The European Domestic Agency for ITER

Chinese Delegation visit

May 10th 2010, Barcelona
What is F4E

F4E Contracts & Procurement overview

F4E Work Programme 2010

F4E Industrial Policy

F4E Quality management
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F4E Main facts and figures

- Established in April 2007 for a period of 35 years
- F4E is an industrial & procurement agency
- **F4E members**: 27 European Union states + Switzerland
- F4E is based in Barcelona – Spain but has also an antenna in Garsching (D) and in Cadarache (F).

**F4E manages 5 G€ on behalf of EU**
Which means approximatively **400M€/year** for technological development
The European Commission has created a specific legal entity in order to meet its obligation as a Party.

Fusion for Energy (F4E) is a Joint Undertaking (legal basis based on the experience of the Joint European Torus in the UK (1971-1999, EFDA).

F4E is:

- empowered to make decisions on behalf of the European Union.
- responsible for the implementation of the EU budget and the ITER host state contribution.
The objectives of Fusion for Energy are threefold:

1. Provide Europe’s contribution to the ITER international fusion energy project

2. Implement the Broader Approach agreement between Euratom and Japan.

3. Prepare for the construction of demonstration fusion reactors (DEMO).

All three objectives form part of the “Fast Track” approach to fusion.
• **ITER Organization (IO), Cadarache,** undertakes reactor assembly & operational start of ITER device.

• **ITER France Agency, Cadarache,** is in charge of ground preparation, safety related questions on behalf of IO, & on-site staff welcoming.

• **The EU Domestic Agency** manages the operational procurements and budget relative to EU contribution, and delivers in-kind contribution to IO in the form of components, works & services.

**Fusion for Energy (F4E) is the European Domestic Agency**
ITER spending in Europe

ITER Project

AIF  F4E  IO

88%  2%  10%

EU Suppliers
Agenda

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Europe has to provide through Fusion for Energy

- 45% of ITER construction costs
- 34% of operation, deactivation/decommissioning costs
- F4E contracts under a “Best value for money” principle
- F4E contracts in principle in Europe
Rationale:

• Efficiency and reactivity, now for ITER then for DEMO
• Transparency, equal treatment and non-discrimination

Scope:

• Procurement operates at transnational level
• We connect with other Domestic Agencies in order to share information on best practices and suppliers.

Ready to build a valuable relationship with China DA.
Participation in the F4E's procurement procedures is open to economic operators:
- established in the territory of a Member of the F4E
- or open world wide if decided by the Director

Tenders are result oriented and Industry like
- no ‘mechanical’ approach ⇔ specifications are ‘open’ when possible in order to steer innovation from Industry (variants, functional criteria etc.).

Contracts have to comply with the principles of:
- transparency, proportionality, equal treatment and non-discrimination
- Contracts shall be put out to tender on the broadest possible base.

**Best value for money is our policy**
- with a strong cost awareness of price
- pragmatic risk assessment.
F4E contracts with organizations via:
- **Grants** through Calls for proposals
- **Procurement** contracts through calls for tender

**Grants** support R&D at 40% through specific contracts or framework partnership agreements

**Procurement** contracts provide goods, works or services through:
- Open procedure
- Restricted procedure
- Competitive dialogue
- Negotiated procedure

Negotiated procedure now favorite
Open procedure
all interested economic operators may submit a full tender

Restricted procedure
Procedure carried out in two phases:
1: Pre-selection following a Call for Expression of Interest
2: Call for Tender: only pre-selected companies may submit a tender.

Competitive dialogue
For particularly complex contracts, collaboration with industry to clarify technical specifications

Negotiated procedure
only for contracts below 250,000 Euro and in exceptional cases (justification required)
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ITER Project Site Layout: artist view
• The ITER site is being prepared for construction in Cadarache in an area over 75 hectares.
• The ITER site levelling is complete.
The creation and improvement of 106 kilometres of access roads from Fos harbour to Cadarache is finished by February 2010.
Site and building Contracts status

- Architect Engineer: contract signed Q1/2010
- PF Coil building: contract signed Q1/2010
- Health and Safety Protection coordination & Legal inspection services: contract signed Q1/2010
- Support to the owner: signature foreseen Q2/2010
- JWS3 (Building for F4E Offices): construction ongoing
• Close to 200 people under F4E contract (Architect Engineer, Health and Safety, Support to the Owner)

• Growth of F4E internal resources on-site (40 – 50)

• PF Coil building construction starts

• Tokamak excavation works start
Major contracts to be awarded 2010

- Winding Packs: supply of the ITER TF Coils Winding Packs
- Superconductors Cabling: supply of TF/ PF Conductors
- Vacuum Vessel sectors’ manufacturing
- Site & Buildings:
  - Construction of Tokamak Complex Seismic Isolation Pit.
  - Excavation and the two basemats.
Major calls launched / to be launched 2010

- Vacuum Vessel sectors manufacturing (under negotiation)
- PF coils – tooling and fabrication
- Ion source test facility (power supplies–ISEPS, Ion source)
- Infrastructures of the neutral beam test facility
- Building insurance
- Pre-compression rings
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Contracts & Procurement Industrial Policy

Industries
SMEs
Associations
Public bodies

Contracts
iter components

European Fusion Industry

Objectives
ITER success largely relies on an effective industrial participation.

F4E’ success is linked with industries’ successes
- F4E support activity of industries
- 60 contracts awarded so far

F4E deliver further benefits
- Share knowledge and know-how around fusion
- Open international markets (Other Domestic Agencies) to the performing European industries
F4E suppliers’ relationship principles

F4E Industry Portal
https://industryportal.f4e.europa.eu/default.aspx
  ➢ include eCFT and supplier pre-qualification

F4E provides as much information as needed for a mutual understanding
  ➢ Publication of our work programme + upcoming calls
  ➢ Identification of the required competences
  ➢ Publication of the list of companies selected to tender

F4E takes Industry into consideration for inflexions on ‘touchy’ questions
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F4E Quality management
ITER must comply, Quality wise, with:
• ARRETE QUALITE DU 10 AOUT 1984

F4E must comply, Quality wise, with:
• ARRETE QUALITE DU 10 AOUT 1984
• ITER QA Program

EU-DA Suppliers must comply, Quality wise, with:
• F4E-QA-115 - “Suppliers Quality Requirements”
  • ARRETE QUALITE DU 10 AOUT 1984
  • EU-DA QA Program
  • IO QA Program

F4E – Visit of Chinese DA delegation  May 10th 2010, Barcelona - Spain  Taolenn 28
• The QA compliance by the F4E Supplier will allow F4E to comply with our clients and interested parties requirements (IO)
The dedicated Quality plan describes the operational quality system implemented by the supplier to ensure that:

- Contract requirements will be met,
- Evidence of such compliance will be maintained.
Quality Assurance Specification

SUPPLIER QUALITY REQUIREMENTS

Abstract
This document contains the present requirements on the Quality Management System of the supplier.

The Management Specification will specify the applicability of the quality and management requirements:

- the bidder shall comply when preparing its offer/re-proposal;
- the Supplier shall comply within the course of the Contract.

The description of the Supplier quality management system shall be established in a dedicated QUALITY PLAN for managing F4E work activities.

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• F4E – Fusion For Energy is a new and growing entity aimed to become a center of excellence for the development of Fusion (and associated technologies).

• F4E is proving everyday more its efficiency. Industries have shown their willingness and capability to handle the project.

• Buildings and related contracts have been signed or awarded on time in order to meet schedule. Other key contracts are handled in line with schedule (ex. winding pack, Vacuum Vessel).

• F4E defines the relevant industrial policy (adapted to strategic issues) for industries wishing to participate to ITER project.

• Finally, we are open to a fruitful collaboration with Chinese DA on Industrial Procurement topics (best practices, suppliers), for the benefit of both DAs and ITER.
Thank You!

谢谢

https://industryportal.f4e.europa.eu/default.aspx
www.fusionforenergy.europa.eu