

EUROfusion – ITER Organization Steering Committee on IMAS development (meeting #15, 2024-1).

26.Mar.2024 14:00 PM

(ToR) The meeting aims at coordination between development activities for the Integrated Modelling and Analysis Suite (IMAS) carried out under the EUROfusion programme and those implemented by the ITER Organisation.

Main points discussed during the meeting:

- Coordination on HFPS and PDT development

Meeting Agenda and Presentations are available @:

<https://indico.euro-fusion.org/event/2809/>

Participants:

Name	Initials	Role	Affiliation
Alberto Loarte	AL	Co-Chair	ITER - Head of Science Division
Volker Naulin	VN	Co-Chair	EUROfusion – Head of Fusion Science Department
Denis Kalupin	DK	Secretary	EUROfusion – CO for Theory and Modelling
Clarisse Bourdelle	CB		CEA – PI of TSVV-11
Gloria Falchetto	GF		CEA – WP Preparation for ITER Operation
David Coster	DC		MPG
Pär Strand	PS		VR – Coordinator of Data Management Plan
Simon Pinches	SP		ITER – SL of Plasma Modelling & Analysis Section
Sun-Hee Kim	SK		ITER
Mireille Schneider	MS		ITER
Olivier Hoenen	OH		ITER - Plasma Modelling & Analysis Section
Xavier Litaudon	XL		CEA – Leader of WP Preparation for ITER Operation

Minutes:

1. Opening Remarks

- VN initiated the meeting and extended a warm welcome to all attendees.

2. Agenda Approval

- The proposed agenda was unanimously approved. PS suggested adding an item under "Any Other Business" (AoB) to address two additional matters.

3. Approval of Previous Meeting's Minutes

- The minutes from the previous meeting were approved without objections.

4. Status and Plans of IO tools by SK

- SK updated the group on the [status of tools developed by IO, HFPS-ITER \(JINTRAC+DINA\), and outlined plans for HMPS based on Muscle3](#).
 - XL queried the validation strategy for HFPS-ITER, emphasizing the importance of extending V&V to other machines in light of ITER W wall.
 - SK noted that IO's strategy for V&V is constrained by active implementing agreements.
 - AL elaborated on IO's pragmatic approach to V&V, indicating openness to contributions from other machines.
 - VN inquired about potential EUROfusion support to enhance V&V efforts.
 - SK expressed interest in having dedicated personnel at each machine to consistently support V&V activities.
 - CB clarified the potential extension of the validation program of TSVV-11 tools to include ITER-developed tools.
 - PS highlighted ongoing collaborations on Muscle3-based workflows following the ETS example.
 - DK sought clarity on the comparison between loose and close coupled simulations.
 - SK responded that the current focus remains on technical development, particularly the integration of the edge solver, with no systematic benchmarking between the two schemes yet.

5. HFPSeu and TSVV-11 Activity Update by CB

- CB presented the status of the [HFPSeu and TSVV-11 activities](#)
 - SP emphasized the importance of TSVV-11 activities for ITER and inquired about data access, particularly from the DMP project.
 - SP also sought information on EUROfusion's interaction with UKAEA, specifically regarding JINTRAC licensing.
 - PS acknowledged the rapid progress of DMP and proposed a letter to the GA underscoring its significance.

6. Status of ETS WF by DC

- DC presented the current [progress on Muscle3-based WF](#)

7. PDS Development Update by MS

- MS presented the status of the [PDS development by ITER](#)
 - PS mentioned that QLK-NN is already integrated in TCI but fully activated only in JINTRAC, he inquired about the possibly to put resources on making it more broadly available.
 - MS clarified the focus on benchmarking and the sufficiency of the standalone version of QLK-NN for this purpose.
 - XL sought clarification on M. Siccinio's role.
 - MS outlined M. Siccinio's primary responsibilities related to PDS architecture and modules.
 - AL specified M. Siccinio's contractual association with the MPG (dedicated to IO at 40%).

- DK proposed increased support for Muscle3 and other technologies with additional EUROfusion funds.
- PS stressed the importance of allocating sufficient resources to support the key technologies utilized by modelling program.
- DC raised concerns about technical issues, like memory leaks, observed with Muscle3.
- OH pointed out that challenges aren't exclusive to Muscle3 but also extend to other technologies like iwrap and MDS+.

8. Any Other Business (AoB)

- The significance of open-source licensing was highlighted. The E-TASC SB working group was mentioned as working on license recommendations.
- DK shared details about the upcoming E-TASC General meeting scheduled for Nov 2024 ([Link](#)).

9. Record of Decisions and Actions

- Four action points were identified and detailed separately.
- The date for the next meeting was set for **22nd Oct 2024 at 14:00 CET** ([Link](#)).

List of actions that might to be considered:

Issue	Possible/proposed action(s)	Responsible(s)
Validation of developed simulators	Coordinate validation use cases between HFPS-ITER and HFPS-EU	SK, CB
Licensing of tools	Clarify the licensing terms for EUROfusion-developed software, with a preference for open source.	DK, VN
Centralized standardized data access	Draft a Letter of Support to the EUROfusion GA emphasizing the importance of data access.	PS, DK, VN
Reliability of developed numerical tools (Muscle3, IWRAP, MDS+)	Investigate and assess the need for additional support; allocate resources to ensure tool quality.	DC, DK, VN