



**DAC Delivery Programme
PROGRAMME BOARD**

**Meeting 14 September 2021
14h00 – 16h30**

Conference call

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| 14h00 | <p>1. Introduction [S2R]</p> <p>a. Welcome, adoption of the Agenda</p> <p>Carlo Borghini welcomed all participants to the EDDP Programme Board after the summer break. Modification to the order of the Agenda has been proposed. The participants agreed to begin with the decision point (point no 4), and afterwards follow the order proposed initially. Carlo Borghini reminded that the information points from the Agenda will be more relevant in the coming months due to decisions to be taken.</p> <p>Leonardo Dongiovanni (EC) welcomed the progress made by the DAC Delivery Programme. He thanked all WPs members and Programme Managers for their efforts to deliver the tasks. He pointed out that the current meeting is important in terms of overall goals and core activities of the Programme. He briefly commented on the current work in the WP5 and the upcoming activities (e.g. CBA exercise). The participants were also informed that the representatives of Shift2Rail JU and the EC will be speaking at the Digital Rail Revolution online summit in a panel discussion on DAC. With respect to the Connecting Europe Express, a demonstration on DAC will be held in Halle (Germany) organized by Deutsche Bahn Cargo. As highlighted, these events are a part of the communication campaign with an aim to raise awareness about the DAC Delivery Programme. Following the communication topic, Carlo Borghini added that DAC has also been mentioned as one of the key elements of R&I activities in rail during the CEE ceremony in Belgrade.</p> <p>2. Review of actions since the last PB</p> <p>For details, please refer to the presentation.</p> <p>3. New Members, interested parties</p> <p>Giorgio Travaini briefly presented the current status of membership. Two new parties that expressed interest in the programme and now integrated are: Talleres Alegría (Spain) and Technische Hochschule Ostwestfalen-Lippe (Germany).</p> |
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14h20

Decision point:

4. Coupler type (head) selection: Assessment stage A (k.o.-criteria)

Carlo Borghini thanked all experts involved in the assessment process. He briefly introduced the assessment procedure behind the coupler selection with respect to dedicated tests, workshops and written confirmation (for details, please refer to the presentation). As reminded, three prototypes were shortlisted for assessment. Of assessed couplers, the lacht type (Scharfenberg 1) design successfully passed all 20 criteria based on consensus or close to consensus basis (with over 90% agreement).

The two other prototypes did not pass all KO criteria.

The results of the test performed by the DAC4EU will be finalised and released in a form of a final report describing in details the process. The results and assessment have already been discussed during the workshops.

Based on the results of stage A KO assessment, a latch type (Scharfenberg 1) has been proposed as a European DAC head type to be recommended to the Supervisory Board as selected for the next steps (basic requirements and LCC). As reminded, the selection of the coupler is only a baseline for further stages. Given the agreement on latch type, the RE basic and LCC assessment will continue on the selected coupler.

Mark Topal reminded that the discussion on specification will be ongoing after the selection of coupler. He also stressed that the report with results has been sent out to the participants. As mentioned, it is not yet a final report of the DAC4EU project, however, it points to the results of particular WPs. Carlo Borghini reminded that the DAC4EU project will be finalised by the end of November 2021.

Martin Ertl requested that Knorr-Bremse will be a part of joint design efforts, despite not participating in the testing phase. As stressed, after the coupler selection, there is time to join forces and work together on what will become the European solution in the future and this requires cooperation between all manufactures to guarantee interoperability and compatibility. As stressed, KB participated in WPs and it brought resources and competence to the process. Mark Topal confirmed that after the selection process, the specification will be discussed in a transparent manner. He welcomed all efforts to contribute to the specification, specifically from the parties that have already been engaged. Carlo Borghini stressed that there is no intention to exclude any interested party and the correct set up, considering also the investments done till now to be considered. The point was noted and it was confirmed that during the next weeks it is essential to set up the next steps in the correct manner.

Armin Günter highlighted that apart from the RE basic requirements there are other issues that demand special attention, including workers' safety, ergonomic of uncoupling, hybrid coupler for locomotives, or adaptation for certain wagons. The following statement has been supported.

Leonardo Dongiovanni (EC) asked about the potential back-up procedure in case the selected coupler would not pass the next-stage criteria. Mark Topal explained that such situation should not take place as the criteria have been divided into KO category and others. If the coupler did not pass the stage A criteria (knock-out criteria), it would not be able to pass other criteria. The criteria other than KO are subject to further optimization. Jens Engelmann stressed that with the KO criteria passed, the principle conditions have been established.

Paul Hegge referred to the discussion on the incompatibility of certain types of wagon with the selected coupler. He asked about the current status of the discussion and

whether these wagons would be excluded. Jens Engelmann confirmed that there are some issues to be solved. For certain types of wagon there are initial ideas for solution. Mark Topal also stressed that the following issues have been openly discussed in respective WPs and the decisions have been taken with the awareness of this risk. Participants agree that the incompatibility provides a certain risk to the current work, but they also noted that the engineers are working on the solutions.

Mark Topal stressed that a list of opening/risk points is being developed and will be further discussed. Constanze Bannholzer pointed out that the open topics have been also presented at the PB meeting on 22nd July and they were included in the presentation. Stefan Hagenlocher stressed that the selection of one coupler will facilitate the work on the solutions as well as on the input for the TSI revision and standardization in comparison to three couplers in testing phase. He briefly commented on technical issues with relation to the intermodal wagons and central buffer coupler.

Oscar Martos (ERA) asked whether any questionnaire has been sent out to the operators to identify potential obstacles in terms of compatibility and retrofiting. Mark Topal commented that the DACcelerate project will investigate *inter alia* the existing fleets and wagons in the European network. Stefan Hagenlocher explained that the differences between the Eastern and Western Europe had been taken into account in designing the KO criteria. Also, based on the survey undertaken 2 years ago, approximately 90% of wagons should have a space for the coupler installation. For remaining 5%, the solutions are to be provided.

JASMIN BIGDON proposed to make an active decision on coupler selection to increase the PB commitment. Participants agreed and expressed their support via chat.

- **PB agreed to provide to SB recommendation on the latch type coupler Scharfenberg 1 as selected for further steps (RE basic requirements and LCC)**
- **the manufactures that have been main investors in the process will be further engaged in the next stages, together with other relevant parties ; this will require ad hoc set up to be finalized in the next weeks.**

Information points:

5. DAC specification: draft energy and data requirements (system architecture)

Jens Engelmann stressed that the current points of information are important due to the fact that the presented issues will be subject to decision in the future.

On behalf of WP1, Christoph Klose presented the electrical parts of specification work on DAC. He presented the progress in work on electrical energy system (for details, please refer to the presentation). The boundary conditions for the dimensioning of the DAC electrical energy system have been presented. The PB was requested to consult the presented parameters with the experts to identify potential obstacles from the operational point of view. As stressed, this will be a future item for decision. Another point for further decision at the PB level will be a list of EDDP use cases that have been initially identified and presented already on several occasions as the basis of the WP detailed works.

Per Anders Benthin asked where the buffer battery should be mounted on the wagons. Christoph Klose explained that the mechanical enclosure concept will be further discussed, especially with wagon keepers.

Armin Günter suggested to differentiate between the basic functions and comfort functions (e.g. lights, indicators) and to leave additional room for the comfort functions. Christoph Klose stressed the current energy budget is not fully used. He also mentioned that it is important to have an indication that the extra functions are feasible with the current architecture and system. He suggested to discuss the concrete issues with the experts. Stefan Hagenlocher reminded that for the higher protection class, there is a need to calculate higher costs for protection (e.g. staff training or additional equipment)

→ PB members are requested to double-check a list of use cases presented and identify clearly the additional energy, if any. In case of such identification, the members are requested to liaise with their WP1 representatives and ensure the message it is provided with technical elements

Stefan Hagenlocher presented the communication system (for details, please refer to the presentation). Oscar Martos suggested to consult the list of use cases with the existing specifications to identify potential conflicts. Antoine Rothey pointed to the rear manoeuvres and automation of manual switches as potential elements for further discussion. Mark Topal suggested to discuss these items in the respective working groups to identify whether they could also be a part of use cases.

Stefan Hagenlocher explained different layers of the communication system and stressed that the target is to use as much of existing communication standards from railway as possible. However, the decision on basic technology for freight trains should be taken separately. Therefore, the physical layer suitable for rail freight needs to be selected. He presented the boundary conditions in this respect. The participants were informed about the assessment of the communication technology conducted by WP1. The shortlist of communication technologies has been presented (for details, please refer to the presentation). After the final evaluation one selected technology will be presented to the PB.

6. Analysis of authorisation preconditions for wagon/loco retrofit

Jens Engelmann presented briefly the analysis of authorisation preconditions for wagons and locomotives retrofit with respect to the ERA proposal and challenges (for details, please refer to the presentation). With respect to challenges, risk scenarios need to be developed before the retrofit, and some test with wagons may be required. At the current stage workforce and budget is required. Martin Ertl asked about the budget gap. Jens Engelmann indicated that the current budget estimates around 50-60k and additional 100-120k is still needed. Armin Günter confirmed that Deutsche Bahn has already notified its will to contribute voluntarily to the budget. He proposed that wagon keepers could also consider the contribution along with RUs.

7. Status Update DAC@ER JU IP+SP

[S2R]

Giorgio Travaini provided a short update on the work on IP and SP. He stressed that there is one Flagship Area on freight activities and it will be related also to DAC activities. These activities will be put in a global context of programme.

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| | <p>Constanze Bannholzer stressed that the overall process of Europe's Rail JU is supported. She stressed a need to allocate sufficient budget to the DAC topic and reminded the CFM to have this in mind when declaring the final commitments. Antoine Rothery stressed that there is a will steaming from the CFM to align the visions, however, there are potential difficulties in coordination between the CFM and the EDDP. He suggested to improve the communication and information sharing.</p> |
| <p>16h00</p> | <p>8. AOB and closing</p> <p>a. Updated EDDP work programme 2021/22</p> <p>The additional meeting planned for 11th October 2021 has been cancelled.</p> <p>EP brake system decision has been added as a new item for decision either at October or December PB meeting.</p> <p>The first workshop on migration will take place between 15th-16th September in Frankfurt. The EDDP member will be shortly informed.</p> <p>b. feedback on WK LCC position paper (orally)</p> <p>Jens Engelmann provided a short feedback on the WK LCC position paper presented at the last meeting.</p> |