European Commission

EU FUSION BUSINESS FORUM

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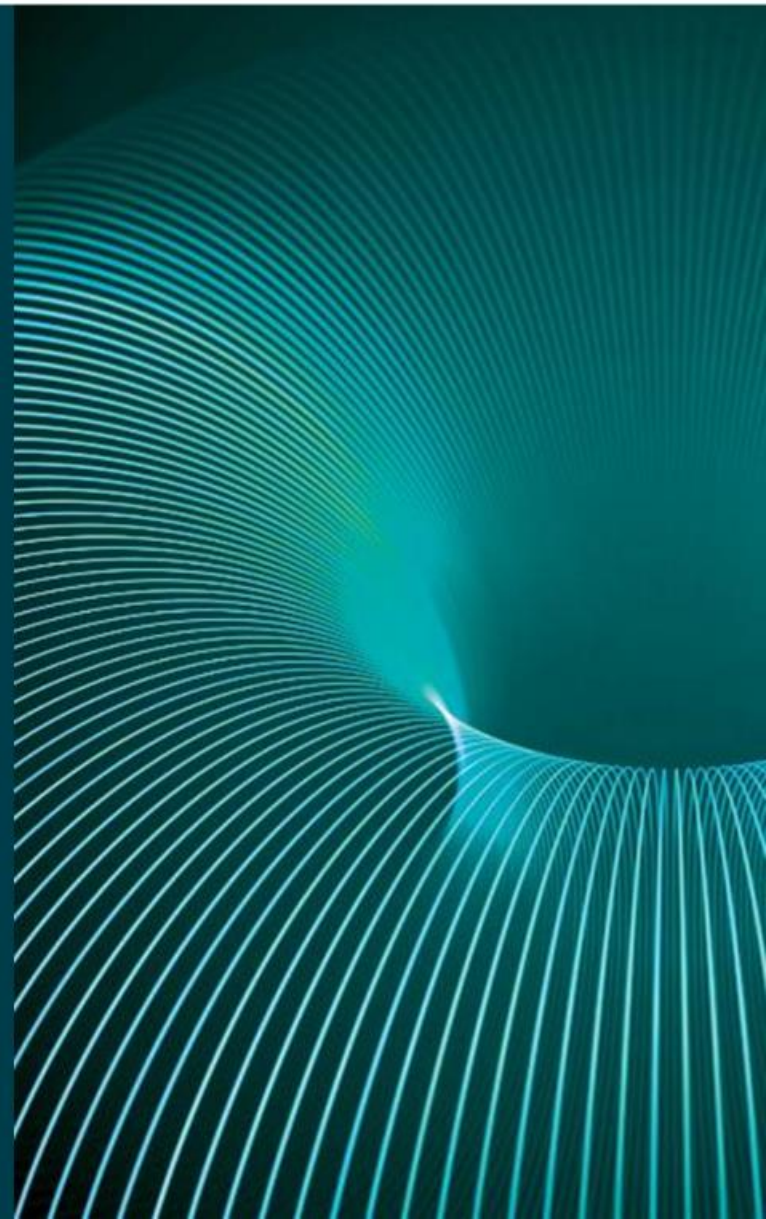
Head of Communication

4 July, Berlin



LEADING /SUPERCON DUCTING/ TECHNOLOGY

- We lead superconducting technology from 1960.
- We are based in Italy but work worldwide.
- We merge our people competences with ability to select and manufacture superconducting technology.
- From the material to the complete magnetic system.

WHAT WE DO

HEP AND FUSION ENERGY

ASG is currently the largest European producer, and among the market leaders worldwide, of superconducting magnets for applications in high-energy physics and in fusion energy magnetic confinement.

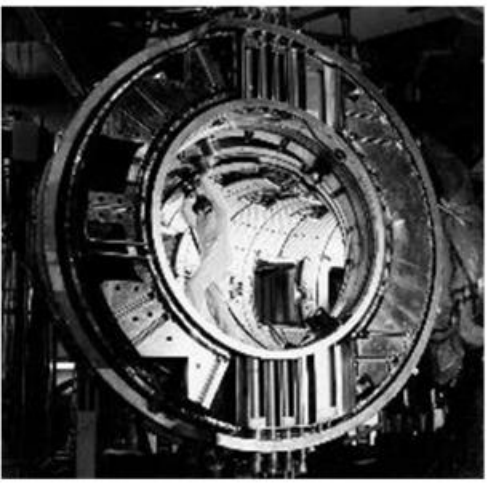
DIAGNOSTICS AND THERAPY

ASG is among the market leaders in manufacturing of bespoke magnets for MRI imaging and oncologic therapy applications. Furthermore, ASG has developed a full value chain for manufacturing and integrating cryogen free MRI systems, based on a proprietary technology of MgB2 superconductors.

MgB_2 CABLES FOR ENERGY AND INDUSTRIES

ASG is at the forefront of the technology for the development of superconducting magnetic energy confinement systems (SMES), superconducting power cables and superconducting fault current limiters (SFCL).

SOME OF OUR MAIN FUSION PROJECTS



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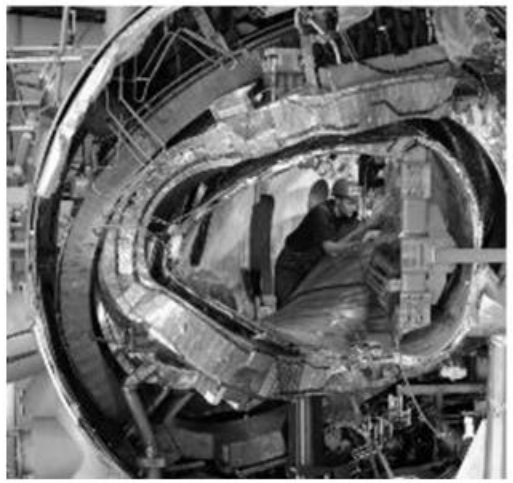

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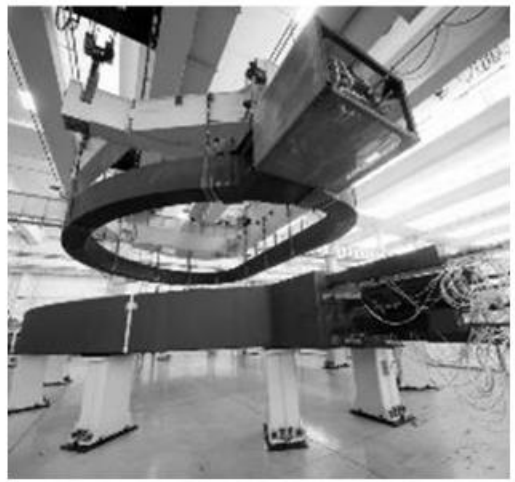

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4 July 2024

ASG SUPERCONDUCTORS

WE ARE WORKING IN THE FRAMEWORK OF F4E AGREEMENT AT THE MAGNETIC CORE OF ITER

- Toroidal Field Coils
- Poloidal Field Coils

Successful completion of Europe's ITER Poloidal Field coil 3, PF coils factory, Cadarache, France, April 2024. ©F4E

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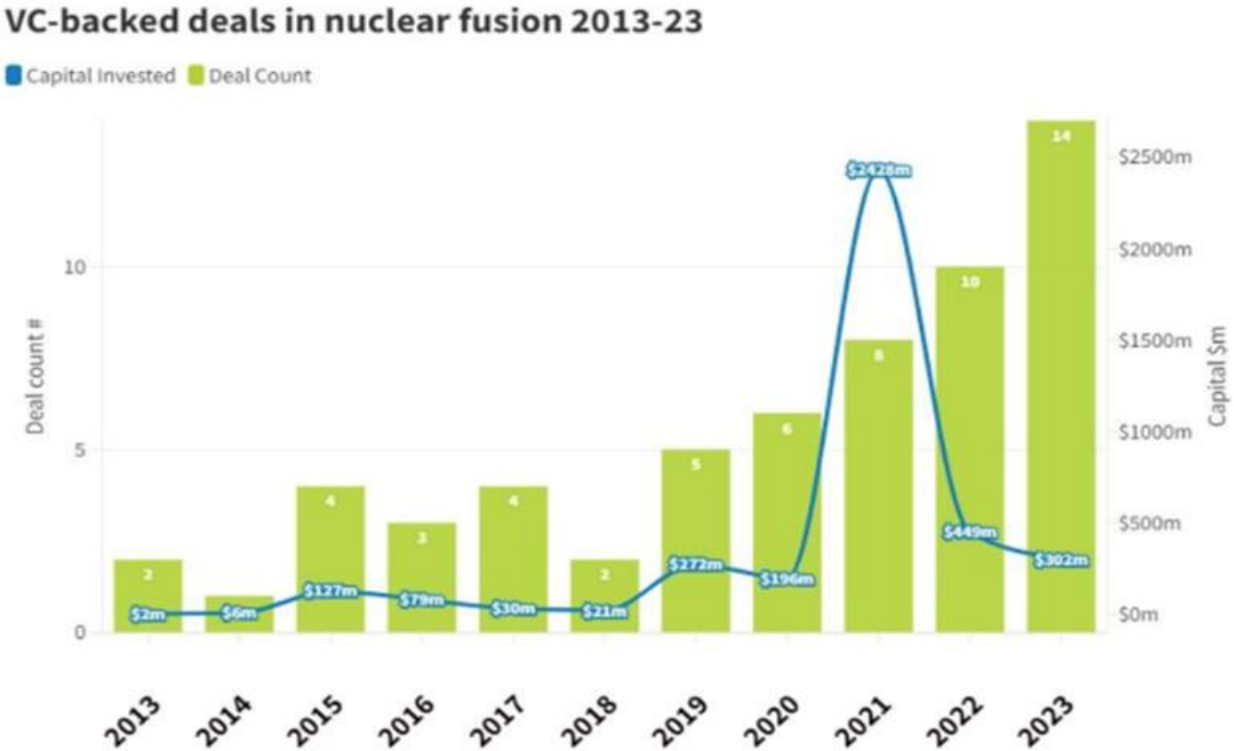
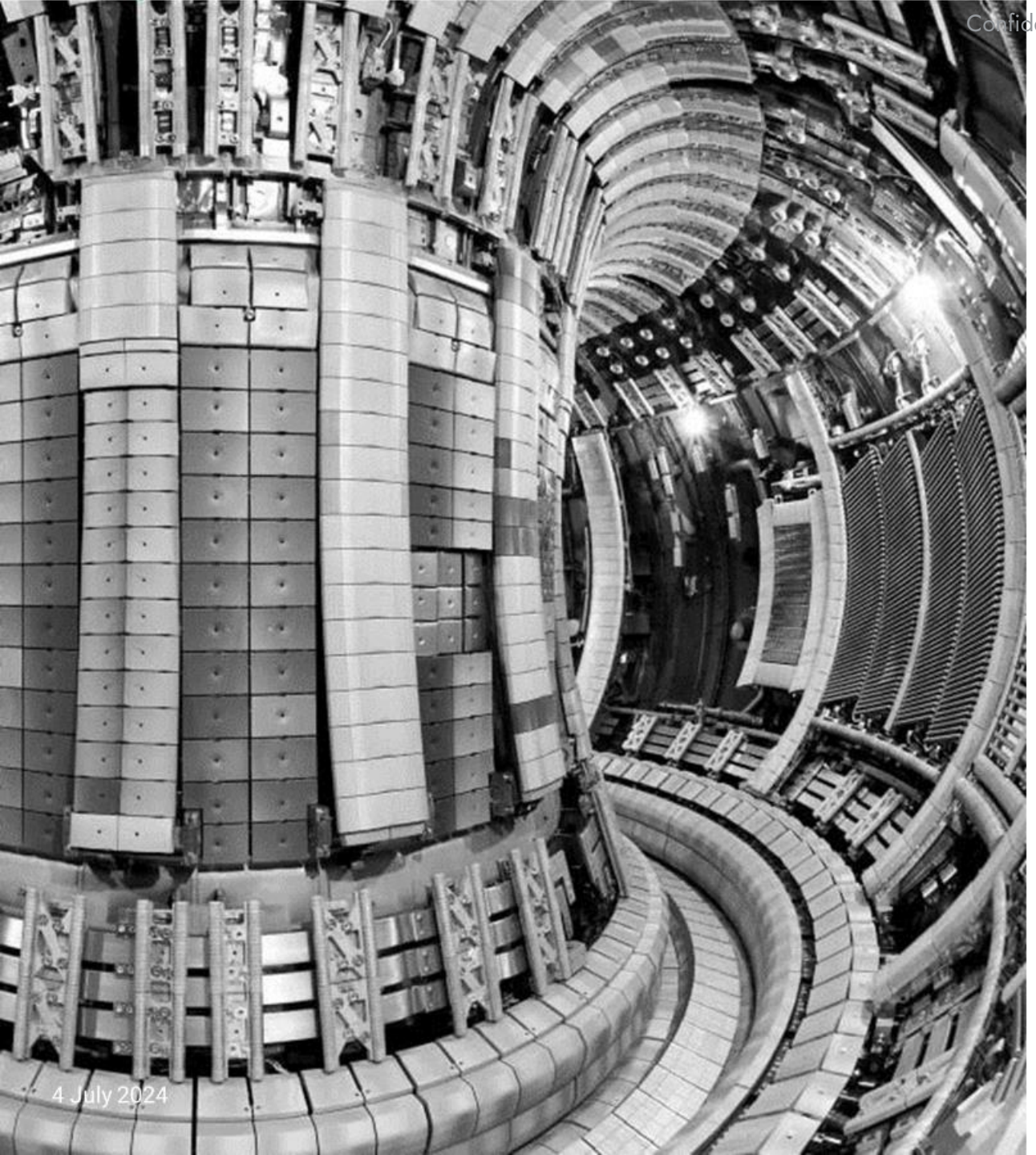
FUSION: WHAT'S GOING ON



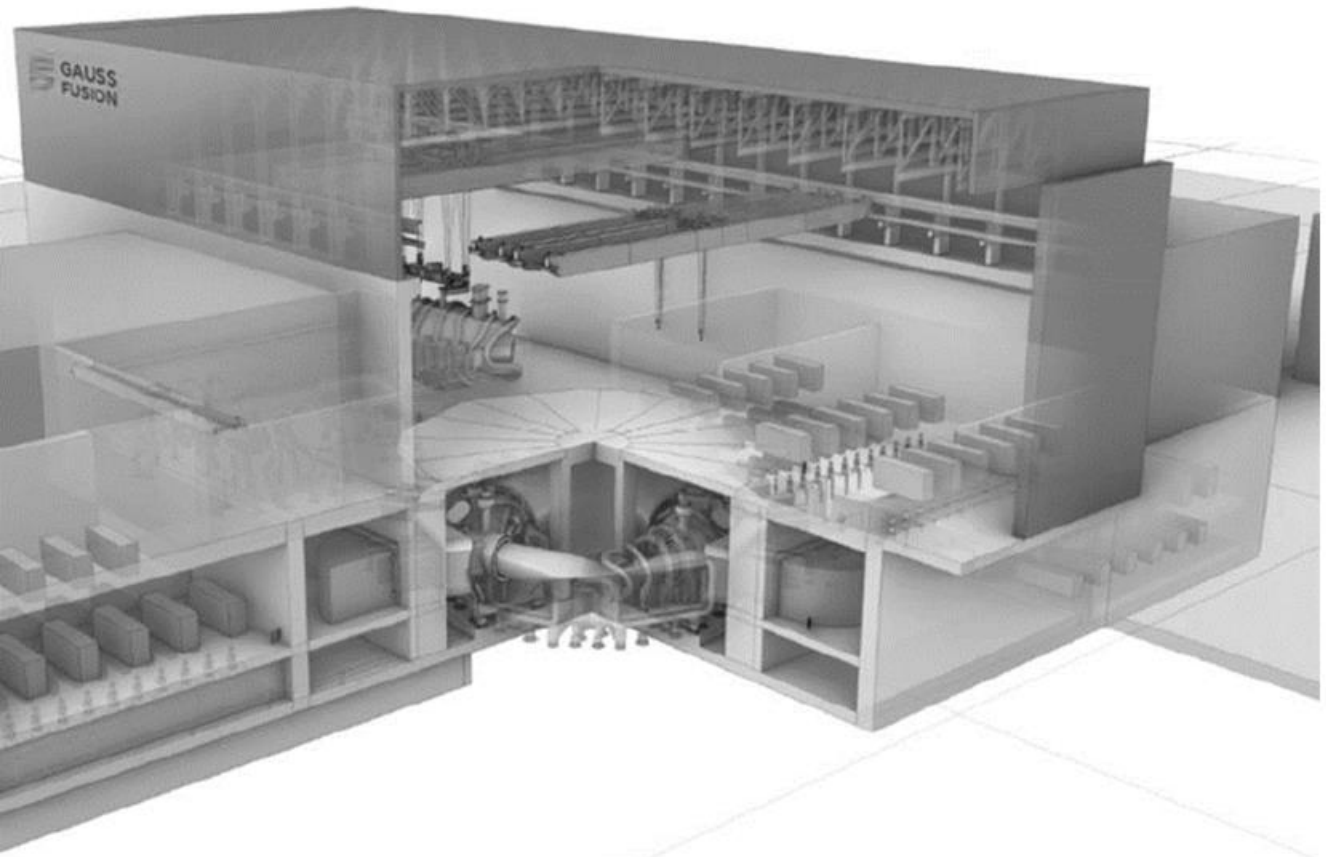
- More than 5-billion-euro private investments in the last 2 years.
- An ecosystem of start-ups is growing up.
- Fusion is going mainstream on political, industrial and economic agenda.
- Magnetic confinement and superconductivity are key technology for tokamaks and stellarators.



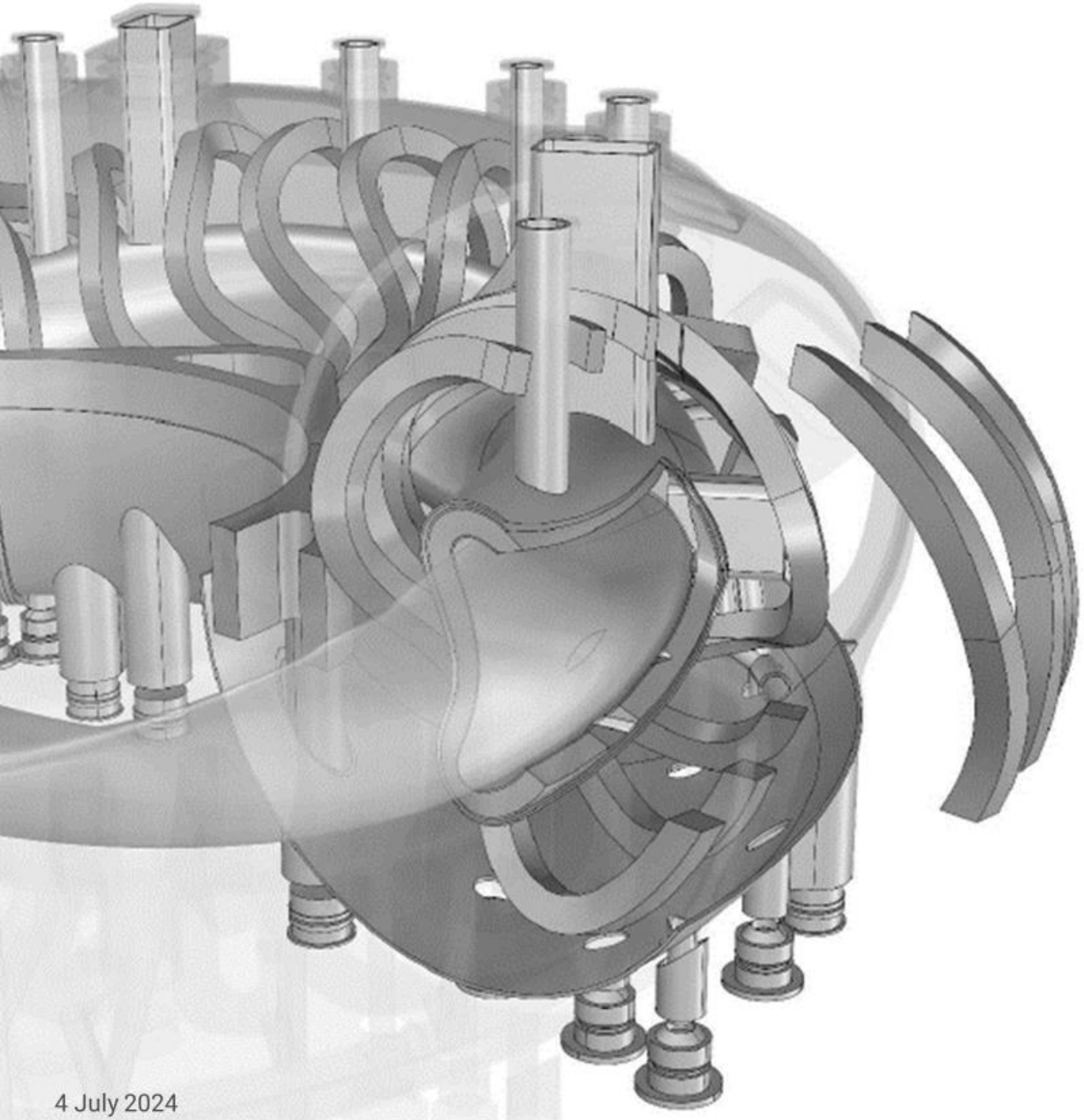
FROM SCIENTIFIC RESEARCH TO INDUSTRIAL APPLICATIONS

- Our clients are both research institutes like INFN,CERN, ENEA, FERMILAB, GSI and industrial companies.
- We are open to approach a new challenges with fusion energy start-ups (like i.e. Gauss Fusion).
- Fusion energy evolution will require magnetic confinement technology innovation and industrialization.

GAUSS FUSION PROJECT IN THE MAKING



- Supporting the definition of the theoretically best e.m. configuration for the plant, iterating designs
- Identifying the optimal *real-coil* configuration for robust e.m. , mechanical and cryogenic performance
- Define manufacturing route for actual production and relevant planning.



GAUSS FUSION PROJECT IN THE MAKING

- Defining and manufacturing significant components and qualifying technical solutions and manufacturing routes.
- Manufacturing scaled and real-sized coils, thus improving on designs.
- Setting the basis for a scaled up, recurrent production.

The time is now