BRINGING THE POWER OF THE SUN TO EARTH

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FUSION FOR ENERGY

Collaborative Contracting for the ITER Hot Cell Complex (HCC)

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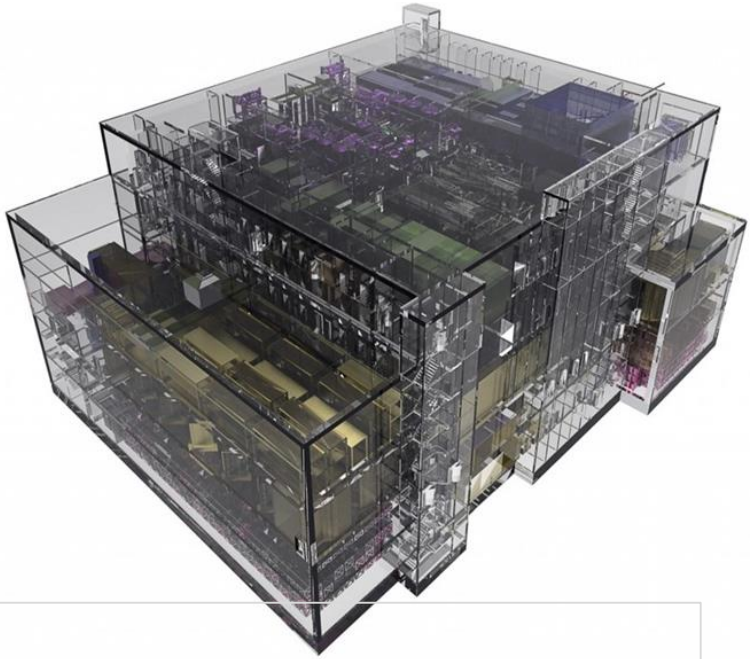
HCC INFORMATION DAY
04.06.2020

Disclaimer:

No information provided in the current slides is binding on the IO or F4E. The general procurement strategy for procurement of the ITER Hot Cell Complex and its implementation may evolve.

ITER HCC: Relevance

- The ITER HCC is a key element in the operation and maintenance of the ITER TKC
- Together the HCC buildings provide a secure environment for the processing, repair or refurbishment, testing, and disposal of the ITER machine components that have become activated by neutron exposure, or contaminated by beryllium and tungsten dust, or tritium
- Heavy refurbishment operations within the HCC will be performed by remote handling systems capable of handling components up to the size of a school bus



- The HCC is very large, with a footprint comparable to the TKC (200,000 cubic-metre, 5-level structure)
- Iter Organization is freezing the technical and Nuclear Safety Requirement
- Industrial assistance is working to finalise the conceptual design of the HCC
- A large industrial engineering activity is expected for the preliminary and final designs including Early Contractor Involvement
- Construction is expected approximately 2024 to 2028, ready for use to support beryllium plasma operation starting in December 2028
- The project is prone to modifications due to its timeline, design development, and change in requirements

HCC Challenges

- Lessons Learnt from the Tokamak Complex actively taken into account:
  - Concurrent design development (building/services/processes)
  - Staged gate approach
  - Construction will not commence until Input Data are defined
  - Process led construction
  - IO/F4E integrated team

- Long term schedule/strategy
- Industry Feedback
- Single design authority IO
- Building solution adaptable to the services and process needs

HCC Strategic Objectives

DELIVER THE HCC AGAINST BUDGET, SCHEDULE AND BASED ON THE HIGHEST NUCLEAR SAFETY AND QUALITY STANDARDS

Develop and deploy first-of-a-kind/ cutting-edge tritium-handling technologies (process works)	Innovate technically and operationally	Ensure societal and environmental sustainability	Benefit from life cycle costing	Develop internal capabilities, intellectual property and nuclear fusion industry

Increase competition; comply with public procurement rules

Challenges of today

- Interest industries to this challenging Nuclear Project,
- Present the collaborative contacting approach we are working on.

Thank you for your attention