



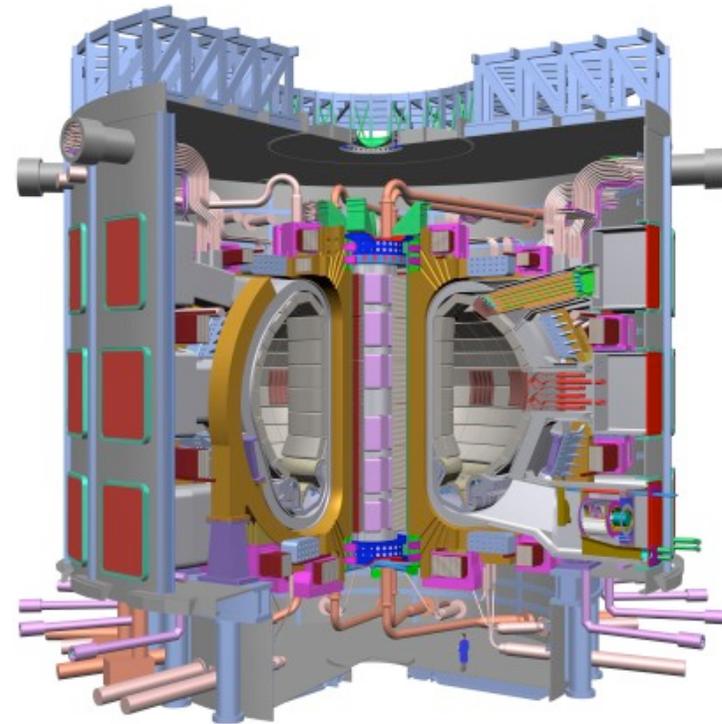
Status of the ITER Project

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ITER Nominee Director-General
October 2006



What is ITER Today?

- ITER (“the way” in Latin) is the essential next step in the development of fusion.
- Objective - to demonstrate the scientific and technological feasibility of fusion power.
- The world’s biggest fusion energy research project.
- An international collaboration.





The Mission

- Up to steady state fusion power production.
- Plasma makes 10x more power than needed to run it.
- Optimise plasma behaviour.
- Have dimensions comparable to a power station.
- Produce about 500 MW of fusion power.
- Demonstrate or develop all the new technologies required for fusion power stations, except materials endurance.
- Obtain license for construction and operation.
- Operate for about 20 years.
- Cost about €5bn to construct (over 9 years) and €5bn to operate (about 20 years) and decommission.



Cadarache Site



The ITER building



Construction Cost Sharing

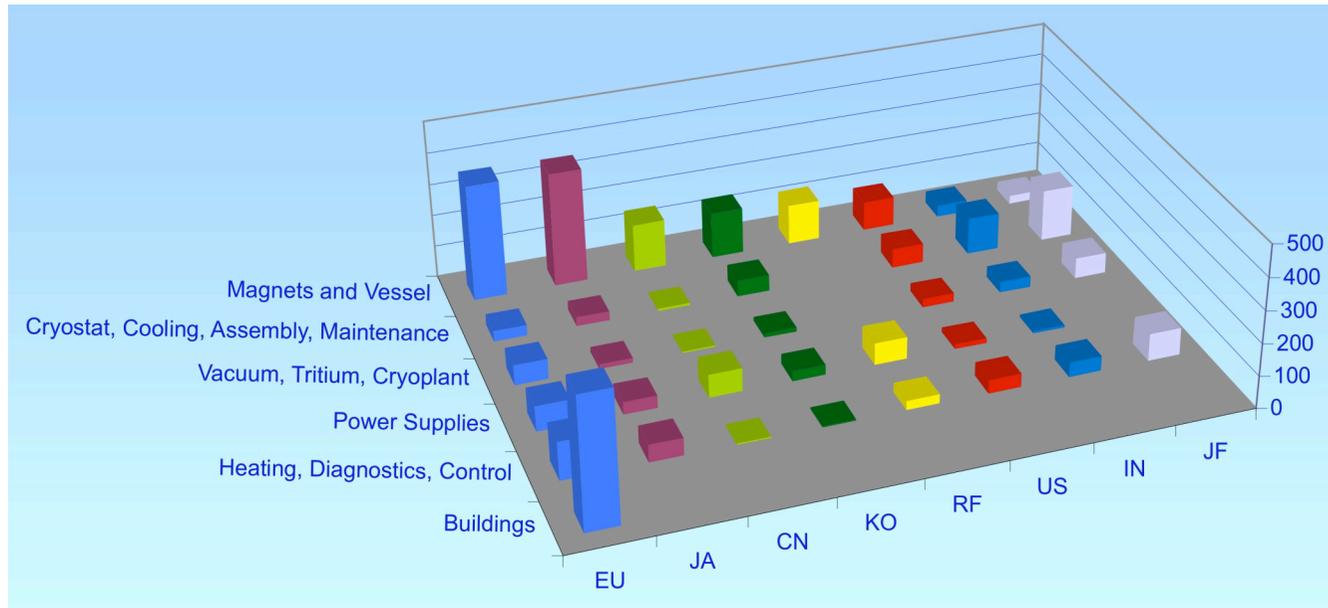
C
"Contributions in Kind"
Major systems provided
directly by Parties

A
Systems suited only to Host Party industry
- Buildings
- Machine assembly
- System installation
- Piping, wiring, etc.
- Assembly/installation labour

B
Residue of systems,
jointly funded,
purchased by
ITER Project Team

**Overall cost sharing:
EU 5/11, Others 6 Parties 1/11 each,
Overall contingency up to 10% of total.**

**Overall costs shared
according to agreed
evaluation of A+B+C**





General Roles & Responsibilities for Construction

- ITER IO
 - Planning/Design
 - Integration / QA / Safety / Licensing / Schedule
 - Installation
 - Testing + Commissioning
 - Operation
- Parties – DA
 - Detailing / Designing
 - Procuring
 - Delivering
 - Support installation
- IO and all Parties plus Fusion Community work together on ITER. ITER IO coordinates and participates in the program (e.g.: TBM).

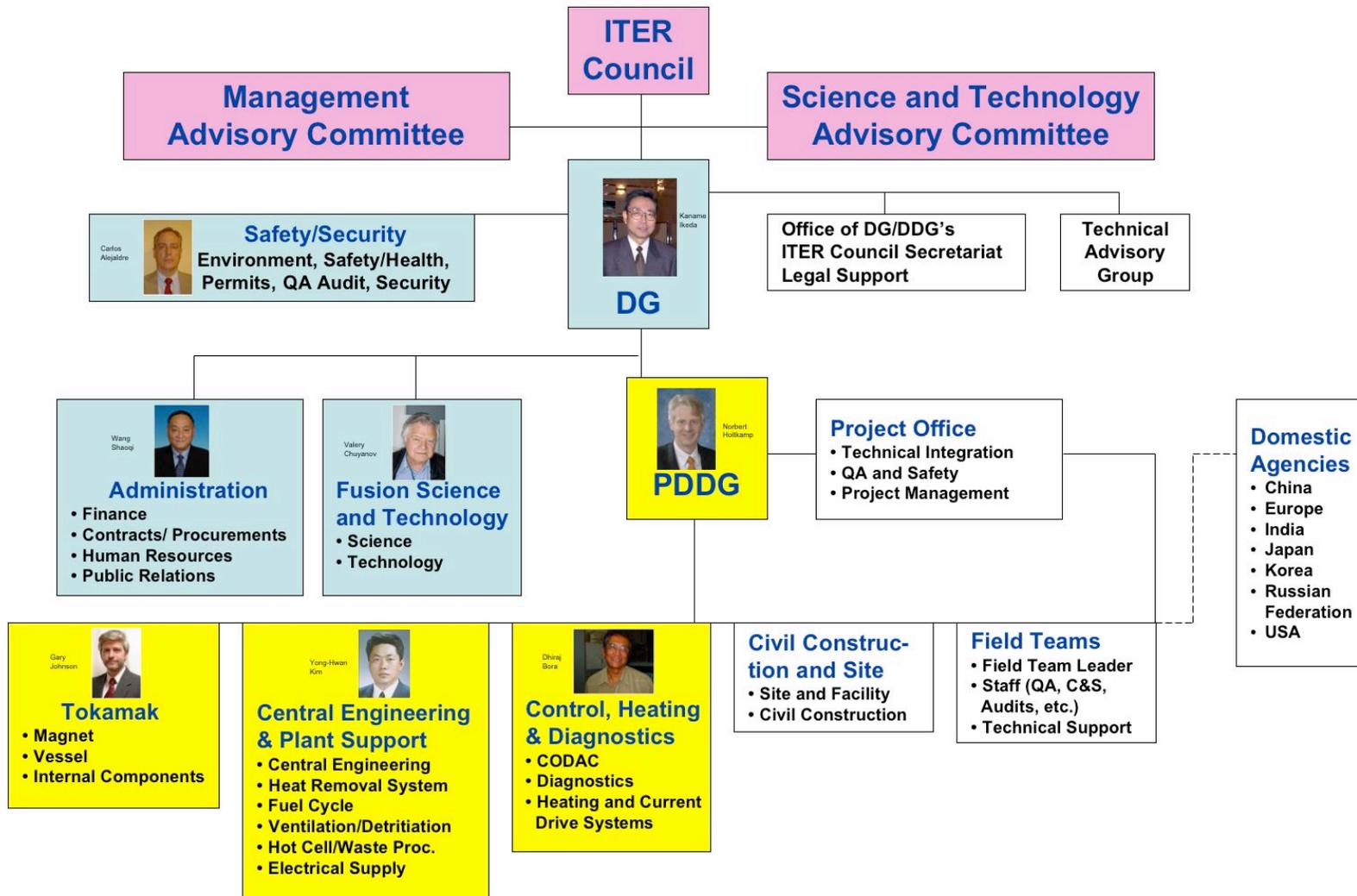


Status of the ITER Organisation

- Presently there are still three JWS: IPP-Garching, JAEA-Naka and CEA-Cadarache
 - Garching, Naka, will be closed by the end of the year.
 - Many people already transitioning to Cadarache on an interim basis with the intent to become employees as soon as possible.
- Final ITER agreement underway:
 - Agreement accepted by negotiators April 1st.
 - Documents were initialed May 24th.
 - Documents should be signed on Nov 21st.
 - ITER Organisation should then become a legal entity and should execute all functions.

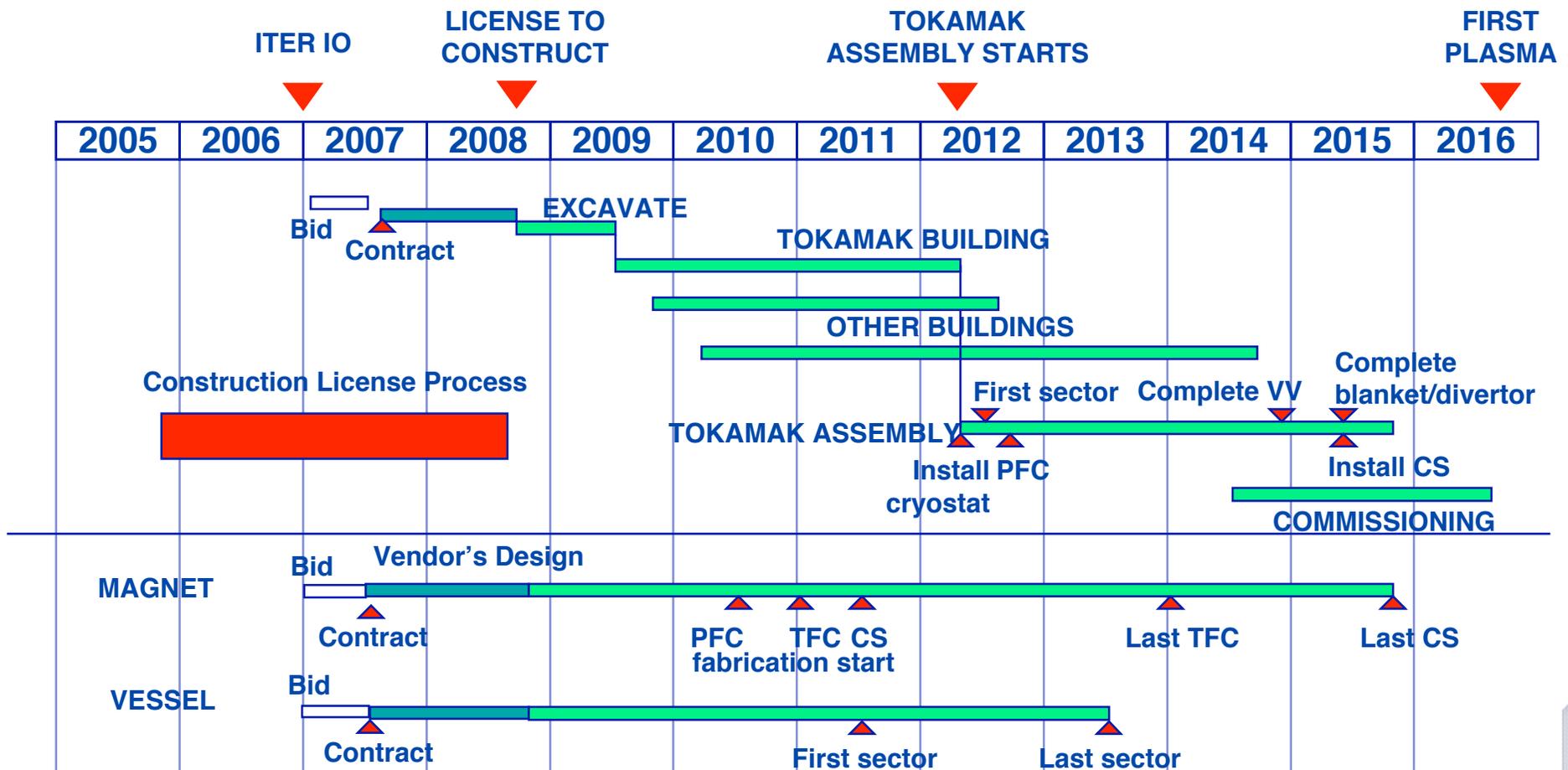


ITER Organisation





Integrated Project Schedule



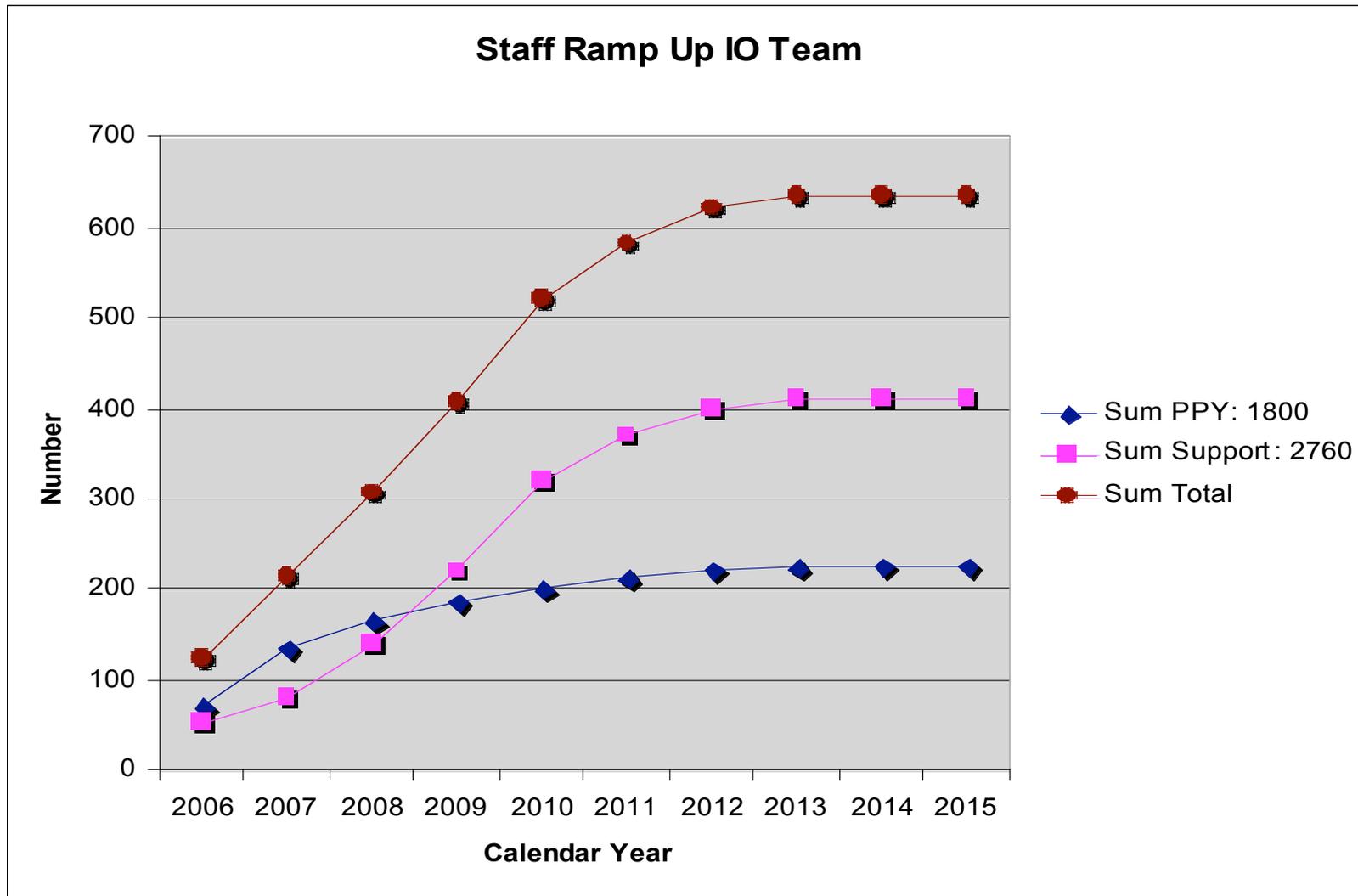


Near Term Targets

- ❖ Clearing of the construction site and preparation for road and utility connections (Spring 2007).
- ❖ Design review also involving physics community leading to revised baseline in Spring 2007 for approval by ITER Council.
- ❖ Finalising technical specifications for calls for tender for vacuum vessel, superconducting coils, building & excavation design.
- ❖ Submission of Preliminary Safety Report (by end 2007).
- Development of a consistent Integrated Project Schedule (IPS) and Procurement/Party Funding Commitment schedule.



Staff Ramp Up Projection





Participation in ITER

- Attract the best qualified people to the IO - send us your CV (see ITER web site).
- Share responsibility for success with the Domestic Agencies by ensuring joint aim is mutual success on time and within budget.
- Involve all Parties' fusion researchers actively in preparing for ITER operation, as well as in developing diagnostics, heating and current drive systems, and test blanket modules.
- Encourage researcher's ownership of the ITER design by participation in the design finalisation process through the design review.



Conclusions

- The Parties are aware of their budget and staffing obligations and are making progress in implementing them.
- The project team is building up in Cadarache.
- The design review has begun in September which will strengthen involvement of all stakeholders, DAs and project team members.
- ITER Organisation and Domestic Agencies need to be established as soon as possible to effectively execute all tasks of the construction project.