The Path to Commercial Fusion Energy

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Commonwealth Fusion Systems

About Commonwealth Fusion Systems

- CFS Founded in 2018, spun out of MIT
- Raised >$2 Billion in private funding
  - Investors include Tiger Global Management, Bill Gates, Coatue, DFJ Growth, Emerson Collective, Google, JIMCO Technology Fund, John Doerr, Marc Benioff's TIME Ventures, Breakthrough Energy Ventures, The Engine, Eni, Equinor Ventures, Khosla Ventures, and Temasek.
- Largest fusion company in the world
  - ~600 FTE + ~150 collaborators and contractors, 1600+workers
  - Forbes Best Startup Employer 2021, 2022, 2023
- From a large variety of backgrounds
  - Plasma physics, including leaders from nearly all major tokamaks
  - Engineering from aerospace, military, manufacturing
  - Strong partnerships to major Labs and Universities

Execution. Self-critique. Integrity. Impact.

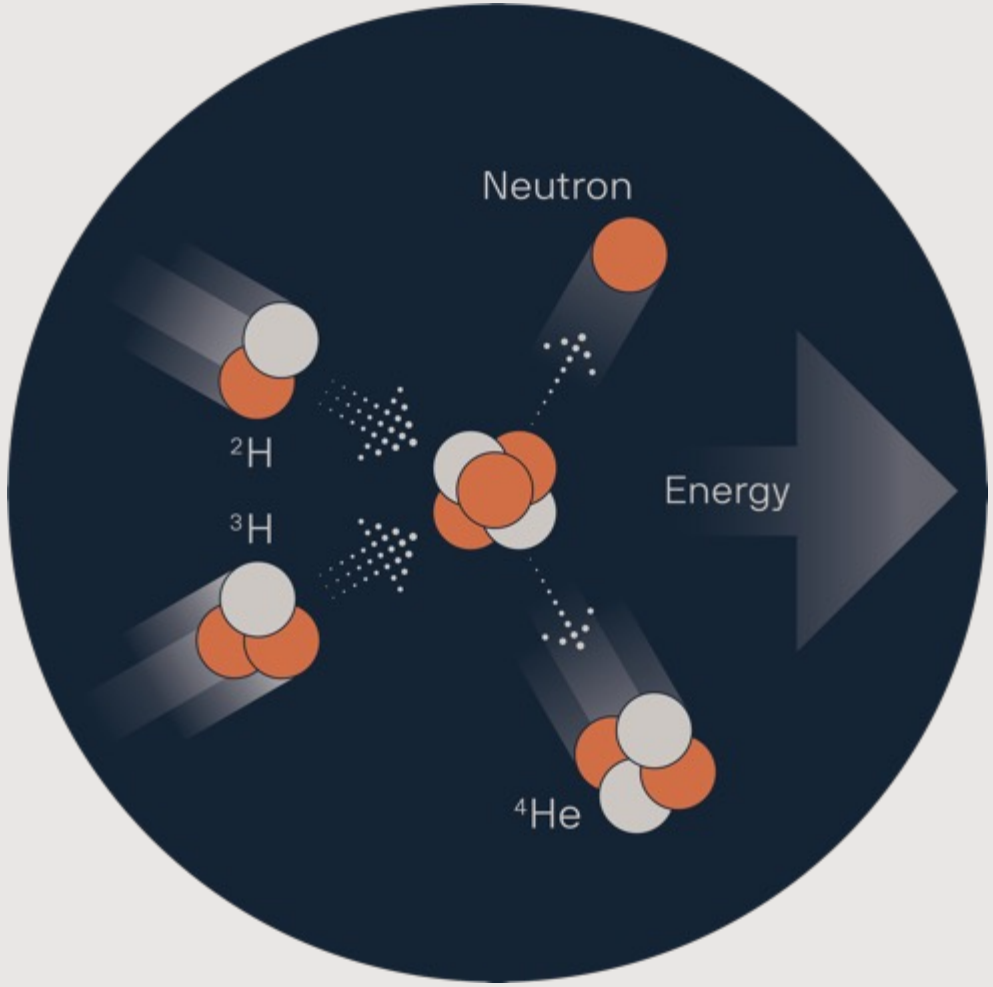
MIT. SpaceX. Tesla. Amazon.
AECOM. Fluor. Terrapower.
Google. Google X.
The Engine. TPG. Chevron.
BP. Boston Metal. NASA JPL.
Virgin Hyperloop. Aerojet.
PPPL. JET. UKAEA.
+other tokamak groups.

Fusion industry overview

- Over 40 private fusion companies, $5.5B raised
- US NRC votes to regulate fusion energy plants– and distinct from fission
- US DOE launches fusion milestone program – cost-share modeled off of NASA/SpaceX
- National governments establishing fusion industry strategies: U.S., U.K., Japan, Korea, China, UAE, Germany, etc.

What is fusion?

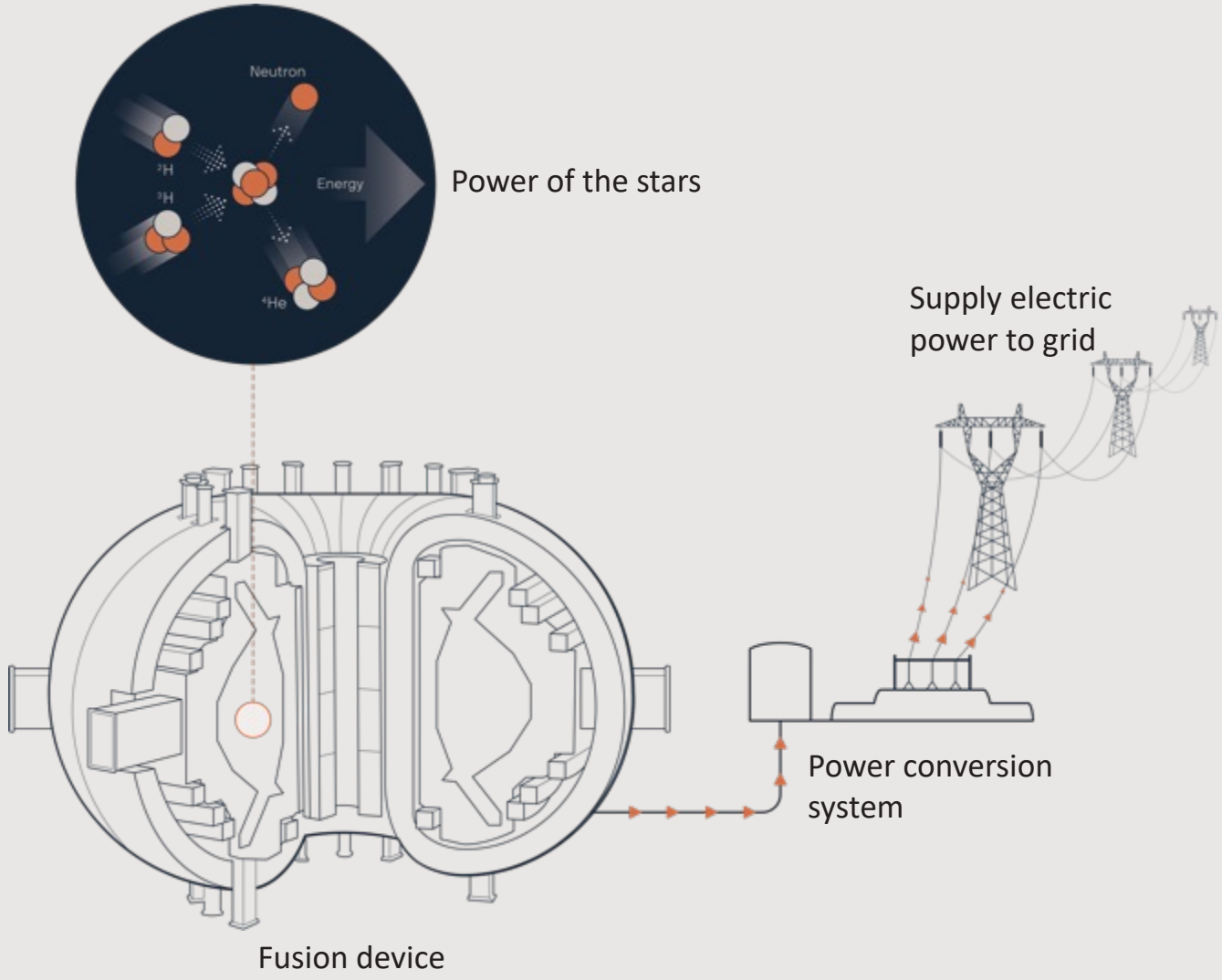
- Process that happens in stars like the sun
- Hydrogen fuses together into helium releasing enormous amounts of energy
- Generates 200 Million times the energy per reaction as burning coal



The power of the stars

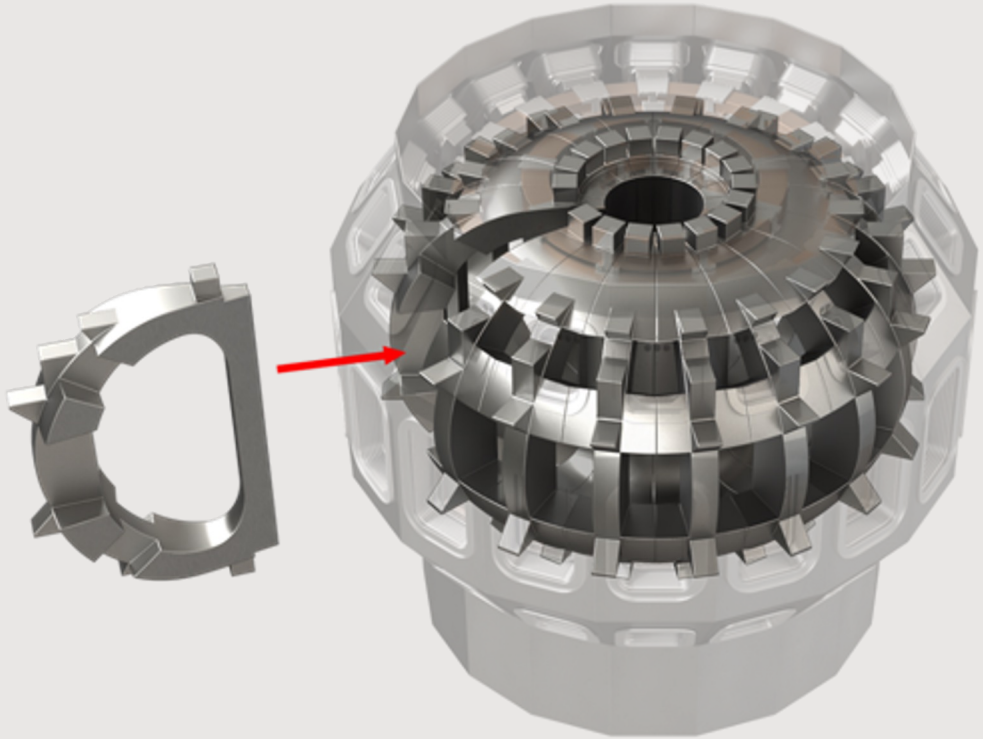
Why fusion energy is disruptive

- **Clean** – no emissions, no long-lived, high-level radioactive waste
- **Firm** – dispatchable power on call and when needed
- **Safe** – no risk of meltdown, regulated like medical research facilities
- **Scalable** – affordable, modular, and capable of siting near loads
- **Secure** – no geopolitically fraught supply chain, all fuel can be procured up front



CFS proprietary magnets unlock new fusion path

- CFS in collaboration with MIT invented world's strongest High Temperature Superconductor (HTS) magnet
- Designed and built it in 3 years, demonstrated 20 Tesla in 2021
- Enable power plants that are smaller, faster, and much lower cost



Speed and scale

Tokamak Hall

CFS magnet manufacturing, HQ and SPARC

Risk retirement in concrete steps

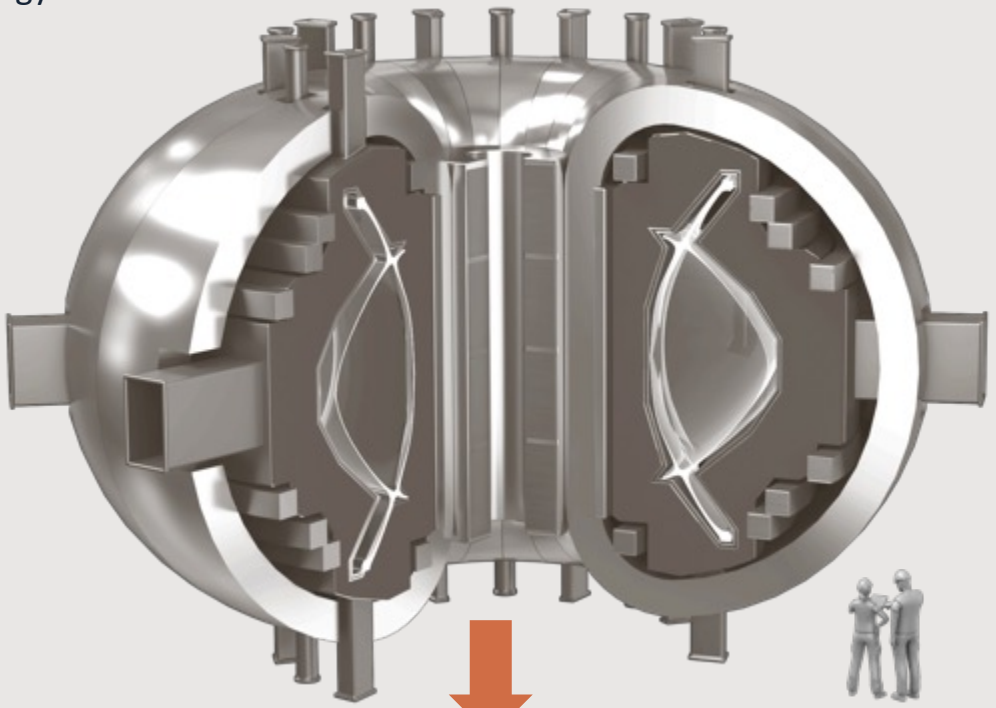
COMPLETED:
Alcator C-Mod
Record-setting tokamak

COMPLETED:
Demonstrate groundbreaking HTS magnets

CONSTRUCTION UNDERWAY for 2025 LAUNCH:
SPARC Q>1
Achieve net fusion energy

Commercially-relevant net fusion energy for the first time

EARLY 2030s:
ARC deployed
~400 MW



Carbon-free commercial power on the grid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Fusion Systems