FUSION FOR ENERGY

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What is ITER?

ITER, meaning "the way" in Latin, is a major international experiment aiming to demonstrate the scientific and technical feasibility of fusion as an energy source.

It should generate some 500 MW of fusion power over periods of around seven minutes under conditions similar to those expected in an electricity-generating fusion power plant. ITER will allow scientists and engineers to acquire the knowledge and technologies needed to develop demonstration fusion power stations that will produce electricity.

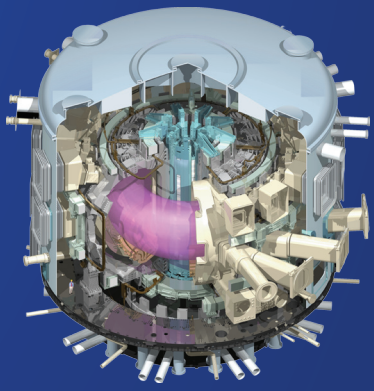
The ITER machine is being constructed in Cadarache in the South of France with components that are contributed by the members "in kind" (i.e. by directly providing the components themselves, rather than the financing for them). The European Union, as host party, will contribute up to about 50% of the costs and the other parties 10% each. Europe's contribution to ITER is managed by Fusion for Energy (F4E).

The ITER project:

- Production of 500 MW of fusion power with pulses of around 7 minutes
- Aim to achieve steady-state operations
- Involves European industry, SMEs and research organisations to develop expertise
- Operation phase: approximately 20 years

Who participates?

Seven international parties participate in the ITER project: China, the European Union, India, Japan, Russia, South Korea and the United States. Collectively the parties taking part in the ITER project represent over one half of the world's population and represent 80% of the global GDP. The ITER Agreement is open for accession or cooperation with other countries that have demonstrated a capacity for specific technologies and knowledge and are ready to contribute to the project.



A cut-away view of the ITER tokamak © ITER IO