**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**

Whereas:

1. Given that no specific new competence is required for the assessment of conformity of interoperability constituents or the verification of subsystems, there should be no change as regards the notified bodies for the purposes of Commission Regulation (EU) 2016/919 and Commission Implementing Regulation (EU) 2023/1695.

*Article 1*

# Subject matter

This Regulation establishes the technical specification for interoperability (TSI) relating to the control-command and signalling (CCS) subsystems of the rail system in the Union.

*Article 2*

# Scope

1. The TSI shall apply to new trackside CCS and on-board CCS subsystems of the rail system as defined in points 2.3 and 2.4 of Annex II to Directive (EU) 2016/797.
2. The TSI shall not apply to existing trackside CCS and on-board CCS subsystems of the rail system already placed on the market or in service on all or part of any Member State’s railway network by 28 September 2023, except when
3. the subsystem is subject to renewal or upgrading in accordance with Chapter 7 of Annex I to this Regulation;
4. the area of use of a vehicle is extended in accordance with Article 54(3) of Directive (EU) 2016/797, in which case point

7.4.2.3 of the Annex I to this Regulation shall apply;

1. the subsystem is subject to the specification maintenance requirements set out in point 7.2.10 of Annex I to this Regulation.
2. The technical and geographical scope of the TSI is set out in points 1.1 and 1.2 of Annex I.

*Article 3*

# Open points

1. With regard to the aspects listed as ‘open points’ in Appendix F of Annex I to this Regulation, the conditions to be complied with for verifying the essential requirements set out in Annex III to Directive (EU) 2016/797 may be laid down by national rules in force in a Member State.
2. By 28 March 2024, each Member State shall submit to the Agency in accordance with the procedure under Article 25 of Regulation (EU) 2016/796 the following information, unless such information has already been communicated to either the Agency or Commission pursuant to previous version of this Regulation:
3. the national rules referred to in paragraph 1;
4. the conformity assessment and verification procedures to be carried out to apply the national rules referred to in paragraph 1;
5. the bodies designated to carry out the conformity assessment and verification procedures with respect to the open points.

*Article 4*

# Specific cases

1. With regard to specific cases listed in point 7.7.2 of Annex I to this Regulation, the conditions to be met for the verification of the essential requirements set out in Annex III to Directive (EU) 2016/797 shall be those laid down in point

7.7.2 of Annex I or if justified, may be laid down by national rules in force in a Member State.

1. By 28 March 2024, each Member State shall submit to the Agency in accordance with the procedure under Article 25 of Regulation (EU) 2016/796 the following information, unless such information has already been communicated to either the Agency or Commission pursuant to previous version of this Regulation:
2. the national rules referred to in paragraph 1;
3. the conformity assessment and verification procedures to be carried out to apply the national rules referred to in paragraph 1;
4. the bodies designated to carry out the conformity assessment and verification procedures with respect to the specific cases.

*Article 5*

# Implementation

1. Manufacturers and applicants for authorisation for placing in service of infrastructure or for placing on the market of vehicles shall ensure that subsystems referred to in Article 2 of this Regulation and intended to be used on the networks referred to in Article 2(1) of Directive (EU) 2016/797 comply with the TSI set out in Annex I of this Regulation.
2. Manufacturers and infrastructure managers, railway undertakings, or any other entity responsible for the rail vehicle or infrastructure, shall ensure that subsystems referred to in Article 2 comply with the specification maintenance requirements set out in point 7.2.10 of Annex I.
3. Notified bodies shall ensure that certificates based on Chapter 6 of Annex I of this Regulation are issued within their responsibilities for interoperability constituents or subsystems in accordance with Articles 10 or 15 of Directive (EU) 2016/797, respectively.
4. Member States shall notify their national implementation plan drawn up in accordance with point 7.4.4 of the Annex I to the Commission and the Agency by 15 June 2024.

*Article 6*

# Availability of ETCS, ATO and FRMCS on-board products

1. The Agency shall prepare by 1 January 2025 a report to the Commission on
2. the availability of ETCS on-board products compliant with ETCS Baseline 4 specifications;
3. the availability of ATO on-board products compliant with ATO Baseline 1 specifications;
4. the availability of FRMCS on-board prototypes based on draft release specifications.
5. The Commission shall present its report to the Committee referred to in Article 51 of Directive (EU) 2016/797 and take appropriate measures.

*Article 7*

# Class-B systems

1. Member States shall ensure that the functionality, performance, and interfaces of the Class-B systems remain as specified in Annex II to this regulation, unless modifications are needed to mitigate safety-critical errors in those systems.
2. Member States shall notify the Commission and the Agency about the modifications referred to in paragraph 1 and request a technical opinion of compliance from the Agency based on Article 10(1) and (3) of the Regulation (EU) 2016/796.

*Article 8*

# Union funded projects

1. Financial support from Union funds for CCS related expenditure is limited to eligible costs directly related to the installation or upgrade of track-side and on-board ERTMS or related to the preparation of a future implementation of ERTMS, including train detection systems compliant with this regulation and interlockings.

Financial support from Union funds may also cover on-going and future projects implementing the Recovery and Resilience Plans and ERTMS National Implementation Plans available at the entry into force of this regulation.

1. Vehicles subject to paragraph 1 that require Class B on-board systems to circulate on routes only equipped with Class-B systems may be granted Union funds, if using options indicated in the Annex I point 4.2.6.1 (1), (2), and (3).

*Article 9*

# Error corrections

1. Pursuant to its role as system authority for ERTMS under Article 28 of Regulation (EU) 2016/796, the Agency shall analyse all requests made to it for changes to the system. It shall prioritise change requests that it categorises as errors that potentially prevent the normal service of the rail system.
2. The Agency shall regularly provide a maintenance release of the specifications at the request of the Commission according to the specification maintenance procedure set out in Annex I to this Regulation.

*Article 10*

# Future Railway Mobile Communication System

Where the Agency has issued an opinion with the draft release specifications relating to the Future Railway Mobile Communication System (FRMCS), manufacturers and early implementers shall use those specifications in their pilots and shall inform the Commission and the Agency about each pilot at its beginning, and keep them informed of the subsequent progress of those pilots.

*Article 11*

# Innovative solutions

1. For innovative solutions that technological progress requires and have been approved by the System Pillar of the Europe’s Rail Joint Undertaking (ERJU), the ERJU shall submit innovative solutions to the Commission together with information on how these solutions deviate from or supplement the relevant provisions of this TSI.
2. The Commission shall request an opinion of the Agency on the innovative solution pursuant to Article 6 of Directive (EU) 2016/797.
3. The Agency, as system authority, shall deliver an opinion on the innovative solution. The Commission shall analyse the Agency’s opinion and may ask the ERJU to provide the appropriate functional and interface specifications and the assessment method, all of which need to be included in the TSI in order to make possible the use of the innovative solution.
4. The Commission may ask the Agency to integrate the specifications and assessment methods in an ERA recommendation pursuant to Article 5 of Directive (EU) 2016/797. Pending the review of the TSI, the Commission may ask the Agency to issue an opinion with the draft release specifications and the assessment method of the innovative solution.

*Article 12*

# ERTMS compatibility and future revision

By 28 March 2024, infrastructure managers shall submit to the Agency the definition of the checks for the compatibility of vehicles with the infrastructure regarding the ETCS system and the radio system for the existing lines equipped with ERTMS or GSM-R in operation. Member States shall repeal the related national rules by the same date. By 1 June 2024, the Agency shall provide the Commission with its analysis on how to phase out the checks to prove the technical compatibility of on-board units with different ERTMS trackside implementations and to achieve harmonisation of engineering and operational rules for the Single European Rail Area.

*Article 13*

# Train-detection compatibility

1. By 31 December 2024, Member States whose infrastructure managers operate train-detection systems not compliant with this regulation must request a specific case and shall notify the Agency of these systems by informing it about:
2. the interference current limits for track circuits including the evaluation methods and vehicle impedance in accordance with clause 3.2.2 of ERA/ERTMS/033281 rev 5.0;
3. field limits for axle counters in X, Y, Z axis including the evaluation methods in accordance with clause 3.2.1 of ERA/ERTMS/033281 rev 5.0;
4. the specific cases for train detection systems not compliant with this regulation using the template referred in Annex

B.1 of ERA/ERTMS 033281 rev 5.0.

1. By 31 December 2024, Infrastructure Managers shall inform the Agency about the required interference current limits/ frequencies from the frequency management for TSI-compliant train-detection systems as specified in sections

3.2.2.1 to 3.2.2.6 ERA/ERTMS/033281 rev 5.0 for their relevant networks. These limits/ frequencies shall be published on the Agency’s website.

1. Infrastructure Managers shall update accordingly the values of the relevant parameters of the Register of Infrastructure.
2. With the publication of Specific Cases under Article 13(1), latest by 31 December 2025, Member States shall repeal all national rules concerning compatibility with train-detection systems, except for cases covered by Article 13(2)(f) of Directive (EU) 2016/797.
3. By 31 December 2027, the train detection systems specific cases and the corresponding end dates shall be re-examined, with the aim to improve the interoperability and harmonisation of the European railway system, with respect to the economic feasibility.

*Article 14*

# Repeal and transitional provisions

Regulation (EU) 2016/919 is repealed, except for its respective chapters/tables/documents which are not repealed and continue to apply to subsystems and interoperability constituents to the extent and for as long as a transition regime is provided for these chapters/tables/documents in accordance with chapter 7 of Annex I.

It shall however continue to apply for the cases which do not fall under the scope of this Regulation pursuant to Article 2.

Infrastructure Managers continue to be bound by the obligation to notify the definition of the checks for the compatibility of vehicles with the infrastructure regarding the ETCS system and the radio system for the existing lines with ERTMS or GSM-R in operation pursuant to points 6.1.2.4 and 6.1.2.5 of the Annex to Regulation (EU) 2016/919 by 16 January 2020. In respect to projects started after 16 January 2020 and before the entry into force of this regulation, infrastructure managers shall notify this information within 6 months after the entry into force of this regulation.

*Article 15*

# Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States. Done at Brussels, 10 August 2023.

*For the Commission The President*

Ursula VON DER LEYEN