



DEPARTMENT OF DEFENSE

MANUFACTURING INNOVATION INSTITUTES

Quick Start Opportunities Guide for

STATE & LOCAL GOVERNMENTS

Build your innovation infrastructure!



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.

INNOVATION CLUSTERS BRING LASTING ECONOMIC DEVELOPMENT

DoD MIIs are innovation clusters comprised of numerous partners with a singular technology focus - all committed to building a convergence of expertise. Because these clusters contain all of the elements necessary for product realization (research, design, prototyping and production), they feed off each other's success and become deeply entrenched locally and regionally. Clusters formed around advanced manufacturing facilities inherently persist due to the ability to accelerate product to market using a co-located supply chain. All this growth provides phenomenal opportunities to the region's students and workforce.

For example, the State of Massachusetts has pledged more than \$100 million for partnering with manufacturing innovation institutes. The investment is in world class prototyping facilities, open to members of respective institutes and attractive to industry and academia.



SEE RETURNS FROM ADVANCED MANUFACTURING

- Manufacturing generates the highest community economic multiplier for jobs and GDP
- Members compete for manufacturing project grants



RAISE YOUR NATIONAL PROMINENCE

- Institutes provide a means to increase preeminence
- Institutes converge regional members associated with next generation technologies
- Clustering helps bring additional Federal grants



GROW A QUALIFIED WORKFORCE

- Workforce development is a key objective at each institute
- Deliver unique opportunities for regional students, using community colleges and universities



ATTRACT DIRECT INVESTMENT

- Hub or node pilot facilities appeal to first adopters
- Small businesses receive mentoring and become key suppliers as spin outs



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

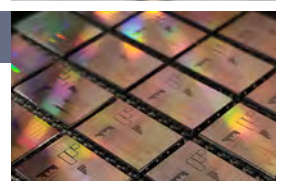
LIFT connects materials, processes, systems, and talent.



AIM Photonics: American Institute for Manufacturing Integrated Photonics

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

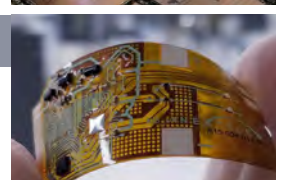
AIM Photonics accelerates development of the photonic integrated circuit industry.



NextFlex: America's Flexible Hybrid Electronics Institute

San Jose, CA | www.nextflex.us

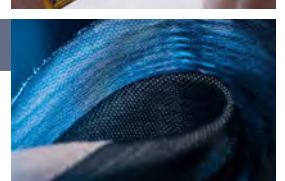
NextFlex innovates electronic packaging & printing to produce flexible electronic products.



AFFOA: Advanced Functional Fabrics of America

Cambridge, MA | www.AFFOA.org

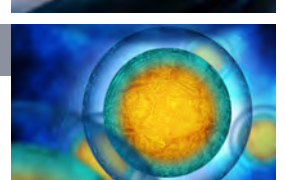
AFFOA accelerates widespread commercialization of highly functional fibers and fabrics.



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.

