



WPSA Enhancement Projects - Summary

WPSA General Meeting, Budapest (09-09-2022)

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- **New activity in WPSA:** N&G shielding assessment for FP8 projects
 - In collaboration with F4E
 - Developed by Milano team (E. Perelli, J. Scionti, M. Nocente - CNR-ISTP, UniMiB)
 - Mainly in 2022 with possible extension for upcoming years (depending on the needs)



- Mature projects (TPCI, DR, EC Stray) to **update/finalize proposal** during 2022:
 - Progress in mechanical design and assessments
 - Timeline and budget estimation
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- **Reports on IDM by mid November 2022:**
 - Report on Enhancements to be provided by WPSA Coordination Team
 - Grant Deliverable (Dec 2022): SA.D.04 Documented plan of EU enhancement programme for BA Phase II–2025-2029
- **Priorities on machine enhancements** being defined by EU and QST Experiment Teams: expected to be ready by Sep/Oct 2022



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 - Keep track and centralize modelling activities in WPSA Programme
 - Handle requests of inputs (scenarios, results, ...)
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- Significant activity ongoing (and expected in 2022-2023) regarding **Remote Access Architecture task in view of IC**
- **TPCI**: aims to **complete mechanical design** (optical path acceptance by QST) and refine simulations for synthetic diagnostic
- **EC Stray Detection System** to continue interactions with IO/QST: Testing ITER sensor in QST
- **Neutrons**: characterize fast ions spatial distribution (oblique path)
- **Stablish/clarify synergies/compatibility** between TPCI/DR (Ciemat+Japan) and UF Reflectometry Upgrade

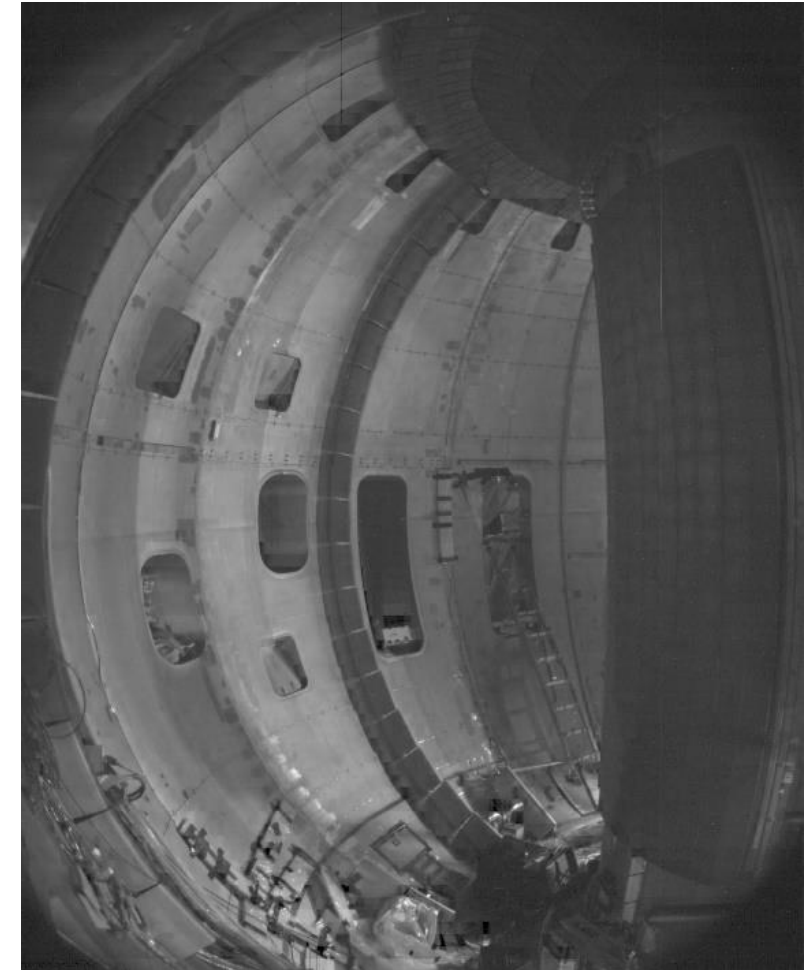


Enhancement Projects: Future Tasks and Keypoints

- **Redefinition of ENH tasks** continuing activities in 2023: based on priorities defined by ETs
 - Move to implementation phase
 - Enhance feasibility studies and proposals
- **Review of systems/diagnostics** being developed by QST
- **N&G shielding assessment** for FP8 projects
- Provide **input for teams progression** on tasks:
 - CAD/Modelling
 - Contact persons
- **Align diagnostics with physics** being studied in each operation phase
- **Include target plasmas** for calibration/commissioning
- Importance of **machine protection**
- Need for **edge (pedestal + SOL) temperature + density** characterization: **new ideas are very welcome!!**



- For your participation in GM (in person and remotely)
- Big thanks to Daniel, Tamás and the LOC 🏆



Real image of EDICAM in JT-60SA Tokamak