**FSD Project Board #05**

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| **Date:** | 30/10/2024 |
| **Time:** | 09:00 to 17:30 (CET) |
| **Venue:** | VC |
| **IDM reference:**  | [2RPZDL](https://idm.euro-fusion.org/?uid=2RPZDL)  |
| **INDICO reference:** | <https://indico.euro-fusion.org/event/3244/>  |
| **Version** | 1.0 |

**Final AGENDA**

(See INDICO)

**Action register**

(See INDICO)

**PARTICIPANTS**

(in alphabetical order by first name)

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| **Attendee** (abbreviation) | **Beneficiary/ Organisation** | **Membership**(member/ potential participant)**Attendance**(green-present; red-away) |
| Agata Chomiczewska (ACA) | IPPLM | member |
| Alberto Loarte (ALE) | ITER Org | participant (observer) |
| Ali Benmoussa (ABA) | EC | participant (observer) |
| Anatoli Popov (APV) | ISSP-UL | participant |
| Carlo Sozzi (CSI) | ENEA | participant |
| Carlos Silva (CSA) | IST | participant (2025) |
| Christel Fenzi (CFI) | CEA | member (co-chair) |
| Christian Linsmeier (CLR)  | FZJ | member |
| David Tskhakaya (DTA)  | IPP.CR | participant  |
| Elena De La Luna (ELA) | CIEMAT | participant  |
| Emmanuelle Tsitrone (ETE) | CEA | particpant |
| Frank Jenko (FJO) | MPG | participant |
| Gloria Falchetto (GFO) – partially substituting Xavier Litaudon | CEA | participant |
| Gregorio Vlad (GVD) | ENEA | member  |
| Igor Garkusha (IGA) | KIPT | member |
| Jonathan Graves (JGS) | EPFL | participant (observer) |
| Kristel Crombe (KCE) | LPP-ERM-KMS | member |
| M.J. Pueschel (MPL)  | DIFFER | member |
| Marcin Jakubowski (MJI) | MPG | participant |
| Markus Airila (MAA) | VTT | participant  |
| Mihaela Ionescu-Bujor (MIR) | KIT | participant  |
| Nicola Vianello (NVO) | ENEA | participant |
| Primoz Pelicon (PPN) | JSI | member |
| Pär Strand (PSD) | VR | participant  |
| Robert Wolf (RWF) | MPG | member |
| Sebastijan Brezinsek (SBK) | FZJ | participant |
| Susana Clement Lorenzo (SCL) | F4E | participant (observer) |
| Teddy Craciunescu (TCU) | IAP | participant (2025) |
| William Morris (WMS) | UKAEA | participant (observer) |
| Xavier Litaudon (XLN) | CEA | participant |
| Yannis Kominis (YKS) | NCSRD | member |

**EURO*fusion* participants**

(in alphabetical order by first name)

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| **Attendee** (abbreviation) | **Membership**(member/ potential participant)**Attendance**(green-present; red-away) |
| Ambrogio Fasoli (AFI) | member (co-chair) |
| Botond Meszaros (BMS) | secretary |
| David Douai (DDI) | participant  |
| Denis Kalupin (DKN) | participant |
| Duarte Borba (DBO) | participant |
| Emilia Genangeli (EGI) | participant |
| Fabio Vinagre (FVE) | participant |
| Joao Figueiredo (JFO) | participant |
| Marco Wischmeier (MWR)  | participant |
| Sara Moradi (SMI) | participant |
| Volker Naulin (VNN) | participant |

**MINUTES**

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| **Items** | **Documents IDM/ Actions id.** |
| 1. **Welcome, approval of the agenda, status of action items**

Agenda is approved by the members. |  |
| 1. **Financial Overview (EGI)**

CLR stressed that 100% funding is required for the labs to hire. EGI pointed out that EUROfusion receives only 55% of costs and that it becomes increasingly difficult to balance the budget if more categories are at 100%. CLR stated that educational activities require a change in the rules. But EGI stressed that education and training programmes are treated more favourably than other tasks.RWF asked how far is EUROfusion from a balanced budget? EGI answered that the balance of the internal funding rate is guaranteed by the accompanying research. But sufficient costs are not declared to the European Commission (EC) in order that at the end of 5 years the full grant funding is paid. One solution would obviously be to deliver what has been agreed in the Grant Agreement but the problem with this is delays in multiple tasks. RWF stated that there is the need to make a plan that is 10-20% above what is defined to be delivered.AFI commented that high level decisions have been taken to bring more people into the community with one example being data scientists and AI project calls, with Advanced Computing (AC) being responsible for this. There is the need to enlarge the community. The fact that EUROfusion is a cofunded action is not foreseen to change in the short term so we need to work within this boundary condition. RWF added that education related work is a leverage to achieve this goal. AFI agreed and mentioned that there was an increase of funding for education. However EGI underlined that in some labs education is kept at a minimum and so there’s the need for a different mechanism. CLR asked if there was an increase of salary rate also for education. EGI replied that this doesn’t make much of a difference but an update will be provided.VNN asked if it’s known when the 2026-2027 budget will be agreed? EGI answered that we don’t know yet. But the hope is that in the Spring the EURATOM work programme amendment will be done and the budget will then be defined.AFI stated that when defining the AWP (Annual Work Programmes) there’s the need to be a bit more realistically and that AWPs shouldn’t be inflated. That being said for the Departments covered by this Project Board the situation isn’t bad. | **Action list in INDICO** |
| 1. **Grant Deliverables and Milestones status (BMS)**

CLR asked if one of the reasons for most of the delayed grant deliverables being from PrIO is because it has more of these when compared with other work packages.BMS replied that is indeed the case but that the delays are the result of the decision not to have finished these deliverables only with the results from DTE2 but to include DT3 as well.XLN commented that he considered to have been wiser to take in consideration also DTE3. He also pointed there has been also some delays on neutron calibration being provided and on other activities as well.CLR suggested that we need to be careful with what is defined as Grant Deliverables given the highly visible nature of these.MWR commented that some Grant Deliverables could in the future be level 3 deliverables.  | **Presentation in INDICO** |
| 1. **PSD overview presentation (MWR)**

MWR informed that in this presentation there is no significant number of details as they will be addressed in the work packages presentations.MPL asked about contacting private companies regarding the stellarator research line and pointed that the coordination in USA on this is more advanced.MWR answered that what is being proposed is to identify the physics gaps and that contacts with private companies may happen at a later date.CFI asked if there’s the need for approval by the GA (General Assembly) for this stellarator work.MWR replied that this is not the case as this activity is not new and is already included within WPW7X.RWF stated that for the future it should be considered if it is the correct way to do it for these kind of topics to be addressed with a divided approach between physics and technology. He informed that there is also now a group working in this area within IPP. He commented that by the end of the framework programme we should assess how to improve the effort being put on this.MWR underlined that the dialogue is open and this work serves as a platform to write down the physics gaps. For the time being there is no equivalent to the DEMO central team but this might evolve in the future.MWR answered to a question about TSVV11 stating that members of it have participated in TE meetings funded by the TE budget. Regarding BEST he informed the Board that there are some resources to do modelling in areas where the relevant competencies doesn’t exist in China. | **Presentation in INDICO** |
| 1. **PSD WP presentations (incl. PCR) (XLN, CSI, MJI, SBK)**

WPTE:MPL asked about missions dedicated to small ELMs research.NVO replied that these will be managed through the INCO budget.WPPrIO:RWF commented that ECRH collaboration, with different activities, is very important with the question on how to guarantee the industrial base to produce gyrotrons being a critical one. Currently there’s only one company in Europe producing a gyrotrons and only at a rate of one per year. XLN informed that on the project that was initiated the labs are working also with Thales.CFI stressed that Thales is part of the CSA consortium and that she is sure they have plans and are ready to define a strategy.RWF pointed that Kyoto Fusioneering might also have role to play on this topic.WPSA:There were no questions for this work package.WPW7X:CLR asked about the integration with work on other WPsMJI replied that if expert exist in other WPs they are more than welcome to W7X.WPPWIE:There were no questions for this work package. | **Presentations in INDICO** |
| 1. **DSD overview presentation (VNN)**

VNN informed that discussions are ongoing with companies active in dealing with data and with Universities colleagues that are not yet working with us. The thrusts are in part working well but the interaction with ENRs should be checked the more closely.CLR commented that some of the work mentioned should be done by a computing centre and that the main objective of the Department is currently too broad.VNN answered that the goal is to take initiatives that already exist and go for digital twins, Machine Learning also in view of ITER and DEMO and the use of large language models to help operators in control rooms.DTA mentioned that it was tried to organize licensing in TSVVs and asked if the new department will look into this?VNN replied that this is indeed a topic for the department but it is a complex one. Guidelines do exist but even only on what regards data the legal position is very complicated.  | **Presentation in INDICO** |
| 1. **DSD WP presentation (FJO)**

WPAC:MPL asked what will be the process to be followed regarding data storage. VNN replied that it will be partially base in a call.SMI asked it it’s possible to have a catalogue of synthetic data produced by existing models.FJO replied that TSVV data does exist but that it will be important to collect this information.PSD stated that we should have a complete cycle from experimental to synthetic data and back again.SMI clarified that her question was more related to the availability of synthetic data which can be further cured.FJO answered that on this we’re not starting from zero but we could move faster. |  |
| 1. **PSD & DSD summary of proposed PCRs**
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| 1. **PCR discussion and decision (closed session, limited to PB members, FSD & DSD HoD, Admin HoD, secretary)**
 | **Significant PCR table including decisions in IDM:** [2RPZDL](https://idm.euro-fusion.org/?uid=2RPZDL)  |
| 1. **Wrap up, summary (CFI, AFI)**

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***Next meeting(s):*** *1-2 April 2025 FSD PB#06* (in person in Garching)