

FUSION

INDUSTRY ASSOCIATION



ABOUT THE FIA

*The Fusion Industry Association (FIA) is **the leading voice of the global fusion industry.** The FIA is a nonprofit **membership organization** dedicated to accelerating and deploying commercial fusion energy through **policy advocacy** and transparent public **communication.***

*We **collaborate globally with policymakers, investors, power producers, regulators, and affiliated companies** to gain the investment and support needed to **make fusion power a reality.***

FIA'S PRINCIPLES FOR ACCELERATING FUSION



Public-Private Partnerships

The private sector should have access to the scientific research that governments have pursued for decades. While government programs transition from pure science to supporting commercialization, Public-Private Partnerships that include government support to private fusion companies can rapidly accelerate fusion development by driving new private investment.

Ensuring Regulatory Certainty

The regulatory regime for fusion should be predictable, proportional to the risk, and supportive of innovation, while also giving confidence about ensuring public safety and security. Fusion energy regulation must be permanently separated from fission regulation and should not require lengthy permitting process for every facility.

Communicating Fusion's Benefits

Stakeholders should understand the promise of fusion energy, that it is coming on an accelerated timeline, and actively support its deployment. A knowledgeable public should support fusion deployment at scale.

THE GLOBAL FUSION INDUSTRY

Survey by the
Fusion Industry Association

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2026

THE FUSION INDUSTRY IN 2026

The fusion industry continues to expand in investment, company growth, and workforce development.



Read the full report



BY THE NUMBERS

\$14.24B

Total funding raised

\$4.48B

New funding in the last 12 months, a record annual total

56

Fusion companies

16K+

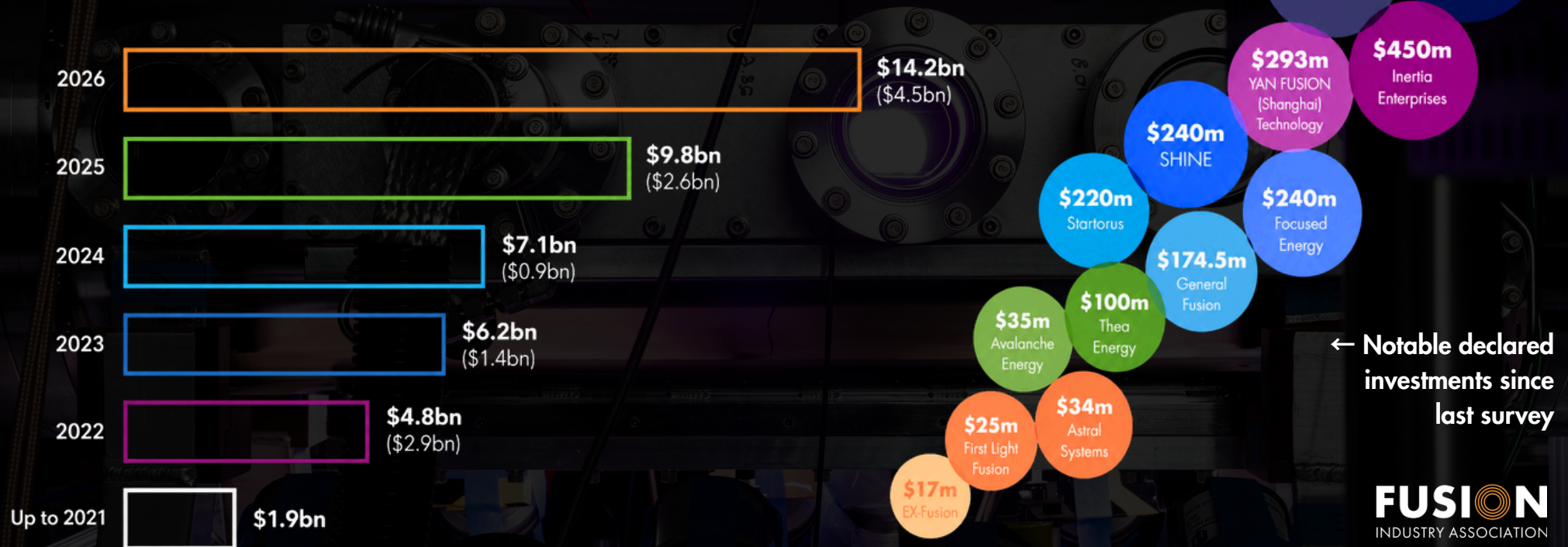
Industry jobs supported

INVESTMENT IS ACCELERATING

5 companies have surpassed \$1 billion in total funding:

- Commonwealth Fusion Systems
- TAE Technologies
- Helion Energy
- Pacific Fusion
- SHINE

Total funding over the years (annual total in brackets)



INVESTMENT DRIVING COMMERCIAL FUSION

Funding Highlights:

- **\$14.2B** in total industry funding demonstrates continued confidence in fusion's commercialization.
- Nearly **\$1B in public funding** complements record private investment, accelerating technology development and deployment.

Total industry funding in 2026

Total funding to date: **\$14,242,143,000**

Total this year: **\$4,476,143,000**

Total Private: **\$13,261,437,000**

Total Public: **\$980,706,000**

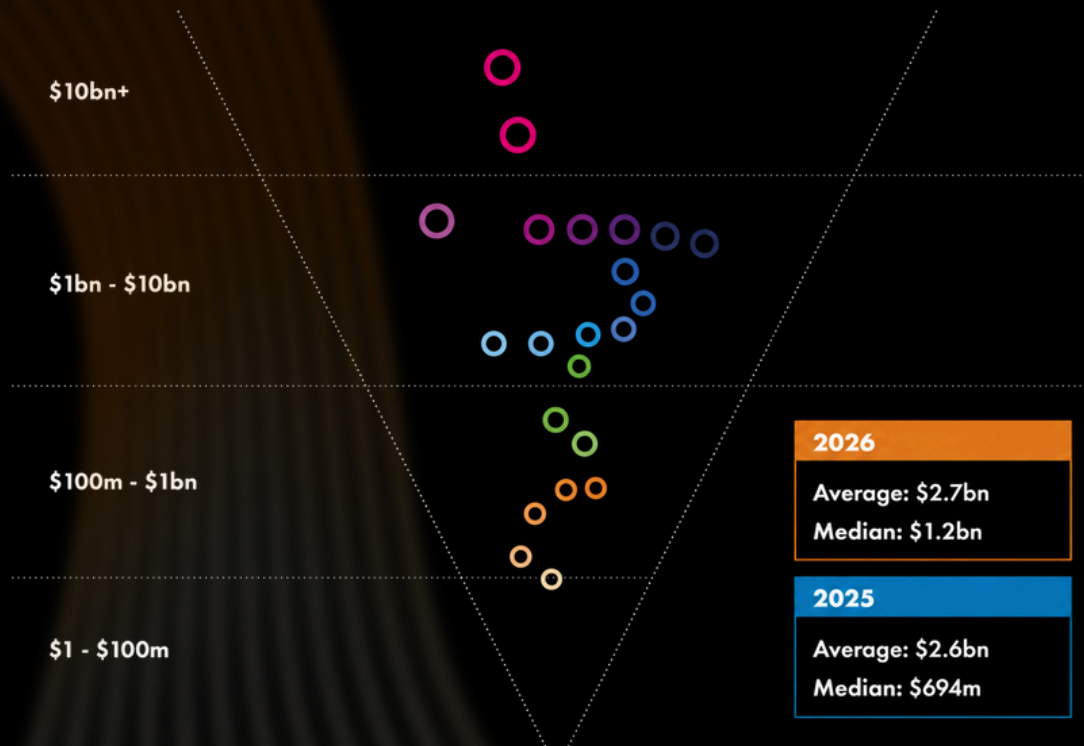
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CLOSING THE COMMERCIALIZATION FUNDING GAP

How much more funding do you estimate needing to deliver a commercial plant?

23 RESPONSES

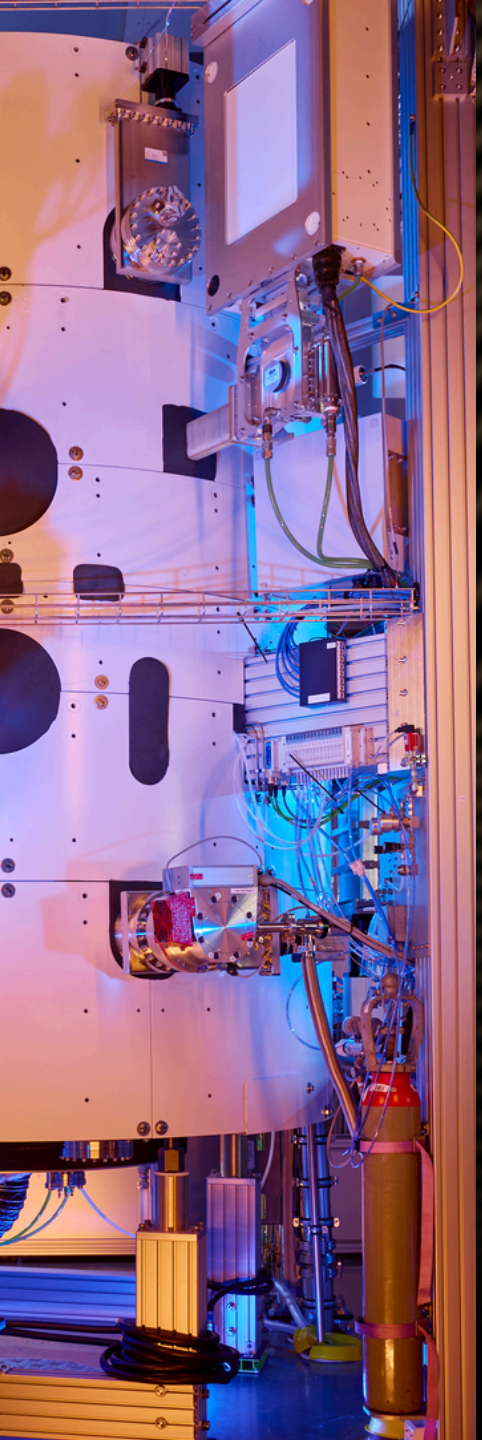


Funding Outlook

- Companies estimate an average of \$2.7 billion additional funding is needed to deliver a commercial plant, with a median of \$1.2 billion.
- While private investment grows, significant capital is still required to move first-of-a-kind plants from demonstration to deployment.

What the Data Shows

- Most respondents estimate they will require between \$1 billion and \$10 billion in additional funding to reach commercialization.
- The increase in median funding needs from \$694 million (2025) to \$1.2 billion (2026) reflects the industry's transition from early R&D toward large-scale engineering, manufacturing, and deployment.



A GLOBAL INDUSTRY

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The fusion industry now includes **56 companies** headquartered across **13 countries**.

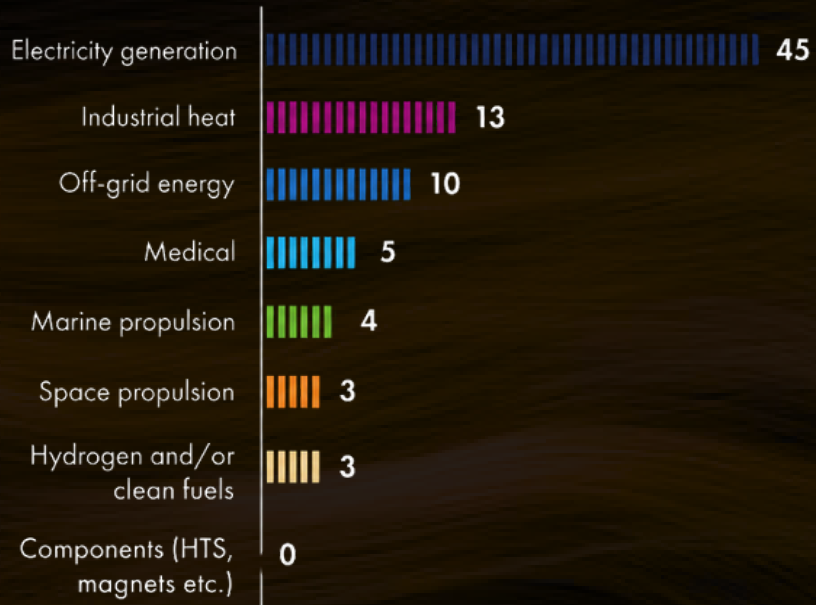
The **United States** remains the **largest fusion country**, the global ecosystem continues to grow across **Europe, Asia, and Oceania**.



TARGET MARKETS

The majority of companies' primary pathway to market is electricity, but firms are developing tech with applications across industries.

Primary



Secondary/spin-off markets:



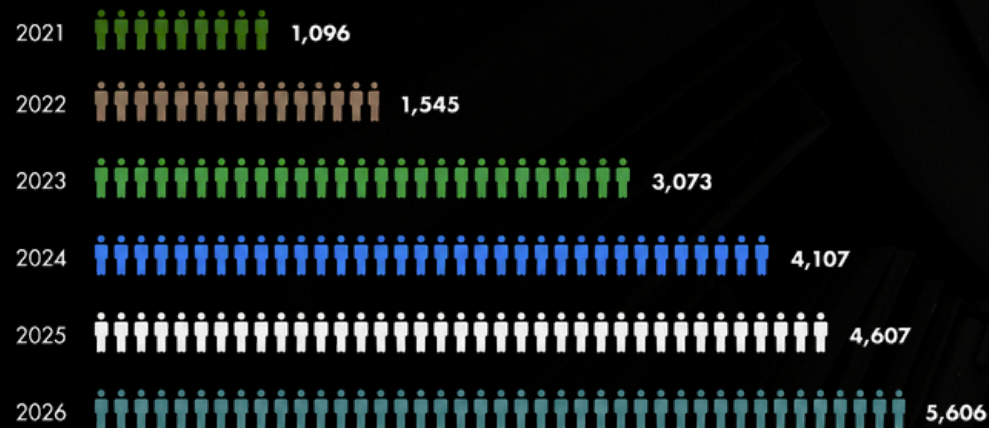
Other named markets included: Nuclear waste transmutation, tritium and other fusion fuels



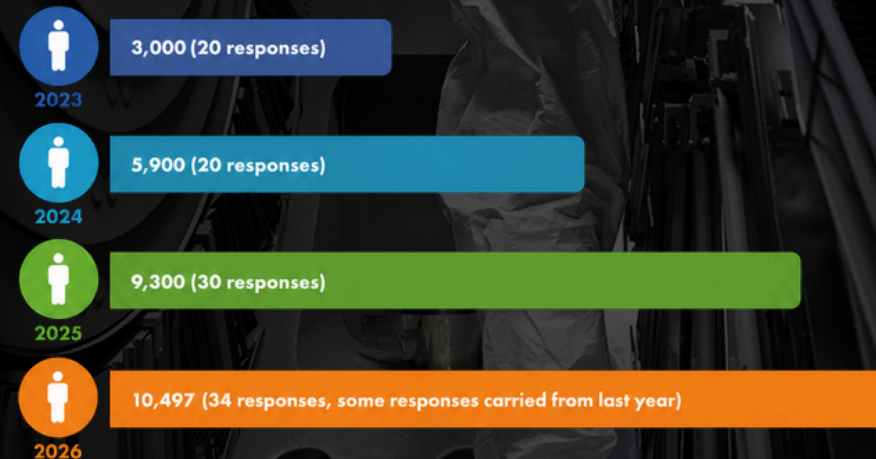
BUILDING THE FUSION WORKFORCE

Fusion is creating thousands of high-skilled jobs while strengthening advanced manufacturing and engineering ecosystems worldwide.

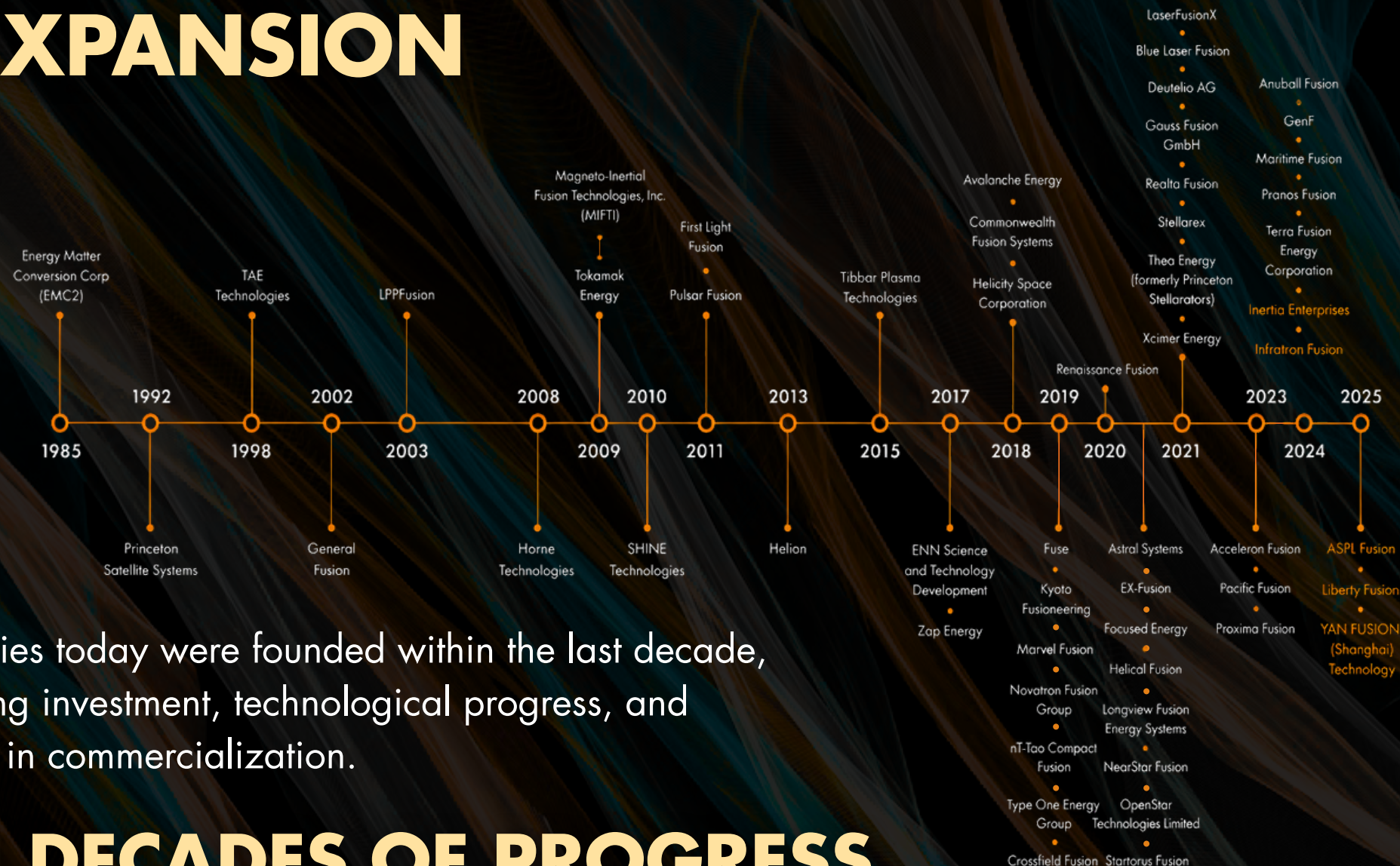
Employed by fusion companies



Estimated jobs supported by fusion companies + supply chains



RAPID EXPANSION



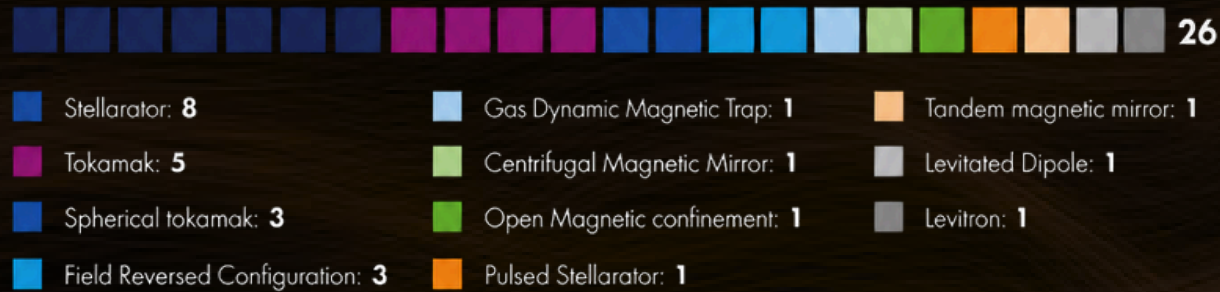
Most fusion companies today were founded within the last decade, reflecting accelerating investment, technological progress, and growing confidence in commercialization.

BUILT ON DECADES OF PROGRESS

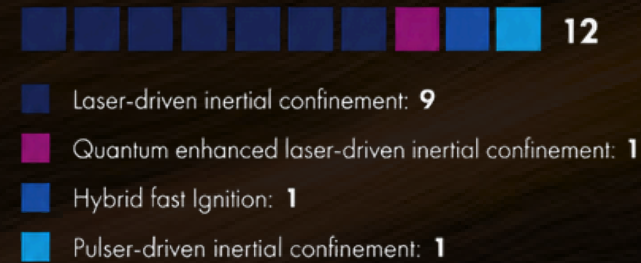
APPROACHES

56 Responses

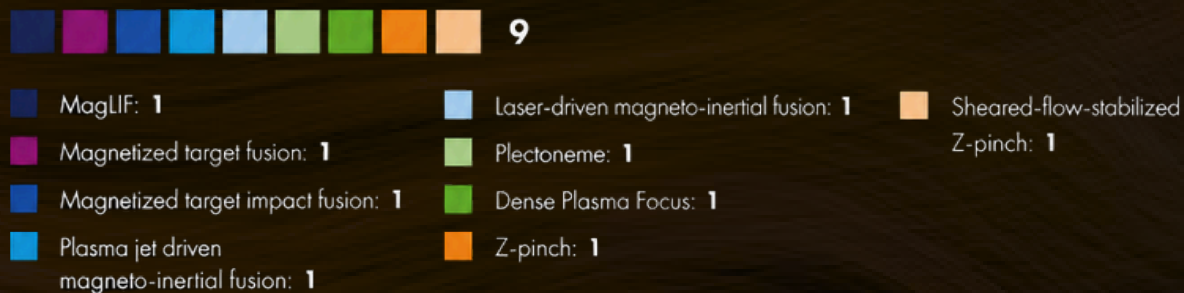
MAGNETIC CONFINEMENT



INERTIAL CONFINEMENT



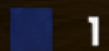
MAGNETO-INERTIAL



HYBRID ELECTROSTATIC



MUON CATALYZED FUSION



The global fusion industry is exploring a diverse range of technologies.
*Full company profiles are included in report.



FUEL SOURCES

Deuterium-tritium remains the dominant fuel choice, with the majority of companies pursuing this pathway toward commercialization.

Deuterium - tritium



Proton - boron



Deuterium - deuterium



Deuterium - helium3



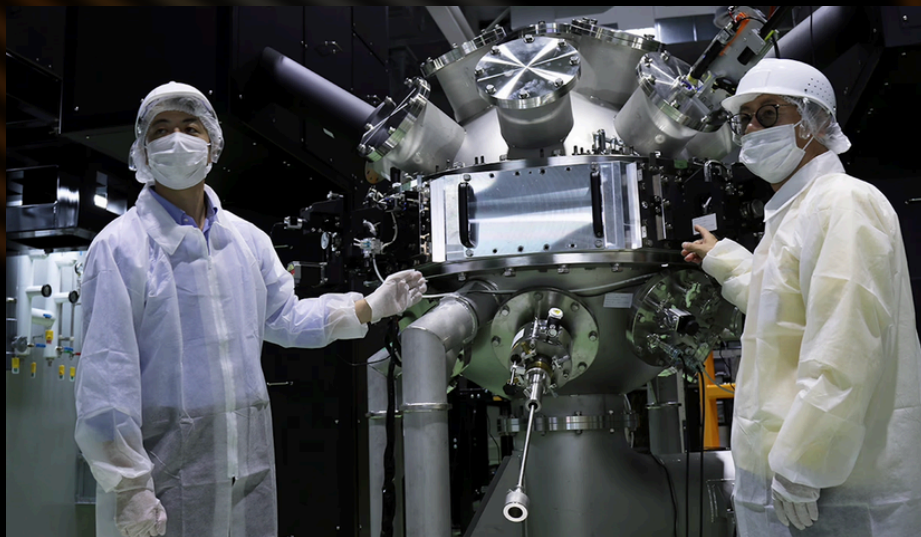
Multiple fuels



At the same time, several companies continue developing alternative fuel cycles, supporting innovation across multiple fusion approaches.

PREDICTIONS

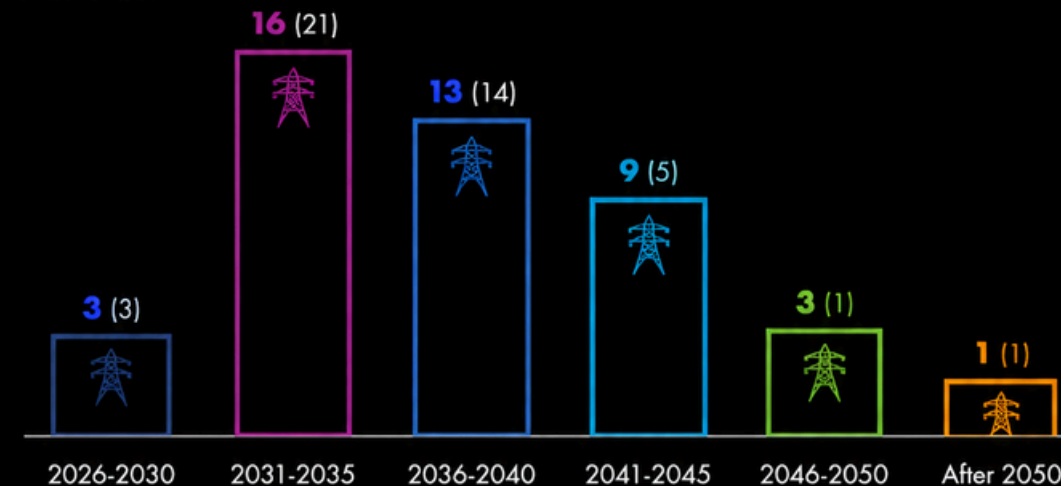
Most companies expect the first commercial fusion power plant to deliver electricity during the 2030s, with commercial viability following shortly thereafter.



When will the first fusion plant deliver commercial electricity?

(Last year's responses in brackets)

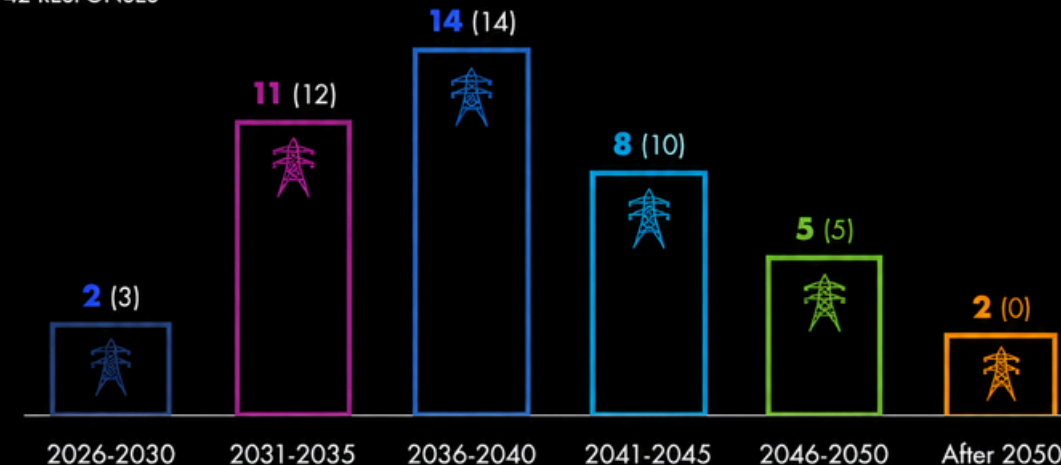
45 RESPONSES



When will the first fusion plant demonstrate a low enough cost/high enough efficiency (Q) to be considered commercially viable?

(Last year's responses in brackets)

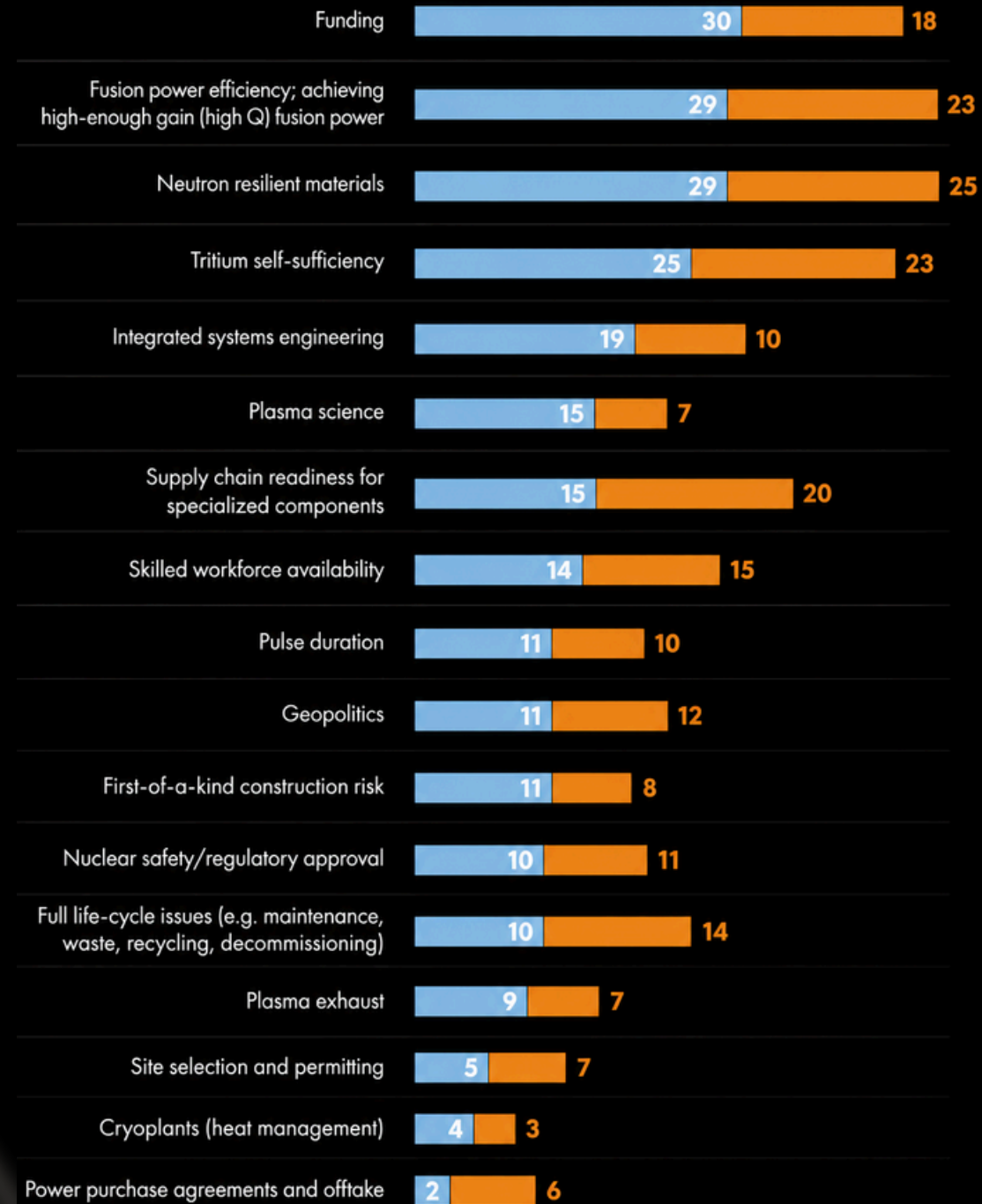
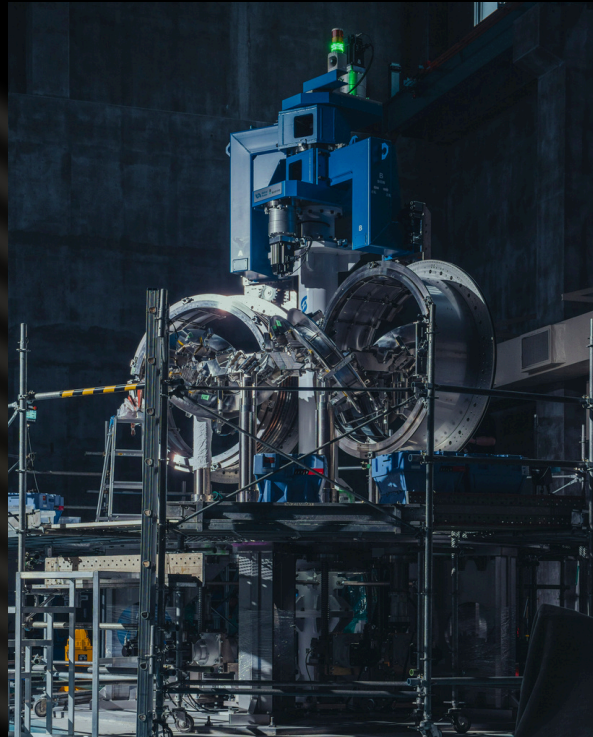
42 RESPONSES



WHAT'S NEEDED TO REACH COMMERCIAL FUSION?

Companies identified **funding, materials, and achieving high enough gain** as the **biggest challenges**.

■ Near term Challenge
■ Long term Challenge



WHAT POLICIES CAN ATTRACT FUSION?

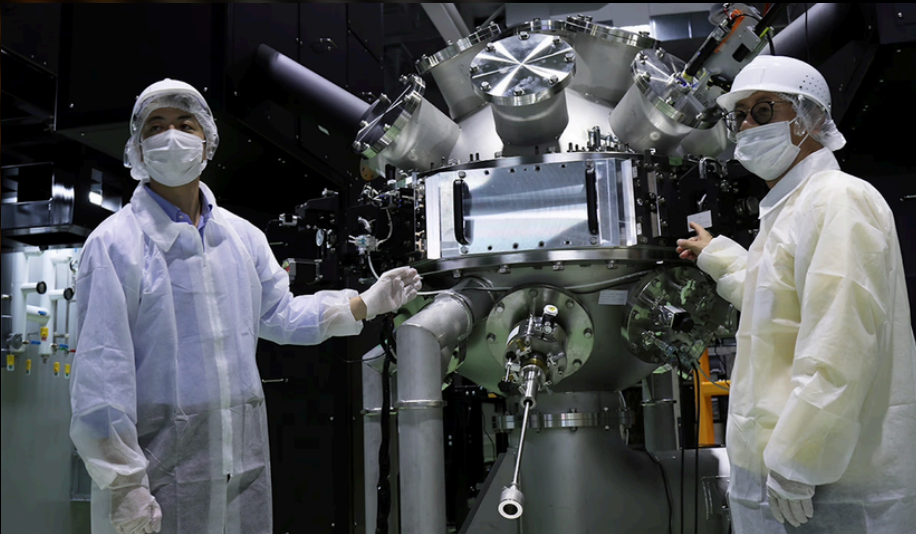
Regulation and Permitting
Workforce
Support Supply Chain Development

ENSURE STATE REGULATORY READINESS FOR FUSION

1. Decisions on how state asserts regulatory authority
2. Assess and examine whether and how to update state regulation
3. Determine reciprocity for fusion machine licensing and design reviews
4. Support Pathway for Low-Level Waste from fusion machines

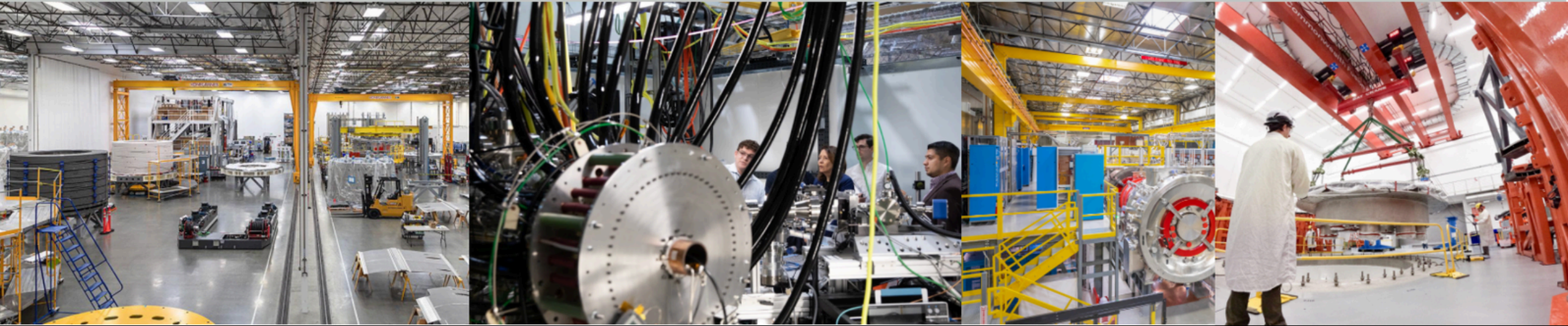
BUILD A SKILLED WORKFORCE

- Expand and incentivize fusion-focused education
- Leverage national universities as training hubs
- Identify centers of excellence for key skills
- Attract talent from other sectors or regions



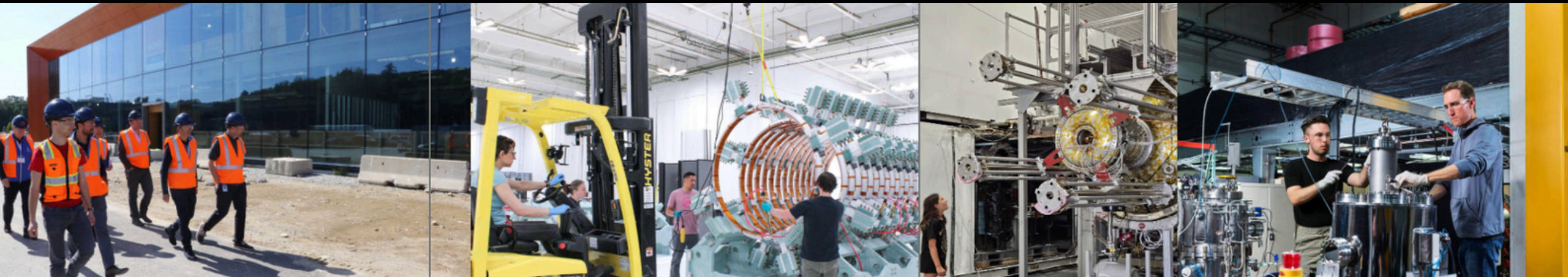
The skills needed by the fusion industry and its supply chain

- Skills to develop specialized components such as for heat management, plasma-facing first wall, and vacuum pumps
- Precision engineering skills at the cutting edge
- Skills for large scale production of power electronics
- Scientists, including plasma physicists
- Nuclear and plant process engineers
- Engineers to design and assemble fusion machines and power plants
- Machine learning and digital engineering
- Those experienced in navigating new regulatory frameworks



BUILD A SUPPLY CHAIN: *FIA SUPPLY CHAIN RECOMMENDATIONS*

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DE-RISK CAPACITY BUILDING

- Structured Public-Private Partnerships with incentives and financial tools
- Fund demonstration hardware, pilot plants, and research collaborations
- Support diversification of fuel supply chains

30%
of suppliers:

We have clear direction from the fusion industry about its long-term component needs

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"The products required are highly specialized, costly to produce and volume demanded currently is extremely low."

Anonymous fusion supplier

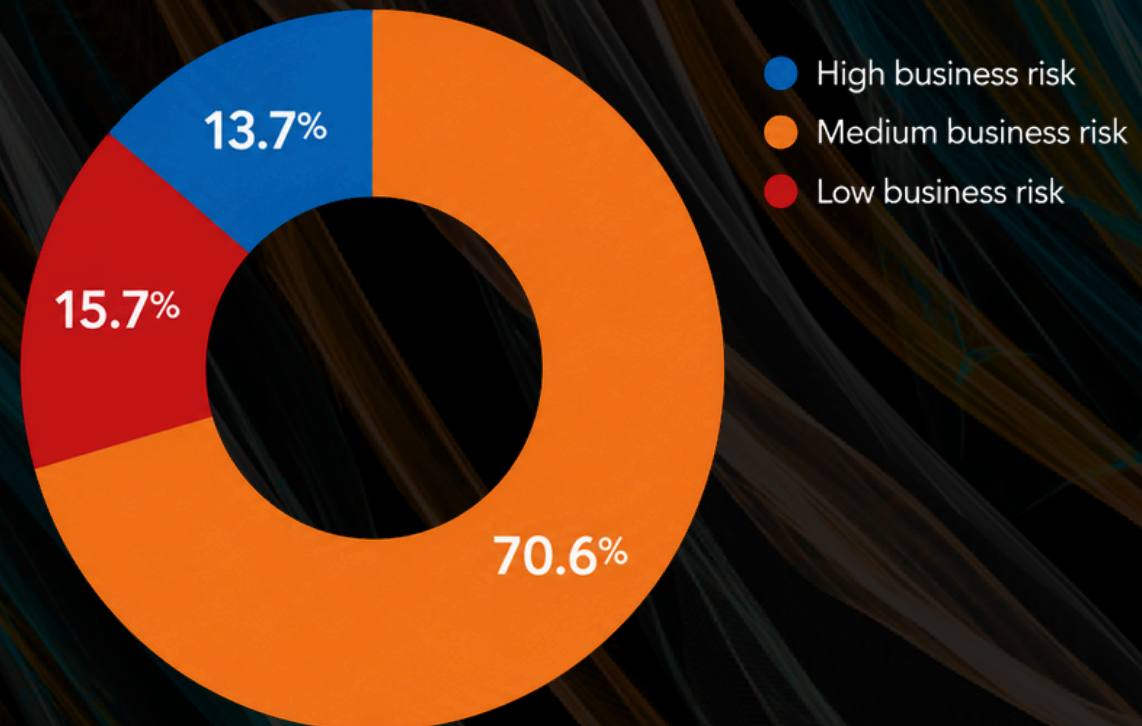
SUPPORT LONG-TERM PLANNING

- Provide long-term market visibility.
- Standardization of components and performance criteria.
- Develop and harmonize fusion-specific regulatory frameworks.
- Establish rules for use of 3D printed materials in high risk industries.
- Facilitate industry clusters and regional hubs.
- Convene regular fusion forums.

CHART 6:

How risky do you see the fusion industry as a future customer?

51 responses





60 years
of
research

- Scientific basis for fusion energy

Mid 2020s

- Scientific proof of concept

Late
2020s

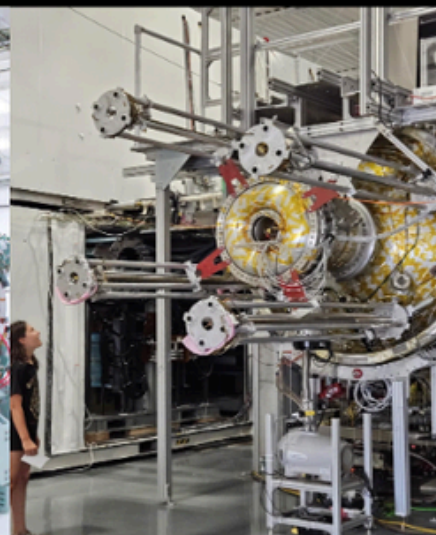
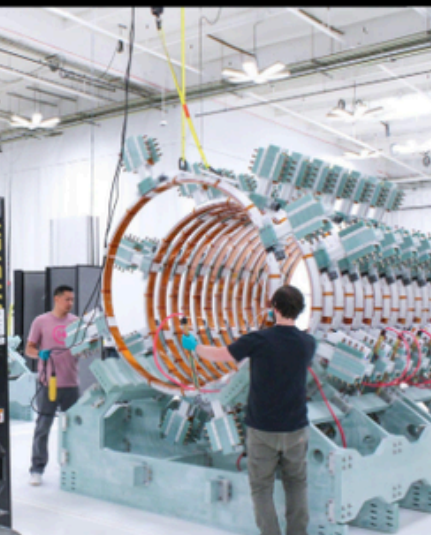
- Design and build pilot plants

Early
2030s

- Operate pilot plants

Mid 2030s

- Commercial fusion, rapid scale-up to global deployment



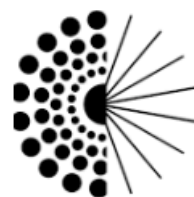
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LIBERTY FUSION

nT-tao
Compact Fusion Power



TERRA
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technologies

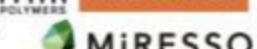
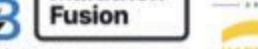
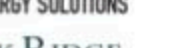
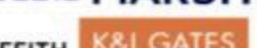
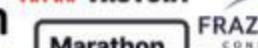
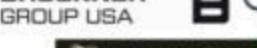
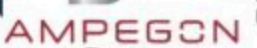


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