

European Spallation Source ERIC
29th Meeting of Council
Lund, Sweden, 9-10 June 2022

Approved Minutes

Prepared by: ESS Governance Office

Meeting participants

* Joined on Zoom

Beatrix Vierkorn-Rudolph Chair of Council
Kurt Clausen Vice Chair of Council

Delegates

Lukáš Levák*	Ministry of Research and Development	Czech Republic
Petr Lukáš	Nuclear Physics Institute of the CAS	Czech Republic
Bo Smith	Danish Ministry of Higher Education and Research	Denmark
Jane Hvolbæk Nielsen	Technical University of Denmark, Dpt. of Physics	Denmark
Toivo Rääim*	Ministry of Education and Research	Estonia
Priit Tamm*	Research Council of Estonia	Estonia
Marie-Hélène Mathon*	French Alternative Energies and Atomic Energy Commission	France
Sylvain Ravy*	National Centre for Scientific Research	France
Andrea Fischer	Federal Ministry of Education and Research	Germany
Martin Müller	Helmholtz-Zentrum Hereon	Germany
Balázs Káplai*	Development and Innovation Office	Hungary
Ákos Horváth*	Centre for Energy Research	Hungary
Aldo Covello*	Italian Ministry of Education, University and Research	Italy
Pierluigi Campana	National Institute of Nuclear Physics (INFN)	Italy
Odd Ivar Eriksen ¹	The Research Council of Norway	Norway
Michal Rybinski ²	Ministry of Science and Higher Education	Poland
Marek Jeżabek	The Henryk Niewodniczanski Institute of Nuclear Physics	Poland
Inmaculada F. Rojas	Ministry of Science and Innovation	Spain
Adolfo Morais Ezquerro	Basque Department for Education	Spain
Elin Swedenborg ³	Ministry of Education and Research	Sweden
Lars Börjesson	The Swedish Research Council	Sweden

¹ Joined the meeting in person on day 1 until the beginning of agenda item 7. Re-joined the meeting by video on day 2 from agenda item 10.

² Deputising at this meeting for Mateusz Gaczyński.

³ Deputising at this meeting for David Edvardsson.

Kevin Reymond	State Secretariat for Education, Research, and Innovation	Switzerland
Christian Rüegg	Paul Scherrer Institute	Switzerland
James Partington	Dpt. for Business, Energy, and Industrial Strategy	United Kingdom
Mark Thomson	Science and Technology Facilities Council	United Kingdom

Experts

Morten Scharff	Ministry of Higher Education and Research	Denmark
Pascale Delbourgo	Ministry of Higher Education, Research, and Innovation	France
Ingo Pfeil	Federal Ministry of Education and Research	Germany
Roberto Cimino* ⁴	Italian Ministry of Education, University and Research	Italy
Mario Perez	ESS-Bilbao	Spain
Mikaela Rapp	ESS MAXIV Office	Sweden
Aleksandar Matic	Chalmers University of Technology	Sweden
Andrew Taylor*	UK Research and Innovation	United Kingdom
James Loveder	Dpt. for Business, Energy, and Industrial Strategy	United Kingdom

Advisory Committee Chairpersons

Stéphanie Lê Văn	AFC Chair
Robert McGreevy	IKRC Chair
Mark Reichanadter* ⁵	PAC Chair
Michael Preuss* ⁶	SAC Chair
Alberto Facco	TAC Chair

Guests

Paul Langan	ILL Director
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European Spallation Source ERIC

Helmut Schober	Director General
Andreas Schreyer	Science Director
Agneta Nestenborg	Director Project Support and Administration
Kevin Jones	Technical Director
Andrew Kimber	Acting Project Director
Dimitri Argyriou	Assoc. Director In-Kind
Pia Kinhult*	Host State Relations and Senior In-Kind Negotiator
Roger Eriksson ⁷	Communication Officer
Martin Sjöstrand ⁸	Head of Communications
Ivan Korunoski	Head of Internal Audit
Therese Welander	Head of Performance Enhancement Programme
Karin Hélène	Senior Executive Assistant
Maria Herbst	Assistant to the Governance Office
Michela Dell'Anno Boulton	Governance Officer
Florian Weissbach	Group Leader Governance Office – Council Secretary

Excused

Mateusz Gaczyński	Ministry of Science and Higher Education	Poland
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⁴ Joined from agenda item 5.d.

⁵ Joined for agenda items 8.

⁶ Joined for agenda item 5.d.

⁷ Deputising for the Head of Communications, Martin Sjöstrand.

⁸ Joined for agenda item 6.b.

David Edvardsson

Ministry of Education and Research

Sweden

1. Welcome and Opening of the Meeting

The Chair called the meeting to order on 9 June at 09:30, welcomed the participants, and informed them of changes in the Council delegations and participation [see list above].

The Chair noted that this 29th meeting of Council had been duly convened and was quorate.

2. Adoption of the Agenda

The Chair presented the agenda.

Council unanimously

- **approved the agenda for its 29th meeting.**

3. Approval of the Minutes of the 27th and 28th Meetings of Council

The Council Secretary, Florian Weissbach, reminded the delegates of the new format of the minutes discussed at the 27th meeting of Council.

Concerning the draft open minutes from the 27th meeting, one minor factual correction was requested by ESS.

Council unanimously

- **approved the minutes from its 27th and 28th meetings including the proposed amendment.**

4. Matters Arising

The Council Secretary went through the open Council action items.

Council unanimously

- **closed the action items as proposed in Annex 1.⁹**

5. Reports

5.a) Report from the Chair

The Chair briefly summarised her written report.

Council

- **took note of the Report from the Chair.**

5.b) ESS Directors' Report

The Director General presented the new Directors' Report covering the period between the last regular meeting in December and this meeting, to which all Directors had contributed.

The Director General provided the delegates with the current status covering the accelerator and beam conditioning, the target and the in-kind contributions from ESS-Bilbao, and the

⁹ Annex 1 in document C.29.04.

instruments, focusing on BIFROST and ODIN and the detector technology for CSPEC and TREX.

Concerning the new ESS 2.0 baseline, the Director General confirmed that the new baseline was fully cost, and resource loaded. The additional costs amounted to 427 M€₂₀₁₃ as agreed earlier. Some synergies and efficiencies still needed to be determined and would then be implemented by January 2023. The new Project Office and the new Technical Office were being implemented and would physically move to be in proximity with the Directors and the Director General.

The newly established project dashboards indicated that ESS was moving away from the so-called P0 position towards the P80 position, thereby slowly eroding float. ESS was seeing staff shortages which currently limited the ability to gain back float. Mitigations were under way. The current critical path went through the target electrical installation. Quality issues had come up in several deliveries and ESS would use the same quality standards in the acceptance procedures for commercially procured work, in-kind contributions, and its own work.

The Acting Project Director, Andrew Kimber, and Director for Project Support and Administration (PS&A), Agneta Nestenborg, would work together to further improve reporting and cost control.

The Director General confirmed that ESS had appealed a decision by the Swedish Tax Office concerning property tax as indicated at the previous meeting. Mitigations were in place and Council would be informed of the outcome of the appeal.

Concerning the Internal Audit Function established in February 2022, the Director General confirmed that the Head of Internal Audit, Ivan Korunoski, had implemented the annual audit plan for the current year. AFC and Council would be asked for suggestions for audits for the coming years.

Topics of concern were electricity prices and inflation which would be discussed under agenda items 6, 8 and 9.

The discussion focused on quality, property tax, detectors, and licensing:

- Quality specialists could be embedded with in-kind partners and commercial providers for longer periods of time.
- The Head of Performance Enhancement Programme (PEP), Therése Welander summarised the property tax appeal and the options going forward.
- For the detectors, ESS was reconsidering the so-called Boron technology which had been foreseen e.g. for the CSPEC and TREX instruments. After discussions at PAC and SAC, a decision on the use of Boron or Helium would be made during summer.
- To make sure that licencing was adequately resourced and off the critical path, some licencing activities could move to the Technical Directorate.

Council

- **took note of the Directors' Report.**

5.c) Risk Report

The Acting Project Director provided the delegates with a brief overview of the risk modelling which had been overhauled during the 2021 re-baselining process.

In the discussion delegations suggested adding focus on mitigations and possible knock-on effects from in-kind delays which could indirectly impact contingency.

Council

- **took note of the Risk Report.**

5.d) Report from the Science Advisory Committee (SAC)

The SAC Chair, Michael Preuss, provided the delegates with a report from the recent SAC meeting. SAC had been pleased with the new realistic baseline and the transparency in the reporting. SAC recommended the Scientific Publications Policy to Council for approval and had reservations on the ESS-internal guidelines on publications from ESS staff. SAC was concerned about delays and issues with the so-called multigrid detector technology considered for CSPEC and TREX. Therefore, SAC would schedule an extra-ordinary meeting to provide independent advice to ESS Management during summer.

The discussion focused on the involvement of instrument teams from the in-kind partners during commissioning, the reporting to Council on each instrument's status, and the way forward concerning detector technologies. The Technical Director, Kevin Jones, acknowledged responsibility and accountability for the issue and confirmed that the NSS team was preparing a road map for each instrument including all technologies provided by ESS and its in-kind partners. Council would be informed within three months about the choices of detectors affected by recent performance issues.

Council

- **took note of the Report from SAC.**

5.e) Report from the Technical Advisory Committee (TAC)

The TAC Chair, Alberto Facco, provided the delegates with a report from the March TAC meeting. He confirmed that the transition from design to construction was nearing completion and that the organisational structure was in place for the current phase of the project. TAC deemed the new baseline realistic.

TAC had looked into spares for the target wheel and into the issue with the tetrodes providing RF power to the spoke cavities. Many of the early unit tetrodes showed insufficient lifetime and performance. Management had developed several mitigations concerning beam power, the number of tetrodes, improving the tetrode design, and developing new amplifier systems, e.g. solid-state tubes or klystrons.

The discussion focused on tetrodes and the spare target wheel:

- The Technical Director explained that ESS had made several interventions with the supplier including an external expert and on-site visits by ESS to the vendor and the vendor to ESS. During the commissioning phase ESS would rely on the current technology but in the long term, a new klystron and modulator system was being considered, among other options.
- The spare target wheel had been deferred to steady-state operations during the re-baselining. ESS and the provider of the first target wheel, ESS-Bilbao, had agreed a time plan for deciding on the second wheel.

The Chair thanked the TAC Chair for his last report to Council, as his term as TAC Chair was coming to an end at the end of this year.

Council

- **took note of the Report from TAC.**

6. Financial Matters

6.a) Report from the Administration and Finance Committee (AFC)

The AFC Chair, Stéphanie Lê Văn, provided the delegates with a report from the April AFC meeting, focussing on the additional funding required under the new baseline and the potential effects of inflation, the Statutory Report 2021, property tax, and the report from the ILO Network.

Concerning the Statutory Report 2021, the external auditor had found a minor difference in depreciation of buildings which would be addressed in 2022. The AFC Chair confirmed that AFC unanimously recommended the Statutory Report 2021 to Council for approval.

Finally, the AFC Chair confirmed that the ESS Financial Rules could accommodate the budget merger for construction and initial operations expenditures without changes.¹⁰ Treating these expenses holistically would make the reporting easier from 2023 onward. AFC would suggest to Council a revision of the Financial Rules concerning other topics in October 2022 and a revision of the Internal Financial Regulations in April 2023.

The discussion focused on the potential effects from inflation and the indexation of the additional funding.

The Chair confirmed that all cost and funding commitments had been made in 2013 price levels so far to ensure comparability. The indexation of the initial operations funding stream including the new funding commitments was supposed to be reviewed next year.¹¹ Several Members preferred to remain within the current indexation for the new funding commitments while others supported using 2013 price levels and a realistic indexation method to enable ESS to follow the new baseline.

The Chair asked AFC to analyse the situation and potential consequences for ESS and its Members so that Council could come to a decision in 2023. The Director General confirmed that ESS would provide AFC and Council with a long-term view on the effects of inflation.

Council

- **took note of the Report from AFC.**

6.b) Statutory Report 2021

The Director PS&A presented the Statutory Report 2021. She reminded the delegates of the annual process for the closing and approval of the accounts, the report from the external auditor, and the AFC recommendation. She confirmed that the handling of depreciation of buildings had been agreed with the external auditor. Further steps to improve the handling of fixed assets would be taken in 2022. Concerning the external auditors' observations, she

¹⁰ See Council resolution C.27.07.d.

¹¹ See Council resolution C.17.06.c.

confirmed that the Internal Audit Function had been implemented in February. The auditors' observations concerning IT were being addressed in order of priority.

Upon motion duly made,

Council unanimously

- **approved the European Spallation Source ERIC Statutory Report 2021;**
- **granted discharge from liability to**
 - **ESS Director General Helmut Schober for the period 1 November 2021 to 31 December 2021;**
 - **former Acting ESS Director General Kevin Jones for the period 9 March 2021 to 31 October 2021;**
 - **former ESS Deputy Director General Mark Anthony for the period 2 March 2021 to 8 March 2021;**
 - **former ESS Director General John Womersley for the period 1 January 2021 to 1 March 2021.**

6.c) Activity Report 2021

The Director General briefly presented the Activity Report 2021. His priority for the next report was to have all stakeholders represented in the Activity Report including governance, ESS staff, the neutron community, and the in-kind partners.

Upon motion duly made,

Council unanimously

- **approved the European Spallation Source ERIC Activity Report 2021.**

6.d) In-Year Actuals 2022

The Chair reminded the delegates that no presentation was foreseen for this document.

Sweden (Börjesson) and the United Kingdom (Thomson) proposed updating the In-Year Actuals before Council meetings. The Director PS&A proposed that this suggestion could be taken up by the AFC Working Group on Financial Rules.

Council

- **took note of the first In-Year Actuals 2022.**

6.e) First Draft Budget Proposal 2023

The Director General presented the delegates with the First Draft Budget Proposal 2023. He explained that the Final Budget Proposal 2023 would be scrutinised by the Executive Board in September before submission to AFC and Council and could deviate from the present first draft. Based on the projected carry-forwards, the 2023 budget would be based entirely on current commitments. Depending on the timing of the Members' contributions, a new cash facility would have to be in place in the beginning of 2024, based on the sharing decision by Council expected in December 2022 and the negotiations in 2023.

Germany (Fischer) asked Management to optimise the cash flow planning and to minimise the carry-forwards. At the same time, Member contributions should be made available when needed by the project.

Council

- **took note of the first draft ESS budget proposal 2023.**

6.f) Financial Estimates

The Chair reminded the delegates that no presentation was foreseen for this document.

Council

- **took note of the Financial Estimates.**

6.g) Update on Cash Flow and Cash Facilities

The Director PS&A informed the delegates about the ongoing exchanges with the three financial institutions, EIB, NIB, and SEK. Another bridge financing needed to be fully in place at the end of 2023. Several options had been discussed. Currently, a third cash facility was seen as the best solution. This would imply a new state guarantee which was challenging given the timeline.

Carry-forwards were largely determined by the expenditure level and deviations in cash contributions. The Acting Project Director and the Director PS&A were working on improving the forecast quality. Construction contributions were on time whereas some initial operations contributions were outstanding.

The Director PS&A informed the delegates that the construction index had been updated as prescribed by the index basket defined in the ESS Financial Rules. The index had gone up to 5.7% from 0.7% last year.

Finally, the Director PS&A updated the delegates concerning the reviews which had been carried out last year. Management was following up by improving the handling of fixed assets, cost control, and the ERP systems.

The Acting Project Director reminded the delegates that a monthly reporting had been introduced, including the Council project dashboard. The monthly process would be automated in the future.

The discussion focused on the use of contingency, scenarios for estimated financing costs, and carry-forwards.

Council took note of

- **the cash flow status;**
- **the potential need for a new bridge financing;**
- **the actual status of the new financial processes.**

7. Closed Session: Staff Matters

See separate document.

8. ESS 2.0

8.a) Project Update

The Acting Project Director reminded the delegates of the schedule development since January 2022. He presented the critical path, the change requests and calls against contingency, the project performance indicators, and quality issues. He presented the current position of the beam-on-target (BOT) milestone relative to the zero-float schedule (P0). The associated delays were related to fully including licencing into the new baseline, together with technical issues related to target electrical design and the cryogenic distribution system. Finally, he briefly introduced the Project Office and the Technical Office which would work together closely.

The discussion focused on use of contingency through delays, slippages in the accelerator, the interfaces with the in-kind partners, and the visibility of the monthly dashboards.

The United Kingdom (Thomson) suggested adding several Council-level project milestones to track progress and costs.

Council

- **took note of the project update.**

8.b) Report from PAC

The PAC Chair, Mark Reichanadter, provided the delegates with a report from the May PAC meeting. He confirmed that the licencing issue and energisation issues and their impacts on the schedule had come as a surprise to PAC in May. The newly established Project Office and the Technical Office would help improving this situation. The new baseline was in place, adding intermediate milestones would add calibration to the schedule. The PAC Chair went through the PAC recommendations, focusing on licencing, communication, and staff shortages. Finally, he went through PAC's findings on the charge questions.

Council

- **took note of the Report from PAC.**

8.c) Funding Request and "2-Pager"

The Chair reminded the delegates of the so-called two-pager providing the facts behind the new baseline and the associated funding request. Draft versions had been distributed in April and May, including feedback provided by Germany, Norway, Sweden, and Switzerland. The final version had been made available ahead of this meeting.

Council took note of

- **the timeline for decision making;**
- **the so-called two-pager concerning the new baseline and the associated funding request.**

9. Closed Session: Preliminary New Commitments

See separate document.

10. Closed Session: ESS Membership

See separate document.

11. Steady-State Operations

The Chair presented the timeline for decision making concerning the steady-state operations costs and their sharing. Italy (Campana) asked to bring the decision forward to 2023 since new legislation could be needed to agree the sharing.

Sweden (Börjesson) confirmed that they had appointed a negotiator to facilitate the agreement. Denmark (Smith) reminded the delegates that the transition at the beginning of the steady-state operations phase needed to be agreed.

The United Kingdom (Thomson) asked for more information on the steady-state operations planning for the December Council, including deferred scope,¹² spares,¹³ and a development programme. Sweden (Börjesson) agreed to provide their study on industrial use. France (Mathon) explained that they needed a ten-year budget forecast.

The Director General presented his first ideas for the transition into steady-state operations and an operations directorate. Several delegates agreed to act as a sounding board for the Director General on this topic. The following members agreed to participate in a working group: Lars Börjesson, Robert McGreevy, Martin Müller, Christian Rüegg, Bo Smith and the Chair and the ViceChair of the Council.

Council took note of

- **the timeline for decision making concerning steady-state operations;**
- **the update on the ongoing revision of the steady-state operations costs.**

12. In-Kind

12.a) Report from the In-Kind Review Committee (IKRC)

The IKRC Chair, Robert McGreevy, provided the delegates with a report from the March IKRC meeting and the Instrument Collaboration Board (ICB). The Initial Operations In-Kind Cost Book had improved. The Committee suggested additional reporting from ESS to the in-kind partners.

The discussion focused on common projects and the need to come to a decision on the cost allocation agreements, the visibility of in-kind risks and in the risk report, and in-kind quality issues.

Council

- **took note of the Report from IKRC.**

12.b) In-Kind Status

The Associate Director In-Kind provided the delegates with a status update, focusing on testing, commissioning, quality, and knowledge transfer. He emphasised the importance of further in-kind partner surveys.

¹² See document C.29.11, p. 4.

¹³ See document C.29.08.a List of Spare Components.

The discussion focused on in-kind performance, especially the instrument in-kind delays, and in-kind risks.

Council

- **took note of the in-kind status.**

12.c) Approval of In-Kind Agreements

The Associate Director In-Kind provided the delegates with a summary of the in-kind agreements previously recommended for Council approval by IKRC.

Upon motion duly made,

Council unanimously approved

- **one Technical Annex,**
 - **one Termination Agreement,**
 - **two Amendments to Technical Annexes, and**
 - **fourteen Final Reports**
- previously recommended by IKRC.**

12.d) Initial Operations Cost Book

The Associate Director In-Kind updated the delegates on the latest version of the Initial Operations In-Kind Cost Book. Compared to construction, the estimated in-kind scope was minor. More scope would be included in the future. Scope and prices had been reviewed and set according to the new baseline; staff in-kind was based on the ESS rate as for the construction cost book.

Denmark (Smith) expected a significantly higher level of in-kind during initial operations. The IKRC Chair added that the in-kind process had been slimmed down but should regulate competing bids.

Council

- **acknowledged the efforts put into the Initial Operations Cost Book;**
- **asked Management to take up the feedback provided during the session.**

13. Procedures

13.a) Publication Policy

The Science Director, Andreas Schreyer, introduced the Publication Policy which was part of a future Dissemination Policy under Art. 20 of the ESS Statutes. SAC had discussed the Policy and provided feedback which had been incorporated including the latest provisions concerning open access. Sweden (Börjesson) and the United Kingdom (Thomson) proposed including a review date to harmonise this Policy and future policies e.g. on access and industrial use. This should also be discussed in the LENS and LEAPS framework.

Upon motion duly made,

Council unanimously

- **approved the Publications Policy and will revisit it in two years' time.**

13.b) Transparency Policy

The Council Secretary briefly summarised the Transparency Policy. Sweden (Swedenborg) confirmed that transparency was a high priority and appreciated the draft as a step in the right direction.

Upon motion duly made,

Council unanimously

- **approved the Transparency Policy and will revisit it in two years' time.**

13.c) IKRC Membership

The IKRC Chair reminded the delegates that it was important for the new role of IKRC to select delegates with a good understanding of the technical background and close contacts to the in-kind partners and their Council delegates.

14. Confirmation of Resolutions

The resolutions were approved as shown above.

15. Communication from this Meeting

The Communications Officer, Roger Eriksson, presented the draft key communication points.

Council unanimously

- **agreed the key communication points from this meeting.**

16. Any other Business

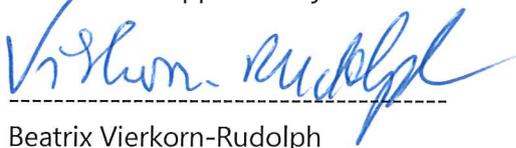
It was agreed to bring the date of the next summer Council meeting closer to a research infrastructure conference planned in Lund on 19-20 June 2023.

The Chair and the Director General thanked all delegations for their support.

There being no further business to discuss, the Chair brought the meeting to an end on 10 June at 14:00.

Closure of the Meeting

Verified and approved by Council at its 30th meeting on 11 October 2022



Beatrix Vierkorn-Rudolph
Council Chair



Michela Dell'Anno Boulton
Council Secretary

