

Position Paper

Brussels, 14th of July 2021

CER position on current Subset 119 and Subset 121 @ ERA TWG ARCHI

CER position on currently proposed Subset 119 and Subset 121 standard specifications

1. Current status of the SS 119 and SS 121 standard specifications

UNISIG has proposed updated versions of the SS 119/120 Train Interface and SS 121 DMI – EVC Interface specifications to TWG ARCHI in agreement with Specific Contract 3 obligations. These documents have been reviewed and commented by CER members, specifically by the OCORA members, and discussed with ERA and UNISIG. CER's intention is to achieve the level of maturity of the SS 119 and SS 121 specifications, necessary to satisfy user requirements as defined and agreed by CER.

2. CER need of standards for ETCS and game changer migration

CER members need adequate "state of the art" TSI standards for ETCS and future game changer solutions, meaning that these have to effectively support migration and procurement purposes regarding the acquisition of new vehicles and, specifically, retrofits. As frequent upgrades are inevitable, also for new trains, standards should support by design the easy replacement and integration of CCS systems in existing and future vehicles. The proposals filed by UNISIG do not, or insufficiently, enable the level of smooth migration required to periodically retrofit rolling stock with new CCS technology generations in a cost effective way. RU's expect that, without further development of the standards, they will have to face unacceptable total cost of ownership levels due to e.g. vendor lock-in and lack of interchangeability, flexibility, and software/hardware independency. Such deficiencies, in the end, will thwart the roll out of ERTMS and the game changers over the European rail network.

3. CER position on the proposed ERA TWG ARCHI SS 119 and SS 121 standards

CER members do not endorse the inclusion of the UNISIG SS 119 and SS 121 specification proposals in the list of mandatory documents for the CCS-TSI 2022. CER believes, that they do not sufficiently respect "state of the art" methodologies and maturity. CER discerns deficiencies with respect to the need for an interoperable and interchangeable TSI 2022 standard.

Furthermore, despite repeated suggestions to jointly discuss options and align visions to achieve improvements – for which concrete proposals were provided and presented in the TWG ARCHI – no noticeable efforts were made to take account, discuss or integrate CER user requirements.

CER believes that a collaborative alignment of industry and user requirements could have resulted in more broadly accepted products and, therefore, reached out more than once. Given the negative response on CER preparedness to align, we see no legitimate reason to consent with the present proposals.

4. CER RU issues with making the proposed SS 119 and SS 121 standards mandatory

4.1. SS 119

The proposed ERA TWG ARCHI SS 119 v. 1.2.0, is not sufficiently specified to enable smooth integration by design in new vehicle design, and not flexible enough to support existing vehicle design for migration purposes. Vendor lock-in and high investment risks would remain.

The life cycle of the ETCS on-board is considerably shorter than that of the rail vehicle. With the ensuing requirement to periodically retrofit rolling stock during its life cycle, RU's need the SS 119 standard to support the plug & play exchange of the CCS on-board to minimize repetitive implementation and certification cost and risk. Compliance with an extra mandatory standard that does not satisfy user requirements, would only cause extra costs for e.g. design, approval and certification, adding to already unsustainable cost levels, but without benefits attached. The proposed standard will offer no solution for vendor lock-in issues, interchangeability restrictions, and the cost burden of ETCS migration.

Given the major investment risks, a foreseeable effect will be reluctance among RU's to continuously invest in retrofitting their fleets, reduced market volumes, and, consequently, R&D efforts, and delays in the implementation of ERTMS and the game changers. CER, therefore, advises **not** to include the SS119 version as proposed by UNISIG as mandatory in the TSI 2022.

4.2. SS 121

What is valid for SS 119, more or less also applies to SS 121. The proposed ERA TWG ARCHI SS 121 v. 1.0.2 does not provide a solution for plug & play installation and replacement of the ETCS DMI, as expected and requested by the sector. It would just deliver exchangeability on ETCS OBU level for new vehicles. The standard does not consider existing vehicle design and does not support migration to the newly proposed standard.

Vendor lock-in and high investment risks would remain. And worse, since issues would be shifted to the vehicle domain, retrofits would not gain from the proposed standard. The effects would be akin to those mentioned under the previous paragraph. CER, therefore, advises **not** to include the SS121 version as proposed by UNISIG as mandatory in the TSI 2022.

5. Conclusion

CER does not agree on the versions of the SS119 and 121 becoming mandatory in TSI 2022 as proposed to ERA TWG ARCHI by UNISIG.

CER believes that it would be most appropriate to align requirements and views between railways and UNISIG, to bring the specifications to the required level of detail and quality and satisfy both industry and user requirements. Key issues to be addressed are the elimination of vendor-lock-in, enabling smooth and cost effective methods and tools and technologies for retrofit, aiming at controlling and managing total cost of ownership and project investment risks, and at increasing enterprise acceptance of automation and digitalisation of rail operation for which ERTMS is the key instrument.

CER and its members are ready to contribute to the effort needed and to allocate expertise and resources.