

Brussels, 6 December 2024

EIM Statement

On the Opinion of the European Union Agency for Railways regarding ETCS-FRMCS compatibility (ERA Opinion ERA/OPI/2024-3)

Background

In October 2023 some of the “CTO Council” group members expressed concerns regarding financial and operational risks linked to the deployment of FRMCS and the current implementation of ETCS Onboard (ETCS-OB) Baseline 3. These concerns were due, among others, to the tight schedule for retrofitting several thousands of vehicles (ETCS-OB upgrade and FRMCS-OB equipment installation), product availability, and sunk costs. On this basis, it elaborated a set of two alternative proposals to the European Commission DG MOVE concerning the compatibility between the ETCS and FRMCS for a number of vehicles which are already equipped with ETCS B3MR1 or ETCS B3R2 products.

On 16 February 2024, the European Commission requested the European Union Agency for Railways (ERA) to analyse and provide feedback on these proposals from the CTO Council. On 8 November 2024, ERA published the “*Opinion ERA/OPI/2024-3 of the European Union Agency for Railways regarding ETCS-FRMCS compatibility*”¹ (hereafter the “Opinion”).

The CTO Council proposals

The CTO Council proposal covers two alternative “concepts” intending to minimise the costs and to speed up the FRMCS on-board deployment:

1. **Baseline light concept** - B3MR1/B3R2 specifications and one (alternative) change request for FRMCS. I.e., no change request on the onboard unit other than what is required to introduce FRMCS should be considered (no implementation of any other error/enhancement change requests from Baseline 4).
2. **Adapter concept** - adapter between ETCS and Railway Mobile Radio (RMR). This solution should act as an ETCS Data Only Radio (EDOR) emulator, without impacting the Euroradio protocols/software already installed on Baseline 3 ETCS-equipped vehicles, hence

¹ See: <https://www.era.europa.eu/content/opinion-eraopi2024-3-european-union-agency-railways-regarding-etcs-frmcs-compatibility>

enabling “legacy” ETCS on-boards to support the onboard application interface from a trackside perspective.

It should be noted that these proposals of the CTO Council are based on one of the options already developed in 2019 in the relevant ERA change control management process, which were rejected as, at that time, there was no unanimous position between the industry associations and the ERA regarding the available options. Therefore, the solution currently envisaged in the CCS TSI 2023 was decided upon.

ERA assessment

ERA’s Opinion assesses the proposal provided by some CTO Council members from three angles: technical, legal and policy/migration stream. For each angle, the ERA assessment of the 2 proposed concepts is negative. On the **“Baseline light” proposal**, the statement by the CTO Council that this alternative concept is a low-risk solution is considered premature and incorrect as there is no exhaustive analysis done and the ERA’s preliminary assessment identified some additional hazards which are overlooked. On the **“Adapter concept” proposal**, ERA confirms the conclusion (already made in 2019) to exclude this Adapter concept mainly due to the high technical risks.

Furthermore, ERA also assessed an additional option consisting of the coexistence **‘FRMCS and 2G’ trackside concept** (input not provided by CTO council). ERA believes that the maturity of the concept is low, and the associated risk is that the introduction of FRMCS is likely to be delayed.

In addition, ERA has formulated some recommendations for the next steps.

EIM position

EIM recognises the need for the introduction of and migration to FRMCS due to the “end of life” of the current GSM-R technology. The introduction of FRMCS will require technical changes in the infrastructure as well as in the rolling stock. For this reason, EIM supports cost-effective solutions which do not undermine the business of the railway stakeholders.

With this in mind, EIM standpoints on the Opinion are as follows:

- i. EIM acknowledges the concern of other stakeholders, as railway undertakings, on related costs for FRMCS compatibility of ETCS Baseline 3 equipped rolling stock. Notwithstanding, EIM is of the opinion **that alternative solutions, while potentially facilitating the compatibility between ETCS and FRMCS, shall also support the sector’s effort to achieve EU-wide FRMCS deployment by way of implementation of ETCS Baseline 4.**

- ii. **EIM primarily supports the need for cost effective solutions in the migration from Baseline 3 to an FRMCS compatible ETCS Baseline, based on the relevant recommendations and proposals** expressed by the System Authority in the Opinion.
- iii. EIM, next to the position expressed in point ii., and while supporting the decisions already taken in the frame of the TSI CCS 2023, **is open to exploring alternative solutions for the ETCS-FRMCS compatibility, only at the condition that such alternative solution proves to:**
 - a. have no negative impact on the IMs compared with the current solution as specified in TSI CCS 2023.
 - b. be a “cancel and replace” of the current solution as specified in the TSI CCS 2023. If an alternative solution is adopted, the alternative solution should replace the current solution in the TSI. In other words, CR1359 will be repealed and replaced by the alternative solution so that there are not two solutions in the TSI. With two solutions in the TSIs, we would be back to multiple sets of specifications which are impossible to maintain.
 - c. have no negative impact on the “Specifications maintenance (error corrections) process” as described in section 7.2.10 in the TSI CCS 2023.
 - d. have no negative impact on the further evolution of ERTMS (e.g. as being defined within ERJU) and the planning of EU-wide migration to FRMCS.
 - e. have no negative impact on the continuation of operational voice services.
- iv. EIM remarks that the sector needs clarity about the way to proceed for a timely completed migration to FRMCS. Consequently, **the uncertainty on the migration path must end.**
- v. **EIM supports the ERA’s proposal to reduce certification and authorisation time and costs**, by the issuing of guidance by the ERTMS system Authority on the CCS TSI compliance of ETCS products.

EIM remains committed to the timely and cost-efficient deployment of ETCS and FRMCS, which will benefit all stakeholders in the railway sector.

About EIM: EIM, the association of European Rail Infrastructure Managers, was established in 2002 to promote the interests of the infrastructure managers in Europe. EIM’s primary goal is promoting growth of rail traffic and the development of an open sustainable, efficient, customer-oriented rail network in Europe. To find out more about EIM, visit www.eimrail.org