



IMAGINE CREATE ACHIEVE a sustainable future

Egis committed to major nuclear fusion projects

Presentation to NIA – October 20th 2022





01.

EGIS AT A GLANCE

egis



OUR COMMITMENT TO THE UNITED KINGDOM

2nd Egis country, after France

Our growth ambition both organic and external

2026

€140M

2021 €64M

egis

13 Legal entities +645 offices employees Transportation **Buildings** 60% 4% 36% 2021 turnover 2021 turnover 2021 turnover including 49% road O&M



3 new bolt-on acquisitions in 2021 & 2022 – rail, energy, buildings

EMBLEMATIC PROJECTS IN THE UK





Overview of our nuclear activities



A MULTIDISCIPLINARY APPROACH





Nuclear Fusion

UKAEA – ITER - LMJ



ITER

Architect Engineer for the development and construction of ITER



French National Engineering Awards 2017



GEOTECHNICAL EXPERTISE

Material management Validation and follow-up of concrete, expertise construction method statements Cavity risk investigation under the general sill plate: 3D geological modeling of the field (Surfer ® software), geophysical methods **Cadarache, FRANCE** Fusion for Energy (F4E) ITER Organization (IO) 2010 - 2025

The **ITER project** consists of building the largest reactor (Tokamak) ever built. The objective is to generate a thermal power of 500 MW from a consumption of 50 MW.

EGIS'S MAIN MISSIONS – ARCHITECT ENGINEER FOR IO

- Design (Concept / Tender / Construction Design + Execution Design – HVAC / ELEC / CW / Piping ...) -> IO
- \rightarrow Project Integration (BIM) -> IO
- → Project Management (Planning, Configuration & Change management, Nuclear Safety, Quality ...) -> IO
- ightarrow Works Supervision & Commissioning -> IO

EGIS'S MAIN MISSIONS FOR F4E

- → TB04 Project management for Utilities installation inside Tokamak Complex (Prep / Supervision / Commissioning)
- → TBID The "Tokamak Design Integration Board" takes over the HIT duties (3D integration & Coordination : clashes, support)
- → B14 HIT Participation in the HIT "Holistic Integration Team" for B14 only

30+ year experience in radioactive waste management

JOINING FORCES WITH

egis

+25 specialist UK-based staff

Combining in-depth knowledge of UK radioactive waste management programme with lessons learned from our international projects

Holistic perspective to radioactive waste management, from cradle to grave, for all kinds of radioactive waste

SUPPORTING THE UK FUSION PROGRAMME

Our on-going framework contract with UKAEA, as part of Frazer Nash Consultancy team.

 \rightarrow Engineering Design Services Framework

We can bring our UK and international expertise and understanding of **fusion waste streams and management routes**

- → Review of boundary wastes for LLWR NP, for which we considered the radioactive waste inventory from UKAEA Culham
- → Integrated project on Management of Problematic Radioactive Waste in the UK
- Optioneering work for RWM considering fusion reactor waste streams, including Higher Activity Waste Management Framework in the UK
- PREDIS (Predisposal) European Commission Research collaborative project involving a consortium of 47 partners from 17 countries



CEA CESTA – MEGA JOULE LASER

Assistance to the Owner - Work Supervision





LE Barp, FRANCE CEA 2003 – 2024

Research laboratory designed to experiment with **nuclear fusion using high-powered lasers**: 176 highly amplified laser beams converge at the same time on a central target a few millimetres in size, causing a sharp rise in temperature and a nuclear fusion reaction.

EGIS'S MAIN MISSIONS

- → Assistance to the Site Management (technical secretariat, meetings, access, cleanliness, GED...) 2003-2010
 - ightarrow Coordination and Synthesis Buildings and facilities
 - \rightarrow Work supervision Civil Works
 - $\rightarrow\,$ Work supervision Support of the laser halls in interface with the process
- Coordination of assembly, integration, testing and operation activities - 2010-2018
- → Project Management assistance Works and Improvement Division – 2013-2019
- \rightarrow Assistance to the management of business and works 2019-2022
- → Assistance to the engineering and to the laser operation 2018-2024

THANK YOU FOR YOUR ATTENTION

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