Minutes of the Meeting

**Final Agenda**

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<tbody>
<tr>
<td>0.</td>
<td>Welcome by Clean Aviation Director Axel Krein and Q&amp;A</td>
<td>9:00-10:00</td>
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<tr>
<td>1.</td>
<td>Approval of MoM Meeting #1</td>
<td>10:00-10:05</td>
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<td>2.</td>
<td>Feedback from SAB on AAR2021 consultation / Feedback from JU on form and content of the SAB report.</td>
<td>10:05-10:50</td>
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**COFFEE BREAK (15 mins)**

<table>
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<th>3.</th>
<th>ARMs feedback for SYS, AIR, FRC, LPA Pt1 (15 min each SPD)</th>
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<tbody>
<tr>
<td>SYS: Michele de Gennaro</td>
<td>11:05-12:05</td>
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<tr>
<td>FRC: Wim Pasteuning</td>
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<td>AIR: Trevor Young / Hervé Consigny (oral)</td>
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<td>LPA: Trevor Young (oral)</td>
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|4. | Procedure for election of Chair/Vice-Chair by Meeting #3 | 12:05-12:20 |

**LUNCH (1hr)**

|6. | Other requirements from Regulation in terms of tasks of the SAB – Discussion | 13:50-14:50 |
|7. | Q&A / AOB / Dates for next meetings | 14:50-15:00 |
Attendees of Meeting N° SAB 02/2022 held 13 May 2022:

<table>
<thead>
<tr>
<th><strong>Surname</strong></th>
<th><strong>Name</strong></th>
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<tr>
<td><strong>SAB members</strong></td>
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<tr>
<td>Alonso</td>
<td>Gustavo</td>
<td>In-person</td>
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<tr>
<td>Argumosa</td>
<td>Maria Del Pilar</td>
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<td>Boelens</td>
<td>Jan-Hendrik</td>
<td>Remote</td>
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<tr>
<td>Burt</td>
<td>Graeme</td>
<td>In-person</td>
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<tr>
<td>Consigny</td>
<td>Hervé</td>
<td>In-person</td>
</tr>
<tr>
<td>De Gennaro</td>
<td>Michele</td>
<td>In-person</td>
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<tr>
<td>Fernberg</td>
<td>Patrik</td>
<td>In-person</td>
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<tr>
<td>Henke</td>
<td>Rolf</td>
<td>Remote</td>
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<tr>
<td>Hornung</td>
<td>Mirko</td>
<td>In-person</td>
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<tr>
<td>Joselezon</td>
<td>Alain</td>
<td>Remote</td>
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<tr>
<td>Malina</td>
<td>Robert</td>
<td>In-person</td>
</tr>
<tr>
<td>Pasteuning</td>
<td>Wim</td>
<td>Absent</td>
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<tr>
<td>Sanna-Randaccio</td>
<td>Francesca</td>
<td>In-person</td>
</tr>
<tr>
<td>Young</td>
<td>Trevor</td>
<td>In-person</td>
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<td><strong>Clean Aviation Joint Undertaking (CAJU)</strong></td>
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<tr>
<td>Krein</td>
<td>Axel</td>
<td>In-person</td>
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<tr>
<td>Van Manen</td>
<td>Ron</td>
<td>Remote</td>
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<td>Dubois</td>
<td>Sébastien</td>
<td>Absent</td>
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<tr>
<td>Brouckaert</td>
<td>Jean-François</td>
<td>In-person</td>
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<tr>
<td>Harty</td>
<td>Niall</td>
<td>In-person</td>
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<tr>
<td>Selmin</td>
<td>Vittorio</td>
<td>In-person</td>
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**Meeting chair**: Trevor Young
0. Welcome by Clean Aviation Director Axel Krein and Q&A

The interim chairperson Trevor Young opened the meeting by giving the floor to Axel Krein, Executive Director of Clean Aviation. A. Krein gave an introduction on Clean Aviation’s history and its mission statement. He stated that Clean Sky 2 is a very good foundation upon which to build Clean Aviation, and posed the question, how can we get all of those technologies into the next generation of products? Climate neutrality by 2050 will not work without hydrogen. That is the key driving principle for A. Krein. The question is how do we make aircraft 50% more energy efficient than what the current fleet is providing? He stressed that getting beyond the 90% barrier is all important in terms of reaching climate neutrality. Clean Aviation wants technology development to get to the point where some of those topic matters go through to production. He emphasised the need for the SAB, as independent experts with outside expertise, to help Clean Aviation reach its goals. He wants SAB members to speak up, to inform the CAJU of shortfalls in the [technological] impact or in the ambition of where Clean Aviation need to go. He also wants to ensure that SAB members are not wasting their time on topics that do not make a difference.

Outcome: The interim chairperson, T. Young, thanked the Executive Director, A. Krein, for his input and participation in the meeting. It was agreed that this would be repeated at a future meeting.

1. Approval of minutes for previous meeting.

Francesca Sanna-Randaccio brought an error in the minutes to light. The name of the Council Regulation (EU) 2021/2085 (19 Nov. 2021) must be written with a forward slash (/) rather than a hyphen (-). The minutes of meetings N° SAB 01/2022 and SAB 01bis/2022, which took place on 4 and 24 February 2022 respectively, were adopted. These minutes shall be uploaded to Clean Aviation's website once they have been signed by the interim chairperson.

Outcome: The minutes were corrected and deemed adopted. They shall be uploaded to www.clean-aviation.eu in due course.
2. Establishing Feedback from SAB on AAR2021 consultation and feedback from JU on form and content of the SAB report.

The SAB had been tasked to provide scientific advice on the scientific aspects of the Annual Activity Report (AAR), for which a subcommittee was set up. The group was asked to read the document and provide comments on it in the form of a written report to be submitted to the GB. T. Young noted that as this is the first time that the SAB had been engaged in this activity; there was thus a need to review and discuss with the CAJU the draft report so that in future more focused and relevant feedback on the AAR could be generated.

The SAB report on the AAR was reviewed.

Vittorio Selmin stated that the CAJU would provide a written response to each point raised by the SAB in their report.

T. Young noted that the timing of the issue of the AAR by the CAJU was not optimum; it would be best to generate the report after the Annual Review Meetings of the SPDs.

F. Sanna-Randaccio noted that the SAB report should refer to Clean Sky 2 SPDs and not Clean Aviation SPDs because Clean Aviation does not have any SPDs.

Ron van Manen reminded the meeting that the Annual Activity Report is a statutory document that goes to the European Parliament. It is set in stone in terms of its timeline. The process is a little bit more flexible under CA than under CS2.

**Outcome:** CAJU to provide a response to the SAB’s report.

3. ARM feedback for SYS, AIR, FRC, LPA Pt1

I. SYS ARM Report

Michele De Gennaro began by presenting on the format. He went through the process of how SYS ARM report was undertaken. He then spoke about how the GAM-2020-SYS was assessed (i) Overall Assessment, (ii) Excellence, (iii) Impact and (iv) Implementation. He went on to outline the structure of the project. With regard to the key recommendations and takeaway messages, he summarised that there were no red flags from a technical standpoint. However, some localised shortcomings were found. By way of conclusion, he stated that the format was excellent, and that given the time assigned, it was very effective. He held that a mandatory use of SharePoint could simplify the compilation of documents.
II. AIR ARM Report

T. Young began by describing the process of the review. He highlighted the key aspects of the review. He praised the AIR ITD Recommendation Tracker. Regarding the project structure he described the various technology streams. He then outlined the AIRFRAME Community from leaders to participating leaders, core partners and CIP projects. By way of conclusion, he stated that the Technical Review Report was still under preparation. However, he did give preliminary conclusions. He then summarised the current mapping on potential for major demonstrators to contribute to Clean Aviation.

H. Consigny then commented on the WPs he specifically considered in the ARM. He saw clear progress in addition to certain difficulties. He found the system difficult at times as a newcomer. H. Consigny suggested that the way reviewers report on submitted deliverables could be improved. T. Young requested that this be put on the agenda for a future meeting because this has come up already in the past.

III. LPA Platform 1 ARM Report

T. Young then went on to report on the recent LPA Platform 1 ARM. He outlined the WP structure and key interfaces with other SPDs.

He outlined the progress reported on N+1 and N+2 Engine Integration Streams, as well as the Laminarity Stream and Radical Aircraft Configuration Stream. In terms of key deliverables and milestones for the two-year period 2020-2021, he stated that the CAJUs targets, as identified in the CAJU’s Covid Recovery Plan, had been met. The spending profile is very tight but goals can still be achieved and industry (leaders) will self-fund. On his key observations, he stated that the meeting was well organised. He noted that the standard of draft PowerPoint slides received by the reviewers varied considerably, with a few being regarded as “below expectation”. The management team continue to perform very well.

IV. FRC ARM Report

A PowerPoint summary had been prepared by Wim Pasteuning on the FRC ARM. It was decided to postpone the discussion on the FRC report as W. Pasteuning was absent.

**Outcome:** A review of the ARMs for the remaining SPDs will take place at the next meeting of the SAB.

4. Procedure for election of Chair/Vice-Chair by Meeting #3

It was explained that the election of the Chair and Vice-Chair was delayed so that the SAB could meet in person first. Members will be given an opportunity to put forward nominations
for Chair and Vice-Chair of the body. The secretariat will compile the list of nominees and then a vote will be undertaken to select a Chair and Vice-Chair from the list.

The discussion then turned to how the election procedure should be conducted, whether it should be electronic or closed ballot in person vote. Electronic voting was selected as the voting method. Members have given themselves two weeks to make nominations. The secretariat will then have one week to formulate a list of nominees. The list will then be circulated. A vote will be held one week after the circulation of the list. Members will vote by ranking a first and second choice for both Chair and Vice-Chair.

**Outcome:** The election of the SAB Chair and Vice-Chair will take place before the next SAB meeting by electronic means, following the formulation of a list of candidates from nominations. The CAJU would circulate an email to SAB members explaining the process.

5. **SAB modus operandi, document management policy**

T. Young stated that a Word template for SAB reporting had been developed (used for the recent AAR review). He also indicated that a draft PowerPoint template for reporting at SAB meeting was under preparation. It was put forward that SAB members follow the same template for their presentations at future meetings. The templates would be uploaded to a folder on Teams / SharePoint.

The Teams /SharePoint mechanism for internal SAB communication, which had been implemented by the interim chair, over the preceding 3 months was discussed. It was noted that there had been some teething problems, specifically with access to the online site for certain members. All agreed that the mechanism worked and was necessary to conduct the assigned tasks.

T. Young made the point that the use of SharePoint for sharing working documents should be encouraged as opposed to sending attachments by email. It was noted that SharePoint was for collaboration on working documents only. The official archive of SAB documents remains CIRCABC.

Maria Argumosa suggested that more attention be paid to naming the folders on Teams /SharePoint, as finding specific documents can be a little time-consuming.

M. De Gennaro requested that the secretariat verify that versioning of documents on SharePoint is turned on. This is important so members can keep track of all changes that have been made to working documents.

**Outcome:** Members were unanimously in favour using the Teams / SharePoint for working documents.
6. Other requirements from Regulation in terms of tasks of the SAB – Discussion

T. Young undertook a review of SAB tasks by going over the relevant articles of the EU Regulation 2021/2085. Notably, part 1 (31), Article 17, Article 21, Article 26 and Article 70. Rolf Henke remarked that the duties being asked of members is more than just scientific advice as laid down in part 1, para. 31.

When discussing Article 21, T. Young highlighted para. 7, which outlines the SAB’s tasks. With regard to para. 8 of this Article on how to devise reports to the Governing Board, Ron van Manen commented that the minutes should be heavily referenced when reporting to the Governing Board. He went on to say that the SAB should summarise recommendations and/or reservations. It is not necessary for all members’ opinions to be covered in the report but the SAB should highlight certain views it deems necessary for the Governing Board to be made aware of. The requirement for publication was discussed. R. van Manen underlined that legally the SAB has to publish unless it has a strong reason not to. However, that does not mean reports need to be long and extensive. Reporting to the Governing Board can be a light process. Reports, minutes, and agendas will be published on the website. R. Van Manen also noted that the SAB needs to establish a clear distinction between official meetings and working sessions.

Whilst discussing Article 70, particular attention was paid to paras 5, 6 and 7. On par 5, it was noted that Rolf Henke is already involved in ACARE. R. Henke stated that cooperation with bodies like ACARE is not going to be difficult because there is a general assembly in ACARE and Clean Aviation is a member of that assembly. He informed members that the new vision is to be published at ILA Berlin in June and after the summer there will be a new general assembly.

As interim chairperson, T. Young is to attend the next Governing Board meeting on 24 June at ILA Berlin. He will be expected to provide a report about the SAB’s activities for the second quarter of 2022.

A question was raised as to whether expenses under Article 70(6) (coordination meetings with advisory bodies of other joint undertakings) were eligible expenses that could be claimed back by SAB members. R. Van Manen responded by saying everything would be funded by Clean Aviation in terms of coordination and cooperation with other advisory bodies of other JUs. He noted that in his view there was no need for regular coordination meetings and that meeting with other advisory bodies once a year should satisfy the Regulation.

M. Argumosa remarked that the communication bodies of other JUs could be improved especially as to whether projects are similar or can complement each other. She noted that this does not necessarily need to be done officially but could even just be an informal arrangement. R. van Manen clarified that even though there is no comparative body in Clean Hydrogen, it does not mean that there cannot be any coordination between Clean Hydrogen and Clean Aviation. Inviting representatives of other Joint Undertakings such as Clean Hydrogen to SAB meetings is one way this could be achieved. M. Argumosa was asked to consider if such an arrangement would be feasible and if so then she should approach Clean Hydrogen on the matter. A member of Clean Hydrogen could potentially be invited to attend
the SAB’s third quarter meeting in September/October. R. van Manen pointed out that Clean Aviation stakeholders with interests in hydrogen should also be involved in such coordination meetings.

7. Next meeting and any other business

The secretariat reminded SAB members to send in their expense claims for reimbursement. Members were asked to share their availability for third quarter and fourth quarter meetings. It was proposed that a doodle poll be made to vote on a date for the third quarter meeting. Ron suggested members choose a date in the second week of October. T. Young noted that Article 70(7) of the Single Basic Act on education still needed to be dealt with and should be put in the agenda for the SAB’s third meeting.

Outcome: Doodle poll is to be created with potential dates for the SAB’s next meeting, likely to be held sometime in October 2022.

Minutes approved by:

SAB Chairperson

Date: 11 Oct 2022