

**NUCLEAR ENERGY AGENCY  
MANAGEMENT BOARD FOR THE DEVELOPMENT, APPLICATION AND VALIDATION OF  
NUCLEAR DATA AND CODES**

**The Joint Evaluated Fission and Fusion (JEFF) Nuclear Data Library Co-ordination  
Group**

**Summary Record**

**Joint Evaluation Fission and Fusion (JEFF) Co-ordination Group Meeting**

21 November 2025  
Hybrid Meeting  
NEA Headquarters, Boulogne-Billancourt and Teams

Dr. Antonio Jiménez-Carrascosa  
+33 1 73 21 28 24  
antonio.jimenez-carrascosa@oecd-nea.org

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## Summary Records

### Opening

The Chair of the Co-ordination Group (CG), Mr. Arjan Plompen, opened the meeting and welcomed the participants. The list of participants and the proposed agenda are provided in Appendix 1 and 2, respectively. Appendix 3 provides the summary records corresponding to the MBDAV meeting held in September 2025.

### Planning and Objectives for the Stakeholder Meeting

The JEFF CG participants discussed the timing, objectives, and participant engagement for the upcoming stakeholder meeting, concluding that the earliest feasible date is in the fall of next year, with a focus on maximising end-user feedback and industry adoption of the JEFF-4 library.

- **Timing and Scheduling:** Participants agreed that holding the stakeholder meeting in April would be too soon for meaningful feedback from industrial partners, as adoption and validation of JEFF-4.0 require more time; the consensus was to target the fall of the following year to allow for broader participation and more substantial input.
- **Objectives and Expected Outcomes:** The group emphasised the importance of gathering direct feedback from end-users, including their needs, limitations, and expectations for the JEFF library, with the aim of informing future developments and ensuring the library's relevance to ongoing and new projects.
- **Industry Engagement and Adoption:** Discussion highlighted the challenges of encouraging industry to adopt new library versions, noting that strong motivations are needed for such transitions, and participants suggesting proactive engagement with both application library maintainers and industry experts to bridge technological gaps.
- **Action Items and Next Steps:** Mr. Richard Hiles committed to contacting Mr. Paul Bryce for feedback on JEFF-4.0 and to determine an appropriate timeline for the stakeholder meeting. Mr. Paul Bryce confirmed afterwards that spring 2026 would be still soon for organising the meeting. Then, Mr. Arjan Plompen proposed coordinating with NEA to select a convenient week in the fall and to structure the event based on anticipated interest.

### Open Issues Collection and Release Policy

CG members discussed the mechanisms for collecting open issues, the need for more frequent minor updates to the JEFF library, and the establishment of a two-year release cycle, along with improvements to feedback collection and public accessibility.

- **Release Frequency and Policy:** The team agreed on the importance of not waiting extended periods (such as eight years) between releases, proposing a two-year cycle for minor updates to encourage contributions and maintain library relevance, with the NEA Data Bank's infrastructure supporting this approach.
- **Open Issues Reporting:** Mr. Antonio Jimenez-Carrascosa has been the primary person recording issues, but the group expressed the need for all users to become comfortable reporting problems, ideally through the established GitLab platform, to ensure comprehensive tracking and resolution.
- **Public Feedback Mechanisms:** Mr. Mathieu Hursin raised the issue of external industry users lacking access to the internal issue tracker; Mr. Antonio Jimenez-Carrascosa and others discussed

implementing a public feedback form or mailbox, with moderation to prevent spam, and the possibility of granting access to contributors after initial contact.

- **Continuous Integration and Validation:** The group described the current practice of maintaining a main development branch with ongoing fixes and improvements, allowing for validation and testing before tagging new releases, and ensuring that updates are accessible to developers and users in a timely manner.

## JEFF-4.0 Paper Collection and Publication Timeline

The CG participants, led by Mr. Arjan Plompen, reviewed the status of the JEFF-4.0 paper collection, set a deadline for basic input by the end of January, and discussed the need for comprehensive summaries and clear documentation of changes, with contributions expected from all participants.

- **Current Status and Content Organisation:** Mr. Oscar Cabellos compiled a 36-page validation input document, which is being converted to LaTeX and will be shared on Overleaf for collaborative editing; the evaluation section remains underdeveloped, and Mr. Arjan Plompen outlined expectations for documenting changes, experimental data, and model assumptions.
- **Timeline and Deadlines:** A strict deadline was set for the end of January for initial contributions, to allow time for discussion, organisation, and reduction of the material before the next meeting, aiming to avoid prolonged delays experienced with previous papers.
- **Content Requirements and Structure:** Mr. Arjan Plompen specified that the main paper must include a comprehensive summary of changes with respect to JEFF-3.3 library, significant new data sets, and model assumptions, with detailed explanations to ensure readers do not need to consult multiple external sources.
- **Feedback and Confirmation:** Participants confirmed their agreement with the proposed timeline and structure, and additional reminders will be sent to ensure timely contributions.

## Dissemination and Promotion Strategies for JEFF-4.0

Participants discussed dissemination plans for JEFF-4.0 library, including webinars, promotional videos, citation analysis, outreach to broader scientific communities, and educational initiatives, with NEA's communications team supporting these efforts (see also Appendix 3 for the opinion of the MBDAV Bureau).

- **Webinars and Promotional Videos:** While webinars were considered, their limited impact led to the proposal of creating a promotional video featuring testimonials from contributors and users, to be hosted on the main JEFF-4.0 page and developed with support from NEA's communications team.
- **Citation Analysis and Outreach:** participants suggested analysing citation data to demonstrate the library's impact, potentially involving a trainee or using automated tools, and discussed presenting the JEFF project at general nuclear physics conferences to reach a wider audience.
- **Educational and Training Activities:** Plans were made to support education through workshops, courses, and the development of base slide decks for instructors, with the possibility of advertising course content on the website while keeping detailed materials restricted.
- **Conference Participation:** Mr. Antonio Jimenez-Carrascosa is preparing a paper for the PHYSOR2026 conference, and other participants are encouraged to present on JEFF-4.0 at relevant events, with the aim of increasing visibility and adoption in both reactor and non-reactor communities.

## Legacy Data Migration and Data Ownership Policies

CG members reviewed the migration of legacy JEFF data to GitHub and Invenio, discussed the requirements for data ownership and publication rights, and considered practical approaches for managing contributor agreements under open licenses.

- **Migration to Modern Platforms:** All legacy JEFF data, including evaluation and processed files, have been migrated to GitHub and Invenio, ensuring version control, reproducibility, and long-term accessibility, with plans to add processing resources and documentation.
- **Data Ownership and Contributor Agreements:** The group discussed the need for clear ownership and publication rights, with the current practice requiring contributors to sign a CC-BY-4.0 agreement before public release and considered adopting an implicit agreement model similar to open source software projects.
- **Legal and Practical Considerations:** Mr. Michael Fleming explained that legal counsel requires explicit documentation for each public release, but the group is exploring whether a repository-wide license agreement could suffice, pending legal approval.
- **Reproducibility and Documentation:** A core requirement for data publication is the ability to reproduce processed data from original sources, with all processing steps, input files, and code made available to ensure transparency and future usability.

## JEFFDOCS Migration and Open Science Policy

Participants debated the accessibility of JEFFDOCS, agreeing to keep legacy documents restricted while allowing future documents to be made public upon contributor request and proper licensing, balancing openness with organisational constraints.

- **Access Restrictions and Licensing:** Due to the complexity of retroactively obtaining publication rights for legacy documents, the group decided to keep all past JEFFDOCS restricted, with the option for contributors to make future documents public by submitting a standard license agreement.
- **Metadata and Document Management:** Contributors are encouraged to provide complete metadata for their presentations, including author lists and affiliations, to facilitate accurate record-keeping and referencing in the Invenio system.

**Potential Use of Indico:** The possibility of using Indico for meeting organisation and document management was discussed, but current IT resource constraints make this unfeasible in the near term.

## Content Packages and Format Compatibility

The CG, guided by Mr. Antonio Jimenez-Carrascosa, reviewed the status of various content packages under development at NEA, including AMPX, Dragon, covariance matrices, and JSON/GNDS formats, addressing technical challenges and the need for further testing and documentation.

- **AMPX and Dragon Libraries:** The AMPX formal library is available, with ongoing efforts to resolve issues related to Be-9 processing; the Dragon library is being tested, and further validation is required before release.
- **Covariance Matrices and TRIPOLI Data:** Covariance matrices are not yet ready for release due to development needs, while TRIPOLI input decks are available but require clarification regarding their completeness and compatibility.

- **JSON and GNDS Formats:** Efforts are underway to provide evaluated files in JSON and GNDS formats, with technical challenges related to format inconsistencies and the need for further collaboration with developers to ensure compatibility.
- **Processing Utilities and Reproducibility:** Plans include releasing all processing utilities, input/output files, and documentation to support reproducibility and facilitate user adoption across different code systems.

## Fission Yields Correlation Matrices and Format Standardization

Mr. Gregoire Kessedjian, Mr. Olivier Serot and the CG members finalized the adoption of a CSV format for fission yields correlation matrices, ensuring consistency, transparency, and ease of use for future releases, with unit tests implemented for validation.

- **Format Selection and Validation:** The CSV format, previously used for JEFF-3.1.1, was confirmed as the standard for fission yields correlation matrices, with all relevant information included in a single file and unit tests ensuring consistency with evaluated data.

## Collaboration with APRENDE Project and Meeting Scheduling

Participants discussed the challenges of coordinating joint meetings with the APRENDE project, proposing to invite Mr. Daniel Cano for a joint session in 2027 and considering the needs of the fusion community for parallel sessions.

- **Joint Meeting Planning:** A joint meeting with APRENDE is proposed for 2027, with Mr. Arjan Plompen suggesting integration of relevant sessions and coordination with Mr. Daniel Cano, while accommodating the fusion community's need for separate sessions.

## IT Restructuring and Future Plans at NEA

Mr. Michael Fleming explained the ongoing IT restructuring at NEA, including the transition from legacy Java applications like JANIS to modern, API-based systems, and the implications for future support and user access.

- **Transition to Modern Platforms:** NEA is moving away from monolithic Oracle databases and Java web applications, instead providing direct API access to data and supporting new graphical interfaces and Jupyter notebooks for user interaction.
- **Continued support to JANIS:** participants expressed their strong interest in having most recent nuclear data library releases on JANIS. Following the new transition approach adopted at NEA, the JANIS Java application will remain as it is, but NEA committed to provide users with new resources in a reasonable time frame.

## Other Technical and Administrative Topics

The meeting concluded with discussions on the need for a new chair for the Nuclear Data Uncertainty session, the potential for new WPEC subgroups, and the scheduling of the next meeting in April, with broad participant agreement.

- **Session Chair Appointments:** participants discussed integrating the Nuclear Data Uncertainty session with benchmarking or inviting new presenters such as Mr. Luca Fiorito to revitalize the session.

- **Next Meeting Scheduling:** The next meeting is proposed for 13-17 April, pending confirmation from CEA for meeting relocation, to avoid conflicts with PHYSOR 2026 conference and ensure maximum attendance.

## Appendix 1: List of participants

First Name	Last Name	Country
Alejandro	ALGORA	SPAIN
Oscar	CABELLOS DE FRANCISCO	SPAIN
Julien	CARTIER	FRANCE
Cyrille	DE SAINT JEAN	FRANCE
Michael	FLEMING	OECD/NEA
Anastasia	GEORGIADOU	OECD/NEA
Shane	HART	OECD/NEA
Richard P.	HILES	UNITED KINGDOM
Mathieu	HURSIN	SWITZERLAND
Robert	JACQMIN	FRANCE
Antonio	JIMENEZ-CARRASCOSA	OECD/NEA
Mark A.	KELLETT	FRANCE
Do Heon	KIM	KOREA
Arjan	KONING	IAEA
Graham	LEE	UNITED KINGDOM
Helmut	LEEB	AUSTRIA
Dieter	LEICHTLE	GERMANY
Jose Ignacio	MARQUEZ DAMIAN	ARGENTINA
Robert W.	MILLS	UNITED KINGDOM
Fabio	MORO	ITALY
Hedvig	NAHON	OECD/NEA
Gilles	NOGUERE	FRANCE
Arjan	PLOMPEN	EUROPEAN COMMISSION
Dimitri	ROCHMAN	SWITZERLAND
Olivier	SEROT	FRANCE
Thomas	STAINER	OECD/NEA
Alexey	STANKOVSKIY	BELGIUM
Nicholas	TERRANOVA	ITALY
Andrej	TRKOV	SLOVENIA
Anabella	TUDORA	ROMANIA
Steven	VAN DER MARCK	NETHERLANDS

## Appendix 2: Agenda

- JEFF stakeholder meeting postponed to April 2026 to allow the user's community to thoroughly apply JEFF-4.0. Potential contributors should be identified (ALL)
- JEFF-4.0 open issues and future developments (Antonio JIMENEZ-CARRASCOSA, 15')
- JEFF-4.0 paper collection status (Arjan PLOMPEN, Robert JACQMIN):
  - Main JEFF-4.0 paper status.
  - Status of accompanying papers.
  - Tentative publication schedule.
- JEFF-4.0 dissemination plan (Arjan PLOMPEN):
  - Communication plan and approach discussed by MBDAV members.
  - Target conferences and events.
- JEFF legacy data migration process (NEA):
  - JEFF legacy libraries have been migrated to the new NEA/DB data management platform and legacy release, and landing pages will be removed.
- JEFFDOCS migration and related open-science policies (NEA).
- JEFF-4.0 content packages still under development (NEA):
  - AMPX library (implemented in the pipeline but still issues with Be-9 to be solved).
  - DRAGON library.
  - NJOY input decks and associated resources.
  - Covariance matrices.
  - TRIPOLI datasets.
- JEFF-4.0 fission yields correlation matrices: new format proposal by NEA/DB (NEA, CEA).
- NEA IT restructuring and future plans (Michael FLEMING).
- Status of the collaboration with APRENDE project (ALL).
- Date of 2026 meetings (NEA):
  - 20-24 April 2026 (BB3 is already booked), should we pack Nuclear Data Week and Stakeholder meetings on the same week?
  - 23-27 November 2026 (Room E at La Murette already booked).

## Appendix 3: MBDAV Board meeting 04 September 2025 minutes

### Participants

- Mr. Arjan Plompen (Arjan),
- Mr. Steven van der Marck (Steven),
- Mr. Gert van den Eynde (Gert),
- Mr. Robert Jacqmin (Robert),
- Mr. Michael Fleming (Michael),
- Mr. Antonio Jimenez-Carrascosa (Antonio).

### Main meeting points

- Engagement of Technical Support Organisations and Industry: Gert, Arjan, Steven, and Robert discussed the urgent need to involve Technical Support Organisations (TSOs) such as IRSN, GRS, and others, as well as industry representatives, in stakeholder meetings to gather their perspectives and long-term needs for nuclear data, particularly in the context of SMRs and innovative reactor types.
  - TSO and Industry Involvement: Gert emphasised the importance of bringing TSOs like IRSN and GRS to the table to discuss their needs and opinions on the JEFF-4.0 library, highlighting that TSOs and industry are lagging behind research organisations in adopting new developments. Arjan and Steven agreed, noting that involving TSOs could motivate industry participation and provide valuable feedback for future planning.
  - Stakeholder Meeting Timing: Steven and Robert suggested postponing the stakeholder meeting to allow TSOs and industry time to test the library and provide informed feedback, with consensus forming around holding the meeting in April 2026 rather than November 2025 to maximize engagement and input.
  - Long-Term Perspective and Challenges: Robert advocated for inviting stakeholders who can provide a mid- to long-term perspective on nuclear data needs, focusing on end users' challenges and deadlines, and suggested that TSOs and industry be asked to present challenge problems at the meeting to stimulate discussion and identify areas for improvement.
  - Action Items for Stakeholder Engagement: Arjan committed to drafting a generic invitation for the stakeholder meeting, targeting not only technical contacts but also higher-level decision-makers within organisations, and proposed that TSOs be given 'homework' to perform calculations or comparisons using the new library.
- Dissemination Strategies and Outreach: Steven, Gert, Arjan, and Robert explored various methods for disseminating information about the library, including webinars, promotional videos, social media, and collaboration with organisations like the IAEA, aiming to reach both traditional and new user communities.
  - Webinar and Promotional Material Format: Gert and Arjan debated the format of outreach events, concluding that a promotional video with testimonials from contributors and users would be more effective for the general public than a technical webinar, while technical discussions should be reserved for project meetings.

- Modern Dissemination Channels: Steven suggested brainstorming modern dissemination methods, such as leveraging the IAEA, and social media to reach broader and younger audiences who may not be engaged through conventional channels.
- Analysis of Library Citations: Gert proposed analysing citations of previous library versions to identify user communities outside the traditional reactor and nuclear waste sectors, such as astrophysics and medical physics, to better understand and target outreach efforts.
- Educational Slide Decks: Gert and Antonio discussed preparing a standardised slide deck for use in university courses, providing a uniform introduction to the library for students in NEA countries, with Antonio planning to pilot such material at an upcoming course.
- Facilitating Community Contributions and Development: Gert, Arjan, Steven, and Michael discussed lowering barriers for community contributions to the library by utilising version control systems like GitHub/GitLab, enabling branching and pull requests, and ensuring the main branch remains protected while allowing user-driven modifications.
  - Version Control and Contribution Model: Gert outlined a branching model using GitHub or GitLab, where users can create forks to propose changes or corrections, which can then be reviewed and merged by maintainers, thus encouraging broader participation without compromising the integrity of the main library.
  - Development Environment Accessibility: Arjan and Steven supported the idea of an open development environment, provided the main branch is protected, and noted that having this system in place would facilitate broader calls for participation in library development.
- Enhancing Library Usability for Educational and Research Purposes: Steven, Michael, Arjan, and Gert discussed improving the accessibility and usability of the library for students and researchers, including preparing ready-to-use data packages for popular codes like Serpent and MCNP, and developing derived products such as summary tables and web interfaces.
  - Serpent and MCNP Data Packages: Steven proposed creating a version of the library that works seamlessly with Serpent, including all necessary data files, to encourage adoption among university students, while Michael explained the current distribution methods and the need for coordination with code owners like VTT.
  - Derived Data Products: Gert and Arjan discussed the value of providing summary tables of key nuclear data (e.g., cross sections, resonance integrals) in accessible formats such as plain text or web interfaces, making it easier for students and researchers to extract and use the data.
  - Educational Outreach: The group agreed that exposing students to the library early in their education, through both course materials and user-friendly data products, would help expand the user base and foster future contributions.
- Publication and Conference Dissemination Plans: all meeting participants reviewed the status of the main library paper, discussed managing its length and structure, and identified key conferences such as PHYSOR and ICRS for presenting their work, with plans to prepare suitable slide decks for both academic and conference audiences.

- Paper Preparation and Structure: Arjan reported on the ambitious draft table of contents for the main paper, considering splitting it into parts if necessary, and discussed standardising citation and graph preparation practices.
- Conference Participation: The team identified PHYSOR 2026 and ICRS 15 as key conferences for dissemination, discussed deadlines and logistics, and agreed to distribute the burden of attendance among team members.
- Slide Decks for Outreach: Antonio and Arjan agreed on the value of preparing standard slide decks for both university courses and conference presentations, ensuring consistent messaging across different audiences.

## Follow-up tasks

- Stakeholder Meeting Preparation: Write a generic invitation for the stakeholder meeting, including a request for participants to present challenge problems reflecting end user needs, and circulate it for review and iteration. (Arjan).
- Stakeholder Meeting Target List: Compile a list of target recipients for the stakeholder meeting invitation, ensuring inclusion of decision-makers beyond the usual contacts. (Arjan).
- Meeting Minutes and Objectives: Draft and circulate the meeting minutes and a summary of immediate action objectives for review by the group. (Antonio).
- Promotional and Educational Slide Decks: Share the slide deck being prepared for the upcoming course as a starting point for both university and conference presentations on JEFF-4. (Antonio).
- Citation Analysis of JEFF-3.3: Investigate and report on citations of JEFF-3.3 to identify user communities not currently engaged, including those in non-traditional fields. (All).
- TSO Engagement for Stakeholder Meeting: Invite TSOs to the April 2026 stakeholder meeting and request that they perform calculations or comparisons relevant to their systems, including benchmarking against licensed results. (Gert).
- Development Environment Accessibility: Explore and propose a branching and pull request model using GitHub or GitLab to facilitate external contributions without compromising the main branch. (NEA).
- Stakeholder Meeting Challenge Problems: Encourage invited TSOs and industry representatives to bring challenge problems to the stakeholder meeting that reflect their current and future needs. (Arjan).