



Contribution ID: **100** Contribution code: **WEYD01**

Type: **Invited Oral Presentation**

A plan to revitalize the domestic superconducting radio-frequency industry

Wednesday 13 August 2025 11:00 (30 minutes)

Superconducting radio-frequency (SRF) cavities are essential building blocks of modern particle accelerators for scientific research, and they offer unique capabilities that could be transformative for commercial applications. Growth of the domestic SRF industry in North America has faced several challenges over the past decades, as most of the international demand for cavities was supplied by European vendors. This contribution provides a brief review of the domestic industrial vendor space, an outlook of the global demand for SRF cavities and an outline of the challenges leading to this supply chain deficiency. One of the main challenges towards establishing a robust domestic SRF industry has been the large uncertainty in the demand. Meanwhile, research and development activities to raise technical readiness of SRF accelerators for industrial use have continued and several potential markets are emerging that may offer a consistent and growing demand for SRF cavities. Finally, reasons and means of establishing and sustaining competitive domestic suppliers are described.

Please consider my poster for contributed oral presentation

No

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Authors: TODD, Alan (AMMTodd Consulting); MUROKH, Alex (RadiaBeam Technologies (United States)); PACKARD, Drew (General Atomics (United States)); OSHA, Dwight (C F Roark Welding & Engineering Co.); CIOVATI, Gianluigi (Thomas Jefferson National Accelerator Facility); RATHKE, John (TechSource (United States)); SCHUCH-

MAN, Marla (Thomas Jefferson National Accelerator Facility); NAUGHTON, Miles (ATI Specialty Alloys & Components); DONALDSON, William (Christopher Newport University)

Presenter: CIOVATI, Gianluigi (Thomas Jefferson National Accelerator Facility)

Session Classification: Applications of Accelerators, Technology Transfer, Industrial Relations, and Outreach (Invited)

Track Classification: MC8 –Applications of Accelerators, Technology Transfer, Industrial Relations, and Outreach