

THE MINES CENTER

How Utah Can Lead the Nation in Expediting Mining and Processing

Utah is well positioned to lead the nation in creating a secure, domestic supply chain of critical minerals. The Critical Mineral Industry Coalition (CMIC), convened by SJR11, proposes the MINES Center as a collection of shared R&D facilities and as the singular point of contact for industry, academia and government to collaborate on R&D needed to commercialize technologies and accelerate mining and processing.

The Center, as detailed in the chart on the right, can grow modularly. Federal investments can expedite construction of core user facilities, and the Center can organize federal proposals for state partners in industry, academia and government. Initial focus will be on extraction and processing of: Cs, Ga, Ge, In, Mn, Rb, REEs (Nd & Pr) and Sb, among others. User facilities, like the MINES Center, are typically run by a contractor to reduce bureaucracy and drive efficiencies. Government can provide oversight in advisory boards or through governance structures.

MINES Center Single Point of Contact Coordinates:

- Industry technology needs
- Research/academic community solutions
- Access to R&D infrastructure
- Workforce development
- Technology transfer
- Incubator/accelerator/capital

Phase	Funding*	Outputs
Seed Funding	~\$5M	Studies on UT extraction and processing capabilities, USG critical mineral needs, and existing and needed R&D infrastructure
Initial	~\$50M	Enhance existing facilities of partners, coordinate access to field test sites and R&D facilities
Middle	~\$100M	Build new facilities with high-bays, assay labs, pilot plants and tech for field test site deployment
Full FFRDC Scale	~500M+	Expand campus to embed incubators, training center and visitor center

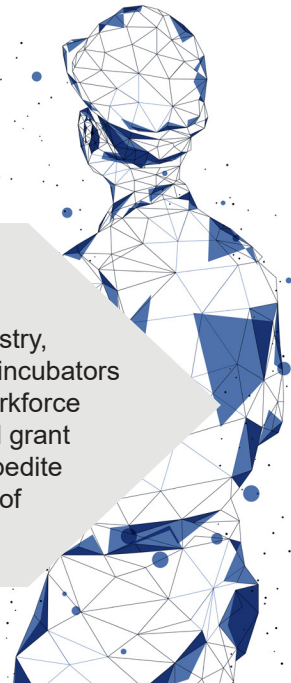
*10% Operations/year

How the MINES Center Works

Industry, academia and government collaborate in workshops and prioritize R&D projects to expedite mining and processing.

- We curate access to existing and new research infrastructure
- With core capabilities we collaborate on precompetitive/noncompetitive R&D
- Firewall off research that is proprietary

Resulting in commercialized technologies for industry, intellectual property, incubators and accelerators, workforce development, federal grant deliverables, and expedite domestic production of critical minerals.



Members of the Critical Minerals Industry Coalition Drive MINES Center Activities



Utah Mining Association

Coordinates industry's voice on technology needs



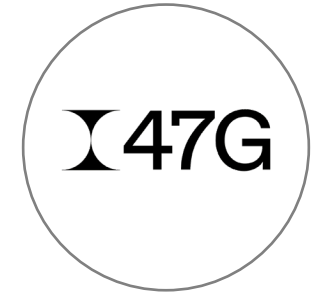
AUI

Builds and curates access to facilities, manages and operates the Center



World Trade Center Utah

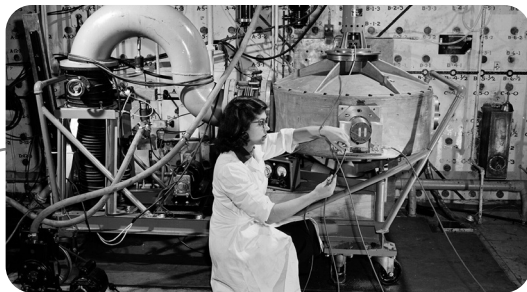
Coordinates on international trade and investment opportunities



47G Utah Aerospace and Defense

Coordinates aerospace and defense supply chain needs

AUI's roles in Building, Managing and Operating Federally Funded Research and Development Centers



Built and managed Brookhaven National Lab for 50 years

- Providing access to the brightest minds
- Enabling six Nobel Prizes
- Creating new fields like nuclear medicine
- Deepening understanding of physical sciences



Builds and manages access to large R&D facilities

- \$1.5B ALMA pivotal to historic black hole image
- National Radio Astronomy Observatory is key to: (1) space domain awareness, (2) naval position navigation and timing (GPS's backbone), and (3) countless scientific breakthroughs



Manages industrial usage

- Manages access to key facilities for the biggest names in the pharmaceutical industry
- Securely protects proprietary R&D
- Coordinates precompetitive and noncompetitive R&D