



Real-time networks

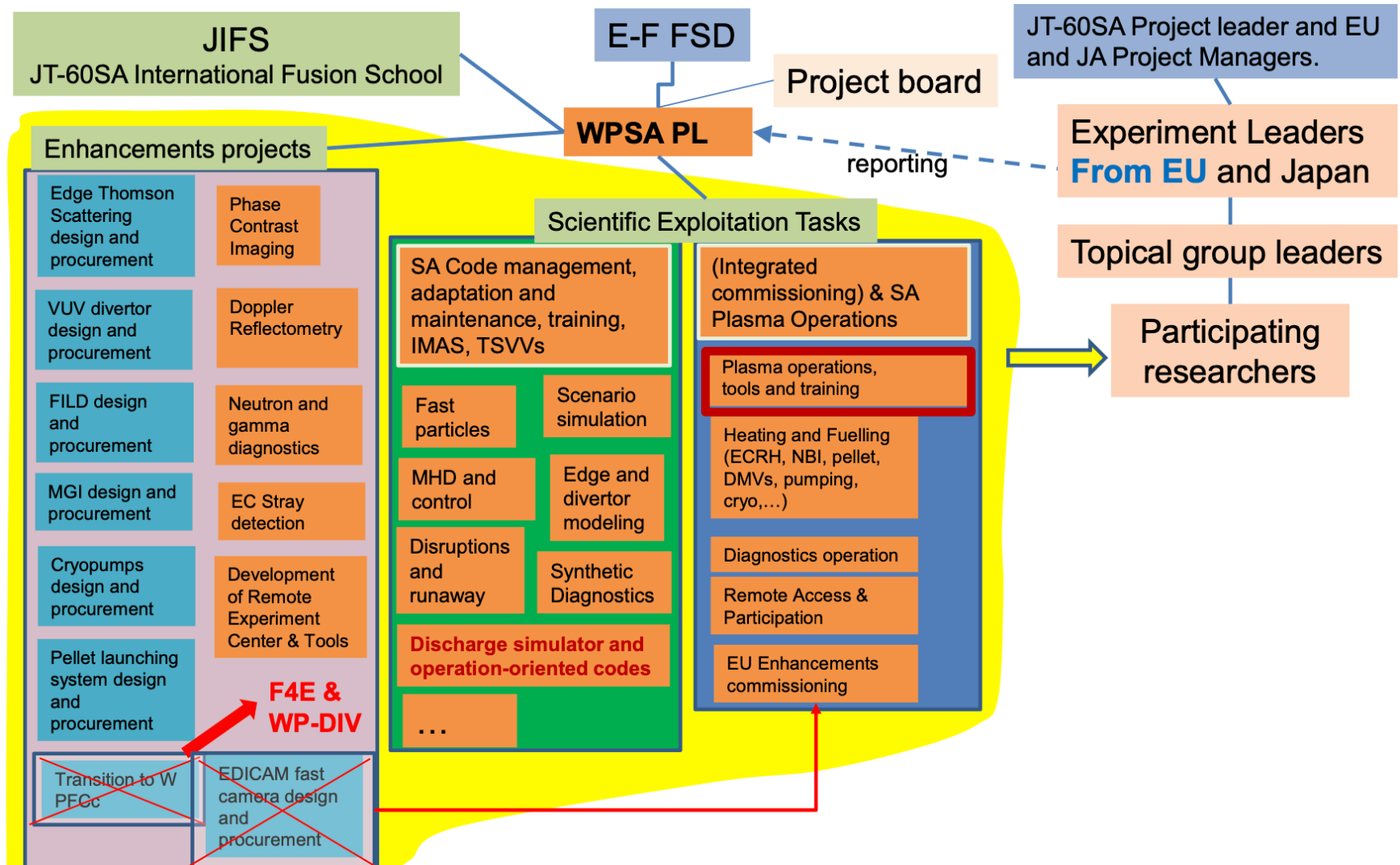
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WPSA in FP9



WPSA Operations Activities in FP9



Activity	2021	2022	2023	2024	2025
Cryo and Magnets	Review coil energisation in the integrated commissioning, analyse lessons learned and support EEG on magnets.	Review coil energisation in the integrated commissioning, analyse lessons learned and support EEG on magnets.			
EDICAM operation	Review operational experience from the integrated commissioning	update where needed	diagnostics operation	diagnostics operation	diagnostics operation
Plasma Operations	Review the operational experience of the integrated commissioning in 2021	Train and contribute to plasma operation preparations	Train and contribute to plasma operations	Train and contribute to plasma operations	Train and contribute to plasma operations
Real-time Networks	Consider tools for JT-60SA based on integrated commissioning experience	Learn about the RT networks at JT-60SA. Develop / integrate suite of tools for JT-60SA	Develop RT networks and support operation	Develop RT networks and support operation	Develop RT networks and support operation
Wall conditioning	Review vacuum conditioning and the ECWC in 2021 from the operational aspect	Contribute to preparation of vacuum conditioning for the 2023 campaign	Monitor wall condition and contribute to operation of ECWC	Monitor wall condition and contribute to operation of ECWC	Monitor wall condition and contribute to operation of ECWC
Divertor Cryo operation		Installation and test	Commissioning and operation, training of resident staff	Commissioning and operation, training of resident staff	Commissioning and operation, training of resident staff
ECH		prepare for operation	Support operation	Support operation	Support operation
NBI			Support operation	Support operation	Support operation
Edge Thomson Scattering		Installation	Installation / commissioning	diagnostics operation	diagnostics operation
VUV operation		Installation	Installation / commissioning	diagnostics operation	diagnostics operation
FILD operation				Installation / commissioning	diagnostics operation
Massive Gas Injection			Installation / commissioning	operation	operation
Pellet Launching System			Installation / commissioning	operation	operation



Research plan: www.jt60sa.org/pdfs/JT-60SA_Res_Plan.pdf

Documents requiring access to the JT-60SA Document Management System (DMS)

(After WPSA call response approval at the General Assembly in April 2021)

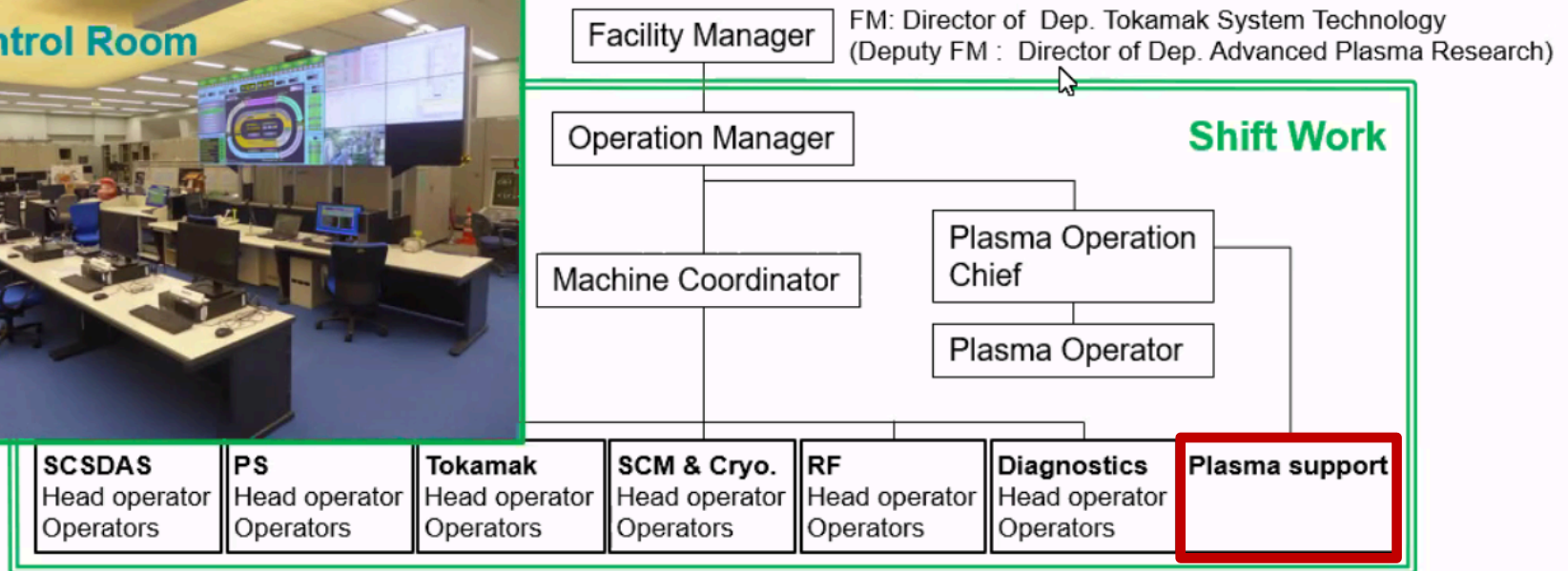
Plant Integration Document (PID): <https://users.jt60sa.org/?uid=222UJY>

Common Quality Management System (CQMS)

Definition of management procedures and processes.

- CQMS-01000 Common Quality Management
(https://users.jt60sa.org/?uid=223AVV&action=get_document)
- CQMS-13000 Integrated Commissioning
(https://users.jt60sa.org/?uid=29YUZV&action=get_document)
- CQMS-13100 Control Room Organisation
(https://users.jt60sa.org/?uid=2A7288&action=get_document)

Control Room



Plasma Operation Chief: Execute plasma operation and ECWC requested by **Topic Leaders**. Optimize discharge conditions and shot plan in the day considering subsystem status.

Plasma Operator: Program discharge conditions in Human Machine Interface (HMI) according to Plasma Operation Chief.

Plasma Support: Support commissioning by monitoring data and analysing data mainly according to request by Topic Leader or Plasma Operation Chief.

*Sometime "Topic leader" holds "Plasma Operation Chief" or "Plasma Operator".
Some of Plasma Team members join in the shift work as "Plasma Support".*



Aims:

- Provide control room support as part of the plasma support team
- Develop real-time networks
- Provide support as a real-time expert (if agreed, training would be provided)

Plan to start discussion with Fusion for Energy and QST on the installation support, commissioning and operations in 2023-25 in mid-2021 or after the completion of the integrated commissioning phase.

-> agree on roles for EU experts in the control room, contribution to RT networks

Preparation of the 2023-25 campaigns:

- Share operational experience of EU facilities,
- Consider real-time network needs of 2023-25 based on integrated commissioning and the scientific programme planned for 2023-25
- Review and train on QST tools -> visit to Japan in 2022?,

1 activity + 1 deliverable per beneficiary per topic per year (start in 2022?)