

## NEWS ALERT

# **Europe launches its first procurement for ITER**

Fusion for Energy (F4E), the organisation for Europe's contribution to ITER, unlocks new business opportunities for industry by launching its first ever procurement.

ITER is the world's largest scientific partnership that aims to demonstrate the potential of fusion as an energy source, bringing together seven parties that represent half of the world's population- the EU, Russia, Japan, China, India, South Korea and the United States.

The objective of this first procurement by Fusion for Energy is the supply of Chromium plated Copper strand that forms part of the ITER super conducting magnets in order to hold the heated gas known as plasma in position.

'This first procurement marks the beginning of a strong partnership with European industry and research organisations in providing the components for ITER and ensuring its successful operation' explained Fusion for Energy Director, Didier Gambier.

Fusion will generate growth and jobs by opening up new markets and opportunities to a wide range of industries and research organisations. Aside from progress in the field of fusion technologies, fusion research has contributed by means of direct or indirect spin offs to areas of medicine and health including Magnetic Resonance Imaging (MRI); material processing through advancements made in laser machining and robotics through progress made in remote handling systems.

### What is Fusion for Energy?

Fusion for Energy is the European Union's organisation responsible for providing Europe's procurements and 'in kind' contribution to ITER. It will also support fusion R&D initiatives through the Broader Approach Agreement signed with Japan and prepare for the construction of demonstration fusion reactors. Fusion for Energy was set in April 2007 for a period of 35 years. Its offices are located in Barcelona, Spain.

#### What is ITER?

ITER aims to reproduce fusion that occurs in the sun and stars. Existing experiments have already shown that it is possible to replicate this process on Earth. ITER aims to do this at a scale and in conditions that will demonstrate the scientific and technological feasibility of fusion as an energy source.

#### What is fusion?

When the nuclei of light atoms come together at very high temperatures, they fuse and they release enormous amounts of energy- this is the power source for our sun and stars. To produce fusion on earth, one must heat gas to around 100 million degrees Celsius in a "cage" made by strong magnetic fields which prevent gas from escaping. The development of fusion science and technology has been the basis of the European fusion programme.

### Why is fusion an attractive source of energy?

- It could provide a large-scale energy source with basic fuels which are abundant and available everywhere.
- Very low global impact on the environment no CO<sub>2</sub> greenhouse gas emissions.
- Day-to-day-operation of a fusion power station would not require the transport of radio-active materials.
- Power Stations would be inherently safe, with no possibility of "meltdown" or "runaway reactions".
- There is no long-lasting radioactive waste to create a burden on future generations.

### How will ITER be financed?

Most of the components that make up ITER will be contributed by the ITER parties "in kind" (i.e. by providing directly the components themselves, rather than contributing cash). The EU as host Party for ITER, will contribute up to about 50% of the construction costs and the other parties will each contribute up to 10%.

#### For more information about Fusion for Energy and ITER see:

http://fusionforenergy.europa.eu/ http://www.iter.org/

#### For more information about the ongoing Procurements see:

<u>http://fusionforenergy.europa.eu/Procurement\_operational.htm</u> The complete text of the ongoing procurement in all 23 languages is published in the Official Journal 2008/S 54-073341 and the Corrigendum in 2008/S 66-088275

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