



**IOD – INDUSTRIAL OPPORTUNITY DAYS**  
Torino, 12 – 13 giugno 2025

**Sviluppo industriale per la fusione: il punto di vista  
delle aziende europee**

*Claudio Serpico – European Fusion Association*



**European  
Fusion Association**

# **Fusion driven by industry**

**Leading European companies from across the fusion value chain**

June 2025



What is the challenge?



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Making industrial fusion powerplants  
a reality is too big a challenge for  
one country or company alone



# What is the challenge in Europe? ·

## The European Fusion Landscape

- Stalled economic growth
- Falling behind on the global fusion map
- Shrinking EU workforce
- Energy security uncertainty
- Only 11 % for Europe of the \$7b private capital into fusion



# The European Fusion Association

International, Brussels-based, non-profit association

- Formed by leading European companies from across the fusion value chain
- EFA provides a platform for unifying European interests
- Industry-wide collaboration and cooperation on science, finance, and policymaking



Current members

# Members are key players in the fusion industry

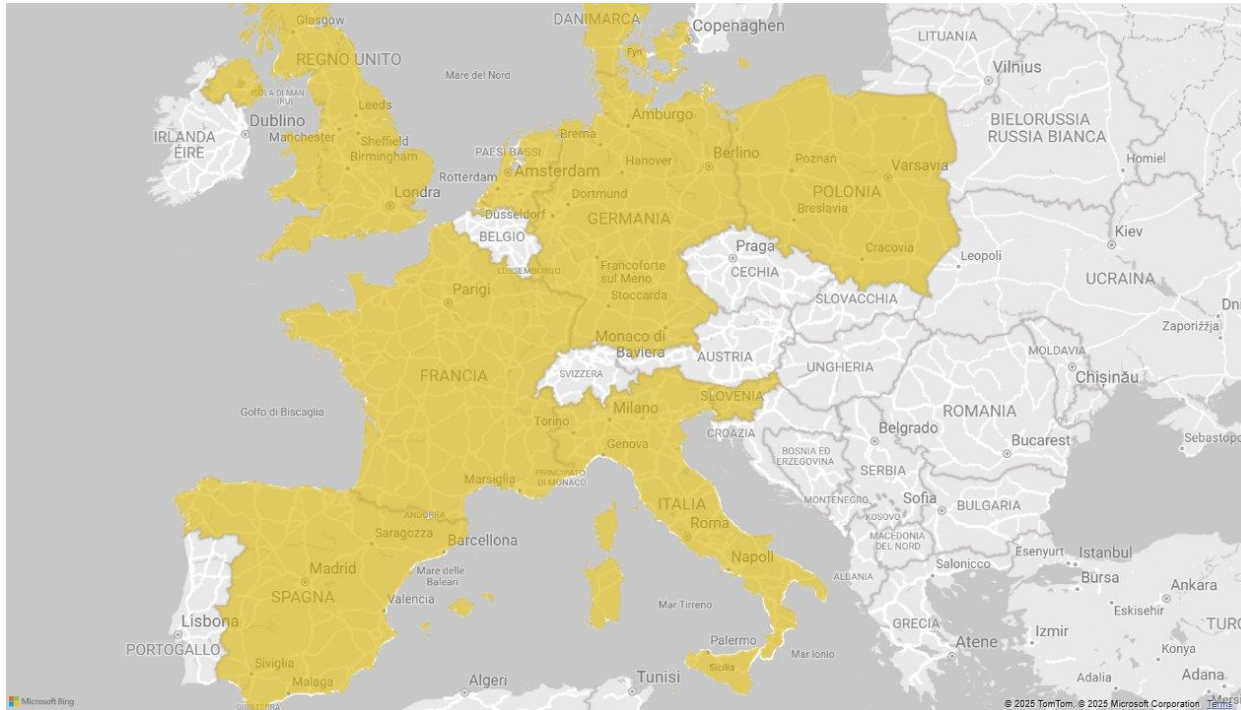
The global future fusion industry will require an entire eco-system of fusion and supply chain companies

- Europe has the skills and expertise spanning the entire fusion value chain
- Innovative fusion companies with different technical solutions for commercial power plants
- A global leading supply chain for the global fusion ecosystem

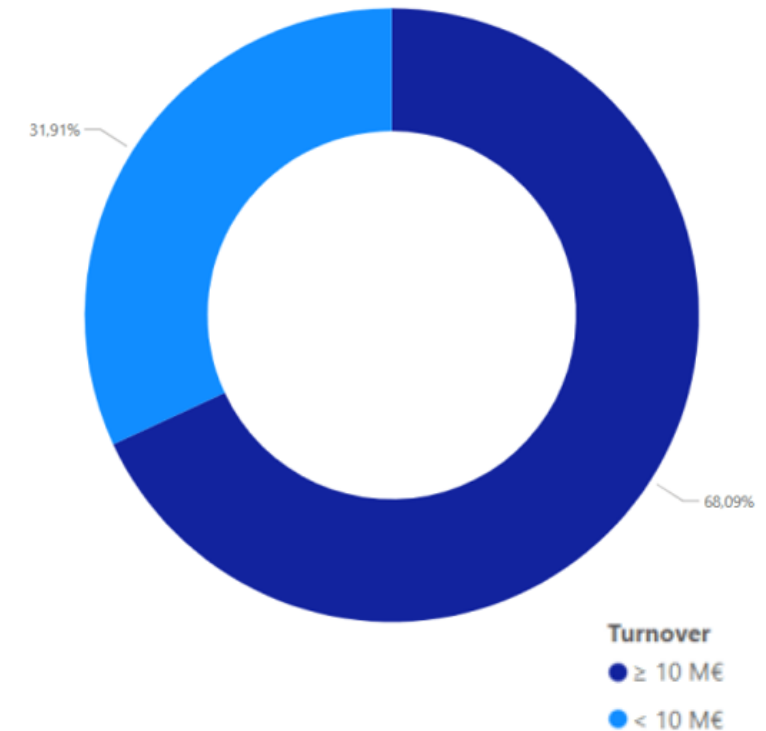


# Current status of the members of the EFA

## Geographical distribution



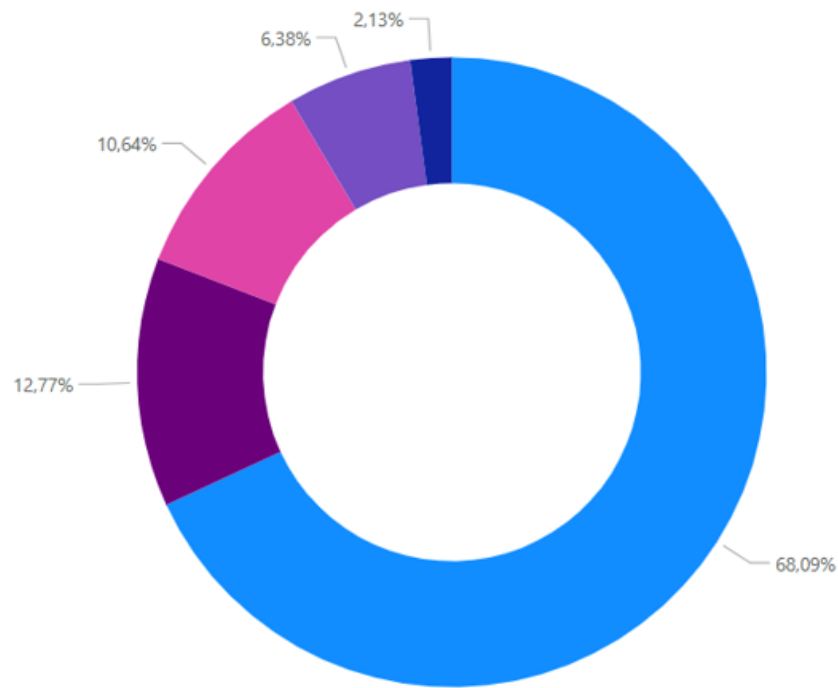
## Members by turnover



**50+** members across **11** European countries, in addition to the US

# Current status of the members of the EFA

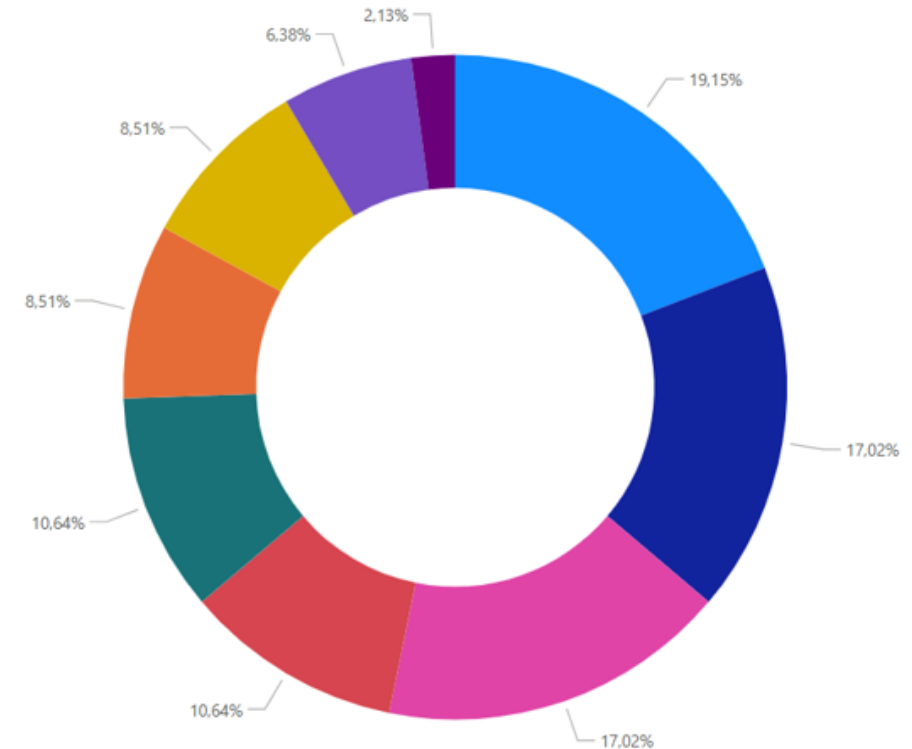
## Members by typology



### Type of organisation

- Fusion supply industry
- Nuclear supply industry
- Private fusion company
- Research institution/University
- Integrated energy utility

## Members by sector



### Industry sector

- Advanced Materials and Manufacturing
- Cryogenics and Superconductivity
- Engineering and Construction
- Software and Simulations
- Technology Development
- Electrical Systems and Power Electronics
- Robotics and Remote Handling
- Plasma Physics and High-Tech Research
- Energy Generation and Utilities

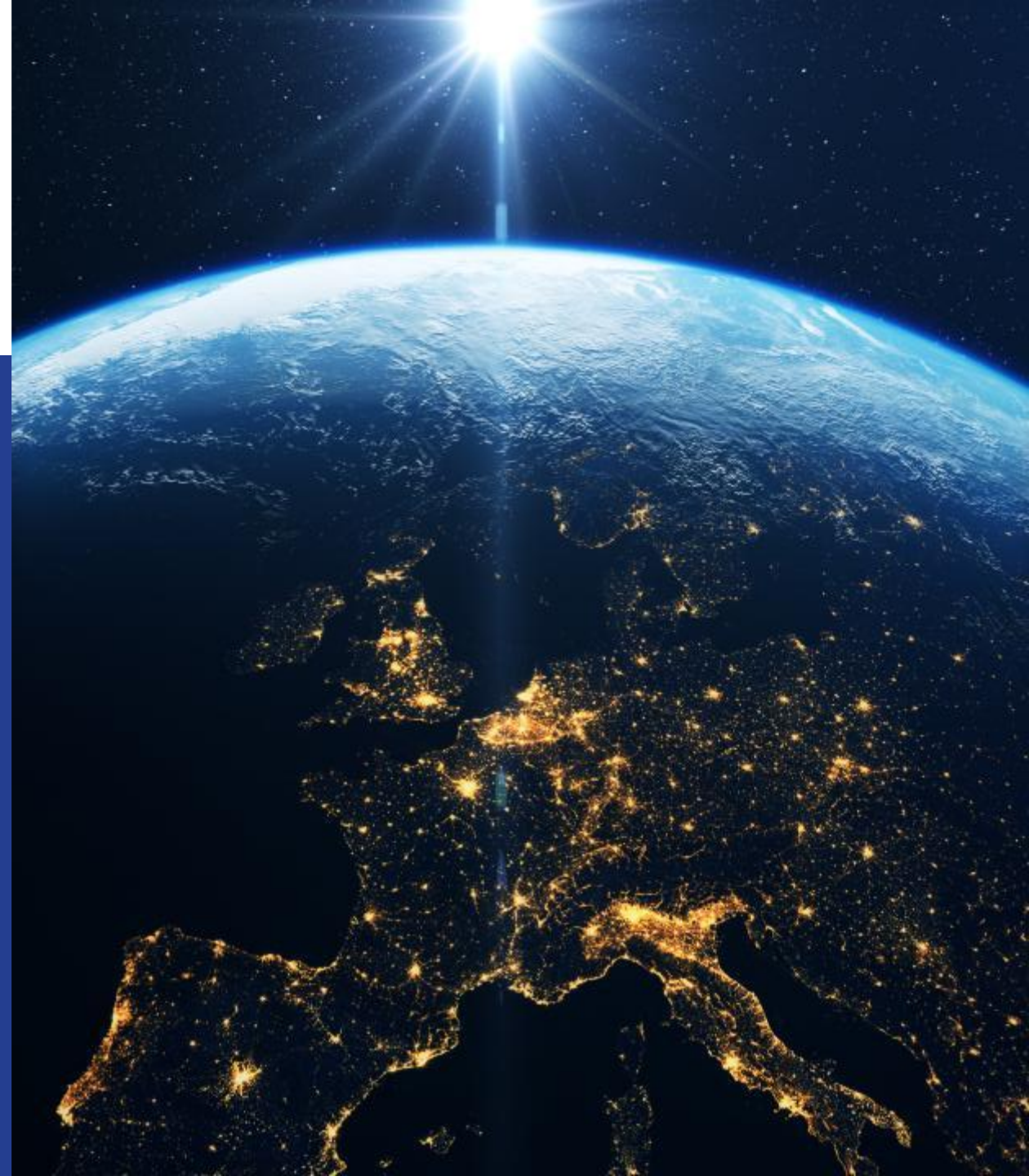


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Run by industry for industry

# What is the aim?

- The EU must **accelerate innovation** and find new growth engines – fusion can be that solution.
- An **industry-led** European Fusion Association (EFA) will drive forward a **European industrial renaissance**.
- A focus on accelerating the transition of fusion energy **from the lab to the grid**.
- Ensuring **European industry's leadership** in a global fusion future.





# How we will take action: our strategy

Collaboration in word and action



**IAEA**

Meeting in Vienna with DG Rafael Grossi on November 25<sup>th</sup> with the aim of establishing a working group on the state of European fusion industry



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# Working Groups

## General considerations

1. One Chair and one deputy per group
2. Collaboration with institutions: IAEA, FIA, SMR alliance, WENRA
3. Interactions with other working groups to be well defined

## Working groups

Group 1: Supply chain

Group 2: Technology

Group 3: Regulation

Group 4: Growth

Others: workforce/skills, public awareness, financing, mentoring





# Supply chain

1. **Chair:** Ansaldo Nucleare
2. **Vice Chair:** Rolf Kind
3. **Collaboration partner:** IAEA
4. **Main actions:**
  - ❖ Assess the existing European supply chain in the fusion sector and its capability to meet existing and future needs,
  - ❖ Identify gaps in the European supply chain (required technological developments, European supply sovereignty),
  - ❖ Identify key actions to ensure scalability and long-term viability for the supply chain, and define the proper action plan by the end of 2025.



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# Technology

1. Chair : ENEL
2. Vice Chair: RI Research Instruments
3. Collaboration Partner: F4E
4. Main actions:
  - ❖ Identify key technologies required and technological gaps to be filled for the development of fusion in Europe,
  - ❖ Assess European expertise (supply chain, fusion companies, national laboratories, experimental, testing, and qualification facilities),
  - ❖ identify overlapping technologies in the nuclear sector (fission, magnetic confinement fusion, inertial confinement fusion),
  - ❖ Define, by end 2025, an action plan aiming to contribute to the development of the technological roadmaps over the next 5 years



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# Become a member:



## CONTACT

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