacing as specified in Index 90 (points 3.1.1.2 and 3.1.1.3) and as specified in Index 92 (point 7.2)

No	TSI point(s)	TSI point(s) in previous version 2016/919 including all amendments	Explanation on CCS TSI 2023/1695 change	Transition Regime
5	4.2.20.3 System identifier Table 5.1 row 1, 4, 5, 6. Table 5.2 row 1, 2, 3, 4, 5, 6.	Not applicable	NoBo check for system identifier.	Applicable from 28 March 2024.
6	6.5.1 Content of EC certificates 6.5.2 Content of EC declarations	Not applicable	Mandatory use of the Appendix D template.	Applicable from 28 March 2024.

(43) Table B3b is added right after Table B3

Table B3b

Transition regime for CCS Interoperability Constituents

According to point 7.2.4.3 transition periods defined for CCS Subsystems are applicable for the Interoperability Constituents unless specified in this table.

No	TSI point(s)	TSI point(s) in previous version 2023/1695	Explanation on CCS TSI 2025/xxxx change	Transition Regime for TSI 2025/xxxx
1	Appendix B - Table B3	Appendix B - Table B3 clarifications	Clarifications and corrections on the transition regime.	Directly applicable

(44) Footnote numbering '([2])' in Appendix C.5 is replaced by '([63])'

(45) Table E1 is amended as follows:

Id. Number	Text indication/message
1	Ack(nowledgement)
2	Adhesion
3	Airtight
4	ATO data
5	ATO data entry complete?
6	ATO data view
7	ATO needs data
8	ATO selector
9	Axle load category
10	Balise read error
11	BMM reaction inhibition
12	Brake percentage
13	Brightness
14	Communication error
15	Contact last RBC
16	Continue in SM
17	Data
18	Data view
19	Del(ete)
20	Driver ID
21	Emergency stop
22	End of data entry
23	Enter data
24	Enter RBC data
25	Entering FS

26	Entering OS
27	Entering SM
28	Exit Shunting
29	Exit SM
113	FRMCS network registration failed
114	GSM-R network ID
115	GSM-R network registration failed
30	Initiate SM
31	Language
32	Length (m)
33	Level
34	Level crossing not protected
35	Loading gauge
36	Main
37	Maintain Shunting
38	Max(imum) speed
116	Mission with one radio system
39	NL no longer permitted
40	No
41	No MA received at level transition
42	No track description
43	Non slippery rail
44	Non-Leading
45	Odometer impaired
46	On
47	Operated system version
48	Out of GC
49	Override
50	PT distance exceeded

51	Radio data
52	Radio network ID
53	Radio network registration failed
117	Radio network type
54	RBC data
55	RBC data entry complete?
56	RBC ID
57	RBC phone number
58	Revoke BMM reaction inhibition
59	Remove VBC
60	Remove VBC entry complete?
61	Route unsuitable – axle load category
62	Route unsuitable – loading gauge
63	Route unsuitable – traction system
64	Runaway movement
65	RV distance exceeded
66	Safe consist length no longer available
67	Select type
68	Set VBC
69	Set VBC entry complete?
70	Settings
71	SH refused
72	SH request failed
73	SH stop order
74	Shunting
75	Slippery rail
76	SM refused
77	SM request failed
78	Spec(ial)

79	Specific data entry selection
80	SR distance exceeded
81	SR speed / distance
82	SR speed / distance entry complete?
83	SR stop order
84	Stand-by
85	Start
86	System version
87	Trackside malfunction
88	Trackside not compatible
89	Train category
90	Train data
91	Train data changed
92	Train data entry complete?
93	Train integrity
94	Train is rejected
95	Train running number
96	Train type
97	Unauthorized passing of EOA / LOA
98	Use short number
99	Validate ATO data
100	Validate [name of NTC] data
101	Validate remove VBC
102	Validate set VBC
103	Validate train data
104	VBC[n] set code
105	VBC code
106	Volume
107	Yes

108	[name of NTC] brake demand
109	[name of NTC] data entry complete?
110	[name of NTC] failed
111	[name of NTC] is not available
112	[name of NTC] needs data

(46) Appendix G (2) is deleted

(47) Appendix G (3) is deleted

(48) Table in appendix G is amended as follows:

Partial fulfilment of TSI Requirement	**Conditions and mitigation measures**	**Scope of application of partial fulfilment**
SUBSET-091: safety requirements leading to DMI SIL 2 may not be implemented.	The associated hazards linked to the safety requirements leading to DMI SIL 2 shall be mitigated by appropriate measures.	Only allowed in case of upgrading an existing ETCS part (with DMI SIL 0).
Intentionally deleted([71]).	Intentionally deleted.	Intentionally deleted([72])([73]).
Intentionally deleted	Intentionally deleted	Intentionally deleted

(49) Appendix H, the first paragraph text ‘map include shall clearly define identified’ of the placeholder in the template Figures 1,2 ,3 4, 5, 6, 7, 8, 11,14, 17 and 18 is replaced by ‘map included shall clearly identify’

[71] Some new functionalities included in this TSI are excluded from the on-board envelopes up to 2.1 and 2.2. These reduced envelopes will be specified in SUBSET-153.

[72] The following on-board functionalities impacting the ETCS on-board system version are excluded in the reduced on-board envelope up to 2.1 as specified in SS-153: CR968;CR988;CR1238;CR1244; CR1302;CR1344;CR1346;CR1350;CR1359;CR1363;CR1367;CR1374;CR1375;CR1379; CR1397.

[73] The following on-board functionalities impacting the ETCS on-board system version are excluded in the reduced on-board envelope up to 2.2 as specified in SS-153: CR968;CR988;CR1244;CR1302; CR1344;CR1346;CR1350;CR1359;CR1363;CR1367;CR1374;CR1375;CR1379;CR1397.

Amendments to Annex II of:

Commission Implementing Regulation (EU) 2023/1695 of 10 August 2023 on the technical specification for interoperability relating to the control-command and signalling subsystems of the rail system in the European Union and repealing Regulation (EU) 2016/919

(50) In Chapter 3, 3.3 row for Member State 'Austria' is amended as follows:

Austria	INDUSI I 60 ([2]) PZB 90 ([3]) LZB L72 LZB L72 CE I LZB L72 CE II	Whole network Whole network Whole network Whole network Whole network	AT/DE	

(51) 3.3 row for Member State 'Germany' is amended as follows:

Germany	PZB 90 LZB L72 CE I LZB L72 CE II ([4]) GNT (Geschwindigkeitsüberwachung für NeiTech-Züge) ([5])	Whole network Whole network Whole network Whole network (routes with higher lateral acceleration for tilting trains)	AT/DE	

(52) 3.3 row for Member State 'Spain is amended as follows:

Spain	ASFA LZB	Conventional network and rest of the network equipped with third rail tracks High Speed Lines except sections equipped with third rail tracks Metric gauge lines High Speed Line 'Madrid – Sevilla/Toledo/Málaga' C5 Commuter Line (Madrid). Section 'Humanes – Mostoles el Soto'	CONV AV RAM ES	

(1) In 3.3 row for Switzerland, note numbering '([6])' in column 'Name of the legacy system ([1])' is replaced by '([8])'

(2) In 3.3, note ‘(4)’ is amended as follows:

‘(4) LZB 72 no longer in operation in Germany, since end of 2023.’

(3) In 3.3, note ‘(8)’ is amended as follows:

‘(8) Swiss Class B system is only allowed for ETCS B2 vehicles.’