DECISION OF THE SYSTEM PILLAR STEERING GROUP

On-board Modularity Change Requests Submission to ERA

N° 07/2026

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

- The mature solution proposals presented correspond to the onboard modularity Change Requests (CRs) previously considered by the System Pillar Steering Group under Decision No. 2/2026 concerning onboard modularity mature solution proposals.
- Following the actions agreed in Decision No. 2/2026, the relevant domains, mirror groups and the ARC CR Coordination Team have continued the work on the remaining CRs and addressed the identified open points.
- The following CRs have completed the required work and are proposed for submission to the ERA CCM process:
    - SP-CR-26831 – *Update of Subset-147 to limit the middle layer to TRDP as Ethernet technology for process data*;
    - SP-CR-26860 – *Introduction of new communication types (e.g. bulk and event-based communication) in addition to process data communication*;
    - SP CR 26889 – Adaptation of Application Layer Subsets to an XML based description of communication packets
- The CR package supports the evolution of the CCS Ethernet Consist Network (ECN) and the associated onboard communication architecture, contributing to increased modularity, exchangeability and evolvability of CCS onboard solutions.
- The proposed CRs are aligned with the Europe’s Rail CCS On-board Architecture and support future CCS interoperability objectives through harmonisation
- Individual CR solution proposals have been prepared within the System Pillar and reviewed through the relevant governance process, including review and approval by the responsible Train CS structures and mirror groups.
- Economic analyses have now been completed for:
    - SP-CR-26889 – *Adaptation of Application Layer Subsets to an XML-based description of communication packets*; and
    - SP-CR-26947 – *Consistency of Subset-147 specification with FRMCS v3 workstream*.
- The economic assessment of SP-CR-26889 concludes that the proposed XML-based approach provides engineering efficiency gains, architectural consistency and reduced integration effort, while introducing only limited and optional transition efforts. The assessment also concludes that the XML-based mechanism should remain optional and should not be treated as a mandatory CCS TSI requirement.

- The economic assessment of SP-CR-26947 concludes that alignment of TTLS with FRMCS specifications is necessary to support its introduction. As a consequence, this CR is for the moment not presented for approval in the Steering Group

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

- The ARC CR Coordination Team shall submit to the ERA CCM database the following Change Requests and associated mature solution proposals by submitter:
    - SP-CR-26831 – *Update of Subset-147 to limit the middle layer to TRDP as Ethernet technology for process data*;
    - SP-CR-26860 – *Introduction of new communication types (e.g. bulk and event-based communication) in addition to process data communication*;
    - SP CR 26889 – *Adaptation of Application Layer Subsets to an XML based description of communication packets*
- Based on the results of the economic analysis performed for SP-CR-26889, the Steering Group agrees that
    - the XML-based specification approach shall be considered as an optional mechanism;
    - the corresponding specifications should initially be pursued through CCS TSI Application Guide specifications or an informal annex for the corresponding Subsets rather than as mandatory CCS TSI requirements; and
- The Train CS Domain shall continue the technical coordination activities related to SP-CR-26889 with the relevant FRMCS stakeholders and shall present an updated proposal to a future Steering Group meeting.