

FSD Theory Project Board meeting 3 10 MARCH 2022

MINUTES

Date:	10 MARCH 2022
Time:	9:00 – 11:00 CET
Venue:	By videoconference (Zoom): Meeting ID: 867 2600 3546 Passcode: 253085
Files (IDM & INDICO):	Meeting Page: https://indico.euro-fusion.org/event/1451/ PEP WPAC: http://idm.euro-fusion.org/?uid=2NKG7 PEP WPENR: http://idm.euro-fusion.org/?uid=2PBJ7R Materials from 5-th E-TASC SB (TSVV project monitoring; preliminary allocation of ACH tasks 2023) (2-3.03.2022): https://indico.euro-fusion.org/event/1824/ https://indico.euro-fusion.org/event/1825/
Version	1.0

Invited Participants (Present in this PB Meeting)

Chair	Volker Naulin (FSD Head / E-TASC SB Chair)
CEA	Frédéric Imbeaux
IPPLM	Michal Poradzinski
IST	Carlos Silva
EPFL	Jonathan Graves
MPG	Eric Sonnendrücker
DIFFER	M.J. Poeschel
CIEMAT	Edilberto Sánchez
IPP.CR	Eva Macusova
VTT	Eero Hirvijoki
Programme Management Unit	Emilia Genangeli (Admin. Head) Fabio Vinagre (PMO Head) Botond Meszaros (PMO) Denis Kalupin (FSD CO Theory and Modelling) Joao Figueiredo (FSD CO Enhancements) Richard Kamendje (IC)

	Sara Moradi (FSD CO Tokamak Exploitation)
E-TASC SB	Frank Jenko

Minutes

INTRODUCTION																									
1	<p>Welcome to the Theory Project Board meeting</p> <p>V. Naulin introduced the agenda. There were no objections to the agenda.</p> <p>V. Naulin welcomed Eero Hirvijoki (VTT) as a new member of the board in 2022-2023</p>																								
2	<p>Review of open actions</p> <p>V. Naulin presented the status of actions allocated during the 1st PB-Theory:</p> <p>List of Actions from the <u>2nd PB-Theory</u></p> <table border="1"> <thead> <tr> <th>No.</th> <th>Resp. Person(s)</th> <th>Description</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td>Denis Kalupin, Frank Jenko</td> <td>Action on WPAC to establish and send Instructions to the TSVV PIs on data and code management procedures including location of hosting</td> <td>DONE <i>(installation of DevOps and virtual nodes is managed by ACH-IPPLM)</i></td> </tr> <tr> <td>A2</td> <td>Emilia Genangeli</td> <td>PMU Admin shall investigate the possibility to increase the travel funds if possible and propose it to the next PB as change request.</td> <td>NOT STARTED <i>(waits for signature of EUROfusion Grant Agreement and the final version of the budget)</i></td> </tr> <tr> <td>A5</td> <td>Denis Kalupin, Frank Jenko</td> <td>PMU & E-TASC SB shall propose the collaborative structure that would involve WPTE and ACH to insure that by 2024 experimental data required by TSVVs are available for all EUROfusion machines. (data mapping and data access tolls)</td> <td>IN PROGRESS <i>(partially covered by established Thrust structure, additional discussions are needed within DataBase group, FSD SC on IMAS is scheduled for 12th of April https://indico.eurofusion.org/event/1893/)</i></td> </tr> <tr> <td>A8</td> <td>Denis Kalupin Simon Pinches</td> <td>FSD CO together with ITER RO to investigate the situation with establishing of new accounts and propose the solution</td> <td>IN PROGRESS <i>(there is a process of signing agreement between the Commission and the IO)</i></td> </tr> <tr> <td>A9</td> <td>Denis Kalupin Volker Naulin</td> <td>FSD at its general meeting shall discuss the renewal of the GUB with PLs</td> <td>DONE</td> </tr> </tbody> </table>	No.	Resp. Person(s)	Description	Status	A1	Denis Kalupin, Frank Jenko	Action on WPAC to establish and send Instructions to the TSVV PIs on data and code management procedures including location of hosting	DONE <i>(installation of DevOps and virtual nodes is managed by ACH-IPPLM)</i>	A2	Emilia Genangeli	PMU Admin shall investigate the possibility to increase the travel funds if possible and propose it to the next PB as change request.	NOT STARTED <i>(waits for signature of EUROfusion Grant Agreement and the final version of the budget)</i>	A5	Denis Kalupin, Frank Jenko	PMU & E-TASC SB shall propose the collaborative structure that would involve WPTE and ACH to insure that by 2024 experimental data required by TSVVs are available for all EUROfusion machines. (data mapping and data access tolls)	IN PROGRESS <i>(partially covered by established Thrust structure, additional discussions are needed within DataBase group, FSD SC on IMAS is scheduled for 12th of April https://indico.eurofusion.org/event/1893/)</i>	A8	Denis Kalupin Simon Pinches	FSD CO together with ITER RO to investigate the situation with establishing of new accounts and propose the solution	IN PROGRESS <i>(there is a process of signing agreement between the Commission and the IO)</i>	A9	Denis Kalupin Volker Naulin	FSD at its general meeting shall discuss the renewal of the GUB with PLs	DONE
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			<i>(the GUB is renewed, chair - Rui Coelho)</i>
A10	Denis Kalupin	Some TSVV PIs reported a high load of the Gateway cluster. FSD CO must bring this point to the attention of the next operation committee	DONE <i>(The reported case was investigated by the GW manager, it seems that the submitted job requires resources which are difficult to get without set priority.</i> <i>The GUB has adjusted the job priority at the GW)</i>

Discussions:

Q: The PB asked for additional clarifications on **A2**, regarding the planning of TSVV mission budget in 2022?

R: It was proposed to discuss the mission budget under **AoB**.

Actions A1, A9 and A10 were closed.

Work Package Advanced Computing

3 Reporting of 2021 activities, amendments to the Annual Work Plan - 2022

Frank Jenko (E-TASC SB Co-Chair) presented:

- The results achieved by TSVVs in 2021;
- The progress of TSVV codes towards the “Standard Software”, indicating that more work would be needed on
 - *Performance optimization,*
 - *IMAS interfaces,*
 - *Inter-code benchmarking,*
 - *Dissemination,*
 - *User support;*
- The balance for the ACH manpower (indicative per TSVV over 2021-2025);
- Status of WPAC Grant Deliverables and Milestones, noticing that all of them planned for 2021 were accomplished, except
 - *the decision on the new GW, HPC and LTSSF, which is delayed due to currently uncertain situation with the budget;*
- Status of risks (none of risks materialised in 2021); and
- Project Change Requests (see below CR3).

Discussions:

Q: How the table summarizing the progress towards the EUROfusion Standard Software shall be interpreted with code names been cut?

R: The original file, which contains all information is available at the E-TASC SB meeting page (<https://indico.euro-fusion.org/event/1825/>).



Q: The presentation made by F. Jenko did not discuss the details of ACH tasks performed in 2021, when those are planned to be presented to the board?

R: As the 2021 was a “short” year the allocation of tasks to ACHs was done as 2021-2022 package. Therefore the detailed report can be given closer to the end of this initial period. It was proposed to present the detailed status per ACH at the following, 4th FSD Theory Project Board.

Q: How the fairness on distribution of ACH resources can be guaranteed, would it be possible for the board to get access to the statistic per TSVV, per ACH and per Code?

R: The E-TASC Scientific Board tries to be as transparent as possible in the process of ACH task allocation. The selection process involves PIs of TSVVs and ACHs and open discussions at the E-TASC SB meetings. Nonetheless it is important to remind TSVV PIs on the overall limits on the ACH support that can be given to their projects and also that TSVVs shall be responsible on prioritization of tasks within these limits.

A11: Detailed effective distribution of the ACH support:

- per TSVV;
- per ACH; and
- per Code,

shall be presented to the Project Board regularly, starting from its autumn meeting.

WPAC Project Change Requests (PCRs)

CR3: Corrections to ACH-CIEMAT tasks to be carried in 2022.

The assessment of support tasks requested for BLUEMIRA code (TSVV-14) have indicated the mismatch between the task nature and the ACH profile.

Correction measures:

- Re-distribute 12 PMs originally foreseen for the task to support of other codes managed by ACH-CIEMAT;
- Provide support to BLUEMIRA code in 2023 through other ACH.

The request was **recommended by the E-TASC SB at its meeting on 03.March.2021.**

The Project Board approved CR3.

4 Status of HPC, Gateway and Jet Data Centre

R. Kamendje presented the status of HPC, Gateway & JDC

- The number of the Gateway nodes was extended from 24 to 88;
- The availability of HPC to EUROfusion users in 2021 was close to 99% (KPI is achieved);
- JDC was put in operation and provides services to EUROfusion users since 21.Feb. 2022.

Q: Was the under-usage of A3 partition communicated to TSVVs?

R: The usage of A3 partition is close to maximum, therefore there is nothing to be offered as a spare time to TSVVs.



	<p>Q: How does the JDC handle the machine configuration data?</p> <p>R: The main idea of JDC is to archive the data as they were available up to now, there are no plans to improve or to extend the information. If there are demands by the community on provided information or its representation, it must be discussed at the dedicated meeting.</p>
Work Package Enabling Research: Inertial Fusion Energy and Theory&Modelling Projects	
5	<p>WPENR (IFE & MOD projects) Annual Work Plan</p> <p>D. Kalupin presented the status of ENR activities in 2021.</p> <p>Taking in account the late start of projects in 2021 the work done related to:</p> <ul style="list-style-type: none">• Preparatory activities:<ul style="list-style-type: none">○ <i>Kick off (establishment of interactions within the project team)</i>○ <i>Theory/literature reviews;</i>○ <i>Definition of test/benchmark cases;</i>○ <i>Collection of experimental data;</i>○ <i>Preliminary simulations.</i>• Reduced models:<ul style="list-style-type: none">○ <i>Benchmarking against more sophisticated models and codes</i>○ <i>IMASification of I/O</i> <p>The board noted the EnR progress in 2021.</p>
Financial Overview WPAC and WPENR	
6	<p>Financial Overview WPAC and WPENR</p> <p>E. Genangeli presented the financial summary and budget revisions:</p> <ul style="list-style-type: none">• no substantial changes to the budget were done since previous PB meeting;• small budget shifts to later years are caused by delay with the signature of the Grant Agreement;• UKAEA; EPFL are not currently part of the consortium and their budget is monitored separately. <p>The board noted the budget developments.</p>
AoB & Date of next meeting & Closing	
7	<p>Discussions of the TSVV travel budget 2022</p> <p>The board has discussed the distribution of funds available to TSVVs in 2022 to cover the travel of participants. The overall budget foreseen for 2022 (all TSVVs) is 20 k€. This might be sufficient to finance 1-2 person per TSVV or 2-3 meetings of larger (<10 person) scale.</p> <p>There is no clear conclusion by the board which approach might be better to support TSVV programme. It was agreed that PMU will take further actions to clarify the travel needs by TSVVs in 2022.</p>



	<p>A12: Collect TSVV mission planning 2022 indicating to PIs that available budget would allow to cover mission costs per TSVV < 2k€.</p> <p>All TSVV requests within this limit can be endorsed.</p> <p>If some TSVVs would indicate that they don't plan to use travel budget in 2022, PMU together with the E-TASC SB can decide on how to enhance the travel budget of the remaining TSVVs.</p> <p>This action shall be resolved in March 2022 as there are already requests by TSVV on missions in April 2022.</p>
8	<p>The next, 4th PB-Theory meeting will be organized on 24th of October 2022, at 15:00-17:00 CET. (calendar invite was sent to PB members, the meeting page: https://indico.eurofusion.org/event/1935/)</p> <p>The meeting was adjourned</p>

List of open actions

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A11	Frank Jenko	Detailed distribution of the ACH support: <ul style="list-style-type: none"> • per TSVV; • per ACH; and 	NEW



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