

Summary of Engagement with Fusion Industry

by
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Strategic Planning Meeting**

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We cast a wide net to potential fusion industry users

- **General advertisement sent to Fusion Industry Association (FIA) members**
 - Magnetic/magneto-inertial confinement concepts also contacted directly
- **11 companies expressed interest in engagement on FPP Technology R&D:**

Company	Approach
Fuse Energy	Magnetized Liner Inertial Fusion
General Atomics	Advanced Tokamak
General Fusion	Magnetized Target Fusion
Helical Fusion	Stellarator
Proxima Fusion	Quasi-isodynamic Stellarator
Realta Fusion	Magnetic Mirror
Renaissance Fusion	Stellarator
TAE Technologies	Field-Reversed Configuration
Tokamak Energy	Spherical Tokamak
Type One Energy	Stellarator
Zap Energy	Z-pinch

Several companies expressed support for existing DIII-D goals (emphasis mine)

Proxima Fusion:

“I see the work done at DIII-D on **PMI** as very important and I'd be happy to add my voice to the many that ask for this effort to receive more funding. The major gaps here that we are worried about are the same as in tokamaks: **tritium retention and neutrons**. I seem to remember that you've been working on **SiC PFCs**, which is very interesting. It would be great if DIII-D could shift some focus to **neutron resilience**, although that's not so easy experimentally of course.”

Realta Fusion:

“We do share both **NBI and ECH technology** needs. We have had excellent collaborative work developing **magnetic mirror specific launchers**.”

TAE Technologies:

Some of the discussion regarding **high heat flux components** are certainly relevant to TAE's fusion approach. One technology/physics issue that has not been discussed is efficient means for **helium ash removal**. Accumulation of helium ash can be an issue for any MFE approach but can be especially problematic for steady-state devices... this seems like a “generic” physics/technology issue so developing **techniques to preferentially exhaust helium ash from the plasma and effectively pump it** would benefit many MFE efforts.

Zap Energy:

“I had a very useful visit to DIII-D last year and developed some good ties to the **diagnostic team**. The tokamak related technologies are not as relevant for our configuration but we are interested in **materials developments, such as SiC**.”

