



DEPARTMENT OF DEFENSE MANUFACTURING USA INSTITUTES



Quick Start Engagement Guide for State & Local Governments

Build your innovation infrastructure!

MAKING THE U.S. MORE COMPETITIVE

The Department of Defense (DoD) Manufacturing USA institutes collectively represent nearly 1,000 organizations including defense and commercial manufacturers of all sizes, start-ups, universities, community colleges, and state or local economic developers in active partnership with the U.S. Federal Government. Since 2012, the DoD has established eight Manufacturing USA institutes, combining \$600 million in federal investment with \$1.2 billion in matching funds from industry, academia and state governments to form centers of excellence promoting U.S. competitiveness.

Each institute is its own public-private partnership and innovation ecosystem providing high value access to world class pilot manufacturing facilities that complement member capabilities, yielding a robust and sustainable domestic 'industrial commons' in a promising technology area. Also critical to U.S. competitiveness is the availability of a well-trained, qualified workforce with manufacturing skills matched to the nation's current and emerging production needs. Each institute has developed a set of education and workforce development activities that can be leveraged by all participants.



INNOVATION CLUSTERS BRING LASTING ECONOMIC DEVELOPMENT

Manufacturing Institutes 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.

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.

GREAT RETURNS FROM ADVANCED MANUFACTURING

- Manufacturing possesses the highest community economic multiplier for jobs and GDP
- Members compete for manufacturing technology project 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

RAISING YOUR NATIONAL PROMINENCE

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

ATTRACT DIRECT INVESTMENT

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

Department of Defense Manufacturing USA Institutes Program Office

Office of the Secretary of Defense | Manufacturing Industrial Base Policy Office | Manufacturing Technology Program

For more information visit: www.businessdefense.gov | www.manufacturingusa.com

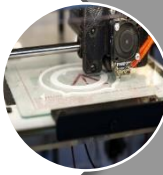
Or email inquires to: osd.mc-alex.ousd-atl.mbx.dod-mfg-usa@mail.mil



America Makes

America Makes: National Additive Manufacturing Innovation Institute
Youngstown, OH | www.americamakes.us

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



DMDII
a UI LABS Collaboration

DMDII: Digital Manufacturing and Design Innovation Institute
Chicago, IL | dmdii.uilabs.org

DMDII leads the nation's research institute into applying cutting-edge digital technologies.



LIFT: Lightweight Innovations For Tomorrow

Detroit, MI | lift.technology

LIFT speeds development of new lightweight metal manufacturing processes.



AIM Photonics: American Institute for Manufacturing Integrated Photonics
Albany & 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 | join.affoa.org

AFFOA accelerates widespread commercialization of highly functional fabrics.



BioFabUSA: Advanced Tissue Biofabrication Institute

Manchester, NH | www.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.

