



WPSA Operations & Enhancements – FP8 Enhancements

WPSA General Meeting, 6-9 September 2022

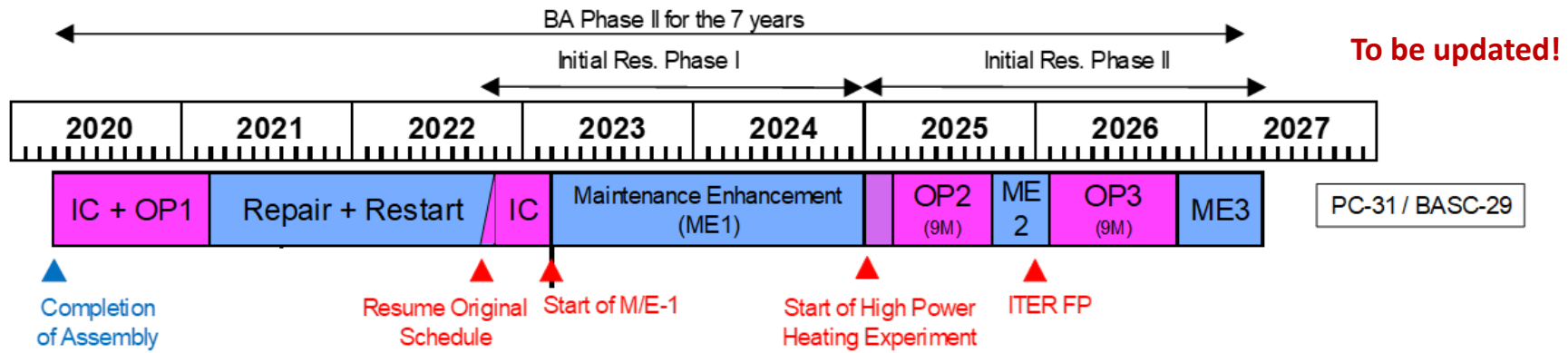
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SA.ENH supports the design, assembly and testing of the enhancements before shipping to the Naka site. SA.OP supports the installation, system and integrated commissioning, operation and maintenance of the enhancements following arrival to the Naka site. Includes the preparation of commissioning and operations.



WPSA-ENH Primary goal in 2023: Completion of assembly and testing before shipping to the Naka site

WPSA-OP Primary goals in 2023: Start the preparation of the **commissioning of EU enhancement projects** reviewing their needs, and connection to protection systems.

- Target preparing the draft commissioning procedure by the time the system arrives to Naka (F4E request)
- In 2023, we will start preparing the commissioning plan using/optimising an [EU commissioning procedure template](#)
- Start/continue discussion with F4E and QST

European Enhancements

Thursday, 8th September 2022 session 3

Current status and 2023 plans, commissioning plans, interfaces particularly with protection systems, documentation.

QST Enhancements

Sharing commissioning and operational experience with QST through EUROfusion Operations Network – plans to support NBI commissioning with a small EUROfusion team

This session will review each enhancement focusing on:

- Current 2022 status
- Project timeline with arrival to Naka and installation start date if available
- 2023 plans – main focus
- Status of commissioning plans, procedure preparation, relation to protection systems if any – this should not include the commissioning plan itself, just the status of its preparation.
- open question, need for information from QST

Expected tasks in 2023:

- Remaining ENH task in Europe, OP task following arrival of equipment in Naka
- OP task to prepare the commissioning procedure, discuss operational plans and protection system interfaces

FP9 WPSA Operations (E. Belonohy)

[EDICAM](#) camera – OP-CM-ENH

[Fast Ion Loss Detector \(FILD\)](#) - WPPriO

[Thomson Scattering \(TS\)](#)

[VUV Spectrometer \(VUV\)](#)

[Pellet injection](#)

[Massive Gas Injection \(MGI\)](#)

[Divertor Cryopump System](#)

[Neutral Beam Injection \(NBI\)](#) (QST, post 2023)

FP8 and FP9 WPSA Enhancements (J. Ayllon)

F4E Enhancements (G. Phillips)