

PSD AWP 2025

Summary

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Introduction

- Draft an agreement with ITER on activities to collaborate with EF – possibly start with a MOU
- Missions to ITPA funded by EF to increase EF visibility at ITPA meetings – to promote the representation of those topics that re of highest interest / viability to EF → tbd
→ point is to remark as device time provided through EF



Training and communication

- Website information of WPs (short video as well?) – will receive more information by publication officer – schedule?
- Provide contact person for each ERG/EEG for each WP
- Eva has a list of PhD students that register voluntarily → WPs to cross check to this list
- Desire to have more students from Europe to stay in Japan
- Operations of JT-60SA is not part of joint exploitation



ITER presentation by A. Loarte

- Priorities of ITER and timing?
- New W wall and qualification of materials (there is a meeting 12/13th of November) – support in testing through EF across EF facilities; yet to be defined for the inertially cooled first wall – different choices of materials in various locations (TFW – temporary first wall – inertially cooled wall, which will be replaced).
- 2nd wall development needs to proceed in parallel to first one – interaction with DA – no obvious role for EF
- PSD to review procedure of nomination for official list of contact person by F4E
- Desire to have an information on the timeline and priorities of activities with deadlines by end 25/26/27
- Modelling needs by ITER – especially integrated aspect of full simulations is of crucial interest – e.g. how the W gets to the separatrix(?) → WPTE/PWIE
- Lack completely information on far SOL – heat flux profile during the ramp all over the place; how SOL profiles change for near and far SOL under various conditions
- 2 critical areas are pedestal transport and far SOL turbulent transport – likely most information will only come from experiments – issue is if multi machine scaling is sufficient and what can be modelled
- Wall of ITER will take more power than before → might have an impact on the recipes for disruption mitigation (compared to what Be can take in)
- Design of disruption mitigation system system should cope with ICW and ACW



- Concept under discussion...





- The Thrusts do not appear to provide what they were originally designed for , validation plan needs to be specified
- Lack of resources for training – WPs can support people but lack of expertise to train candidates – PIs can set up cases but no training resources
- Where do the PIs receive the show cases information → it should be the WPs that define these → how does E-TASC SB plan to correct this?
- E-TASC SB to provide a full long-term list of recommendations on prioritizations (long term i.e. beyond 2025/2027)
- We require recommendations from the E-TASC SB on what needs to be changed on management/development/resources and what has been implemented from past recommendations
- Recommendation on the role of Thrusts
- **PSD HoD: all WPs to provide input of desires and perspectives and good examples by Nov. 4th → presentation 11th of Nov**



WPPrIO

- PrIO will be dealt with by PSD project board – HoD will inform PSD PB
- Generators: Shall not be brought to the project board – as not part of the agreement.
- In 2024 part of the PSD project board
- Coordinator of LH data base coordinator can be appointed
- EF seminar of database release to be done
- Databases to be released on present gateway – new gateway expected end of 2024 – possibly ready for use early 2025



- Code license: Agreements for installation and use outside EU to be managed (international collaborations)
- Shadow TG contact people to be identified for level 3 reporting
- IMAS is installed on Naka site (nakasvr23) → plans to make use of it?
- Is someone working on mapping JT-60SA data onto IMAS? Wrapper for the data
 - (no scenario available under IMAS)
- Training should occur once scenario available under IMAS... impact on timing?
- Jeronimo discussion on timeline and priorities in C as well as W ; Experimental team seems to be proposing a fraction of machine time for various priorities in C
- Important to understand scientific priorities in C over the entire IC C phase as this will have an impact on the priorities to be defined for W phase and related timeline (when W comes into place and vice versa if we take into account ITER timeline and JT-60SA being a “Satellite”)
- Regular structure to keep information flow on activities towards W wall
- Propose activity on W for 2025 – this would be a PCR
- Scientific activities in modelling for preparation of W wall will be part of the WP TE call for participation – please define with JG how this is organized in the TG → this is presently not transparent
- We need clarifications on the 2 sessions in Naples on transition to W -- > the purpose of these sessions and what they are to deliver is not clear



- We will engage on identifying the physics gaps for Helias
- We continue try to enhance the participation to W7X – PL to indicate what the actual ppds per operation days is – PSD to compare to TE participation to devices



- Ensure that the scientific objectives are clearly defined from which the activities are derived
- Exhaust solutions for DEMO in terms of PWI (e.g. QCE wall erosion by filaments)
- TSVV6 EMC-EIRENE and ERO2.0 for first wall erosion; priorities on RMP ELM mitigated plasmas, no plans on PWI erosion by filamentary transport in QCE;
- TSVV7 is awaiting reference from DEMO standard case (only F. Subba simulation)
- AWP to describe the changes of Jule PSI for 2025 – repurpose



- RT 11 with clearer objectives for 2025
- Please consider the comments sent by STAC in your written AWP for 2025
- JT-60SA remains an issue and we encourage a dedicated meeting with TFLs / TG Leaders to clarify some of the issues that have been brought up.