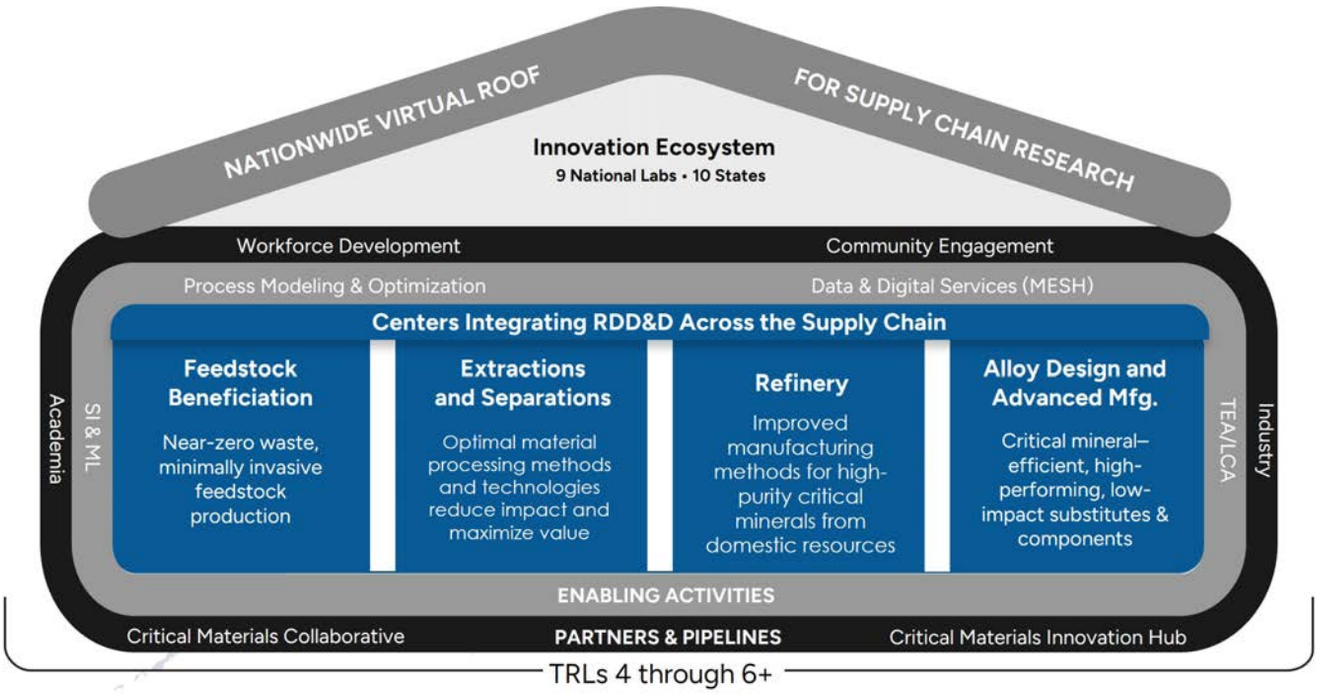
METALLIC

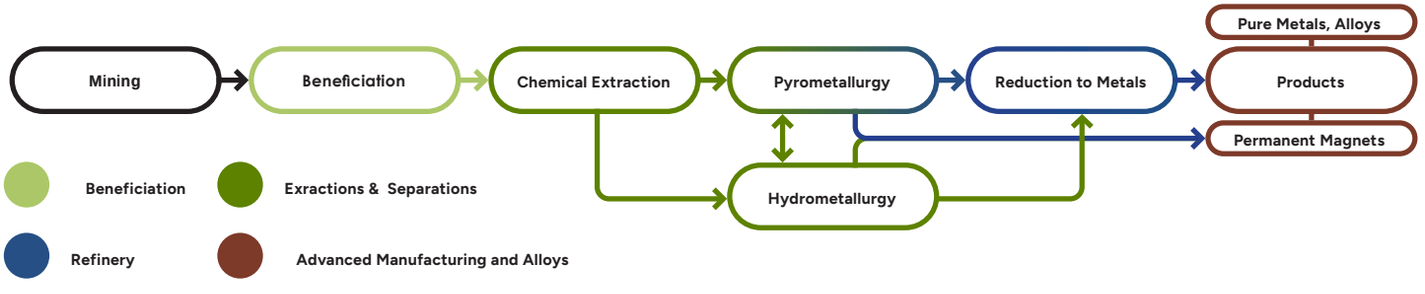
WHAT IS METALLIC?

The Minerals to Materials Supply Chain Research Facility (METALLIC) provides facilities and expertise to accelerate research, development, demonstration, and deployment (RDD&D) across the entire critical minerals and materials (CMM) supply chain. Capabilities are focused on reducing time, cost, and risk of maturing technologies at the bench, pilot, and industry-relevant prototype scales.



OUR GOAL

Accelerate the establishment of domestic CMM supply chains by providing the facilities and expertise for developing, maturing, and de-risking the adoption of new feedstocks, production pathways, and advanced processing technologies.



THE FOUR METALLIC CENTERS

The four METALLIC centers exist to connect research, development, demonstration, and deployment (RDD&D) across critical minerals and materials (CMM) supply chain areas.

CENTER 1



FEEDSTOCK BENEFICIATION

Advances and validates innovative beneficiation approaches for a variety of solid and liquid feedstocks. It leverages comprehensive characterization capabilities to inform efforts and create a resource data library.

CENTER 2



EXTRACTIONS AND SEPARATIONS

Demonstrates extraction and separations technologies — from acid leaching to solvent extraction, membranes to direct precipitation — on low-concentration sources, high-volume liquids, slurries, and everything in between.

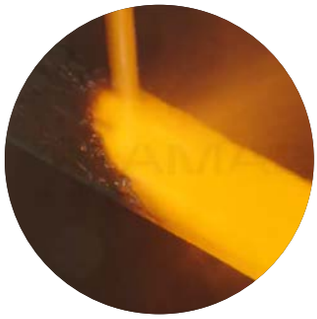
CENTER 3



THE REFINERY

Validates new materials and technologies to support critical materials supply chains, thereby de-risking commercial adoption. It also integrates smart manufacturing and supports workforce training and development.

CENTER 4



ALLOY DESIGN AND ADVANCED MANUFACTURING

Designs and validates improved methods for alloy development, leading to advanced manufacturing approaches to reduce the materials intensity of critical-material-containing alloys and parts.

ENABLING ACTIVITIES

Techo-Economic Analysis/Life Cycle Assessment, Process Modeling & Optimization, Data & Digital Services (MESH), Autonomous Labs, SI/ML

AN INNOVATION ECOSYSTEM

METALLIC is maturing, de-risking, validating, demonstrating, and deploying

INTEGRATED CAPABILITIES

Shared tools, data, and expertise

STRATEGIC PARTNERSHIPS

Industry, national labs, academia, and other government agencies

ACCELERATED INNOVATION

Faster path from source to supply

NATIONAL IMPACT

Stronger supply chains and a secure future

METALLIC LEAD

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For info about METALLIC

U.S. DEPARTMENT of ENERGY | NATIONAL ENERGY TECHNOLOGY LABORATORY