

Think Tank *IDées*

Programme 2023-2024

« Transitions vers le bas carbone »

Le 13 mai 2024

Current State of the Development of Nuclear fusion in the world, public-private

- Today is the third meeting we have organized on Nuclear Fusion with Joëlle Elbez-Uzan:
 - March 8th, 2021 : ITER project and its impact & May 9th, 2022 : Fusion Energy Perspectives
- Since May 2022, 5 major events:
 - November 2022 : Originally planned for 2025, the first plasma of ITER experimental fusion reactor in Cadarache, not expected to take place before 2030.
 - December 2022: The National Ignition Facility (NIF), hosted in Lawrence Livermore National Laboratory, CA, working on "inertial" fusion, which involves using powerful lasers aimed at a target with a fuel to try to trigger a fusion reaction, produced 3.15 megajoules of energy, from 2.05 megajoules of energy distributed via the lasers, **with a net energy gain.** “ A tremendous scientific global breakthrough “ US Secretary of Energy Jennifer Granholm said.
 - September 2023 : Germany invests €1 billion in nuclear fusion. “So the question is no longer whether the fusion energy will take place, but rather whether Germany will be part of it.” said Bettina Stark-Watzinger Federal Minister for Research
 - December 2023 : The world's largest experimental nuclear fusion reactor, JT-60SA, was inaugurated at Japan's National Institute for Quantum Science and Technology (QST) in Ibaraki, north of Tokyo.
 - January 2024 : The government of China has formed a new national industrial consortium, China Fusion Energy Inc. ,being led by the China National Nuclear Corporation (CNNC). The State Council of China declared, “Controlled nuclear fusion is the only direction for future energy, and the field is now developing very rapidly in Europe and the United States. In this context, China’s central government is starting to pay more attention to the industry.” The Chinese government has set the goal of building the first industrial prototype fusion reactor by 2035.

- **Andrew HOLLAND**, *Chief Executive Officer at Fusion Industry Association*

Developments in the Global Private Fusion Industry

- **Joëlle ELBEZ-UZAN**, *Euro-Fusion, Project Leader – DEMO Fusion reactor*

EU DEMO progress and perspectives

Transition vers le bas carbone : Prochaîne réunion

- **Octobre 2024 : la Géothermie avec des intervenants de l'AFPG (Association Française des Professionnels de la Géothermie) et d'Engie Solutions**