ITER on the Road to Fusion Energy

22nd IAEA Fusion Energy Conference
Geneva, 13-18 October 2008

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ITER on the Road to Fusion Energy

• ITER construction is underway

• ITER as a prototype for international collaboration

• ITER and the future development of fusion energy
ITER construction is underway
Signing of the ITER Agreement

Elysée Palace, 21 November 2006

- In November 2006, representatives of over half the world’s population committed their peoples to ITER construction
The ITER Project Team is Growing

- The ITER Organization and the ITER Domestic Agencies are building their capabilities
ITER Staff Status
(As at 30 September, 2008)

• As of 30 Sept 2008, the IO has a total of 276 staff, including 207 professionals & 69 support staff
• A total of 24 nationalities
• By early 2009, total staff will be around 340
• The ITER Organization is still in the middle of recruitment and building-up

Distribution of Professional Staff
The ITER Team on 8 February 2008
Licensing Process

• ITER will be an Installation Nucléaire de Base (INB)
  – Fusion research enters a new regime of construction and operation

• On 31 January 2008, the files for the “Demande d’Autorisation de Création”, including the Preliminary Safety Report, in application of the TSN law, were sent to the French Nuclear Authorities.

• Examination of the files are ongoing and the Public Enquiry is foreseen around the end of 2008 or early 2009.

• The issuance of the “Décret d’Autorisation de Création” could be expected after the formal examination by the so-called Groupe Permanent.

• The following step in the licensing procedure to start operation with radioactive fuel is the “Autorisation de Mise en Service” which has to be obtained within the deadline fixed in the “Décret d’Autorisation de Création”.

• Public Inquiry is expected early 2009.
ITER Construction at Cadarache

- ITER Site preparations advancing - platform levelling 75% complete
Main platform – to the East
Infrastructure & Office Buildings

- JWS-1: Building 519
- Extension-1
- Extension-2
- JWS-2
- Future Annex Office Building
Itinerary of ITER Components

ITER Site

= Itinerary of ITER Components
ITER is a prototype for international collaboration in science and technology
International Decision Making

1st ITER Council
November 27-28, 2007

2nd ITER Council
June 17-18, 2008

• Scientific R&D projects on the ITER scale means sharing the cost and risk globally - learning to make decisions on an international scale
Sharing the Cost and the Technology

- Construction sharing across the 7 partners
A new reference schedule has been developed by the IO and DAs
Signature of ITER TF Conductor PA

JA-DA (28 Nov. 07; Credit Share: 25%)

EU-DA (18 Dec. 07; Credit Share: 20%)

RF-DA (12 Feb. 08; Credit Share: 20%)

KO-DA (7 May 08; Credit Share: 20%)

CN-DA (16 Jun. 08; Credit Share: 7.5%)
ITER and fusion energy development
History of Tokamak Devices
ITER is the critical step towards fusion energy

- Rapid attainment of ITER goals critical to accelerate fusion development
Conclusions

• ITER site preparations are advancing rapidly

• ITER international collaboration is gaining momentum. The design review and the resulting discussions with the parties has been a highlight.

• ITER is ready for procurement within the domestic agencies and looks forward to major construction in the tokamak complex before the next IAEA conference.