

PROGRAMME BOARD

**Meeting 29 June 2022
13h00 – 16h30**

Minutes

PARTICIPANTS

AHMAN Johan ALARCON ESPINOSA Manuel	GOHEL Nicolas	NORDSTROM Frederik
BANNHOLZER Constanze	GUENTER Armin	OLSSON Bo
BENTHIN Per-Anders	HAGENLOCHER Stefan	PETERHANS Gilles
BERGSTRAND Jan	JAGER Thomas	RADEWAGEN Christian
BJORKMAN Anja	JINDRA Petr	REINSHAGEN Peter
BORGHINI Carlo (Europe's Rail)	KANIA Magdalena (Europe's Rail)	ROZYNEK Tomasz
CHAUMETTE Luc	KLOSE Christoph	SANDOR Judit (Europe's Rail)
DE BACKER Frederik	KNUEPLING Matthias	SONNTAG Anja-Maria
DONGIOVANNI Leonardo	KUREK Burkhard	TOPAL Mark
ENGELMANN Jens	LIPKA Andreas	TRAVAINI Giorgio (Europe's Rail)
ERTL Martin	LOCHMAN Libor	VAN BALEN Mitchell (ERA)
FEINDERT Johann	MARTOS Oscar (ERA)	
FITCH Keir (DG MOVE)	MAZZONE Andrea	WELLBROCK Sven

1. Introduction, Welcome, adoption of the Agenda

Carlo BORGHINI and Giorgio TRAVAINI welcomed all participants from Lyon where the Europe's Rail was attending the Connecting Europe Days. Carlo BORGHINI informed about the study launched by the JU with CER, ALLRAIL and UNIFE on the Smart and Affordable High-Speed Services in the European Union.

He also informed the participants that the first call for proposals under Europe's Rail work programme had been concluded with 7 proposals received. The Governing Board would decide on the ranking list at its meeting on 3 August 2022. In terms of tender procedure for the System Pillar, the Programme Board was informed that the assessment of tenders was finalized, and award decision would be distributed soon to the contractors. The signature of contracts was expected by 15 July 2022. As reminded, one of the tasks would be dedicated to the DAC programme.

Carlo BORGHINI presented and discussed the Agenda for the EDDP Programme Board meeting. The Agenda was accepted.

On behalf of the Commission, Keir FITCH stressed that the DAC remained a high-profile programme for the Commission and some of the Member States. He pointed to the necessity of being both ambitious and pragmatic. He thanked all the participants who attended the CBA workshops. As underlined, the workshops raised concerns with regard to new aspects which should be addressed in the near future. He also reminded about the EDDP Supervisory Board meeting scheduled for the next week.

2. EDDP overall participation & new members

The EDDP PB was informed about the membership in the programme (*for details, please refer to the presentation*). Carlo BORGHINI added that with the rising number of members, the integration of the European network was well covered.

Decision points:

On behalf of the Programme Management, Jens ENGELAMANN provided a short introduction to two decision points: energy and communications systems. As underlined, the EDDP PB was informed about these issues in the past months. The recommendations to be discussed were the results of the work of dedicated WPs.

3. DAC energy system

On behalf of WP1, Christoph KLOSE discussed the issue of the electrical energy system in context of the voltage for DAC freight train power supply. He reminded that initial recommendation of WP1 was 110VDC which turned out to be insufficient for certain wagons. In this light, WP1 checked the list of 8 supply voltage variants and proposed as a final recommendation a system of 400VAC with 2 phases. Christoph KLOSE described the process behind the selection, discussed the assumptions behind the procedure, and pros and cons of the variants. As informed, WP1 found no critical disadvantage of dual phase 400V approach.

Carlo BORGHINI summarized the presentation. He indicated that all possible aspects were examined and analysed that would allow making a recommendation. He stressed the necessity to take into account the needs and risks associated with a selected approach.

Keir FITCH asked if there was any significant difference between the proposed systems in the EMC effects.

Christophe KLOSE confirmed that impact was similar and reduced (this was also a KO criterion). He also underlined that this issue was discussed with experts and ERA.

Oscar MARTOS (ERA) added that this was also important for frequency management. He referred to the necessity to include all discussed aspects in a unified technical document with harmonized methodology and assessment. Christoph KLOSE agreed that this should be unified in a document to avoid national homologations.

In light of the decision on energy system, Martin ERTL clarified that it is foreseen the future R&I work would be focused on SPE as a primary solution to the communication with Powerline Plus as a back-up.

Christian RADEWAGEN asked about the impact of electrical system on wagons. Stefan HAGENLOCHER discussed that there would be impact on electrical coupler

and protection measures as the voltage would be higher. He underlined the necessity to consider protection measures accordingly.

Jens ENGLEMANN added that the proposed solution would be a Europe-wide as it was also supported by the CD Cargo (Czechia).

- **The Programme Board endorsed the recommendation made by WP1 (SB to be informed about the endorsement)**
- **The Programme Board adopted the proposed AC 400 V dual-phase DAC energy system/voltage level**

4. **DAC data/communication system**

Stefan HAGENLOCHER introduced the decision item on communication system. As informed, there was no final recommendation in terms of communication technology. He underlined that at the current stage, the choice was limited to 3 options (out of 15 options under assessment).

The Programme Board was informed that the technical and economic evaluations were conducted with respect to three short-listed solutions. The result of the assessment was the conclusion that WIFI was the least preferred solution, while the Single Pair Ethernet (SPE) and Powerline Plus could be recommended. He added that the reliability figures were not available at the moment of the Programme Board meeting, therefore, no final recommendation was presented. The current recommendation was to analyse further two solutions in parallel and to decide on the physical layer in FA5 once reliability data would be available.

Carlo BORGHINI added that the tests would continue. He stressed the necessity to work in alignment with the future FA5. The point of the PB discussion was to take stock of the facts (e.g. lack of reliability data) and conclude on not being in position to recommend a final approach.

Matthias KNUEPLING asked about dangerous goods transports. He reminded that any energy/communication system should also take this issue into account.

Stefan HAGENLOCHER answered that the experts discussed this item and there was a full awareness of the issue.

Martin ERTL discussed the benefits of SPE and lack of experience of the Powerline Plus in the industrialized environment.

Anja-Maria SONTAG stressed that although she understood the arguments raised, a clear reliability data would be needed before taking a final decision.

Stefan HAGENLOCHER clarified that the current recommendation of WP1 was to continue tests with two parallel solutions – SPE and Powerline Plus. He stressed that there was no procedurally requested consensus among experts to support one solution against the other. He briefly discussed the benefits of both.

Mark TOPAL discussed the procedure of selection. He reminded that the experts made a comparison of several systems and narrowed the list down to 2 solutions, which should be seen as a progress. He also confirmed that the FA5 would continue with the evaluation as agreed in the process of handing over the DAC-related tasks.

Carlo BORGHINI commented that it would be important to know if there was consensus among the FA5 members to work only on one solution. If confirmed, then the recommendation of WP1 to continue with two solutions in parallel was not clear and should be rephrased.

Mark TOPAL commented that there would be work on Powerline Plus in FA5 as well, however, a clear priority was toward SPE solution. He also added that once SPE solutions would be proven with tests' results, the discussion would be concluded. Powerline Plus would be a back-up scenario.

Carlo BORGHINI proposed that once FA5 project would be awarded, the consortium would be asked to report to the EDDP PB on the preferred solution.

Anja-Maria SONTAG endorsed the proposal. She also indicated lack of corporate interest in any of the solutions. She insisted that reliability figures should be available before the decision would be taken.

→ **The awarded FA5 consortium will be asked to report to the EDDP at its next meeting on 12 September 2022 on the work planned on SPE and Powerline Plus, the two solutions on the table.**

5. Migration roadmap

Jens ENGELAMAN summarized the migration status from the two previous PB meetings in April and May 2022. As indicated, the PB decided to draft a DAC industrial migration roadmap to define an action plan and take into consideration pre-conditions and risks associated with the scenarios.

He described a proposal on the content of the migration roadmap (core principles) based on the PB discussions and inputs from the study (*for details, please refer to the presentation*).

Martin ERTL commented that for the sake of clarity, a clear responsibility assignment should be indicated in the beginning. He also stressed the necessity to precise on the timeline in terms of steps, stakeholders involved, etc. Apart from this comment, he endorsed the proposal.

Mark TOPAL agreed that a clear role assignment would be necessary. He clarified that for the purpose of the PB discussion, the first proposal was focused on the content.

Constanze BANNHOLZER added that behind the activities presented a complete project teams would need to be installed.

Keir FITCH added that it would be helpful to see all dependencies in the process, particularly those related to financing. He also asked about IT elements and software. He suggested to look at safety critical and non-safety critical aspect in this respect.

Christian RADEWAGEN remarked on the importance of aligning financing concepts with the migration concepts and identify dependencies.

Andreas LIPKA answered to the question about regulation and infrastructure that this topic was under discussion with the IMs and the work would be done separately. He supported comments made by Keir FITCH on the safety. He also agreed that alignment between financing and migration.

Martin ERTL request in written to have Hybrid coupler as a specific item (fleet, timeline, priority, insert space etc) due to the high number of variants and possible rework necessary to the underframe constructions of the locos to digest the central buffer load impact instead of the side buffer load they were designed for.

Christoph KLOSE insisted to have a further work on digitalization component with ambitious roll-out.

Christian RADEWAGEN requested not to communicate starting with draft gears in 2023. As explained, this was due to "dac ready" an interoperability component with different types, where the details were not specified yet. He requested to take it out of the documentation.

It was agreed to take it out of documentation.

→ **Programme Board took note of the migration study**

→ **Programme Board agreed to launch the work on the DAC industrial migration roadmap structured around the ideas initially presented during the meeting**

6. CBA updated

Leonardo DONGIOVANNI informed the Programme Board about the CBA workshops organized recently. As stressed, the workshops allowed for development of the CBA but also pointed to new items to be addressed.

Mitchell VAN BALEN discussed the changes introduced in comparison with the last presentation (*for details please refer to the presentation*).

Mark TOPAL commented on the periodical perspectives considered in the analysis. He stressed that from the perspective of operators, only the 10-year perspective could be taken into account. He suggested to focus solely on the 10-year perspective in communication to avoid a misleading picture of positive ratio (as for the 10-year perspective the positive ratio is lesser than for more long-term perspectives). He also commented that the private companies would only invest if positive ratio would be promising in 10-year perspective.

Nicolas GOHEN explained the methodology behind the CBA. As stressed, the analysis would be also used by other stakeholders (e.g. decision-makers at national levels) which, in contrast to the operators, would operate on long-term perspectives. He also commented that the same methodology used to be applicable to all analysis of projects, and it should be maintained for consistency.

Martin ERTL asked where the costs taken into account in the analysis come from.

Armin GUENTER asked if LCC was incorporated in the analysis.

Sven WELLBROCK indicated that the questions regarding the calculation of costs in CBA were coming up. He stressed that in case of negative ratio, the refund would be needed as the industry partners would not be inclined to invest. He also suggested to look on short-term CBA to better reflect the reality of Europe.

Mitchell VAN BALEN explained that analysis per period and analysis per beneficiary were two different things, both displayed during the presentation. The objective of the CBA was to show the overall impact, taking into consideration different scenarios, timeframes, and stakeholders. In terms of costs calculation, he referred to the work done by WP7. He also commented that the work was not final yet.

Jens ENGLEMANN reminded that a detailed explanation of the costs' calculation was shown at the presentation delivered to the PB on 29 April 2022. He commented that the analysis clearly showed that although the in overall terms the business case was positive, in a short run it would need support.

Anja-Maria SONTAG discussed the problems with gathering data for analysis.

Leonardo DONGIOVANNI confirmed that this was indicative results based on the currently available data. The model would evolve with new data contributions.

Bo OLSSON commented on challenges coming from the costs' calculation, also in terms of societal benefits. As indicated certain aspects (e.g. capacity increased of infrastructure) could not be easily calculated in EUR.

Nicolas GOHEL underlined that with only 10-year perspective there would never be a positive business case. Therefore, a long-term perspective for comparison would be also needed. He also stressed that CBA showed a socio-economic analysis including capacity increase, decreasing gas effects, modal shifts which were socio-economic benefits important at the political level. The CBA with a bad business case in a short-term but major socio-economic benefit in long-term proved that the DAC programme would be good for Europe and society, but the business case would not be sustainable.

Mark TOPAL commented that such message was missing from the slides as it led to different interpretation of the results, therefore, should be incorporated.

Matthias KNUEPLING referred to the discussions in WP5. He stressed that the CBA proved also that funding would be needed in the beginning due to negative business case. He also stressed the problems with gathering inputs from stakeholder which would improve the figures of CBA. He suggested to avoid communicating to the externals the current results of the CBA as they were premature.

The PB discussed the concept of perfect competition and its presentation on the slides. Some PB Members were in favour of removing the slide to avoid any misunderstandings.

Jens ENGELMAN proposed to update and rephrase the slide on perfect competition as stemmed from the discussion.

Carlo BORGHINI was excused due to other commitments for having to leave the meeting, and passed the chairmanship to Giorgio TRAVAINI.

Per-Anders BENTHIN commented in written that if availability on various infrastructure would not improve (building sites) in the near future, the risk was that there would be no or modal shift as wanted.

The Programme Board was presented with recommendations.

Matthias KNUEPLING disagreed with the recommendation on endorsing the analysis. He stressed that the communication of presentation in the current version would be associated with risks of misinterpretation and misunderstanding. He suggested not to present the findings to the Supervisory Board.

Per-Anders BENTHIN also did not endorse the CBA analysis/conclusion. He suggested that the current results were too premature to be communicated.

Mark TOPAL commented that the explanation of Nicolas GOHEL led to different interpretation of the results. He suggested to insert the additional information to the slides before making it public to the Supervisory Board.

Giorgio TRAVAINI proposed to the EDDP PB to solve those wording issues with EY and WP5 lead would be available with the PM to perform such job in a short time, so that the slides could be endorsed for presentation purposes only to the SB.

Leonardo DONGIOVANNI endorsed the proposal. He also reminded that some of the SB members were invited to the CBA workshop, so they were aware of the results.

Armin GUENTHER also recommended to add more detailed information to the presentation. He requested to be involved in the further development of the CBA.

Jens ENGELAMANN summarized that the main message to be passed to the SB was that the DAC should be regarded as an important programme from the societal perspective, however, investment would be needed in a short-term perspective.

- **The Programme Board took note of the presented CBA analysis. The PB agreed that the current figures were premature to made final conclusion**
- **Nicolas GOHEL and Mitchel VAN BALEN will provide additional information to the slides (by 30 June 2022)**
- **The Programme Board will flag any blocking issues (by 4 July 2022). If nothing reported, the revised presentation will be distributed to the SB members.**
- **In case of fundamental disagreement, the presentation will not be sent to the SB.**

The Programme Board discussed the sector-wide consultation over the CBA.

- **The Programme Board was in favour of conducting sector-wide consultation in September 2022.**

7. EDDP Governance in relation to EU-Rail R&I activities

Giorgio TRAVAINI commented on the EDDP structure with the new governance under the Europe's Rail programme (*for details please refer to the presentation*).

Matthias KNUEPLING presented the Wagon Keepers' position towards the EDDP governance and Europe's Rail programme. He expressed the willingness of Wagon Keepers to further support of the DAC programme (*for details please refer to the presentation*).

Action points:

- 8. Critical issue 1a functional requirements for DAC SPEC (bridge plates)**
- 9. Critical issue 2 alignment on IOP requirements by coupler manufacturers**

Christian RADEWAGEN discussed the critical issues and compared it with the status presented at the last PB meeting. *For details, please refer to the presentation.*

- **The PB will be updated on the status of critical issues at the next PB meeting in September 2022**

10. Critical issue 1b+10 operational processes

Jens ENGELMANN updated the PB on the critical issue concerning operational process. He reported the progress and informed that last alignment meeting would take place in the coming week.

Christian RADEWAGED informed about the workshop with industry members and operators that discussed the first overview of the operational processes and talked about missing subjects and open topics.

Stefan HAGENLOCHER reminded that the challenges were discussed with the PB previously. Since then, the Task Force went into detailed with their examinations.

Martin ERTL stressed the necessity to align the work with the FA5.

Information points:

11. Status European Investment Plan – first draft

Judit SANDOR introduced the presentation on the European investment plan. She informed about the stakeholders' consultations and workshops. There were ongoing interviews, therefore, the first draft would be released in the end of July 2022. She also commented that the European Investment Plan would be aligned with the CBA exercise. She thanked all participants and ERA for involvement and exchange.

Antonio de Rose delivered a presentation on the first draft of the European Investment Plan (*for details please refer to the presentation*).

- **Due to time restriction, under a proposal by the Chair, with the agreement of the EDDP PB members, the item would be continued at the next PB meeting in September 2022.**
- **Additionally, a dedicated in-dept session will be organised and proposed to the EDDP PB Members before the summer break.**

12. Other critical issues - state of play

Please refer to the presentation

13. Dissemination & event plan 2022

Please refer to the presentation

14. AOB and closing

Giorgio TRAVAINI concluded the meeting and announced the next meeting scheduled for 12 September 2022.