



**FUSION
FOR
ENERGY**

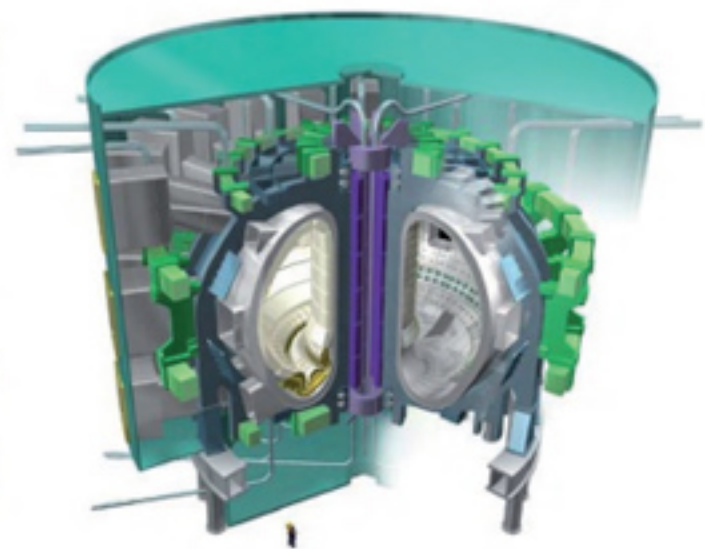
ITER, “the way” ...

ITER, which means “the way” in Latin, is an international fusion research project which should generate some 500 MW of fusion power over periods of around eight minutes under conditions similar to those expected in an electricity-generating fusion power plant.

The idea for ITER originated from the Geneva superpower summit in November 1985 where Russian Premier Gorbachov, following discussions with French President Mitterand, proposed to President Reagan that a fusion energy international project be set up.

Seven parties participate in the project (the European Union, Japan, China, the Republic of Korea, the Russian Federation, India, and the USA) and it is one of the largest international scientific projects ever representing over one-half of the world's population.

ITER will be constructed in Europe, at Cadarache, France. The construction costs of ITER are estimated at 5 billion Euros over 10 years, most of which will be awarded in the form of contracts to industrial companies and fusion research institutions. Europe will contribute roughly half of these costs, while the other six parties will contribute equally to the rest. Each Party will set up a Domestic Agency to organise and carry out procurement of their in-kind contributions to ITER. The Domestic Agency for Europe is *Fusion for Energy*.



A cutaway of the ITER machine (note the person shown at the bottom indicates the scale). (Courtesy: ITER)

...to fusion energy

- **Production of 500 MW of fusion power with pulses of around 8 minutes**
- **Aim to achieve steady-state operations**
- **Construction cost of about 5 billion Euros shared among the international partners**
- **Major role played by industry**
- **Construction phase: about 10 years**
- **Operation phase: about 20 years**



The ITER site in Cadarache