

# hpDIRC/pfRICH

Triple I Engineering Meeting Update

Alex Eslinger



Electron-Ion Collider

# SAMPE Conference (Seattle)

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- **What it is:**

*“SAMPE Conference and Exhibition is exclusively dedicated to advanced materials and processes. Produced by the Society for the Advancement of Material and Process Engineering (SAMPE) North America, this event brings together leading companies, engineers, scientists, and professionals from throughout the advanced materials and processes industry.”*

- **Why I went:**

- My objective was to gather practical information that supports maturation of the current detector mechanical designs. I focused on materials selection, manufacturability, structural integration, fabrication and tooling options, and discussions with industry to better understand external capabilities that could support future development. The goal is to reduce uncertainty and strengthen design decisions as the PID-related sub-detector work advances toward roughly 90% maturity over the next year.

- **More Info:**

- [https://sampe26.mapyourshow.com/8\\_0/#/](https://sampe26.mapyourshow.com/8_0/#/)

# Interesting Metal 3D Printing Display



Electron-Ion Collider

# Contacts Made / Interested Vendors

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- Rock West
  - <https://www.rockwestcomposites.com>
- M4 Engineering
  - <https://www.m4-engineering.com>
- Daher Aerospace
  - <https://www.daher.com>
- Janicki
  - <https://www.janicki.com>
- Fiber Dynamics
  - <https://www.fiberdynamics.net>
- Center Street Technologies
  - <https://www.centerstreettech.com>
- IACMI – The Composites Institute
  - <https://www.iacmi.org>
- Coppins Industries / EB Composites
  - <https://www.coppinsindustries.com>

# General Feedback

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- The trade show was about 75% materials suppliers and about 25% companies who could manufacture.
- Most of the ones that could fabricate, typically did more aerospace work than anything else.
- Out of the ~25%, there was a range of feedback: some seemed very interested in low-volume carbon fiber work and one company told me that it was something that they do, but that they're already busy.

# Interesting Side Note

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- IACMI is apparently funded, in part, by the DOE under the Office of Critical Minerals and Energy Innovation (CMEI).
- Other labs, like Oak Ridge and National Lab of the Rockies, are members of this consortium
- This organization appears to do exactly what I went to the conference to do. Create contacts between people who need something done and industry that can help them get it done.
- This is way above my pay-grade – but at the *lab-level* – memberships can be applied and folks from those labs can attend the annual members meetings.

# First Contact

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- From the list on slide 3, I have already given all of them a brief description of the hpDIRC bar box design and am setting up meetings with those who have already responded.
- These meetings will help me accurately get cost estimates for the project as we update P6 as well as valuable input for the ongoing analysis for the CF vs Aluminum discussion as we go forward.

**Questions?**