

# **Call for expression of interest for the establishment of a list of prospective individual experts to provide expertise to Fusion for Energy**

## **Areas of Activity**

### **List 1- ITER /JT-60SA/IFMIF-EVEDA**

- 1.1 - Complex civil constructions, nuclear buildings
- 1.2 - High and medium voltage power supplies
- 1.3 - Tokamak machine design
- 1.4 - Transport of large components and logistics
- 1.5 - Superconducting cables and magnets
- 1.6 - Pressure vessels for nuclear applications and complex welded structures
- 1.7 - Components subjected to high thermal loads
- 1.8 - Assembly of large components
- 1.9 - Remote Handling systems for nuclear environment (incl. mechanics, electronics, SW)
- 1.10 - Applied plasma physics
- 1.11 - Plasma diagnostics
- 1.12 - Tokamak machine diagnostics
- 1.13 - Plasma engineering
- 1.14 - Heating & current drive systems
- 1.15 - Instrumentation & data acquisition
- 1.16 - Complex manufacturing processes involving relevant fusion materials
- 1.17 - Water chemistry & corrosion technologies
- 1.18 - Materials testing (destructive and non-destructive tests, post irradiation tests)
- 1.19 - Engineering analysis (Structural Civil & Mechanical, Thermal, Neutronic, Electromagnetic)
- 1.20 – Nuclear design codes and standards
- 1.21 - Nuclear safety
- 1.22 - Tritium technology
- 1.23 - Cryogenic technology & cryolines
- 1.24 - Vacuum technologies and components
- 1.25 - Leak detection technologies

- 1.26 - Nuclear fusion components (breeding blankets, first wall, divertor) design
- 1.27 - Nuclear fusion components fabrication technologies
- 1.28 - Lithium and PbLi technologies
- 1.29 - Fusion materials development and characterization
- 1.30 - Ion accelerator technologies

**List 2 - IFERC**

- 2.1 - Technology related to high performance supercomputers
- 2.2 - Infrastructures related to high performance supercomputer installations
- 2.3 - Software parallelisation techniques
- 2.4 - Advanced computer modelling of plasmas (MHD, Transport, Edge, ..)
- 2.5 - Advanced computer modelling of materials (neutron damage)
- 2.6 - System design of fusion reactors
- 2.7 - Socio-economic aspects for fusion reactors
- 2.8 - Remote participation techniques for large experimental installations

**List 3 – GENERAL SUPPORT**

- 3.1 - Planning and scheduling
- 3.2 - Quality assurance
- 3.3 - Earned value management
- 3.4 - Risk assessment and related quantitative methods
- 3.5 - Project management and systems engineering methods
- 3.6 - CAD-related technologies (CAD, project lifecycle management)
- 3.7 - Cost estimation and management
- 3.8 - Industrial intelligence
- 3.9 - Organisational research
- 3.10 - Knowledge management
- 3.11 - Specific legal matters
- 3.12 - Export control regulations and dual-use technology management
- 3.13 - Intellectual property rights and patents
- 3.14 - Insurance law
- 3.15 - Financial auditing
- 3.16 – Budget planning and control tools