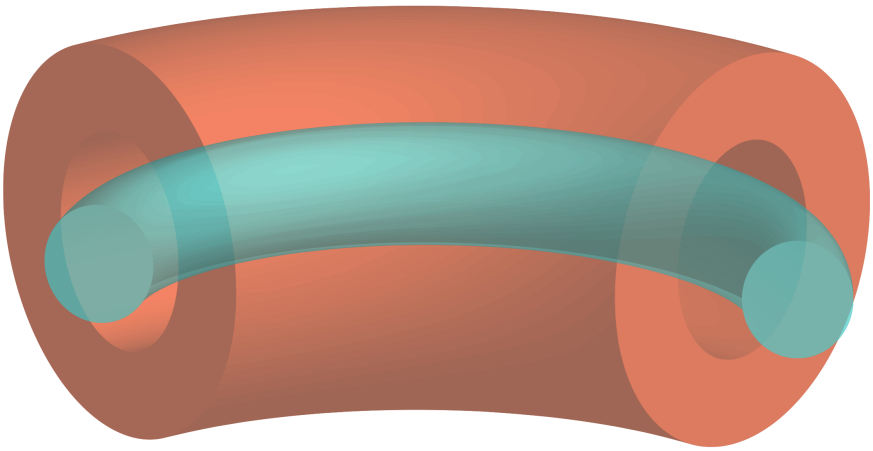
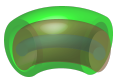
The Tokamak

Modelling parts of the Tokamak



- 
- 
- 

Takes decades of work.

Some countries did their own tokamak research. However the project is so big that they united their energies in this huge effort.

A Group Effort

Name	Facility	Country
ADITYA	Institute for Plasma Research	Gujarat, India
ALCATOR	MIT	United States
ASDEX	Max Planck Institute of Plasma Physics	Germany
EAST	Institute of Plasma Physics	Hefei, China
JET	Culham Center for Fusion Energy	United Kingdom
JT60SA	Naka Fusion Institute	Japan
KSTAR	National Fusion Research Institute	Daejon, South Korea

Source: www.iter.org

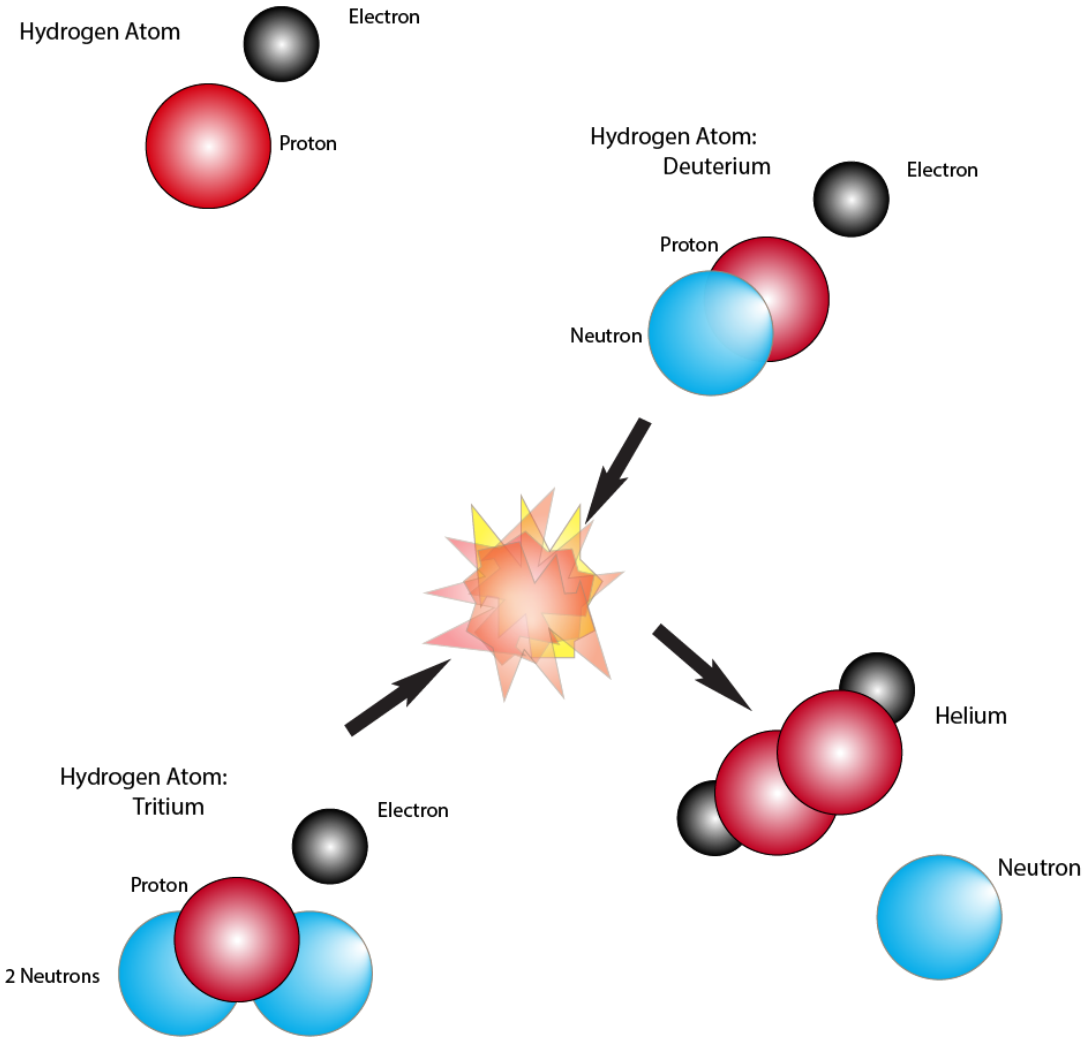
To Discover

Some countries started on this journey a long time ago. However the project is so big that they united for this huge effort.

Each country works on specific research to solve the challenges in getting the ITER tokamak to work.

•

3 types of Hydrogen



The Isotopes of Hydrogen

Most hydrogen atoms have a proton in their nucleus. If the hydrogen has a proton and a neutron in its center it is called deuterium. The two exist in nature.

These hydrogen atoms are called Isotopes. The same element, with the same number of protons but with different numbers of neutrons.

Tritium is the isotope of hydrogen vital to fuel the Tokamak. The Deutrium and Tritium smash together to make Helium and realise huge amounts of energy.

Deuterium and Tritium will fuel the Tokamak.

But Tritium is highly dangerous to life and rare. So rare that the global supply of it will be sent to the Tokamak. It comes to 20kgs.