

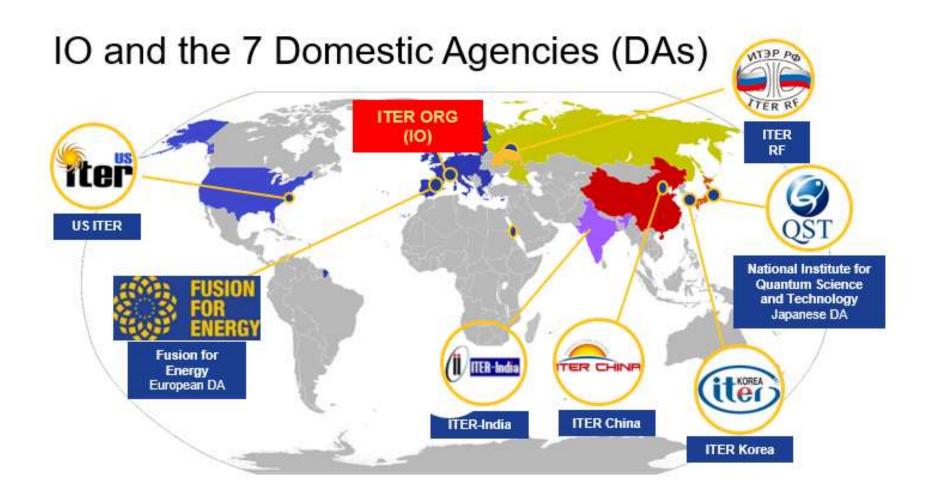
BRINGING THE POWER OF THE SUN TO EARTH

F4E Business Opportunities

F4E Market Analysis Group Mehdi Daval

28th of May 2025 - online











Value Range Categories

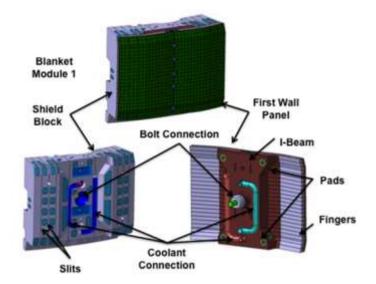
IN-VESSEL



 OMF-1877: High Heat Flux testingof mock-ups (ongoing Market Survey). Target CFT Q3 2025.

(5000 cycles at 2 MW-m2 + 1000 cycles at 2.5 MW-m2.

With electron beam of at least 200 kW. First testing during Q3 2026 until Q4 2028.



Cryoplant & Fuel Cycle

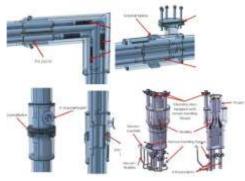
OFC-1592 Vacuum & Cryogenic services and minor mechanical works (including LN CRYOLINES DN25) (cat A).

Target CFT June/July 2025. Open procedure.

 OPE-1867 Leak Detection (ex-OPE-0982): Cat. B Market Survey ongoing; Target CFT Q3 2025 (October). => Manufacturing and Assembly (Design already done). Competitive with Negotiation.

- **NB Cryopumps** (2 X 3 units, cat D)
 - 500 cryopanels ; >650 thermal shield panels
 - Tight tolerances
 - ⇒ Target CFT Q4 2025-Q1 2026 (depending if MITICA cryopump tests are positive)





Examples of some of the rigid cryolines subcomponents







Cryoplant & Fuel cycle



 OFC-1868 Isotope Separation System (ISS) and Water Detritiation system (WDS) Design and Engineering Support (cat D)

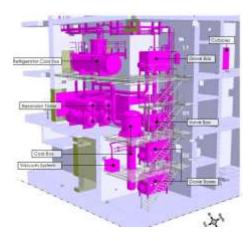
=> 1 FW Contract Design + Support to Owner during manufacturing of the following supply procedures and contracts (separated CFTs each one): Helium Refrigeration System (Design & Build, CFT Q1 2026), Cryogenic and Mechanical Systems (Supply), Populated Glove Boxes (Supply), and the I&C cubicles (Supply).

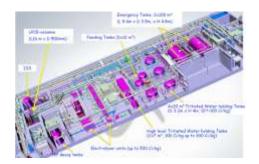
=> Market Survey + ongoing exchanges with companies.

- => Target CFT: June-July 2025. Open procedure.
- Water Detritiation System (cat D)

=> Distillation columns: Target CFT Q4 2026-Q1 2027.

- **TDP Fuel Cycle**: report done and sent to participants for feedback (deadline 23rd of May).
- REMS (Radiological and Environmental Monitoring System) Qualification, Procurement, Installation (Cat. D)
 - \Rightarrow Target CFT Q3 2025 => mid-November (PA: 07-2025).







Heating and Current Drive



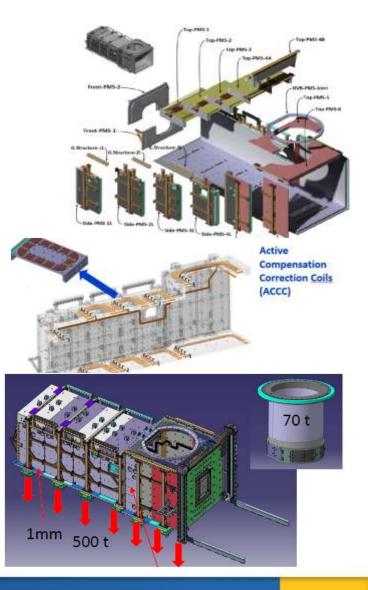
		2024	2025	2026	Next steps
Pre-SRO	Assembly tooling	Contract signature			
	PMS&ACCC OMF-1886	Pre-procurement	Call for Tender	Contract Signature	
	Drift Duct OPE-1578	Call for Tender	Contract Signature		
Post-SRO	Absolute Valve		Feasibility study (IO)	Joint procurement	Call for Tender (2027) Contract signature (2028)
	Fast shutter et al.				Procurement (2027)
	BLCs and BS				Procurement (2029/30) Contract signature (2031/32)

Heating and Current Drive



- OMF-1886: Passive Magnetic Shielding (PMS) Cat.
 D. (2 units)
 - Active Compensation Correction Coils (ACCC): 2 x 8 units.
 - Skills: Construction and precise assembly (1mm gaps/0.1 mm tolerances) of heavy components (500t) nuclear classified (RCC-MR) + coil design and manufacturing).
 - 3 contracts in parallel (each one Design + only one Manuf.)
- => Target CFT: June-July 2025.

• New CFT for PMS/ACCC material (about 800 t. of S235 steel (EN 10025-2) and pure iron plates.



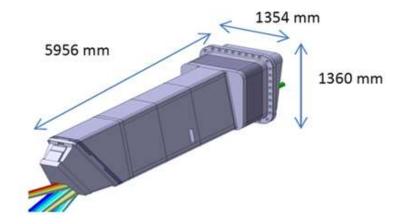
Diagnostics



• OFC-1183: Cat. D. 6 Diag PORTS Manufacturing

and Assembly + Testing Facility.

Target CFT: Q4 2025 (=> November).



Upper Port Plug general dimensions



- OMF-1755: CODAC I&C Integration Services (ex-OMF-0989). Target
 CFT Q2 2025. Cat D. (Not Safety-Important Components, not
 Protection important Component)
- Hardware (cubicles, cabinets and assembly services). Target CFT Q4 2025.
- **CODAC I&C Integration services** (engineering) with PIC/ SIC, French nuclear regulation. Target CFT in 2026.

Project Management Support Activities



- **OMF-1831** Project Management Support. (cat A).
- => Target CFT mid-July 2025.
- => 2 lots: Lot 1 Primavera. Lot 2 Ecosys.

 OPE-1851 Independent Evaluation of the adherence of the Management System to ISO 19443 (cat A < 143.000 euros). Target CFT Q3 2025.



• Final Design and Supply of Ancillary Systems (3 systems out of 5)

1st System - Final Design and Manufacturing of Tritium Extraction & Accountancy Systems + Gloveboxes in Tritium Room.

Market Survey closed – CFT in 2026 Cat C

2nd System – Water Cooling System, Coolant Purification System Market Survey closed – **CFT in 2026** Cat **D**

3rd System – Water Cooled Lead Lithium loop - Cat => Market Survey CLOSED. CFT in 2026

Broader Approach / DONES



- OPE-1405: Integration and testing of Actively Cooled Divertors of JT-60SA, estimated contract value:

 Market Survey closed, Target CFT Q2-3 2025 (Competitive with Negotiation).
- OFC-1695: Maintenance and Optimization of the Tetrode-based Radio Frequency Power System modules of LIPAc. => Target CFT Q3-4 2025
- OPE-1716: Prototypes of a Low-Beta Hald-wave resonator with Frequency tuning system and RF Coupler for LINAC of IFMIF-DONES SRF Coupler (Design of the cavity, Supply of a superconductive Cavity => Target CFT Q3-4 2025.
- OPE-1725: JT60SA Pellet Injectors (re-issue): Market Survey to be decided, dissemination to target companies and ILO network will be performed. Value A, Target CFT Q2-3 2025 (Competitive with Negotiation).
- **OPE-1824: Tungsten** raw material for JT-60SA Divertor (see Technical Note on Industry Portal). Target CFT: June 2025.
- **OMF-1844**: **Hardware Acquisition Channel** for Broader Approach. Target CFT Q3 2025.





- **AFC-1760:** Library Resources and Subscriptions Launch, estimated Q4 2025.
- **OMF-1784:** Administrative Support Cat. D. Q2-3-2025.
- **AFC-1833:** Facilities Management services (Target CFT Q3 2025).
- AFC-1848: Audiovisual and photographic services Launch estimated Q3 2025.
 AFC-1849: Media Monitoring and Media analysis services Launch estimated Q3 2025.
- **AMF-1875:** Specialised learning services (Target CFT Q4 2025).



THANK YOU

F4E Business Opportunities – May 2025