# ITER Data Requests

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# Motivation to access ITER information

- From the 2022 Fusion Energy Sciences Research Needs Workshop on the US ITER Research Program:
  - "ITER represents a **massive investment** by all of its members . . . and it will produce **critical knowledge** and experience in **science**, **engineering**, and **technology** that will apply directly to **future fusion power plants**." (pg. 6)
  - "With an aggressive US strategy, ITER will be complemented by a national program of fusion research and technology, technology roadmaps aimed towards commercial viability, active industrial partnerships, technology innovations, and first-phase design/construction of an FPP. Even in the most ambitious scenario, **near-term ITER engineering and data will inform FPP component and concept design** . . ." (pg. 9)
  - "ITER has necessitated the development of solutions for many challenges for the design of a steady-state fusion environment, such as **steady state plasma heating**, **plasma control**, **radiation resistant diagnostics**, **managing the tritium fuel cycle**, **remote maintenance and inspection**, **plasma facing components**, and many others.
  - "The US is responsible for 9% of the ITER construction scope, however, it is not clear that this knowledge is being effectively captured to **prepare for an FPP**." (pg. 14)

https://science.osti.gov/-/media/fes/pdf/2022/USIRT_workshop_2022.pdf

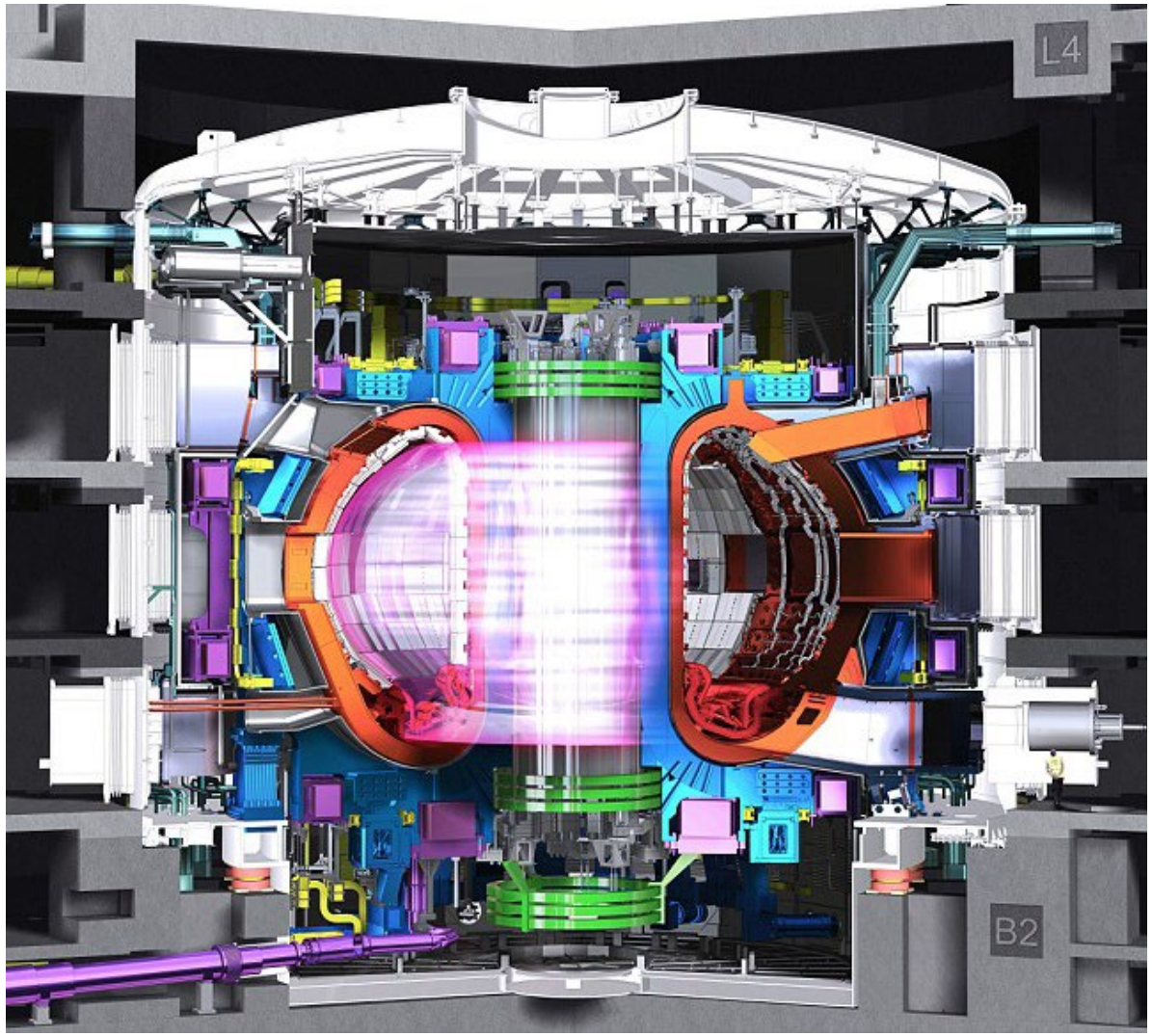
# ITER data request project

- ITER is the first magnetically confined nuclear fusion project to begin construction.
- We do not need to wait for operation to learn from ITER. There is significant information already available that would be useful to the larger fusion community.
  - Component and system design
  - Technology development and maturation
  - Assembly and installation
  - Planning for steady-state operation
  - Supply chain development and exploitation
- Private companies are submitting requests to access ITER documents.
- ORNL's Fusion Energy Division is developing a procedure to handle these requests in the future.

# Some questions

- How is a request submitted?
- Who is making the request?
- Where is the information found?
- What is the information?  (doc#)?
- What can be shared (IP)?
- What can be shared (export control)?
- How is data shared with company?
- What protections need to be in place?

"What did they do on ITER?"

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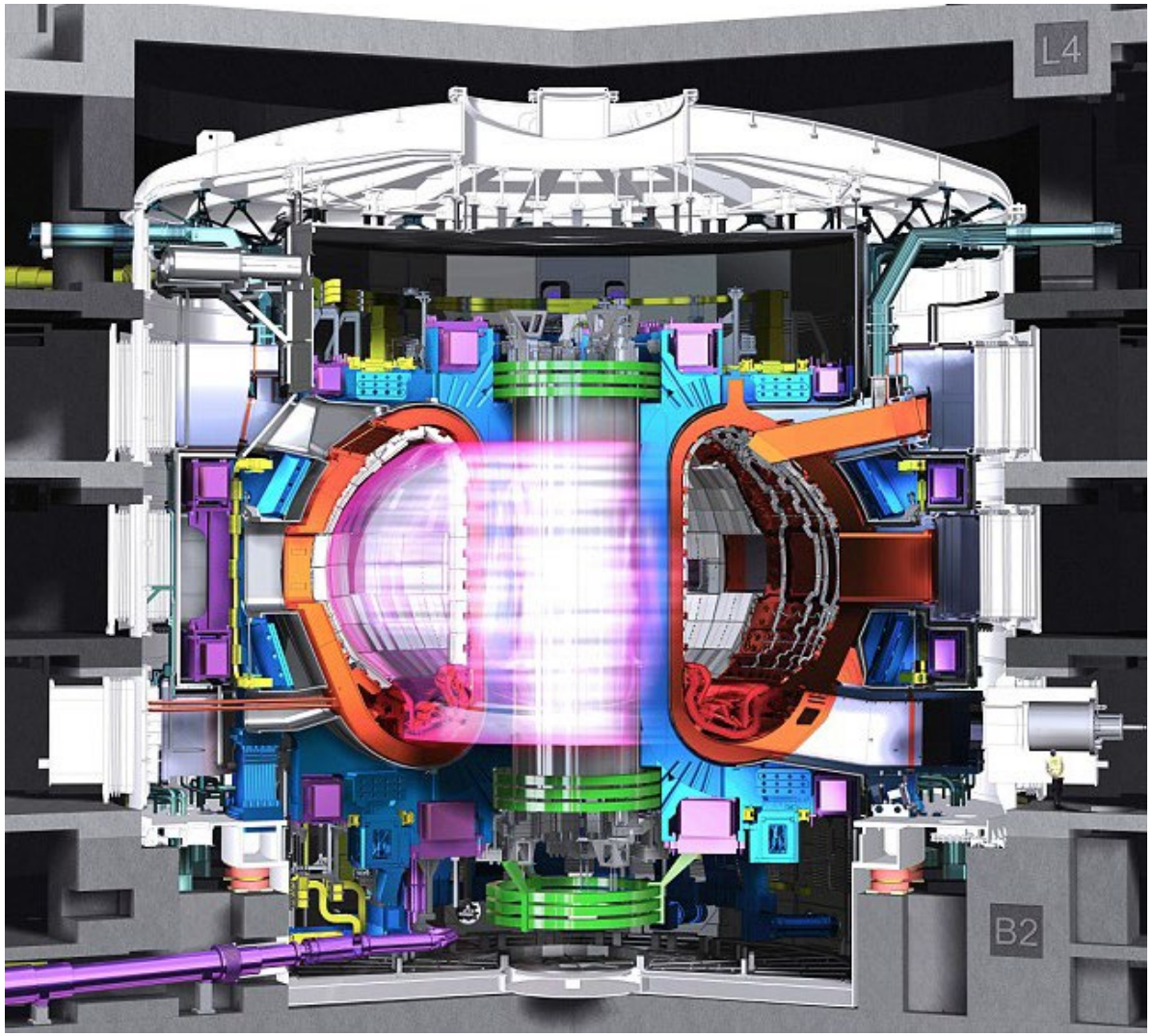
# Next steps

- Chuck Greenfield has begun to lead this project at ORNL.
- A procedure is being developed and reviewed with stakeholders.
- Implementation plans are beginning to set up public and secure web sites.
- The ITER Organization is simultaneously considering how to share data.

# Questions?

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