**FSD Tokamaks BOARD MEETING 4**

**14 March 2022**

**MINUTES**

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| **Date:** | 14 March 2022 |
| **Time:** | 13:30 – 17:00 CEST |
| **Venue:** | By videoconference (Zoom) |
| **Files (IDM & INDICO):** | WPTE Project Execution Plan (PEP): [IDM-document-uid=2PQNH4](https://idm.euro-fusion.org/?uid=2PQNH4&version=v2.0&action=get_document)  WPPrIO Project Execution Plan (PEP): [IDM-document-uid=2NECW5](https://idm.euro-fusion.org/?uid=2NECW5&version=v2.2&action=get_document)  WPSA Project Execution Plan (PEP): [IDM-document-uid=2NHYQ9](https://idm.euro-fusion.org/?uid=2NHYQ9&version=v2.0&action=get_document)  ENR Project Execution Plans (PEPs): [IDM-document-uid=2PJ6KH](https://idm.euro-fusion.org/?uid=2PJ6KH&version=v1.5&action=get_document)  Horizon Europe EUROfusion Consortium Agreement (GA approved draft): <https://idm.euro-fusion.org/?uid=2NZTCW>  Project Board’s directory: <https://idm.euro-fusion.org/?uid=2P4XSZ>  EUROFUSION GA (20) 32 - 4.7 - ITER White Paper Report WG2 Issue 3 7-Dec-2020 (Decision): [http://idm.euro-fusion.org/?uid=2PRHFR](https://owarpc.euro-fusion.org/owa/redir.aspx?C=XenQE4i7dmYKQLrctbWUqF8B22sJxiXe5agYG9UnR26GrpY2bzXZCA..&URL=http%3a%2f%2fidm.euro-fusion.org%2f%3fuid%3d2PRHFR)  EUROFUSION GA (20) 32 - 5.3 - Revision of ITPA membership Issue 1 20-Nov-2020 (Decision): [http://idm.euro-fusion.org/?uid=2N6EQJ](https://owarpc.euro-fusion.org/owa/redir.aspx?C=TwtZH1LNc3SS-Xr1kYUGiO6OTwgf23fspnD3ABqdr-WGrpY2bzXZCA..&URL=http%3a%2f%2fidm.euro-fusion.org%2f%3fuid%3d2N6EQJ)  INDICO: <https://indico.euro-fusion.org/event/1663/> |
| **Version** | 1.0 |

**Invited Participants** (Present in this PB Meeting)

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| **Chair** | Tony Donné (Project Manager, PM) |
| **CEA** | Christel Fenzi |
| **ENEA-01-RFX** | Andrea Murari |
| **EPFL** | Stefano Coda |
| **IPP** | Arne Kallenbach (absent replaced by Josef Schweinzer) |
| **UKAEA** | James Harrison |
| **KIT** | Mihaela Ionescu-Bujor |
| **VR-02-UU** | Lorenzo Frassinetti |
| **LPP-ERM-KMS** | Kristel Crombe |
| **VTT** | Markus Airila |
| **FZJ** | Wolfgang Biel |
| **NCSRD** | Christos Tsironis |
| **WPTE Management** | Marco Wischmeier (Task Force Leader)  Emmanuel Joffrin (Task Force Leader)  Emmanuelle Tsitrone (Deputy Task Force Leader)  Antti Hakola (Deputy Task Force Leader)  Benoit Labit (Deputy Task Force Leader)  Nicola Vianello (Deputy Task Force Leader)  Athina Kappatou (Deputy Task Force Leader)  Matteo Baruzzo (Deputy Task Force Leader)  David Keeling (Deputy Task Force Leader) |
| **WPPrIO Management** | Xavier Litaudon (Project Leader)  Gloria Falchetto (Project Support Officer) |
| **WPSA Management** | Carlo Sozzi (Project Leader)  Alessandra Di Bastiano (Project Support Officer) |
| **Programme Management Unit** | Volker Naulin (Head of FSD, HoD)  Sara Moradi (WPTE and WPW7-X Coordinator)  Emilia Genangeli (Head of Admin Dep.)  Fabio Vinagre (Head of PMO)  Botond Meszaros (PMO coordinator)  Denis Kalupin (WPAC & ENR coordinator)  Joao Figueiredo (WPPrIO and WPSA coordinator)  David Douai (WPPWIE coordinator) |
| **ITER IO** | Alberto Loarte |

**Minutes**

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|  | **Item** |
| 1 | **Introduction**  T. Donné introduced the agenda. There were no objections to the agenda.  T. Donné mentioned the policies regarding the collaborations and co-authorships with individuals from the Russian or Belarus institutes. There will be further decision made by the EC, and will be communicated to all in due time.  A. Murari asked on the possible funds for PhD students travel? T. Donné replied that travels can be requested under Education and Training activities.  A. Murari asked for the PB related documents to be distributed more in advance of the meetings. V. Naulin agreed. |
| 2 | ***WPTE***  **a) WP Progress Report and PCRs**  M. Wischmeier reported the scientific results, the progress of WPTE 2021 campaigns, and theory and predictive modelling activities including the interfaces with related TSVVs. The schedule of the WPTE machine operations in 2022 and preliminary plans for 2023 were presented. Distribution of the resources over the scientific topics (Research Topics) and plans for reorganization of the 2022 RTs were shown.  The risks of the workplan were outlined and a report on the Grant agreement deliverables and Milestones was given.  **Discussion:**  A. Murari asked why under the new organization of the RTs detachment has a separate RT and not included under the scenario development RT? M. Wischmeier explained that various results aimed for ITER and DEMO require input from detachment studies and thus cannot be included under the scenario alone. Also, it is not a common agreement that the Edge-SOLPs modelling capabilities currently produce agreement with experiments, and thus the field requires further maturity before consolidation into a scenario development RT.  A. Murari expressed the opinion, reiterated after the presentation of the financial overview, the allocation of shifts to the He campaign looks too generous.  X. Litaudon asked about the decision on a DTE3 at JET, and if the decision is made as yet? M. Wischmeier replied that a decision might be available by June 2022. V. Naulin confirmed that under current situations it is not yet possible to make the decision. E. Joffrin also added that the results of DTE2 are due soon (may 2022) and then these will feed into a decision for a need to any further DTE campaigns at JET. M. Wischmeier mentioned that currently, the main priorities are to have seeding and high current experiments at JET for the 2022, 2023 campaigns. X. Litaudon made the comments that he wants, as WPPrIO leaders, together with PrIO neutronics experts to be involved in the decision for DTE3 so that physics and neutronics technology aspects are taken in the decision process (add an action).  A. Loarte raised concerns regarding the risk for missing the expertise from Russian colleagues for SOLPS-ITER modeling activities due to new restrictions? T. Donné suggested they could try to include their contributions under an independent status? A. Loarte mentioned that as Russia is still a member of ITER project the accounts should remain active for now. M. Wischmeier mentioned that for SOLPS-ITER modeling Europe does have the needed expertise if any further restrictions is made so it should not be a big risk.  A. Murari asked about the requirements for planning of the AGHS changes in view of the possible DTE3, and how much gain in time that would be? M. Wischmeier replied the updates to AGHS, would gain 1 week per 2 cycles of DT.  A. Murari asked about the new governance and organization of data validation and analysis at JET and how this will continue? V. Naulin replied that Session Leaders will remain within TE exploitation budget and indeed that will have an impact on TE budget, but currently Eurofusion is in negotiations with UKAEA to see what can be done. The data validation and analysis will continue as was as these are part of the operational costs. DVCM meetings are also continuing as usual.  **b) Project Change Requests (PCRs)**  Change requests:  - Proposed delay of the grand agreement TE.D01 from initial due date of 31.12.2021 to new date 31.12.2022. The results were not reached as the ECRH at TCV was suffering from some technical issues.  - Proposed restructuring of the Research Topics from 18 to 9 under the 2022/2023 plans.  All Project Change requests were accepted by the PB.  Action WPTE: implement the changes in a new version of the PEP and upload it to IDM.  **c) Financial Overview**  E. Genangeli presented the share of WPs in the FSD budget and main changes since last PB meeting.  A. Murari asked how the He campaign is to be financed.  GA has already approved the financing of the JET operation including the He campaign until end of Sep 2022 with an additional 1.6Meuros CC. |
| 4 | ***WPPrIO***  **a) WP Progress Report and PCRs**  X. Litaudon reported the progress of the sub-projects on activities performed in 2021 and plans for 2022, and theory and predictive modelling activities including the interfaces with the related TSVVs. Distribution of the resources over the sub-projects were shown.  The sub-projects and the management structure were discussed. The risks of the workplan were outlined.  **Discussion:**  A. Murari asked why the call forth LH database coordinator had not been launched after being agreed two PB ago.  The board was informed that it has been agreed to launch a call for an L-H database but the budget for such work is limited.  A. Murari commented that a couple of ppm per year would be very good value for money, based on the experience of the other DBs.  The importance of a JET water activation system to address large modelling uncertainties was stressed.  A. Murari asked when the project should be launched at the latest to be ready for DTE3.  The project is launched, and following the end of the respective call the proposed enhancement project leader was officially confirmed  It was confirmed to the board that participation in the EUROfusion Operations Network (EON) can be granted upon request.  **b) Project Change Requests (PCRs)**  Change requests:  - Are indicated in the respective presentation.  All Project Change requests were accepted by the PB.  Action WPPRIO: implement the changes in a new version of the PEP and upload it to IDM. |
| 5 | ***WPSA***  **a) WP Progress Report and PCRs**  C. Sozzi reported the progress of the scientific objectives, the status of WPSA Enhancement projects, international collaborations, and the four areas of activities in 2021 and 2022. Distribution of the resources over the sub-projects were shown. The organizational and the management structures were discussed. The risks of the workplan were outlined.  **Discussion**  A. Murari asked about the schedule of the machine operation, the status of the remote participation tools and how many of the EUROfusion diagnostics will be available for first plasma.  It was stated that the date for first plasma is not yet officially scheduled but it’s expected to be in September/October.  On the topic of operational tools it was mentioned that the plans are to test them during integrated commissioning and so well before the first experimental campaign.  On the issue of which EU diagnostics will be available for first plasma it was clarified that only the EDICAM will be available. The necessary tools for this system have already been installed and tested.  Regarding the overall budget it was indicated that delays in the start of operations mean that the resources that were initially insufficient to cover 3 experimental campaigns should now be enough to support the planned two.  It was requested by A. Loarte that the possibility of the implementation of an SPI system be addressed again. It was agreed that this point will be raised with the further information to be brought to the next Project Board.  It was emphasized that the EEGs program which brings in young colleagues with good technical skills has been proven to be particularly effective.  The procurement status and related issues of the Thomson scattering diagnostic laser from a Russian company situation was brought to the attention of the Board.  **b) Project Change Requests (PCRs)**  Change requests:  - Are indicated in the respective presentation.  All Project Change requests were accepted by the PB.  Action WPSA: implement the changes in a new version of the PEP and upload it to IDM |
| 6 | ***ENR***  **a) ENR organization & Project Execution Plan (PEP)**  D. Kalupin provided an overview of the ENR projects, the stakeholder roles and responsibilities, and the project’s life cycle.  A. Murari commented that the criteria forth allocation of the project is not clear because they have a very wide degree of maturity.  **b) Project Change Requests (PCRs)**  No changes were requested. |
| 7 | **AOB & Closing**  T. Donné suggested organizing the next Project Board Meeting in October 2022.  The meeting was adjourned. |

**Annex 1- Actions form this PB Meeting**

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| **No.** | **Resp. person** | **Description (brief)** | **Status**  **Comments** |
| PB03-01 | WPTE TFLs | Update the WPTE PEP by 15th April 2022 |  |
| PB03-02 | WPPrIO PL | Update the WPPrIO PEP by 15th April 2022 |  |
| PB03-03 | WPSA PL | Update the WPSA PEP by 15th April 2022 |  |