

## Minutes of meeting

### Scientific Committee meeting SC(M)07-2024

Wednesday, 20 March 2024 (9h00 to 13h00)

Geneva, Switzerland

#### Item 1. Welcome & review of actions

The SC Chair, TBO, welcomed all participants to the seventh meeting of the SESAR 3 JU Scientific Committee (SC).

TBO and ABO welcomed Andrew Cook, the new member of the Scientific Committee, appointed by the Governing Board in December 2023.

ABO recalled that as of 1 January 2024, UK is associated to the Horizon Europe Programme. This has allowed Andrew Cook to be appointed.

ABO reminded the SC Members about the rules on conflict of interest applicable to their function.

He also reminded that a decision on the Chairperson and vice-Chairperson shall be taken at the September meeting.

#### Review of Actions

|         | Responsibility | Description  | Due Date      | Status                                    |
|---------|----------------|--|---------------|---|
| SC05/03 | SESAR 3 JU     | To facilitate information exchange between the SC and the SESAR 3 Transversal project as part of the follow up of the Performance Task Force work in the previous S2020 Scientific Committee | Q1 2023       | Closed                                    |
| SC05/03 | SC Members     | Reflecting on the future of ATM research (beyond 2028) and produce a White paper   | End of 2024   | Open                                      |
| SC05/03 | SC Members     | To provide an input to the outlook on the future of ATM research beyond 2028   | Mid-January   | Open                                      |
| SC05/06 | SC Members     | Produce a paper supporting Scientific Agenda focusing on ER for the MP. SC06 produced a draft paper, to be fine-tuned in 2024.   | February 2024 | Ongoing                                   |
| SC06/01 | SESAR 3 JU     | Propose appointment of additional member to the SC   | asap          | Closed – new member appointed by the GB   |
| SC06/02 | SC Members     | Contribute to the paper on Outlook of research beyond 2028   | December 2024 | Open                                      |
| SC06/03 | IVA            | Provide information on project beneficiaries category  | December 2023 | Closed – information available in Stellar |
| SC06/04 | IVA            | Check if Deployment Manager had been included in the MP SG and if the MP SG material and be shared with the SC Members.  | asap          | Closed - confirmed                        |
| SC06/05 | SESAR 3 JU     | For the YSA award 2024: Consider requesting thesis in English language   | Q1/Q2 2024    | Closed – see item 6                       |
| SC06/06 | TBO            | Organise meeting with EUROCONTROL DG in the next year to further develop the 'open science alliance'   | Q1/Q2 2024    | Open                                      |
| SC06/07 | IVA            | Check room availability for SC meeting on 20/03 in Geneva  | asap          | Closed                                    |
| SC06/08 | IVA+TBO        | Contact CA JU SC to plan a joint meeting in 2024   | Q1 2024       | Closed – CAJU will revert to IVA          |

The open actions were reviewed as above and those highlighted in yellow were considered partly overlapping and needing a re-organisation.

**Item 1. Conclusions:**

IVA and TBO will summarize actions SC05/03, SC05/06, SC06/02 (action SC07/01).

**Item 2. Andrew Cook introduction and welcome**

Andrew Cook (ACO) introduced himself and his activities to the group.

**Item 2. Conclusions**

The SC Members welcomed ACO, and considered that his experience would be very valuable to the SC activities.

**Item 3. SESAR 3 JU activities overview**

ABO presented the strategic planning view for the next 9 months.

The SESAR 3 JU is currently executing all activities according to the Bi-annual Work Programme (BAWP) 2024-2025.

The Consolidated Annual Activity Report 2023 is currently being drafted and will be tabled for adoption at the Governing Board meeting in June. It will be shared with the SC to collect its advice during the second half of April.

The Call for Expression of Interest to become an Associated Member of the SESAR 3 JU, opened on 15 December and closed on 19 January. Once the evaluations are concluded, the GB will consider the results and will hopefully approve the proposed candidates, such that representatives of the new Associated Members can be invited to attend the GB meeting of 25 June.

The activities of the ATM Master plan update are ongoing with the 6 working groups, under the coordination of the MSG, where TBO and PHE are participating. As a part of the Master Plan update, candidate development priorities are being discussed – these will be provided to the SC members to collect their inputs.

The Master Plan Strategic Development and Deployment reports for 2024 will be prepared in the light of comments received for the 2023 edition.

Considering the SESAR 3 calls, all ER-01 projects are in execution and the first reporting and payment will start in Q2 2024 (around May/June).

The IR-01 projects are in execution and will undergo the technical review in March/April 2024.

The next DES IR and ERs call will be opened early 2025, in line with the Multi annual work programme.

The DSD2 call evaluations are ongoing and the grant agreement preparation should start in June.

The technical specifications for the DSD3 call are under preparation and the call should open in September 2024.

On the ER2 call results, ABO reminded the SC Members that the initial indicative call budget of 25 M EUR was increased to 26,1 M€ due to the good quality of proposals and thanks to the possibility of the SESAR 3 JU to adjust the budget within the margins of 20%.

Out of the 93 proposals evaluated for ER2, 84 proposals are above and 9 proposals below the threshold; 18 proposals are selected (19%), 9 for each work area (fundamental and applied ER). No proposal was submitted for WA1-2 “Air-ground integration and autonomy”, but this topic is actually partially covered by other proposals allocated to other topic areas as their main focus. The scores for the 18 selected proposals are between 15 and 13.9, which confirm the high quality of these proposals.

6 proposals have been placed on the reserve list. The grant agreement preparation has started and should conclude by mid-July with the signature of the grant agreements.

Regarding the DSD2 call, 2 proposals have been submitted, the evaluations, conducted by CINEA, are ongoing and the notification of the results is expected in June.

Looking at the synergy call with Europe's Rail JU, 1 topic is dedicated to multimodality aviation-rail. 1 proposal was submitted, the evaluations are performed by Europe's Rail JU as part of the EU-Rail HORIZON-JU-ER-2023-01 call, the results should be communicated in April and the grant agreement preparation will start in April/May.

ABO informed the SC that the Release 13 close-out report documents the main results achieved during 2023 by projects that completed their research, validation and demonstrations activities. Release 13 concludes the activities of SESAR 2020 programme and includes:

- 1 ER project that completed TRL2
- Industrial Research projects that delivered:
  - o 2 SESAR Solutions that completed TRL2
  - o 19 SESAR Solutions that completed TRL4
  - o 13 SESAR Solutions that completed TRL6
- 5 Demonstration projects that completed TRL7

ABO provided an overview of upcoming events: the Transport Research Arena, on 15-18 April in Dublin; the European ATM Master Plan Campaign Stakeholder Consultation Workshop on 22 – 23 April 2024 in Brussels; the FLY AI event on 29-30 April 2024 in Brussels; the Global TBO on 4-6 June in Brussels, the SESAR Innovation Days on 12-15 November in Rome and the next SESAR JU Annual Conference in Q1 2025.

In terms of publications, the "Environment discussion paper" for the Master Plan campaign was published in October 2023, the SESAR "Innovation pipeline" was published in January 2024, the next update of the digital "Solutions Catalogue" is foreseen for March 2024, a "CORDIS project brochure" in Q2 2024, and the digital version of the updated MP in Q1 2025.

On International Affairs, in January 2024, the SESAR 3 JU had bilateral discussions with NASA on the long-term vision for research and on opportunities for collaboration and participated to a two-day event co-organised by CANSO/NASA/FAA on "Collaborating on our Future Skies".

In February 2024, the SESAR 3 JU discussed with CAAS about possibilities for deepening cooperation, inter alia, on TBO and with the new International Center for Aviation Innovation (ICAI) in Singapore, led by Patrik Ky.

ABO informed the SC members that the SESAR 3 JU is contributing to the preparation of European working papers for the 14th ICAO Air Navigation Conference (Montreal, August/September 2024), whose theme will be "Performance Improvement Driving Sustainability" and is actively participating in GANP-SG and AAM-SG to ensure alignment with the MP update.

TBO asked that ICAO papers are shared with the SC, when possible.

### Item 3. Conclusions

The SC Members took note of the information provided by ABO and IVA will check if/when ICAO papers are available (action SC07/02).

### Item 4. Updates on Performance Task Force

TBO informed that she was invited, together with ACO, to contribute to the MP performance ambitions work.

The work on the definition of the MP performance ambitions is led by PEARL project. It aims to update the ambition values for the next MP, considering that phase C should be concluded by 2025 and phase D by 2040. Ambitions should be expressed in quantitative terms, should be linked to phase D and include intermediate roll out steps (including phase C and ensuring continuity with existing ambitions).

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In parallel, AMPLE 3 project is working on the network impact assessment and investments needs. TBO listed the KPAs, underlying that the new ones are multimodality and passenger context and U-space and drones.

Members extensively discussed the challenges within the task force: i) the interrelation between KPAs/KPIs and trade-offs linked to the methodology, i.e. difficulties related to a defining a way to assess KPAs/KPIs simultaneously, in a limited time; ii) the definition of an appropriate baseline, without losing the historical perspective; iii) the definitions of future scenarios for performance ambitions.

ACO proposed that a possible approach could be looking at holes in a KPIs model table. ACO underlined the importance of associating costs to flexibility and predictability for the Network. He added that the “Marinus paper” could be shared with the SC members.

PHO underlined that it is important to reflect these elements in the ATM MP update because it will help secure the buy in from the stakeholders.

TBO suggested that representatives from PEARL and AMPLE 3 projects are invited for a presentation during the SC meeting in September.

### Item 4. Conclusions

The SC Members took note of the information provided by TBO and agreed to invite representatives from PEARL and AMPLE 3. TBO should provide Marinus paper in STELLAR (action SC07/03) and invite project representatives to the meeting in September (action SC07/04).

### Item 5. Open data task force

TBO updated on the status of project “Engage 2” that is working on enabling the listings of datasets on the new version of the Engage wiki; it is also conducting a survey on opportunities and barriers for implementing Open science policies in ATM and are organising a Summer school.

The SESAR JU agreed to promote the survey, by sharing the link with the Programme Committee.

Regarding the SIDs programme committee members, TBO asked the SESAR 3 JU to ensure that this information is available on the website, as this is a prerequisite for the conference proceedings to be included in SCOPUS. She also asked to double check if the SIDs presentations could be made available on the website.

### Item 5. Conclusions:

The SC Members took note of the information. IVA should forward the Survey link to the Programme Committee and will check about the publication of SIDs presentations (action SC07/05) and check about presentations and Programme Committee members’ names being published (action SC07/06).

### Item 6. Master Plan campaign and SC support

Mr Bagieu recalled the success criteria agreed by the Governing Board and the timeline with main milestones: on 22/23 a workshop will be organised to consult all stakeholders, the SESAR 3 JU Governance will be consulted early June and the formal consultation at the Single Sky Committee and the Eurocontrol Provisional Council will start at the end of July.

The 6 working groups have been working under the supervision of the Content Integration Team and the Steering group.

The first draft version contains the performance ambition, the vision, the 10 proposed strategic voluntary

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objectives and 12 candidate development priorities (8 for Industrial Research and 4 for Exploratory Research). A four-stage process has been followed to identify the development priorities:

- First, sources have been identified in the SRIA, in the inputs of the working groups, in the recommendations of the SC on the future ER and in the independent experts supporting the JU;
- Second, the 300 inputs were consolidated in 27 development priorities
- Third, a prioritisation was applied
- Forth, the 12 development priorities were identified, covering the full scope of the Master plan and its evolution needs, as well as the critical gaps identified.

Mr Bagieu presented in detail the 12 retained development priorities. He added that the three areas where gaps in the specification of R&I needs were identified are: higher airspace operations, Innovative Air mobility and U-space and Next Generation Low Emission Aircraft.

ACO informed that Engage 2 project is looking at future concept beyond SESAR 3. One of the tasks consist of making use of AI to make a prediction of ATM needs after 2040.

SBA asked about the rationale for the distribution of topics in the development priorities and noticed that the ones on ER were very broad. Mr Bagieu replied that the objective was to find an adequate balance and that, for ER, there are more topics than initially expected. These are formulated in a wide way to possibly cover broad research needs.

### Item 6. Conclusions

The SC Members were requested to provide comments on the development priorities to PHE and TBO, for consolidation and transmission to the JU. (This has been agreed that SC members will be invited to identify any blocking points to development priorities on Master Plan V2 at early June - action SC07/07).

### Item 7. Outlook on the future of ATM research beyond 2028

TBO presented the status of the discussion status around the outlook on the future of ATM research beyond 2028.

The research priorities included in the paper, presented to the SESAR 3 JU in January, were considered as an input for the development priorities identified in the MP update and will be taken into account for the definition next ER calls.

The paper on the future of ATM research should clarify the position of research priorities included in the MP in terms of expected maturity and future research needs. The description of each research priority should be strengthened. TBO proposed that each member works on their preferred topic. Subsequently, the SC should reflect on funding options, geographic scope and organisation.

ABO underlined that the paper would be instrumental to support future discussions on ATM research funding. Therefore, on the one hand we need to acknowledge that the budget dedicated to the SESAR research was well spent so far, as the programme is delivering; on the other, it is necessary to ensure that new elements coming from new research areas, that were not known at the time of the design of the DES programme, are considered for further research.

ABO also invited TBO to present the result of this paper at the Governing Board meeting in December, to support the discussion. Therefore, the document would need to be presented in advance of the meeting.

Members had a discussion on the content of the document and agreed to refer to some main KPIs and to the results of Engage 2 project that would be available in the course of 2024. They also agreed to refer to key EC strategies related to ATM and where ATM research could bring benefit.

### Item 7. Conclusions

TBO should make the first draft available in STELLAR (action SC07/08) and invited the members to choose the priorities on which they intended to contribute to. TBO and IVA will work on a planning (action SC07/09) to have the final version ready for discussion at the SC meeting in November (SC07/10), refined just after and prepared on time for the December GB meeting.

### Item 8. Young Scientist Award 2024 update

LDE presented the timeline for the YSA 2024 that will conclude with the announcement of the winning candidate at the SIDs 2024 in November.

Applications are planned to be transferred to the evaluators by 9 September and a briefing to streamline the process will be organised around 10 September.

LDE also presented the contest rules modifications introduced for this year edition, considering the recommendation made by the evaluation panel of 2023: the description of some award criteria was improved; the importance to submit a copy of the work in English language was reinforced. In addition, the prize amounts for each category have increased.

As regards the composition of the evaluation committee, LDE added that it would be appropriate to have 1 of the previous members and 2 or 3 other members to ensure a rotation and some continuity at the same time. Evaluators shall be known by the end of August.

The number of expected applications is higher compared to the previous edition, considering the increased amount and the promotion the SESAR JU is making with the projects.

In replying to a question raised by ACO, students receiving cascade funding through HE projects are eligible to apply for the YSA.

### Item 8. Conclusions

The SC Members took note of the information provided and volunteers will contact LDE by the end of August (action SC07/11).

### Item 9. AOB

The SC meetings for 2024:

SC08: 26 June physical in Brussels back-to-back to the GB (dates TBC)

SC09: planned date was Tuesday 17/09 online, but SESAR JU would like to suggest Thursday 19/09 (due to unavailability of colleagues in charge of the call that should be invited to the meeting)

SC10: 11 November – before the SIDs in Rome - tbc

TBO closed the meeting thanking all for their participation.

*Signature of the Chairperson*



**Annex I – List of participants**

MEMBERS

Andrew Cook (ACO)

Arnaldo Rosa (RAR)

Bagassi Sara (SBA)

Besada Juan (JBE) - online

Bolic Tatjana (TBO)

Delahaye Daniel (DDE)

Hecker Peter (PHE)

Malakis Efstathios (SMA)

Netjasov Fedja (FNE)

Somogyi Rita (RSO)

SESAR 3 JU

Andreas Boschen – SESAR 3 JU Executive Director (ABO)

Peter Hotham – SESAR 3 JU Advisor for ATM Science & Technology (PHO)

Alain Siebert – SESAR 3 JU Chief Technology & Strategy (ASI) – excused

Serge Bagieu – SESAR 3 JU Secretary of the MP Steering Group and Chair of the MP2024 Content Integration Team

Gauthier Grousset – SESAR 3 JU Planning and Reporting Officer

Ilaria Vazzoler – SESAR 3 JU Corporate Governance Officer - online

**Annex II - List of actions**

Please note that closed actions from past meetings have been removed from the list.

| Actions | Responsibility | Description  | Due Date      | Status   |
|---------|----------------|--|---------------|--|
| SC06/05 | SESAR 3<br>JU  | For the YSA award 2024: Consider requesting thesis in English language   | Q1/Q2<br>2024 | Closed – see item 8  |
| SC06/06 | TBO            | meeting with EUROCONTROL DG in the next year to further develop the ‘open science alliance’                            | Q1/Q2<br>2024 | Open   |
| SC06/08 | IVA+TBO        | Contact CA JU SC to plan a joint meeting in 2024   | Q1 2024       | Closed – CAJU will revert to IVA   |
| SC07/01 | IVA + TBO      | Summarize all open actions related to SC input to the future of ATM research beyond 2028 and consolidate in one action | asap          | Closed – see action SC07/10  |
| SC07/02 | IVA            | Check when ICAO papers are available and if they can be available for distribution to the SC                           | asap          | Open   |
| SC07/03 | TBO            | Provide Marinus paper in STELLAR   | asap          | Closed - done  |
| SC07/04 | TBO            | Invite PEARL and AMPLE 3 project representatives to the SC meeting in September  | Q2            | Open   |
| SC07/05 | IVA            | Forward Engage 2 survey link to the Programme Committee  | asap          | Closed - done  |
| SC07/06 | IVA            | Check if SIDs presentations are available on the website and that Programme Committee                                  | asap          | Open<br>Presentations for some sessions are still missing and there is no mention of Programme Committee for the past edition, only current. |



**Scientific Committee**

|         |            |  |               |              |
|---------|------------|--|---------------|--------------|
|         |            | members' names are published for past SIDs                                 |               |              |
| SC07/07 | SC Members | Identify any blocking points to development priorities on Master Plan V2   | Early June    | Open         |
| SC07/08 | TBO        | Outlook paper available in STELLAR   | asap          | Closed -done |
| SC07/09 | IVA + TBO  | Planning for White Paper   | asap          | Open         |
| SC07/10 | SC Members | Produce a White Paper reflecting on the future of ATM research beyond 2028 | Mid-November  | Open         |
| SC07/11 | SC Members | Volunteer to participate as evaluators to the YSA 2024                     | End of August | Open         |