



PROVENCE PROMOTION

ITER not long now!

Under the sign of the sun...

ITER will have been the most popular product in summer 2005! Every body has been talking about it! But what economic, scientific and human consequences could reasonably be expected? Apart from the many media announcements, Jean-Michel Bottereau, assistant to the ITER project leader in Cadarache, has seen this new "sun" close up... he uses figures and facts to support his claim that ITER is like a supermagnet that will pull considerable economic activity towards the heart of our region. Stakes not only include worldwide recognition of scientific expertise at the CEA and its Cadarache center, but also increased vitalization of an entire region. Obviously, Provence Promotion has its role to play.

> Experiment, use...

Jean-Michel Bottereau : Construction of the ITER experimental fusion reactor will provide a means of taking new scientific and technological steps towards the production of fusion energy. Construction will last about ten years for an estimated budget of 4.7 billion Euros (80% of which will be for the manufacture of high technology components for the machine). Operation will then continue for 20 years, for an equivalent budget. Tens of laboratories, research workers and engineers from all over the world will be mobilized to control this technology, which will be one of tomorrow's possible energy sources.

> Create jobs ...

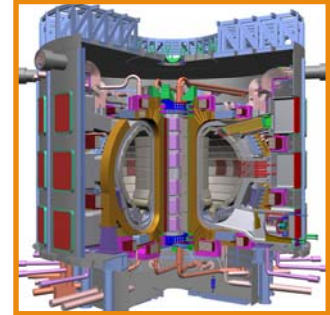
The number of persons who will be employed by ITER directly between 2005 and 2015 (the construction years) is estimated at 500, while the average number of indirect jobs generated by the project in the PACA region is estimated at 1 400. This figure represents economic benefits, evaluated at 100 Million Euros per year, to be distributed among direct costs, subcontracting and household consumption. During the operating phase (2015-2035), almost 1 000 persons will work for ITER directly including 600 for operations and 400 on scientific aspects (including 2/3 foreigners). ITER will generate 3 250 indirect jobs in France, including 2 400 in the region.

> Vitalising an "ITER territory"

Direct economic impacts will be felt in several fields of activity including building & public works, electricity, services and food processing during the first phase, and mechanics, services, electronics, electrotechnical, and food processing during the second phase. Induced impacts such as the synergy effect and attraction of other facilities or companies, or such as the "promotional" effect on the image of the region around the world, are difficult to estimate but are no doubt the most important impacts. For example, the decision to create an international school in the region will be a key factor in the attractiveness to any other international activity looking for a location to set up in France.

> Provence Promotion: preparing for fusion ...

Provence Promotion was a very active partner during the candidature phase, and gave an excellent overview of resources in the region. This organization is essential to us in performing its role to assist companies that are going to set up in this region. With its six current world partners, possibly to be joined by others in the future, Provence could be transformed into a genuine nursery for multinational and multicultural companies.



artist's view of ITER

ITER, energy from the sun for tomorrow

With this ambitious dream to control the sun's energy, ITER's aim is to demonstrate the scientific and technological feasibility of fusion energy and to open up the way to search for new energies that do not emit any greenhouse effect gases.

A plasma, which is a very hot ionised gas controlled by intense magnetic fields, has to be created on earth before the conditions that occur in the sun and are necessary for production of fusion reactions could occur on earth.

Although most physical and technological problems related to this concept have been studied, in the past, installations have been too small and have been incapable of producing a large amount of energy over long periods.

The purpose of the ITER new experimental machine is to produce several hundred megawatts of fusion power for several minutes.

The CEA (Commissariat à l'Energie Atomique – Atomic Energy Commission) in Cadarache where ITER will be constructed, is one of the largest scientific and technological platforms in Europe, employing more than 4 000 persons.



Artist's view of the ITER installation in Cadarache – the Supra Torus installations, the precursor of ITER in operations since 1988, can be seen in the foreground, (© CEA)