

CfP-FTD-AWP26-DES-XX

2026-2026 Consortium Work Plan

Call for Participation

Work Package DES

1. Purpose of the call

The present call CfP-FTD-AWP26-DES-11 WPDES Cost estimation and divertor integrations, seeks resources for the task of cost estimation expert and divertor transverse lead to be performed in 2026-2027 in Work Package WPDES.

2. Objectives of the Work Package

- To assist to the development of an ignited plasma scenario considering the knowledge gaps due to the absence of experimental data of ignited plasmas.
- To assist to the design developments carried out for fusion based device(s).
- To assist to the design developments of the volumetric neutron source (VNS) concept design phase.
- To assist to the identification of compact designs of pilot fusion power plants.
- To assist and guide the WPs in conduction systems design analyses.
- To perform safety analysis for IFMIF DONES, ITER, VNS and other fusion based device (s) and provide Safety Analysis Report, status of radiological release to the environment, waste management and explosion studies.
- To validate safety assumptions relevant to DONES design and operation by exploiting experimental facilities such as MuVacAS, LiFIRE and others.
- To conduct safety studies with the R&D program including experimental campaign dedicated to face the safety issues for fusion devices.

- To adapt and validate current simulation codes, models and nuclear databases for fusion science and technology.
- To perform neutronic studies contributing to DONES/ITER/VNS/ other first of a kind fusion based device (s) objectives.
- To validate nuclear codes and workflows (neutronics, activation, ORE, waste).
- To integrate plasma physics and neutronics simulation in support to new ITER baseline & neutron synthetic diagnostics.
- To support integrated designs of future fusion based devices compliant with radiological protection objectives.
- To coordinate and perform neutronics and activations assessments in support of future fusion based devices designs

3. Brief description of the Work Package two-year workplan

- Design Activities for future fusion based device (s): low aspect ratio (LAR) DEMO physics scenario, plasma modelling, integrated kinetic and magnetic simulations, systems design development, design integration, neutronic, thermal, structural and safety analysis
- Design Activities for VNS: conceptual design activities, plasma scenario, mechanical and thermal loads, testing needs, qualification strategy required, manufacturing and testing of a model coil based on high temperature superconductors (HTS).
- Safety analyses: safety analysis for DONES licensing and commissioning, neutronics modelling in support of the safety analyses for DONES, accident analysis, routine operation safety studies, difficult-to-manage waste.
- Safety R&D program: dust and hydrogen explosion, waste management.
- Codes and Modelling: simulation codes used for the safety analyses (such as OSCAR-fusion, ASTEC, CONSEN, COCOSYS (TBC), tritium functionality in JRODOS...), fluid-activation experiments and model validation of water activation prediction; ACP experiments and models validation, neutronics codes, radiation mapping and shielding assessments.
- Support to ITER in the areas of: inertially-cooled ITER temporary wall, first wall (armour thickness, development and qualification of W coatings on Stainless Steels, R&D of tritium processing technologies for fuel cycle, codes and standards, safety evaluations, ITER Handbook).

4. Eligibility criteria

Only the members of the EUROfusion consortium, i.e. Beneficiaries, are eligible to answer the call. Affiliated entities (AE) and industry contributions must be proposed by the Beneficiary they are affiliated with.

Upon submission, the PMU will perform a formal check of the proposals. Non-compliant or incomplete proposals could be rejected.

The Project Leader (PL)/ Task Force Leader (TFL), supported by the PMU, will perform a further check on scope, competences and general quality, in particular whether the proposal is in line with the Work Package objectives. If needed, the PMU will contact the Beneficiary for further information or an update of the proposal.

5. Submission of proposals

Proposals must be submitted through the EUROfusion Information Management System (IMS), <https://ims.euro-fusion.org/fp9/>, by the General Assembly member not later than **8 December 2025**.

The proposals shall include:

- **Indicative resources** proposed by the Beneficiary (or its AEs) for 2026-2027. These must be entered directly through the online proposal form in IMS;
- **Call Response Form** prepared outside of IMS following the provided template (Annex 02) to be uploaded to the online proposal form as attachment (PDF or DOCX format)
- **CVs** of individuals proposed following the provided template (Annex 04) to be uploaded to the online proposal form as attachment (PDF or DOCX format)
- Any other supporting documents that can indicate synergies between competences required in the Call and the expertise of the proposed team.

The information provided through the different elements of the proposal shall be consistent (e.g. indicative resources in the online proposal form and in the Call Response Form).

For step-by-step guidelines see: Annex 03 - Guidelines for Responders

6. Selection/ Evaluation process

The evaluation criteria are listed in Annex 06 – Guidelines for Selection, section 2.3. Based on the scores and on well-founded written justifications, the PLs/TFLs will then select the contributions for each work package (WP) within the Work Plan 2026-2027.

If needed, during the evaluation period, the PLs/TFLs may contact representatives of the Beneficiaries for further clarification and for negotiation on the activities and the size of the contribution. Upon

completion of the assessment, the PLs/TFLs will make a recommendation to the PMU including a justification for the selection of the Beneficiaries' contributions to execute the tasks within each WP, as well as the financial resources required for this purpose.

For further details on the evaluation process see: Annex 06 - Guidelines for Selection

7. Feedback to Beneficiaries

The PMU will communicate to all Beneficiaries the outcome of the selection together with the financial resources allocation.

- For any questions please contact Krystyna Marcinkiewicz (krystyna.marcinkiewicz@euro-fusion.org) or
- PL/TFL Joelle Elbez-Uzan (Joelle.Elbez-Uzan@euro-fusion.org)

For more details on the scoring, evaluation criteria, access to proposals and other requirements, see: Annex 06 - Guidelines for selection

8. Indicative Timeline of Implementation

Launch of the call: 7 November 2025

Deadline for proposals: 8 December 2025

Evaluation, selection, preparation of PMP/PEP: 19 December 2025