



DEPARTMENT OF DEFENSE

MANUFACTURING INNOVATION INSTITUTES

Quick Start Opportunities Guide for

U.S. MANUFACTURERS

Strengthen your bottom line!



The Department of Defense Manufacturing Innovation Institutes (DoD MIIs) connect organizations and activities to better enable the affordable, rapid transition and delivery of defense-essential technologies.

Over the past century, U.S. National and economic security have relied on a robust American industrial base armed with the advanced manufacturing technologies needed to rapidly and affordably deliver critical products and systems. Today, our country faces new challenges, not only from great powers and regional adversaries, but also from infectious disease, cyberattacks, and intellectual property theft impacting our daily lives at home.

Despite unprecedented threats, we face unmatched opportunity.



America must lean forward to create the manufacturing capabilities needed to build back better our economic foundations and modernize our military. An innovative industrial base

can only be accomplished through Nation-wide collaboration that fosters healthy, competitive technology ecosystems. That's where the DoD MIIs come in...

The DoD MIIs bring new technologies to U.S. warfighters using a combined committed \$950 million in federal investment from the DoD and \$2 billion matching funds from industry, academia, and state governments. Institute members include 1,700+ organizations across defense industry, commercial manufacturers of all sizes, start-ups, universities, community colleges, and state and local economic developers in active partnership with the U.S. Federal Government.



America's national security depends upon our ability to produce needed parts and systems, access healthy and secure supply chains, and employ a skilled U.S. workforce.

ACCELERATING PRODUCT-TO-MARKET LEADS TO STRONGER PERFORMANCE

In the global marketplace, developing the next generation of advanced manufacturing capabilities requires the U.S. to encourage more collaboration between companies, customers and the government in order to conduct the pre-competitive applied R&D necessary for profitable commercialization. A modern 'industrial commons' is essential, where R&D facilities and key manufacturing information are available to U.S. companies of all sizes, allowing them to affordably develop their products for commercial or defense needs. The DoD MII network offers companies the ability to leverage pre-competitive R&D into the manufacturing processes that underpin these future product opportunities. They include materials and manufacturing R&D; product design and development; production capacity; visibility into new markets and manufacturing workforce training and education.

"Overall, Lockheed Martin has realized a very high return on its cost-sharing investments in the institutes."

- Mr. Jeff Wilcox, Vice President for Digital Transformation at Lockheed Martin

HIGH VALUE COLLABORATION & FACILITY ACCESS

- Technology roadmapping
- Manufacturing pilot lines
- Extensive lab, testing, and prototyping equipment
- Industry apprenticeships

SUPPLY CHAIN MULTIPLIER

- Collaborative environment brings in new partners
- Co-location with much of your supply chain
- Small business incubators
- Network with industry, academia and DoD

NEW CAPABILITIES AND MARKETS

- Small business access to primes and vice versa
- Access to intellectual property
- Commercialize technology from federal laboratories
- Awareness of DoD requirements & future needs

INCREASED PERFORMANCE & RETURNS

- Risk reduction through pooled R&D
- Participate in federally cost-shared R&D projects
- Develop cutting edge technology
- Better trained workforce



Office of the Secretary of Defense
Under Secretary of Defense for Research & Engineering

For more information visit: www.dodmantech.mil | www.manufacturingusa.com



America Makes: National Additive Manufacturing Innovation Institute

Youngstown, OH | www.americamakes.us

America Makes strengthens U.S. capabilities in 3D printing and additive manufacturing.



MxD: Manufacturing x Digital (formerly DMDII)

Chicago, IL | www.mxdusa.org

MxD leads the nation's research in applying cutting-edge digital technologies.



LIFT

Detroit, MI | lift.technology

LIFT connects materials, processes, systems, and talent.



AIM Photonics: American Institute for Manufacturing Integrated Photonics

Albany, NY & Rochester, NY | www.aimphotonics.com

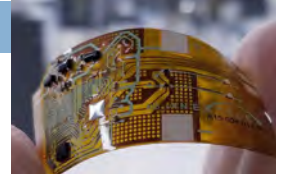
AIM Photonics accelerates development of the photonic integrated circuit industry.



NextFlex: America's Flexible Hybrid Electronics Institute

San Jose, CA | www.nextflex.us

NextFlex innovates electronic packaging & printing to produce flexible electronic products.



AFFOA: Advanced Functional Fabrics of America

Cambridge, MA | www.AFFOA.org

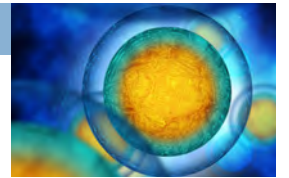
AFFOA accelerates widespread commercialization of highly functional fibers and fabrics.



BioFabUSA: Advanced Tissue Biofabrication Institute

Manchester, NH | armiusa.org

BioFabUSA develops next-generation techniques for cell & tissue biofabrication.



ARM: Advanced Robotics Manufacturing Institute

Pittsburgh, PA | www.arminstitute.org

ARM improves U.S. competitiveness through advancements in smart collaborative robotics.



BioMADE: Bioindustrial Manufacturing and Design Ecosystem

St. Paul, MN | www.biomade.org

BioMADE is building a sustainable, domestic end-to-end bioindustrial manufacturing ecosystem.

