U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

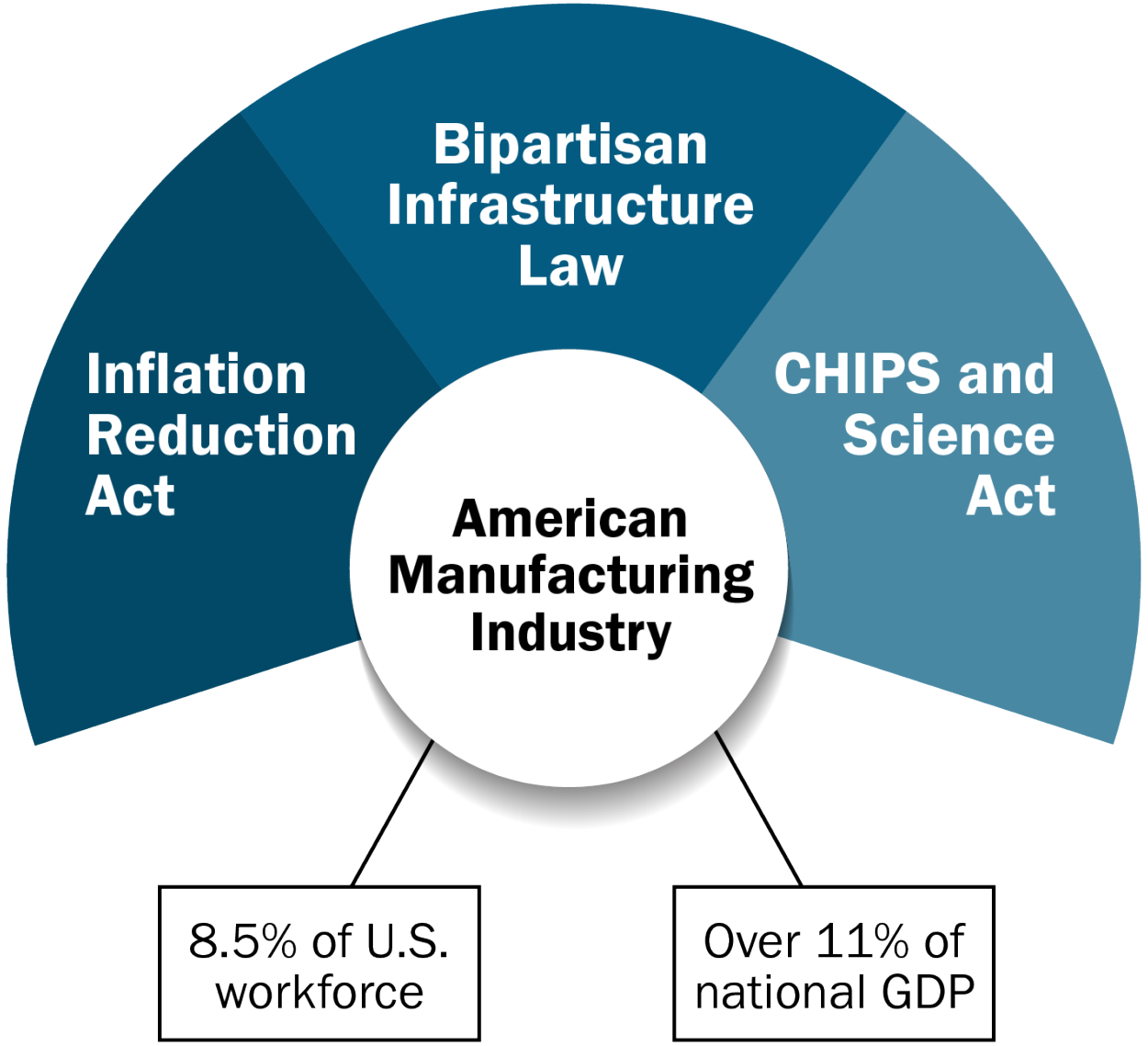
ADVANCED MATERIALS & MANUFACTURING TECHNOLOGIES OFFICE

AMMTO Strategy Overview and Budget

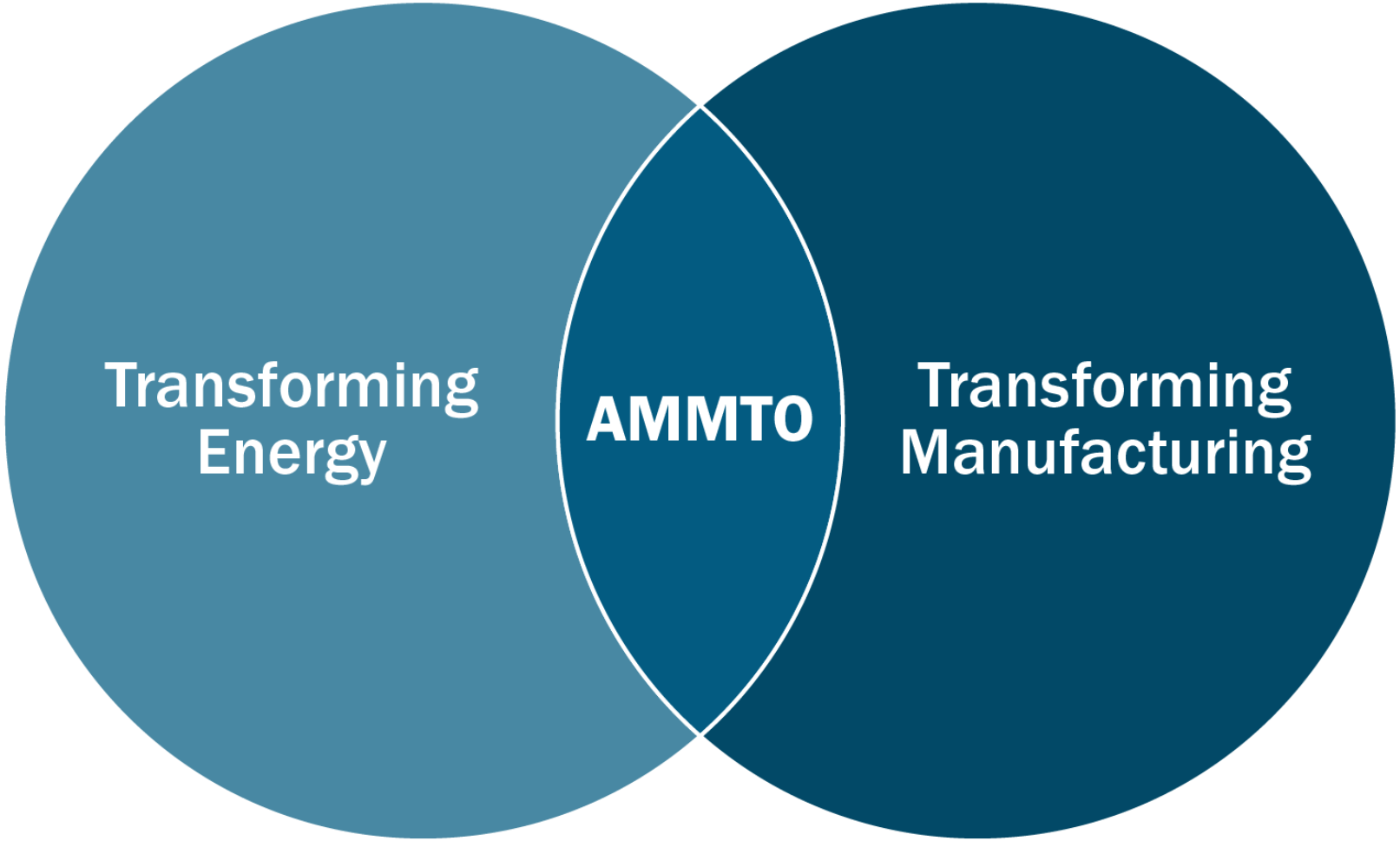
Dr. Diana Bauer

AMMTO Deputy Director

Unprecedented Federal Investment in Manufacturing



AMMTO's Unique Role in American Manufacturing



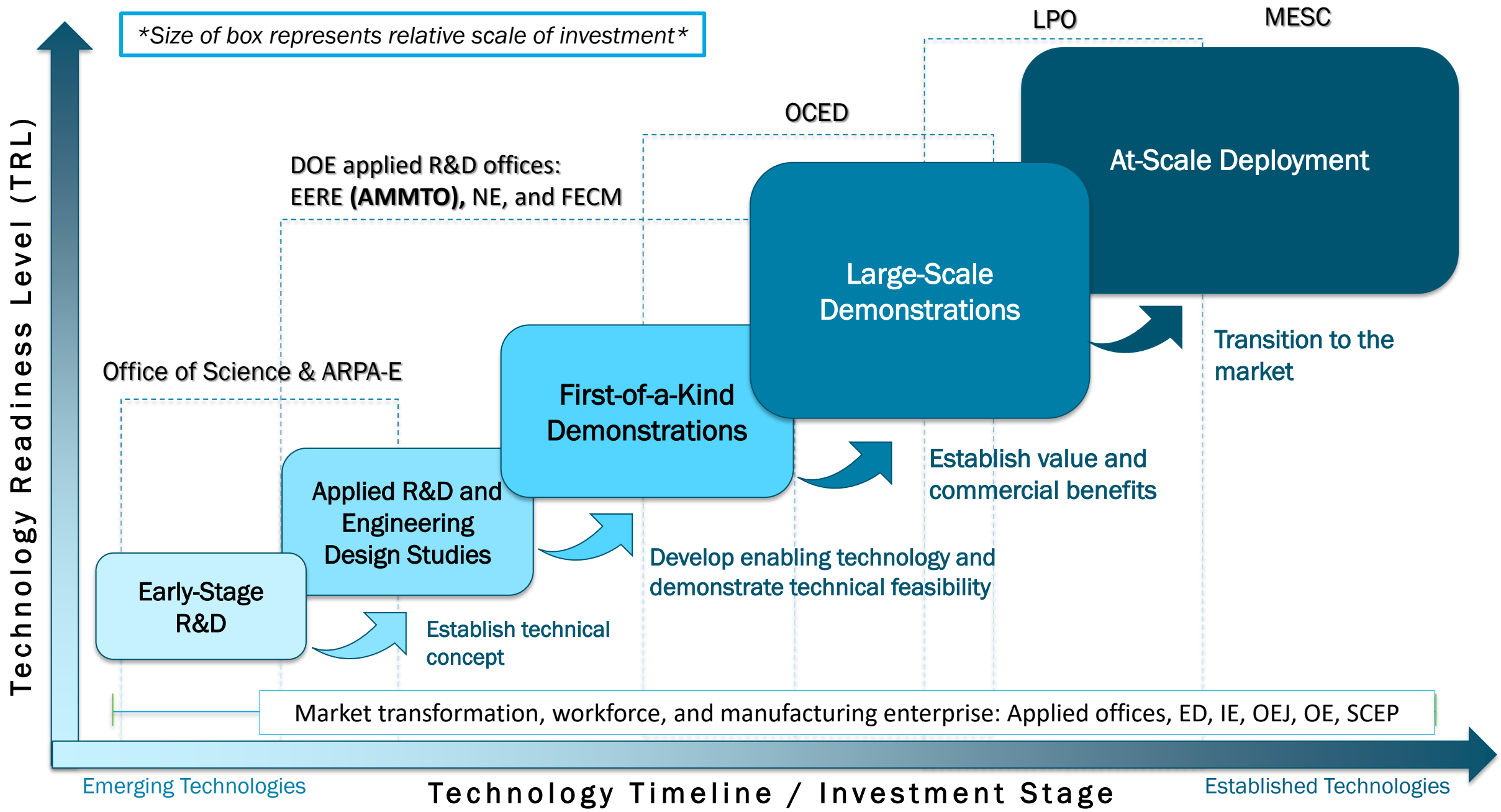
What is AMMTO All About?

Vision

A globally competitive U.S. manufacturing sector that accelerates the adoption of innovative materials and manufacturing technologies in support of a clean, decarbonized economy.

Mission

We inspire people and drive innovation to transform materials and manufacturing for America's energy future.


Size of box represents relative scale of investment
LPO
MESC
OCED
DOE applied R&D offices:
EERE (AMMTO), NE, and FECM
Office of Science & ARPA-E
At-Scale Deployment
Large-Scale Demonstrations
First-of-a-Kind Demonstrations
Applied R&D and Engineering Design Studies
Early-Stage R&D
Transition to the market
Establish value and commercial benefits
Develop enabling technology and demonstrate technical feasibility
Establish technical concept
Market transformation, workforce, and manufacturing enterprise: Applied offices, ED, IE, OEJ, OE, SCEP
Technology Readiness Level (TRL)
Emerging Technologies
Technology Timeline / Investment Stage
Established Technologies


Education and Workforce Development
Innovation Ecosystems
Diversity, Equity, Inclusion, and Accessibility

Diversity, Equity, Inclusion, and Accessibility (DEIA) Focus

We seek to create a future manufacturing workforce that reflects the diversity of Americans and ensure that all Americans benefit from a decarbonized economy.

Increasing **Diversity** in Partnerships, Applicant FOA pool, and FOA Reviewers

Using **Inclusive** Language to welcome broader participation in funding opportunities

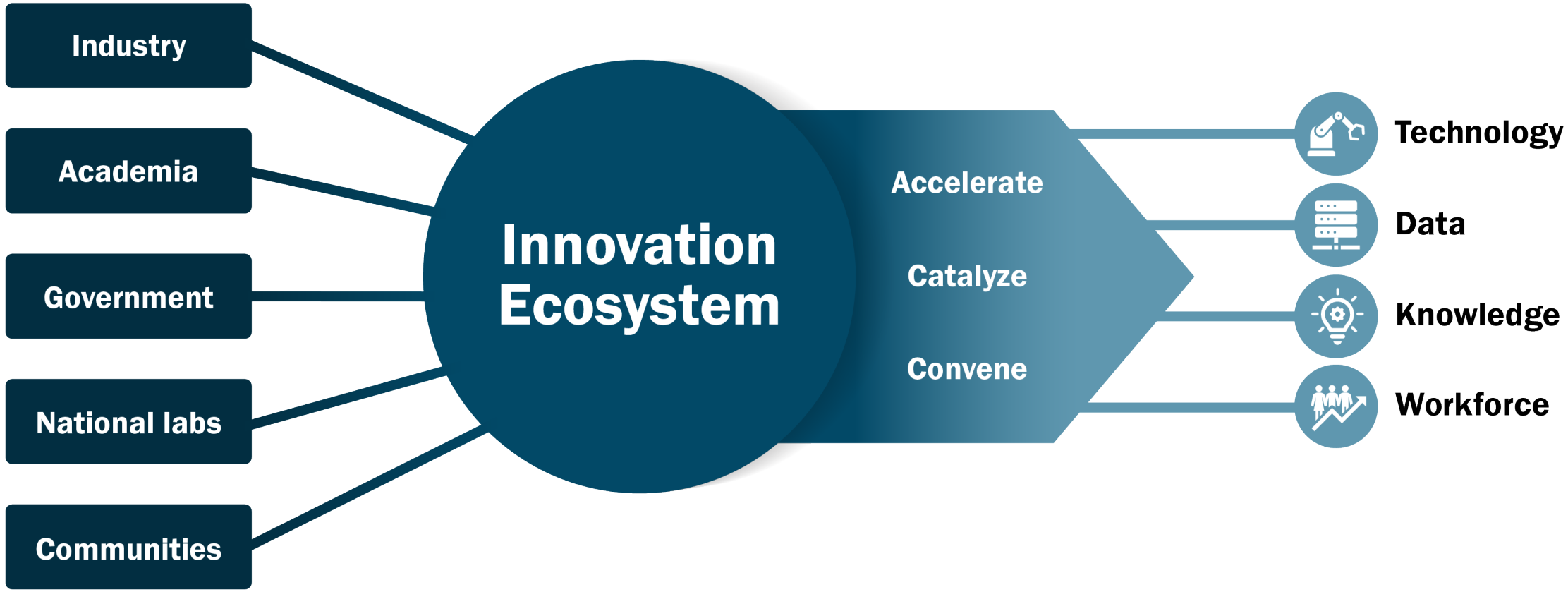
Identifying **Equity**-related barriers that impact advanced materials and manufacturing technologies

Expanding **Accessibility** for Disadvantaged Communities (DACs), including through community-based stakeholder engagement

AMMTO is committed to empowering diverse communities to have a voice in shaping the future of manufacturing.
As AMMTO solidifies its identity, we are committed to amplifying best practices for DEIA internally and externally.

Innovation Ecosystems

The evolving set of stakeholders, resources, and activities—and the relationships and connections among them—that drive technological advancement.



Consortia Seed Innovation Ecosystems

AMMTO's Emerging Education and Workforce Focus

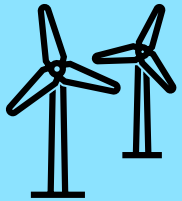
A robust advanced manufacturing ecosystem depends on an educated, innovative, diverse, and nimble workforce.

AMMTO will continue to work across the U.S. manufacturing sector to help create a manufacturing workforce of the future that will be ready for the clean energy transition.

AMMTO's Subprogram Structure

NEXT-GENERATION MATERIALS & PROCESSES

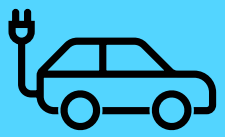
Advanced Manufacturing Processes and Systems



High Performance Materials

SECURE & SUSTAINABLE MATERIALS

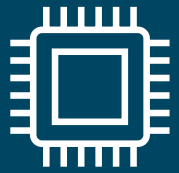
Circular Economy Technologies and Systems



Critical Materials

ENERGY TECHNOLOGY MANUFACTURING & WORKFORCE

Energy Conversion and Storage Manufacturing



Semiconductors, Electronics, and Other Technologies Manufacturing

Entrepreneurial Ecosystems and Advanced Mfg. Workforce

INTERAGENCY COLLABORATION

U.S. DEPARTMENT OF
ENERGY

NIST
National Institute of Standards and Technology
U.S. Department of Commerce

AMMTO Budget and Subprogram Breakdown

	FY22 Enacted ($Million)	FY23 Enacted ($Million)	FY24 Proposed ($Million)
	217	184	241
Next-Generation Materials and Processes	107	90	90
Secure and Sustainable Materials	66	40	91
Energy Technology Manufacturing and Workforce	44	54	60

AMMTO'S 2023 Programming

NEXT-GENERATION MATERIALS & PROCESSES

- Renewal of Institute for Advanced Composites Manufacturing Innovation
- Near Net Shape Manufacturing FOA
- Wind Turbine Manufacturing FOA
- Smart Manufacturing Workshop Series
- High Performance Computing for Manufacturing
- Conductivity-Enhanced (CABLE) Manufacturing Prize

SECURE AND SUSTAINABLE MATERIALS

- Lithium from Geothermal Brines FOA
- Circular Economy RFI
- Critical Materials Education and Workforce Development Workshop
- Critical Materials Assessment Notice of Intent*

**RFI forthcoming May 30th*

ENERGY TECHNOLOGY MANUFACTURING & WORKFORCE

- Microelectronics LC
- Battery Manufacturing LC
- Technology Commercialization Fund LC
- Microbattery Design Prize
- Energy Efficiency Scaling for 2 Decades (EES2) National Initiative
- Lab-Embedded Entrepreneurship Program
- ReCell Battery Rejuvenation LC

SBIR and STTR

AMMTO Multi-topic Funding Opportunity

- Increased Conductivity Metal-Based Material Systems
- Harsh Environmental Materials
- Enhanced Thermal Conductivity Materials**
- AI/Machine Learning for Aerostructures
- Material Circularity Regional Demonstrations
- Advanced Process Manufacturing of Electric Vehicle Cathode Active Materials at Volume

*** IEDO Multi-topic FOA sub-topic*

Bottom Lines

Transformation of
the energy system and
the manufacturing sector
is our future.

Collaboration is essential to meet the moment.

Changing the world together will be fun!

Thank you!

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