DECISION OF THE SYSTEM PILLAR STEERING GROUP

Approving the Traffic CS Technical Design Decisions as an input for specification work

N° 5/2026

THE SYSTEM PILLAR STEERING GROUP OF THE EUROPE'S RAIL JOINT UNDERTAKING,

NOTES

- The proposed Traffic CS Technical Design Decisions build on the Traffic CS System Concept and the Major Design Decisions as approved in Steering Group decision 2/2025, and further elaborate the technical design principles and design choices necessary as a basis for subsystem specification work.
- The rationale for these Technical Design Decisions is to provide a harmonised and solution-agnostic technical design foundation for the specification of the Traffic CS subsystems, enabling a common European approach towards SERA and supporting cost-effective and interoperable CCS solutions for ETCS L2.
- Such a harmonised and implementation-agnostic approach is a necessary condition to avoid fragmentation of specifications and to mitigate risks arising from non-harmonised safety acceptance criteria across Europe.
- The Traffic CS Technical Design Decisions describe key technical concepts and design principles, in particular:
    - the rule-based and configurable safety logic supporting Dynamic Train-Centric Control,
    - the modelling and handling of occupancy, Movement Permissions and Usage Restrictions,
    - flank protection and clearance conflict principles,
    - and the abstraction and use of Switchable Trackside Assets.
- The Traffic CS Technical Design Decisions show how the Steering Group decision of March 2025 on a solution-agnostic and implementation-neutral specification approach is implemented at technical design level.
- The Traffic CS Technical Design Decisions are intended to serve as binding input for the subsequent Traffic CS subsystem specification work for Plan Execution System (PES), European Trackside Protection System (ETPS) and Automatic Train Operation – Trackside (ATO-TS), without constraining specific implementation solutions.
- The Traffic CS Technical Design Decisions were extensively reviewed and discussed with the Traffic CS Mirror Group representing sector stakeholders.

- The mirror group consultation process was conducted in line with the System Pillar procedures, and comments received were reviewed, addressed and, where appropriate, incorporated into the document.
- The Traffic CS Technical Design Decisions have been approved by 15 persons (the 4 Core Group convenors and 11 experts from domain and mirror group). One mirror group expert disapproved with the justification of insufficient review time (3 weeks).
- The Traffic CS Technical Design Decisions may be updated when new topics are introduced or when progress in the work requires updates.

THE SYSTEM PILLAR STEERING GROUP OF THE EUROPE'S RAIL JOINT UNDERTAKING,

AGREES

1. The Traffic CS domain team shall use the Traffic CS Technical Design Decisions as approved by this decision as a basis for further detailed specification work for the Traffic CS subsystems PES, ETPS and ATO-TS.
2. The specifications derived from the Traffic CS Technical Design Decisions shall:
    - be written in a solution-agnostic and implementation-neutral manner,
    - describe the expected system behaviour in a precise, complete, unambiguous and verifiable way,
    - and support exchangeability of subsystems and interoperability across Europe.
3. Traffic CS specification work shall be aligned with and consistent with the design principles and approaches defined in the Traffic CS Technical Design Decisions.
4. The Steering Group shall be regularly informed about the progress of the Traffic CS specification work, including any major findings or issues that may require Steering Group guidance or decision.
5. The Traffic CS deliverables resulting from this work shall be published as System Pillar documents and are intended to be implemented on a voluntary basis.

ANNEX A: Traffic CS – Technical Design Decisions (approved version)