

# French key sectors

## ITER

### Market segment dynamics

**I**TER is an experimental nuclear fusion reactor based on extreme temperature plasma heating technology using a very strong electromagnetic current within a confinement chamber. The project was created 20 years ago (1985, launched by Gorbachev). It is partly based on the Russian Tokamak technology. The consortium includes the USA, Russia, the European Union, China, Japan, South Korea and India. In June 2005, Cadarache was chosen as the site for the project, following competition between countries and a complex politico-industrial compromise with Japan. It should take until 2015 to finish construction of the site, which will be followed by a 20 year period of operation. The objective is to generate at least 5,000 MW of power while consuming only 500 MW during at least 40 seconds. Japan and Germany are responsible for a major part of the design activity.

### ITER could lead to an infl ux of projects in the following fields:

- Service or sub-contracting companies specialized in the field of nuclear power that would be located at Cadarache to serve local clients: e.g. Oxford Technologies or Tessella in the UK. It is expected that in 1-2 years, when the first contracts are awarded, the first projects resulting from direct contracts will be set up, and some time before that there will be partnership projects with French companies.
- Representation offices that will be obliged to set up in close proximity to the Cadareche site (conclusion: lobbying and information from ITER organization).
- Maintenance offices close to the site to ensure maintenance of the various reactor components (during construction and operation of the site).
- Assembly plants (particularly for large components requiring several companies working together, which will probably result in a common site close to the project for convenience purposes).

**F**inally, major foreign groups wish to carry out feasibility studies linked to the costs of producing components locally. However, the authorities in their country of origin may be opposed to the relocation of this activity to France.



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## France's attractiveness

France has a high level of expertise in the field of nuclear power that is being reinforced by the ITER project being located on its territory (number of captive or semi-captive projects).

At this stage in the ITER proceedings, i.e. before the tender process concerning the machine itself begins at the end of 2008, investment project potential lies in research projects with local partners, particularly maintenance partners during the construction of the equipment. When the first contracts are awarded in one or two years' time, we could see the first direct contract-related investment projects. This sector therefore presents a mix of small-scale captive projects (services) and more mobile partnership projects.

The potential can be globally estimated at several hundred highly qualified jobs per year.

Regions that have expressed an interest in international prospecting based on the ITER project, and the nuclear sector in general, include the PACA, Languedoc-Roussillon, Burgundy, and Rhône-Alpes regions.

### There are two clusters linked to the project:

- Trimatec cluster: PACA, Languedoc-Roussillon, Rhône Alpes regions
- Nuclear cluster (construction and demolition of power stations) : Burgundy region

Target countries for IFA prospecting are members of the consortium: primarily the European Union, UK, US, and India.

