ITER Organization
On the Way to Fusion Energy

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ITER Organization

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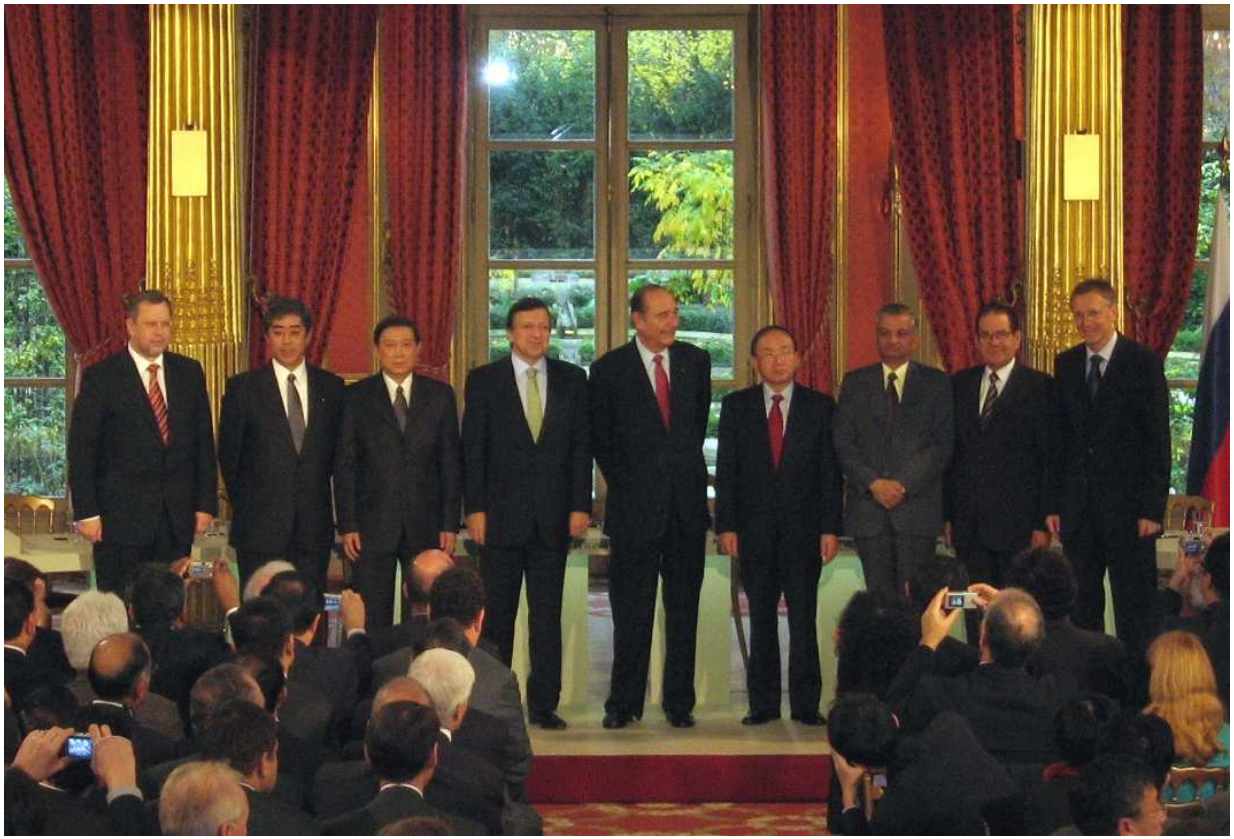
Acropolis Congress Centre

A dream is becoming reality. . .



After a long period of negotiating, the ITER Agreement was signed at the Elysee Palace in Paris on November 21, 2006, by the seven ITER Members: China, Europe, India, Japan, Korea, Russian Federation and the United States of America.

„The stakes are considerable, not to say vital for our planet."
Manuel Barroso, President of the European Commission

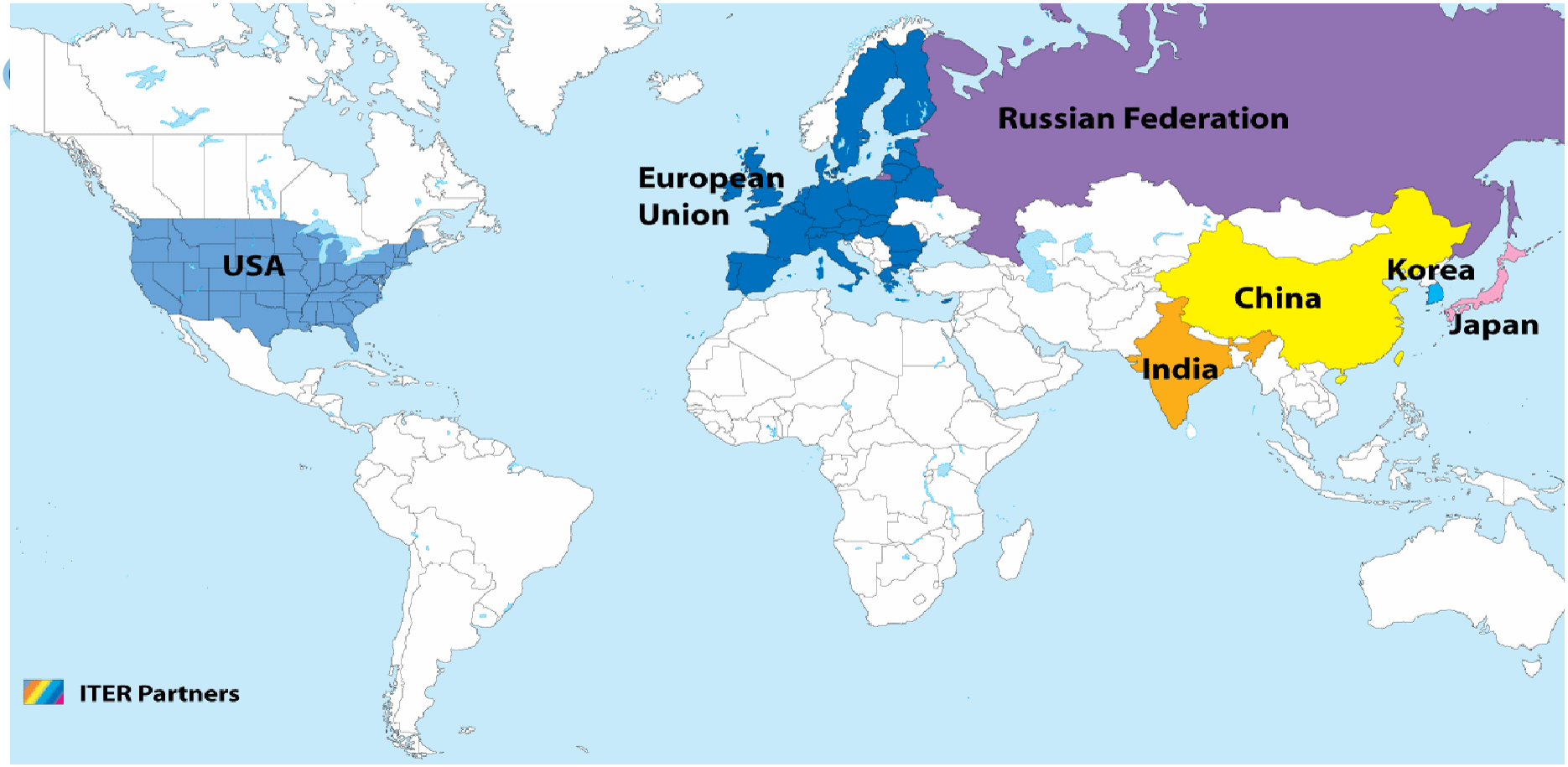
The ITER Organization exists!

On 24 October 2007, the ITER Organization was formally established

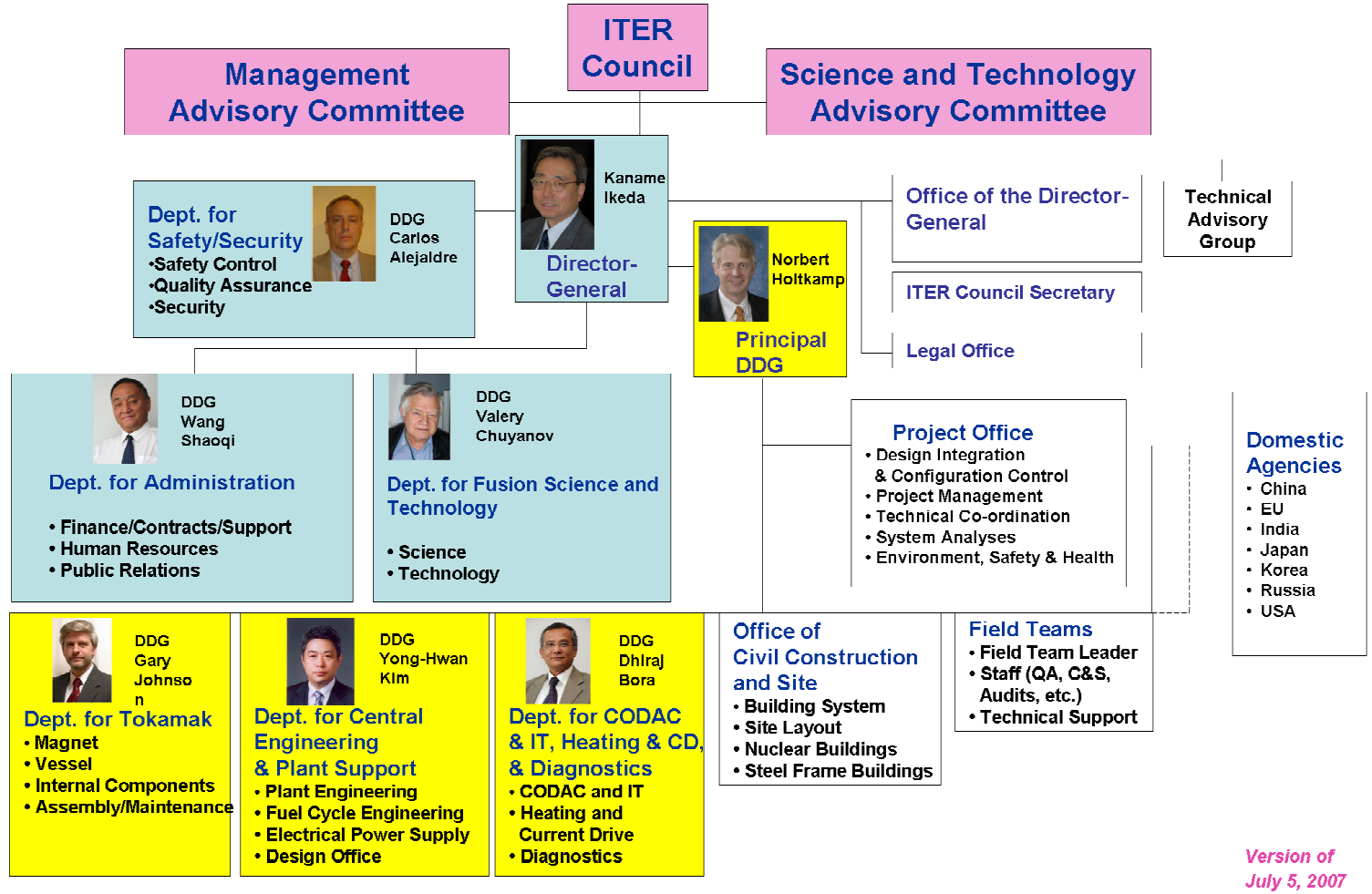
On 7 November 2007, the Headquarters Agreement between France and the ITER Organization was signed

ITER – an International Cooperation

Seven Members, representing more than half of the world's population, are involved in the ITER construction



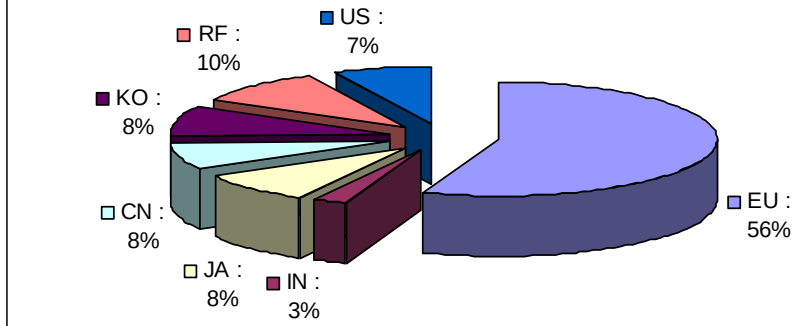
Management Structure of the ITER Organization



Version of July 5, 2007

The ITER Team

- **As of November 30, the IO has a total of 202 staff (159 professionals, 43 support staff) coming from 33 nations**
- **By spring 2008, a total of 302 are expected**
- **An International School was opened in September 2007**

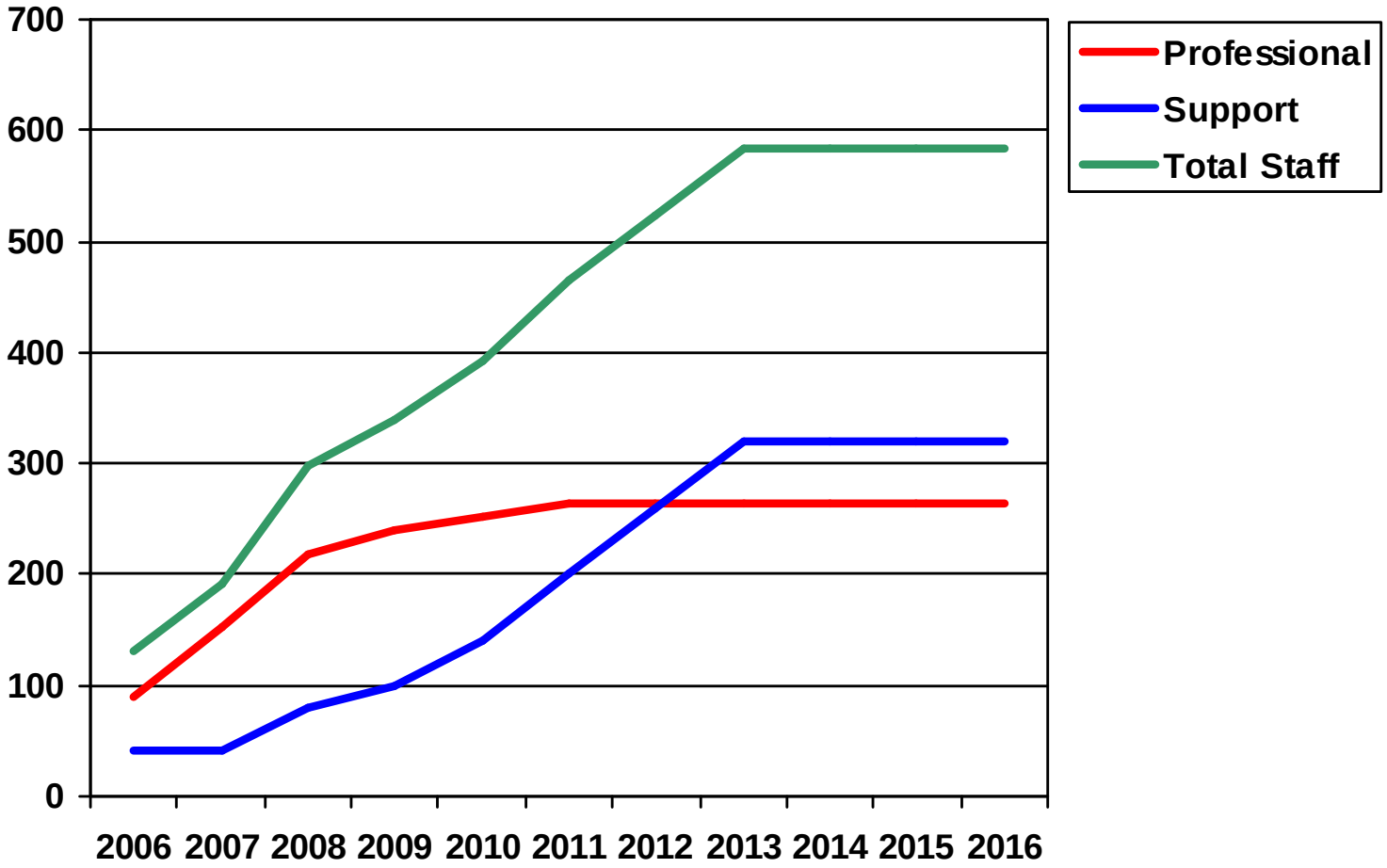


Status: 31 October 2007

Number of Professional Staff members excluding 5 Visiting Researchers (EU : 2, JA : 2, CN : 1)

EU : 85, IN : 4, JA : 13, CN : 12, KO : 13, RF : 15, US : 11 Total : 153

Staff Ramp Up Projection



Worldwide, 3000 - 4000 people will be involved in the ITER project during the peak.

ITER Key Facts

- **The overall programmatic objective:**

  to demonstrate the scientific and technological feasibility of fusion energy for peaceful purposes

- **The principal goal:** **Q>10**

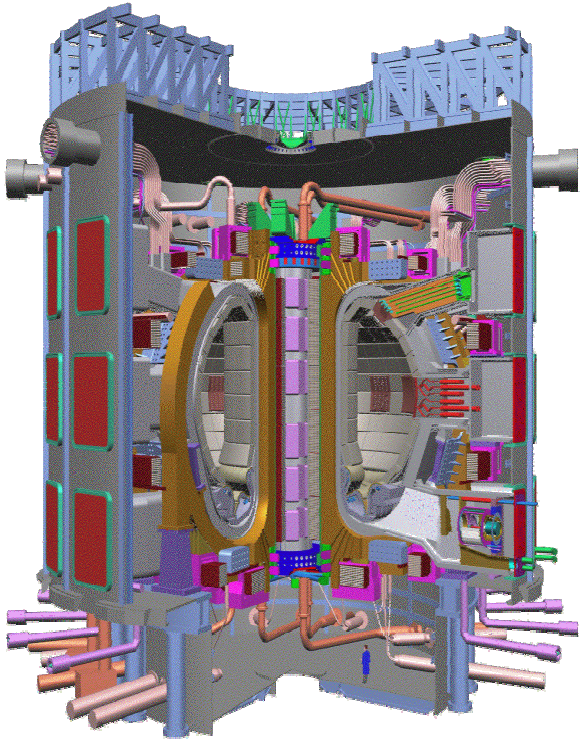
  to produce a significant fusion power amplification (tenfold the energy input):

  input power 50 MW
  output power 500 MW

- **The Costs:**

  5 billion € for construction and 5 billion € for operation and decommissioning

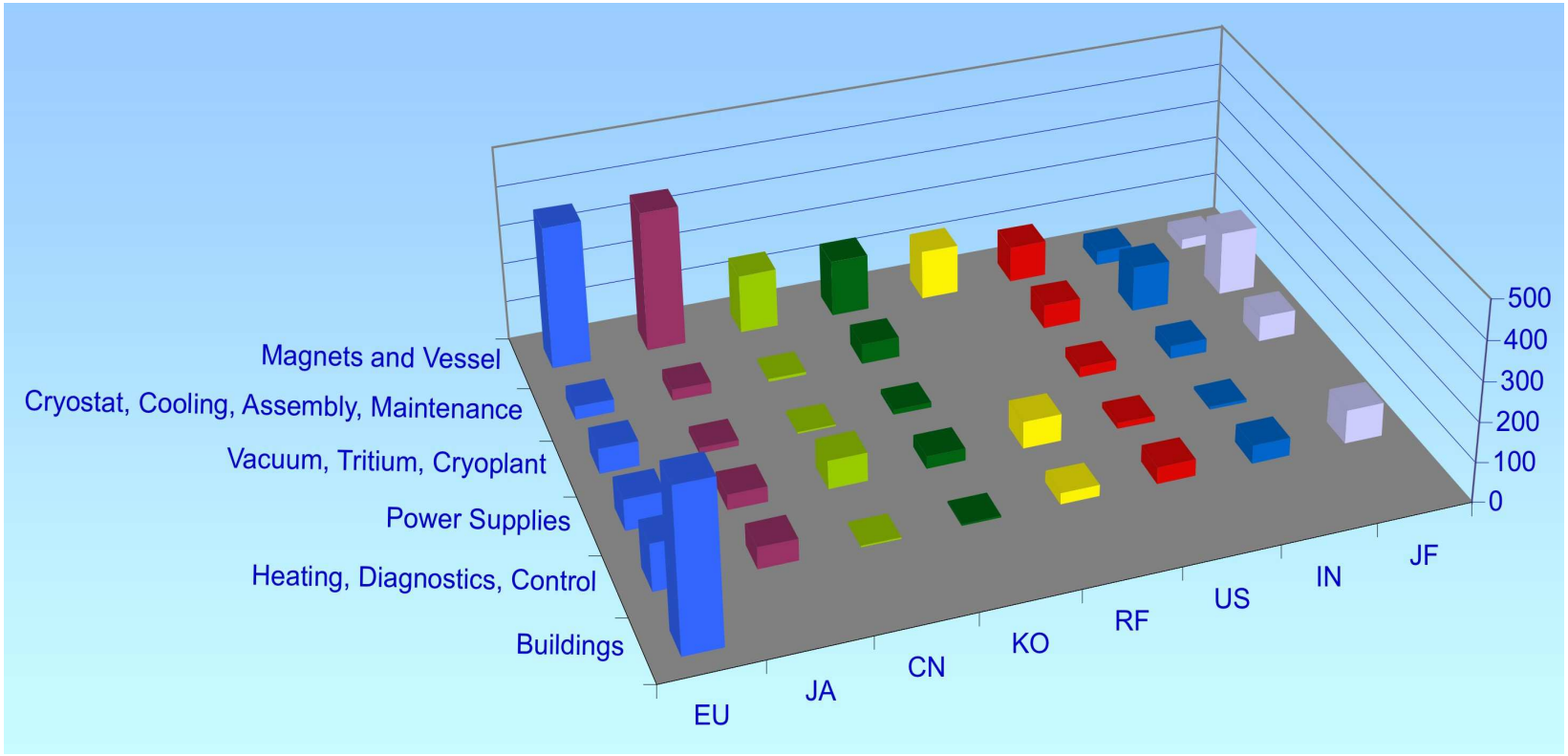
- **The execution: ~90% of the contributions are in kind.**



ITER is one of the most innovative and challenging scientific projects in the world today.

Procurements in kind

A unique feature of ITER is that almost all of the machine will be constructed through *in kind* procurement from the Parties

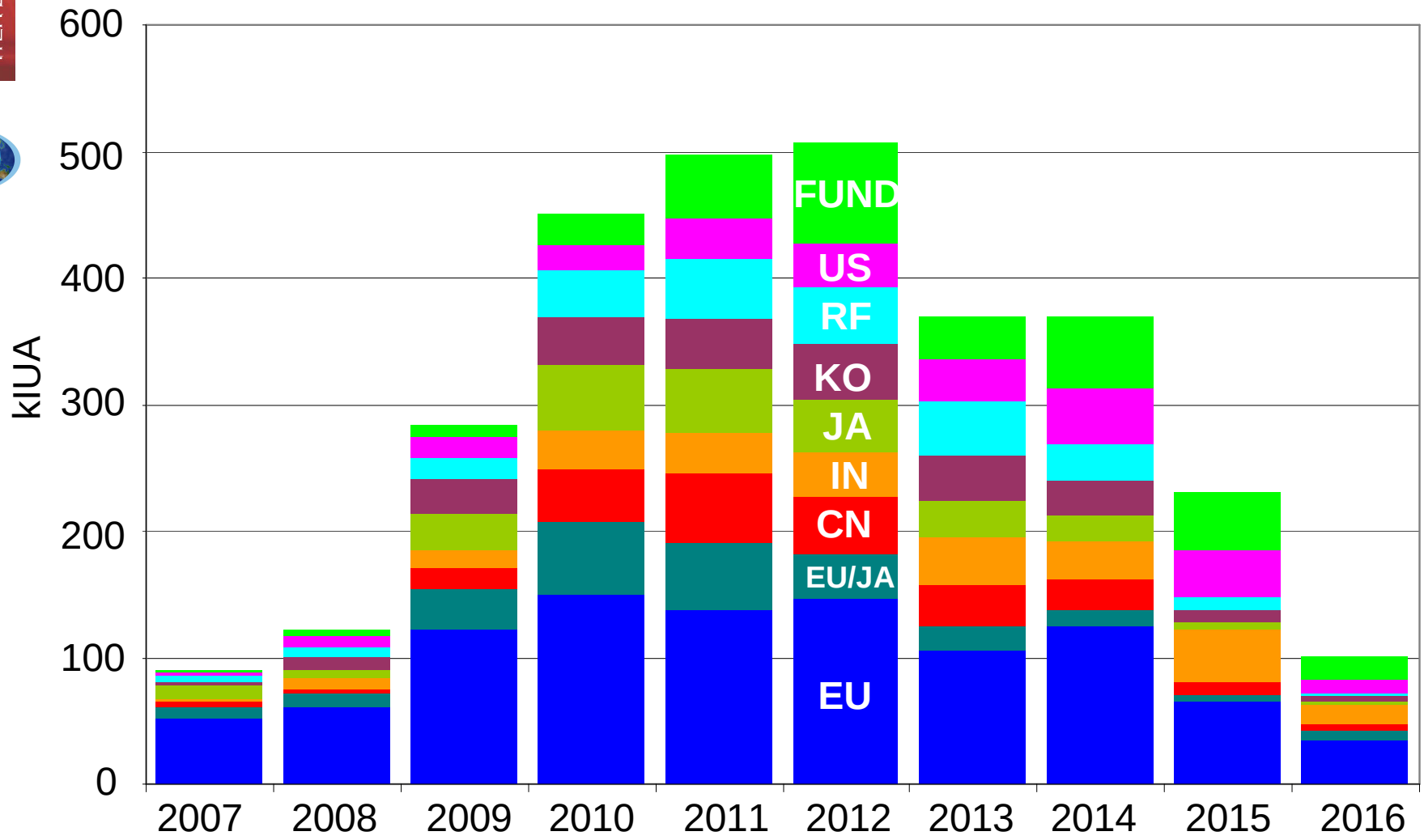


Procurements sharing

PACKAGE			kIUA	ALLOCATION	REMARKS
1.1 Magnet	Toroidal Field Magnet Windings	1A	85.2	EU=100%	1A for 10 TF (including 1 prototype) and 1B for 9 TF (including 2.5 kIUA for fabrication verification)
		1B	82.3	JA=100%	
	Toroidal Field Magnet Structures	2A	51.4	EU=10%, JA=90%	Fabrication of whole structures by JA and Pre-compression ring (0.6 kIUA) by EU. Final assembly of 10 TF coil cases by EU (10%)
		2B	47.7	JA=100%	
	Magnet Supports	2C	22.85	CN=100%	
	Poloidal Field Magnet 1 & 6	3A	13.6	EU=50%, RF=50%	PF1 by RF and PF6 by EU
	Poloidal Field Magnet 2 to 5	3B	33.6	EU=100%	
	Correction Coils	3C	2.6	CN=100%	
	Central Solenoid Magnet	4A+4 B	39.6	US=100%	
	Feeders	5A	26.15	CN=100%	
	Feeders Sensors	5B	18.05	FUND=100%	
	Toroidal Field Magnet Conductors	6A	215	EU=20%, JA=25%, RF=20%, CN=7%, KO=20%, US=8%	
	Central Solenoid Magnet Conductors	6B	90	JA=100%	

Procurement allocation schedule

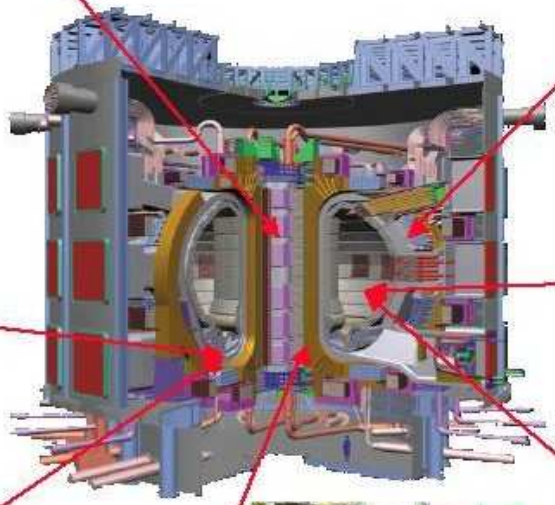
1 kIUA ~1.5 million Euro 2008



Collaboration with industry

CENTRAL SOLENOID MODEL COIL

VACUUM VESSEL SECTOR



REMOTE MAINTENANCE OF DIVERTOR CASSETTE

DIVERTOR CASSETTE

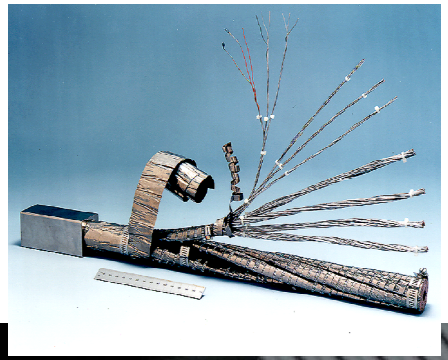
TOROIDAL FIELD MODEL COIL

BLANKET MODULE

REMOTE MAINTENANCE OF BLANKET

Moving from designing to manufacturing

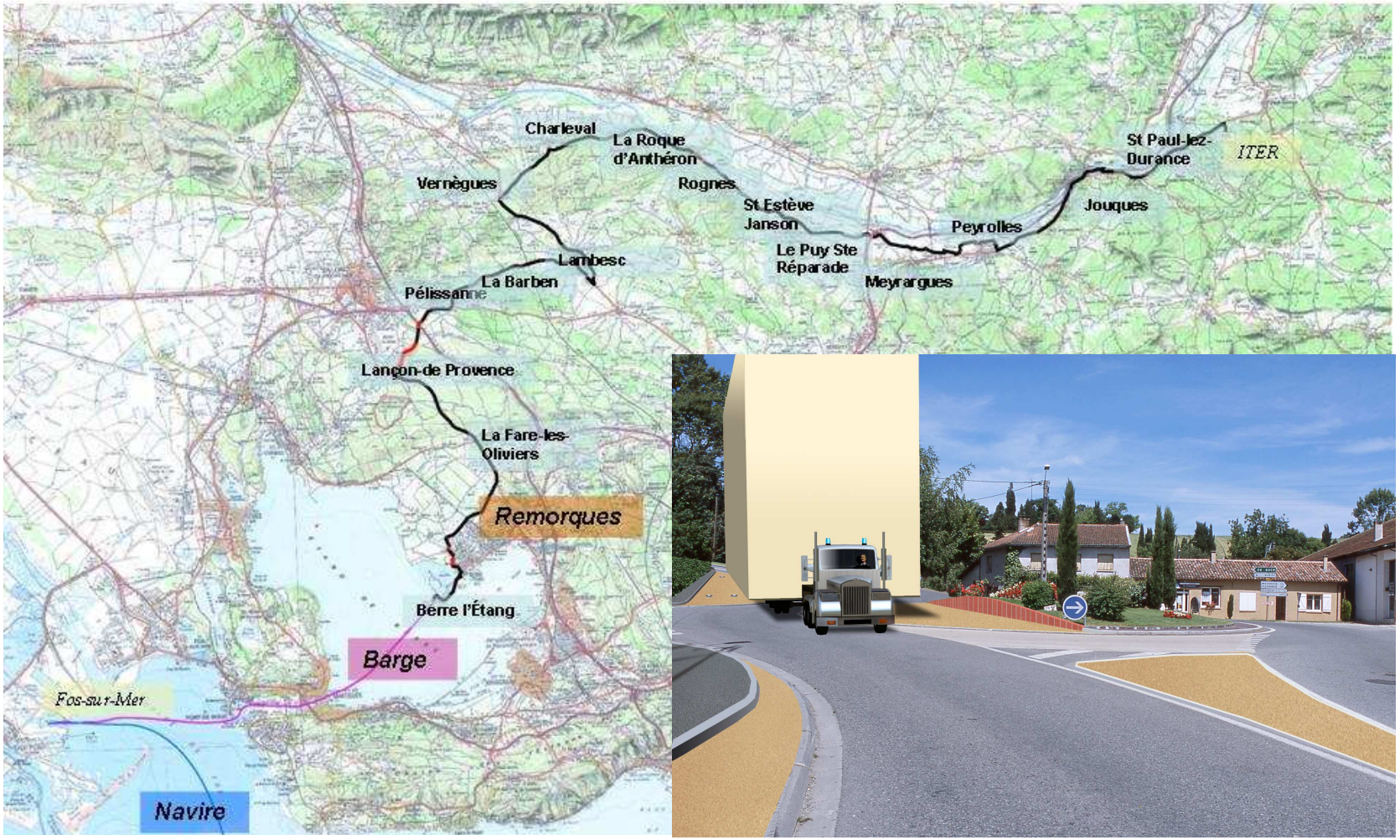
First Procurement Arrangement signed on 28 November 2007 between IO and Japan



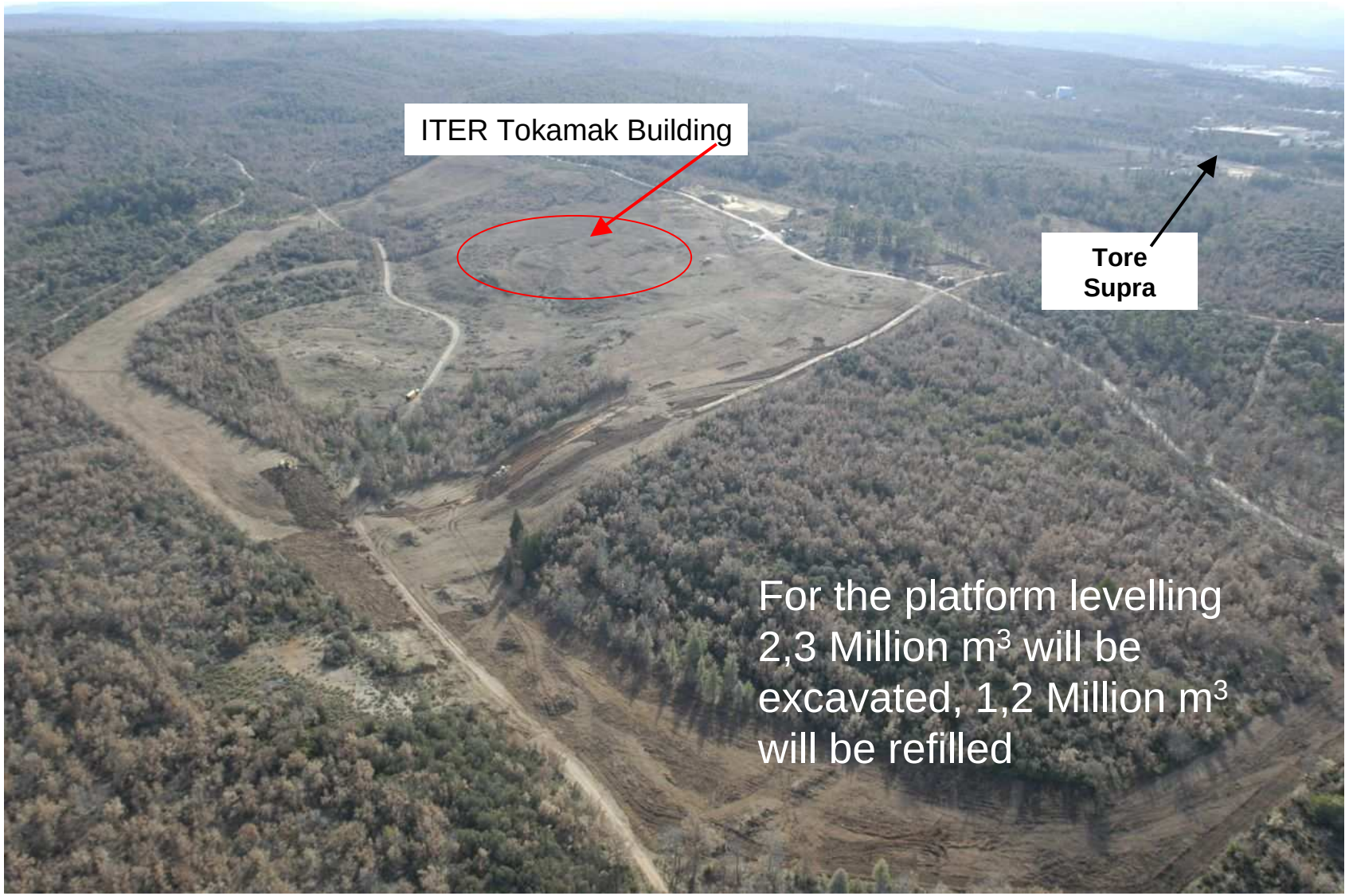
400 tons of niobium3-tin (Nb3Sn) conductor cables for the TF Coils

"One of the largest superconducting cable procurements in history."

Transport of ITER Components



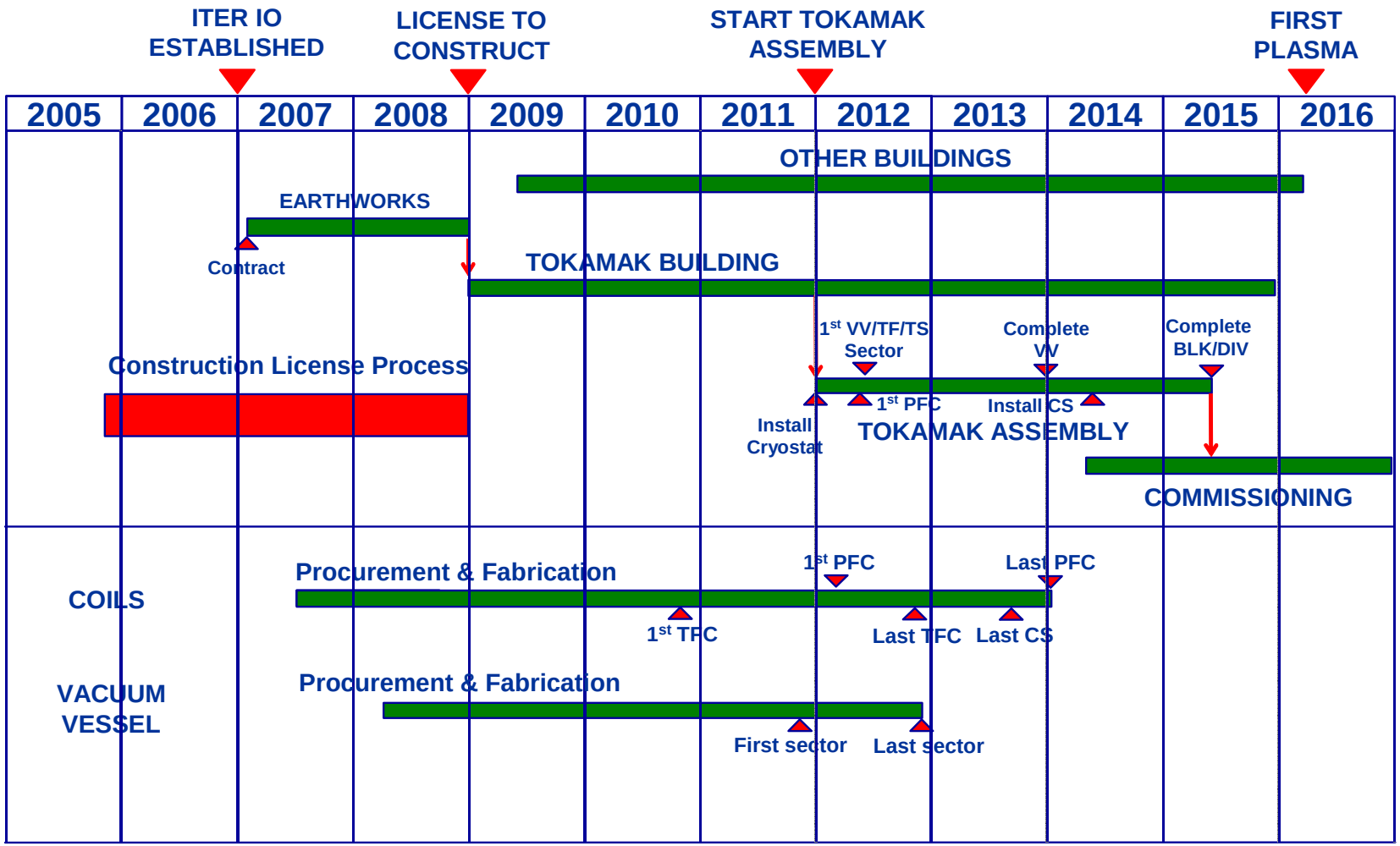
Site Preparations



Now and Then

perspective générale sur le bâtiment I72

Project Schedule



Milestones

- Design Review **leading to new ITER Baseline Design 2007 was terminated in September 2007** ☺
- **First ITER** Council Meeting **on 28 November 2007** ☺
- **Formal submission of** Safety Review **end 2007 - Review during 2008**
- Public Inquiry **mid 2008**
- **Start of** Construction **of Nuclear Related Buildings beginning of 2009**

"We cannot afford not to develop fusion as fast as possible. We must do it. "

Sir Chris Llewellyn Smith, Chairman of the ITER Council