PARTICIPANTS

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1. Introduction [S2R]

   a. Welcome, adoption of the Agenda

Carlo Borghini (S2R) welcomed the participants to the Programme Board (PB) Meeting. The meeting took place in an online form. Carlo Borghini presented Agenda. The participants adopted the agenda with no changes introduced.

In terms of communication, Carlo Borghini briefly introduced EU Rail JU and the transition period. discussed the Connecting Europe Express and related events. He
underlined that the references to the DAC delivery programme were provided on many occasions (e.g. DAC demonstration in Halle, Germany and TRAKO International Railway Fair in Gdansk, Poland). Keir Fitch (DG MOVE) added that the DAC delivery programme arouse interests among the stakeholders. He stressed that there are rising expectations to deliver a full DAC system in terms of large-scale operations since 2026 onwards.

Carlo Borghini informed the Programme Board participants about the request received from the associations (CER, UIP, UIRR and EFRA) to launch a study on the investment plan for the deployment of the DAC. The Supervisory Board has been requested to provide the comments. Based on the comments received, the proposal will be presented to the Shift2Rail JU Governing Board in November 2021. Carlo Borghini indicated that if accepted, the study will be fully coordinated with the migration study and the Commission’s study on the business case.

**The abovementioned request will be circulated among the PB members and provided with the minutes.**

2. **Review of actions since the last PB**

Jens Engelmann presented the actions undertaken since the last Programme Board meeting *(for details please refer to the presentation).*

He stressed that the list of use cases that would condition the choice of power line, therefore, the PB members are requested to inform directly the WP1 in case any additional use cases are identified. As stressed, by now there are no new use cases notified.

3. **New Members, interested parties**

Jens Engelmann presented new members to the DAC delivery programme and the current status of membership *(for detail, please refer to the presentation).* One new entity has registered the interest and joined the WP5 – RSSB (the United Kingdom). One new entity participates in the work of WP3 and WP5 – Dr Helge Stuhr from DB Cargo.

**Information points:**

4. **DAC SPEC: state of play & outlook**

Stefan Hagenlocher presented work of the WP1 in terms of status of technical specification, planning of specification delivery and challenges to be tackled. The discussion is clustered around five technical specification *(for details, please refer to the presentation)*

- Specifications for DAC
- Hybrid coupler for locomotives
- Electrical energy system specification
- Electrical coupler specification
- Communication system specification
For two first clusters, as informed, most of the requirements have been developed and implemented, with some issues still to be clarified and solved out.

In terms of the electrical energy system, the work is advanced. As informed, the most important decision to be taken is the decision on the voltage system. Stefan Hagenlocher informed the participants that the recommendation of the WP1 is to proceed with the 110 V system approach. The finalization of work on specification is expected in March 2022, and approximately 90% is expected to be finalized by the end of 2021.

In terms of electrical coupler, it is critical to define how the electrical coupler will look like. Stefan Hagenlocher commented on the specifications to be developed and aspects to be decided (please refer to the presentation).

In terms of communication, the critical decision is to select a physical layer. Currently, there is an evaluation of physical layers, and the confirmation of short list of selected communication technologies is expected to be delivered by the end of 2021. The recommendation is to take the decision as soon as possible, however, sufficient practical testing is required first.

Mark Topal briefly presented the next steps to be taken, in context of specification delivery and the testing needed for the TSI finalization.

Martin Ertl asked about the use cases and whether the list is confirmed by the operators. He also asked about the process behind the specification in terms of people involved. Stefan Hagenlocher explained that the list of uses cases had been given a priority from the beginning. As explained, the current systems are based on the defined use cases. If any new use cases are introduced, the changes are needed in terms of process and technology. Mark Topal added that the list of 14 identified use cases has been attached to all presentations sent out after the PB meetings, including the current presentation (please, refer to slide no 34 of the ppt). He clarified that the request concerns only potentially identified use cases that are not on the list. Stefan Hagenlocher clarified which WPs oversee particular processes (e.g. WP1 and communication; WP7 ep-brake). He explained that once the WPs develop the recommendation, they will be presented at the PB meeting.

Oscar Martos (ERA) commented that in terms of the TSI revision, if there are any ‘open points’, then the national rules will apply. To avoid such situation, there should be no open elements. Carlo Borghini stressed that the language has to be clarified, and there is no intention to open the door for the national rules. The intention is to indicate that there are certain elements in the proposals that require further refinement and completion. Oscar Martos commented that there are two ways to address the issue. First, the TSI remain silent in terms of aspects that are not fully covered. Second, the aspects not fully covered will be mentioned in the chapter 7 in a form of to-do list. He stressed the importance of compatibility. Keir Fitch (DG MOVE) underlined the DAC delivery programme is working on the first version of TSI that covers as many aspects as possible, however, it is still work in progress.

Jasmine Bigdon commented on the work in WP1 and the operational aspects of the coupling. She stressed the necessity to finalize the discussion on use cases as soon as possible. She also mentioned the costs of the coupling pointing to the future
decision on financing. Mark Topal agreed that the use cases and financing are critical items. He pointed to the ongoing CBA.

5. Migration: state of play

Jens Engelmann presented the status of migration, specifically in terms of goals, approaches, and steps to be taken (for details, please refer to the presentation). He invited the interested PB members to the dedicated workshop that will focus on the migration.

Andreas Lipka commented that there will be no one migration scenario, but rather there will be a mixture of several migration scenarios. He stressed that in order to provide the scenarios, more data is requested. He requested the PB members to deliver data once they are asked to do so.

Matthias Knuepling stressed that for the migration aspects, it is also important to consider the perspective of wagon keepers (WKs). He requested the PMs to contact the WKs for the dedicated workshops/interviews. Mark Topal confirmed that it is in the planning.

Bartrand Minary commented on the migration and the next steps. He mentioned that a frugal approach seems the best solution to convince the business. Jens Engelmann explained the concept between the work on migration and segmentation. Mark Topal stressed that in December the PMs would possibly be in a position to present more details.

Carlo Borghini commented that the work on migration cannot be driven by constraints. As stressed, the work on migration scenarios would require further analysis of how to address the constraints coming from different dimensions (e.g. operational costs, staff training). Successful migration will require courage to challenge the constrains, and sufficient funding to address the challenges.

Decision points:

6. EDDP work programme: evaluation of structure

Mark Topal introduced the current EDPD programme planning and commented on the adjustments to be made to prepare for the next steps. He proposed that the PMs will evaluate the EDPD structure and performance in perspective of 2022+ and if needed, provide a proposal for adjustments. As stressed, this would help in facilitating the gaps and points of attention (e.g. in terms of workload). If agreed by the PB, the results of evaluation will be presented at the next PB meeting in December.

Matthias Knuepling asked about the LLC item in the new schedule. Jens Engelmann and Mark Topal confirmed that the LCC will be discussed with the first results of the CBA in December.
The proposal has been accepted. Presentation of evaluation with following recommendation will be presented at the PB meeting on 7 December.

7. Status Update DAC@ER JU IP+SP

Carlo Borghini informed the participants about the work on the Europe’s Rail JU and its relation to the DAC. He stressed that the DAC would remain a part of relevant aspects in the System Pillar and Innovation Pillar (e.g. Flagship Area 5). He mentioned that further alignment is needed between the DAC and FA5 deliverables. He informed about the workshops to be organized between 8-9 November, and the CFM plenary meeting on 15 November that will concern the following issues. Once there is a stable text of the FAs-TT, it will be shared with DAC delivery programme.

The participants were informed that the expected date of launching Europe’s Rail JU is between the end of November and mid-December 2021. In term of budget, there are final adjustments to be made by the CFM.

Mark Topal highlighted a necessity to find a solution in terms of coherence between the DAC delivery programme and the work of the System Pillar. As stressed, this coherence will be important specifically for deployment.

8. AOB and closing
   a. WP2 lead successor

Carlo Borghini informed the participants that Trafikverket, which confirmed orally in the meeting, proposed to take over the role of the WP2 leader. The name of the person in charge will be provided later. The proposal will be presented to the Governing Board for the endorsement.

The next meeting is planned on 7 December 2021. The meeting will be focused on the discussion on the CBA study.

Oscar Martos (ERA) will prepare a presentation on TSI to be delivered during the next meeting.

ANNEX

CER/ERFA/UIP/UIRR request to conduct an economic study