1. **Welcome from the chair and adoption of the Agenda**

On behalf of the Commission, Keir FITCH (DG MOVE) welcomed the participants to the third meeting of the System Pillar Steering Group. He presented the Agenda and briefly discussed the items. The Agenda was adopted with no objections.

2. **Approval of the minutes**

The minutes of the second System Pillar Steering Group meeting were circulated before the meeting. The minutes were approved.

3. **Update**

Keir FITCH introduced a new member, ETSI, the representatives of which joined the System Pillar Steering Group meetings as observers. He highlighted the importance of cooperation with the ETSI as certain outputs from the System Pillar would contribute to the development of the ETSI standards. Thus, the close alignment between the System Pillar and ETSI would be needed.

Carlo BORGHINI informed the participants about the recent activities in the Europe’s Rail Joint Undertaking. He stressed that the grant agreements with the consortia were expected to be signed in the coming week, allowing for officially launching the flagship projects (FPs). He underlined that the JU coordinated a series of alignment meeting between the FPs and System Pillar, the results of which would be reflected in the content of the FPs.

Carlo BORGHINI also informed about workshops with the States’ Representatives Group (SRG) that took place in recent weeks. One of the workshops was dedicated to the System Pillar. As pointed out, the SRG requested openness and transparency in terms of cooperation with the System Pillar. Following such requests from different stakeholders, the JU launched a website dedicated to the System Pillar (available under the link: About - Europe's Rail (europa.eu)). He also informed about the change in the Chairmanship of SRG. The incumbent Chair, Sarah BITTNER-KRAUTSACK, resigned from the role...
of Chairperson due to changes in professional career. She was replaced by the current Vice-Chair, Miroslav HALTUF, who would be an acting Chairperson until the official vote in the SRG.

In terms of internal activities, the JU launch a process to close the activities of 2022, both in financial and legal terms. The System Pillar Steering Group was also informed about the audit of European Court of Auditors that took place last week in the JU premises. One of the topics under the ECA scrutiny was the System Pillar tender.

Enno WIEBE commented on the request for openness and transparency. He suggested to consider the ways to properly address the request and asked for clarification if such request had any specific grounds.

Carlo BORGHINI explained that such requests were regularly being taken into considerations by the JU. Most of them stemmed from the fact that the System Pillar was designed as a new element in the JU. The launch of website, with published documents and composition of the System Pillar bodies, would address the issue of transparency. He also pointed to the concerns expressed by the SRG regarding the complexity of the governance structure. He suggested to send the System Engineering Management Plan (SEMP), once adopted, to the SRG.

Miroslav HALTUF (SRG) complemented that by transparency the SRG meant the continuous flow of information between the SRG and System Pillar. He stressed the importance of receiving proper information in light of the obligations imposed on the SRG in the Single Basic Act (SBA). He also referred to interoperability as an issue raised by the SRG, specifically in the context of the RISC Committee. He mentioned that certain representatives of Member States in the SRG came from the research and innovation background, whereas the others had more technical backgrounds. He appreciated the role of the workshops in educating the SRG on the JU programme-related topics. He also suggested to consider establishing a small group of System Pillar and SRG representatives to discuss current topics and exchange information.

Keir FITCH commented that the intention of the SBA was to compose the SRG in a way reflecting both the research and innovation-related representatives and railway-related representatives.

Josef DOPPELBAUER indicated that from the ERA’s point of view, the System Pillar would be expected to make a change control process more efficient thanks to a faster preparation of inputs to the TSI revision. He pointed to the role of the RISC Committee (represented by the Member States) in the work of the ERA and underlined that the internal processes cannot be bypassed by the JU SRG.

Keir FITCH confirmed that the Commission’s position was that the JU SRG and RISC Committee members should ensure the exchange of knowledge and feedback from the NSAs on work to be addressed in the System Pillar. The internal process of the Agency, including the role of the RISC Committee, would be maintained.

Commenting on the issue of openness and transparency, he mentioned the natural willingness of external stakeholders (not directly involved in the System Pillar) to receive more information about the inside work. This was specifically important in such complex processes as in the System Pillar. He invited the System Pillar Steering Group to explain to wider community the inside work, given the opportunity. He also underlined that trust, confidence and support from the whole community would be critical as the System Pillar would serve the whole railway industry, not the so-perceived privilege stakeholders involved.

Nicolas FURIO asked for a note explaining the cooperation between the System Pillar and ERA. He mentioned that preparation of the note had been decided at the last System Pillar Steering Group meeting.
Ian CONLON confirmed the ongoing discussions with ERA on change control management. He informed that the first draft was prepared, however, the ERA’s focus was on the TSI revision in recent months. The note on System Pillar would be a priority to be addressed in the coming months.

Josef DOPPELBAUER added that the ERA prepared and reviewed the note in the last weeks. There were certain aspects detected that would need improvements. It would be expected to deliver the ERA’s note to the Commission and JU before the Christmas break.

DECISION ITEMS

Ian CONLON introduced items for decision. He referred to the documents adopted at the recent meetings – structure of governance, common business objectives, and approval of CCS/TMS/CMS Operational Vision. As indicated, the SEMP would provide a last piece of base upon which the System Pillar could start its work.

4. APPROVAL OF SYSTEM ENGINEERING MANAGEMENT PLAN v1

Ian CONLON introduced the background of the SEMP. He referred to voluntary engagement from the sector and the discussion on the document in the System Pillar Core Group. As indicated, the System Pillar Core Group endorsed the current version of the SEMP. It was also underlined that the current document was an initial version, subject to further refinement. The version 2 of SEMP was expected in mid-2023. He described the process and aims of the SEMP (for details, please refer to the presentation).

Steffen SCHMIDT explained the details behind the SEMP, pointing to workflows, tools, methods, composition of mirror groups and planning (for details, please refer to the presentation).

Miroslav HALTUF (SRG) asked for clarification regarding the scheme on basic workflow per task. He asked for more detailed information on the relationship between System domains (to be provided to the SRG). Steffen SCHMIDT explained that the scheme was simplified for the purposes of presentation. More detailed information would be delivered to the SRG upon request.

Carlo BORGHINI pointed out that the research community was not properly addressed in the System Pillar what was raised by the JU Members. He suggested to consider inclusion of representatives of the research communities in mirror groups.

Carole COUNE (AERRL) asked about the availability of list and composition of mirror groups.

Enno WIEBE asked about “precise operational process description needed, in standardisation scope” and asked for clarification if this process was related to railway operations. He also raised concerns regarding the external inputs to the System Pillar. He asked about scope and limits to the external inputs.

Nicolas FURIO thanked the JU and SP for work on SEMP. On behalf of UNIFE, he provided the following comments.

Firstly, in terms of decision-making powers, he stressed that the strategic decisions in the System Pillar should be taken by the SP Steering Group. The Core Group can be entitled to take decision and responsibilities in operational matters, however, the strategic matters should be under responsibility of the Steering Group.

Secondly, the Core Group should report to the SP Steering Group in case of any deviations/changes in tasks and domains and common business objectives. As underlined, under the current structure the direct reporting mechanism was missing.
Thirdly, in terms of mirror groups, the position of UNIFE was to support the organization of mirror groups in general, however, no external experts should be involved in the SP tasks and domain teams. It was also emphasized that UNIFE did not intend to disclose the composition of mirror groups to suppliers.

Fourthly, in terms of involvement of the research community in the SP activities, he suggested to discuss the topics with the ERRAC.

Finally, in terms of external engagement in the SP process, he indicated that UNIFE intended to avoid external initiatives that would be in contradiction with the SP work. If needed, the assessment should be prepared by the Core Group. The intention would be to avoid any contradictory documents or work delivered by the external parties that would lead to over-complication of work in the System Pillar.

On behalf of EIM, Bardo SCHETTINI appreciated work done on the document. Firstly, he commented on the necessity to clearly distinguish mirror groups from working circles. He also pointed to the lack of possible solution to match the work of the two types of groups. He referred to the limitation of working circles that became evident during the SP ramp up phase.

Secondly, he discussed the tools to be developed for the SP. He expressed the plea from the EIM members to develop the tool in a transparent and collaborative manner.

Keir FITCH summarized the discussion. In terms of external work, he indicated that the feedback from the SP Steering Group on how to integrate such work into the SP would be needed. He also pointed out the necessity to integrate the external work at earliest possible stage to avoid contradictions in the future. In terms of ERRAC, he agreed that the work of ERRAC should be aligned at earliest stage to bring the feedback from different stakeholder. He also pointed out that there were overlapping memberships in the JU, ERRAC and associations. Thus, certain works could be aligned through the channels of the association and the JU bodies. In terms of decision-making, it was underlined that the SP Steering Group should take strategic decisions. Yet there were many detailed works to be done that would not require a decision at the Steering Group level, thus, they can be under the responsibilities of the Core Group.

Ian CONLON referred to the composition of mirror groups. He indicated that it would be important to share the scope of work in the mirror groups rather than their compositions. The issue would be further discussed. He also emphasized that the idea behind the creation of the mirror groups and circles was to reach out to a broader community. The mirror groups would be established as a device to receive inputs from the sector on the work performed by the SP teams. The circles were proposed as a bridge between output of work of tasks/domains, before the issue would be bring to attention of the SP Steering Group.

In terms of engagement of the research community, he agreed that the representatives of research community could be represented in the working circles. If needed, their inputs could be also delivered to the mirror groups.

In terms of integration of external works and initiatives, it was clarified that the intention was that it should not be assumed that the integration work of external inputs would all be performed by the System Pillar due to available resources and workload. Certain elements would also come from other projects (i.e., projects under Innovation Pillar). He also clarified that operational processes were related to the railway operational processes. In terms of tools, he agreed that there should be transparency and broad understanding of tools used in the SP.

On behalf of CER, Enno WIEBE expressed general endorsement of the document. He indicated that CER had reservations towards Chapter 11 (mirror groups). He highlighted that this chapter should be subject to further refinement. There was not clarity in the document what would be the role of the mirror groups—either they would act as reviewers or contributors to the SP. The position of CER was to define the role of mirror groups as reviewers, whereas the contributors should be the active members of the SP bodies. He also pointed to the existing groups and structures (based on internal assessment and
mapping) and expressed concerns related to setting up new groups. As stressed, such approach would lead to over-complication of structure. He also suggested to clarify the point on operationalization of rules to avoid confusion with work done by the ERA.

Josef DOPPELBAUER clarified that the ERA would expect harmonized and agreed proposals coming from the SP that would go under the processes in the Agency. The idea behind the SP would be to avoid comments from the Member States at the later stages of processes, as they would have an opportunity to discuss the concerns earlier with the JU.

Nicolas FURIO informed that UNIFE would provide the JU with the slides on the association’s position on the document (to be circulated with the minutes). The slides identified areas to go under further refinement and adjustment for version 2. He also endorsed the position of CER that the mirror groups should act as reviewers and consultative bodies for the work of the SP teams. He also pointed out that ERRAC was an observer in the SP Steering Group and the JU Governing Board. He proposed to focus more on the research centres and universities, including their potential involvement in the working circles. He also pledged to have more training sessions on the new tools and environments. Following the discussion on the TT tool, he asked for status update on the JU tender on TT tool.

On behalf of EIM, Bardo SCHETTINI supported the proposal of UNIFE to have more trainings with experts on the tools.

Carlo BORGHINI informed the SP Steering Group that the tender procedure for TT tool was ongoing and more information would be published officially in the coming days. If needed, the JU would consider alternative solutions in cooperation with the JU System and Innovation Programme Board.

Steffen SCHMIDT clarified that there were training sessions organized with approximately 15 sessions foreseen.

Johannes GRAEBER clarified that the term of standardization was used in the document in a broad sense, meaning that could be addressed through different channels (i.e. TSI, standardization bodies, sector alignment).

Enno WIEBE stressed that it was important to have a clear view on the responsibilities of the SP and ERA in terms of standardization of operational rules.

ERA took notice of the discussion. Reflections from the discussions would be incorporated into the document the Agency was preparing.

Ian CONLON proposed to add a sentence to the SEMP on mirror groups.

➔ The document was endorsed, subject to

- The addition of text on the continuing consideration of the working of mirror groups by the representative associations
- Continued consideration based on return of experience

➔ The Steering Group will further consider the ways to involve the research community in the work of the System Pillar
5. **ADVICE OF THE STEERING GROUP ON THE WORK PROGRAMME 2023-2024**

Carlo BORGHINI reminded that in accordance with the provisions of the Single Basic Act, the System Pillar Steering Group was requested to provide advice to the Executive Director on the work programme for the System Pillar. The activities of the System Pillar were incorporated to the JU Work Programme 2023-2024. The System Pillar Steering Group was informed that the JU received comments to the Work Programme from the ERA, JU Members, JU advisory bodies and associations. The comments, if appropriate, were included in the final version to be voted by the JU Governing Board. Those comments that were not included were answered by the JU with justification of non-inclusion (i.e., due to contradictions with the JU Multi-annual work programme). He also indicated that the work on the Annex 6 would continue. He informed about the budget for the System Pillar activities foreseen in the JU Work Programme 2023-2024.

Enno WIEBE commented on the DAC delivery programme and migration. He stressed the importance of commitment of the sector and all relevant stakeholders to the migration and targeted architecture.

➔ The System Pillar Steering Group provided a positive opinion on the activities of the System Pillar included in the JU Work Programme 2023-2024, noting the ongoing discussions on scope and milestones.

**DISCUSSION ITEMS**

6. **INFORMATION ABOUT THE TASK AND DOMAIN DELIVERABLES AND MILESTONES**

Ian CONLON introduced the task and domain deliverables and milestones to be expected from the System Pillar in coming months. He indicated that the items were described in different documents, which were also endorsed previously by the SP Steering Group or in the Request for Services sent to the SP consortium. He presented the overall deliverables (indicative) and areas where consideration of work would be done (for details please refer to the presentation). As stressed, the SP would not perform the whole work in each topic. He provided an example of the DAC and split of work between the SP and IP.

Judicaël DEHOTIN presented the deliverables of Task1 for the next 12 months (for details please refer to the presentation).

Carlo BORGHINI referred to energy and the work done in Shift2Rail in this respect. As stressed, in view of the energy crisis there was a need to look at energy from a systemic approach. He indicated that the Governing Board would decide on approaching the SP to analyse the energy issue from a systemic perspective.

On behalf of the SRG, Miroslav HALTUF requested to add a sentence to T1 on the critical infrastructure and dual use solutions. He stressed the importance of analysing the defence aspects of the railway system and the military dual use. Keir FITCH clarified that there were two different areas that should be analysed – security (i.e., physical resilience, cybersecurity) and use of railway in military conflict situations.

Regarding energy issue, Johannes GRAEBER clarified that the topic was discussed during the ramp up phase. The suggestion was to establish a special task on energy management (in alignment with FP4). Judicaël DEHOTIN added that the idea of T1 was to have a high-level view and find enabler for energy coming from different tasks.
Josef DOPPELBAUER commented on the OT (operational technology) that was developed in parallel to the IT. As explained, the specific feature of OT was no assumption that the system worked perfectly. He indicated that the T1 should work on assumption that there might be failure in infrastructure, vehicles, or cyberattacks. He also informed about the 2nd ERA-ENISA Conference on Cybersecurity in Railways on 1 December 2022 in Lille.

Ian CONLON thanked for the comments and confirmed they would be taken into consideration during the remit discussions. In terms of energy, the work would be defined in agreement with the SIPB. In terms of the military aspect, a way forward could be preparation of military use cases.

Steffen SCHMIDT presented the deliverables of Task2 (for details please refer to the presentation).

Miroslav HALTUF suggested to consider harmonization sub-task for creation of common operational rules for critical processes. Steffen SCHMIDT confirmed that a detailed scoping would be subject to further discussion.

Silvia DOMINGUEZ FERNANDEZ presented the deliverables of Task3 (for details please refer to the presentation).

Following the question asked by Keir FITCH, she confirmed that RNE was closely cooperating with T3, and the representatives of RNI were a part of the domain.

Johannes GRAEBER presented the deliverables of Task4 (for details please refer to the presentation).

Ian CONLON summarized discussion and introduced the next steps to be taken in the coming months. He described the process of refinements and informed that once finalized, the remits would be submitted to the JU Executive Director for approval as a part of the contractual requirements. These would be subject to further amendment and refinement, for instance, in the context of the JU work programme amendments.

Michael RUESEN asked about the process of monitoring the progress of the proposed work plan of the System Pillar. He also asked about the LOT3 of the System Pillar tender.

In terms of project management, Ian CONLON described the process. He informed that the JU would be supported initially by INECO in the setup of project management. There would be an additional person in the JU that would take responsibilities of a project manager under the System Pillar. In terms of LOT3, he referred to work on the TSI, referring also to the inputs from LOT2 in this respect. Further discussion on scoping would continue.

Carlo BORGHINI added that the process described in the next steps reflected the JU internal practice and provisions of the JU financial rules. The same approach was used in the context of the System Pillar.

Ian CONLON presented the main strategic issues to be addressed by the SP Steering Group in 2023 (i.e., as items for decisions). The SP Steering Group should be prepared to take positions and consensus on the materials that would be distributed in the coming months (for details please refer to the presentation).

Bardo SCHETTINI requested to deliver all materials in advance taken into consideration internal processes of the associations that required gathering inputs and feedback from their members.

7. AOB
Keir FITCH thanked the participants and speakers for the discussion and endorsement of the decisions. He asked the SP Steering Group for feedback concerning the level of details presented at the meetings. The feedback could be provided via email to the JU.