



MANUFACTURING EDUCATION AND WORKFORCE DEVELOPMENT PROGRAM

Building Regional and State Ecosystems:

Iowa Ammunition Plant — LIFT led a collaborative, multi MII team focusing on the modernization of the Iowa Army Ammunition Plant (IAAAP) and American Ordnance (AO). The collaborative project between LIFT, ARM, and MxD utilized data analytics that ensures the best solutions are brought to each workforce challenge and that these studies are adaptable to specific industries, regions, and technologies.

Indiana Workforce Study — This is an Agency Directed Project by ManTech to conduct research on Indiana's workforce in the manufacturing sector in Indiana to better understand both supply-chain and workforce and ecosystem. This project advances issues of concern to small and mid-sized manufacturers (SMMs) in the state and helps determine gaps in the state of Indiana.

Upscaling MII Solutions:

ARM Competency Framework — In 2019, the ARM Institute created a robotics competency framework to clarify advanced manufacturing roles and create a common language across stakeholders. In 2024, OSD ManTech provided ARM with the funding to work with MxD, NextFlex and America Makes to build out their competency frameworks. The program will culminate in a cross-walk of the various competency frameworks to best identify skill and career adjacencies across a sub-set of advanced manufacturing focus areas.

NextFlex Military Spouse Program (MiISTEM) — In collaboration with Central New Mexico Community College (CNM), this program offers skill-based training and employment support tailored to military spouses near Kirtland Air Force Base. The initiative leverages CMN's Internet of Things and Rapid Prototyping bootcamp to provide opportunities in emerging technologies and advanced manufacturing fields.

Leveraging Interagency Relationships:

OSD ManTech M-EWD routinely collaborates with the National Institute of Standards and Technology (NIST) and the Manufacturing USA Program Office to tackle broad-ranging Workforce training needs and data models to inform future activities. NIST has been instrumental in helping draw attention to the successes of M-EWD programs and highlighting the value of a career in Manufacturing.

OSD ManTech M-EWD partners with many agencies across the Federal government through its membership in the Subcommittee for Advanced Manufacturing. As a co-chair for the Workforce Development working group, M-EWD ensures the interagency community is addressing Administration goals in equipping the workforce of tomorrow in Advanced Manufacturing principles.

★ ABOUT

The Office of the Secretary of Defense's Manufacturing Technology (OSD ManTech) Program promotes advanced manufacturing technologies and processes by working together with other government agencies and private companies. OSD ManTech manages the Manufacturing Education and Workforce Development Program (M-EWD) and oversees the federal government's management of the eight Department of Defense Manufacturing Innovation Institutes (DoD MIIs). Each of these institutes focuses on a specific area of advanced manufacturing technology.

🇺🇸 VISION

A robust, accessible workforce skilled in advanced manufacturing critical for producing and maintaining Warfighter systems, components, and supplies.

⚙️ MISSION

M-EWD works collaboratively across a network of internal and external industrial base stakeholders and educational sectors to provide DoD strategic guidance and investments for key workforce initiatives focused on sustained military advantage, supply chain resilience, and industrial readiness in an era of advanced technological-driven global competition.



A network of visionaries,
connecting innovators, bringing
new technologies to U.S. warfighters.

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Department of Defense Manufacturing Technology Program Office
of the Secretary of Defense / Under Secretary of Defense for Research and Engineering

OSD ManTech M-EWD Focused on Mission Enabling Capabilities

The M-EWD program provides strategic leadership in advanced manufacturing talent development across the organic and defense industrial bases in support of the DoD Mission to provide our Warfighters with what they need to deter and win wars.

Explore our website for more information and updates



AIM Photonics' workforce program aims to cultivate expertise in integrated photonics by offering specialized education, training, and hands-on experience to prepare individuals for careers in the photonics industry.



BioMADE's workforce program focuses on developing a skilled workforce in biomanufacturing through education, training, and collaboration with industry and academic partners to advance biotechnology and biomanufacturing capabilities.



America Makes' EWD efforts aim to build a strong talent pipeline in additive manufacturing (AM) to support the U.S. organic and defense industries.



LIFT offers skilled trades certification courses in some of the most in-demand advanced manufacturing careers – right from its Learning Lab in Detroit and Puerto Rico.



Roboticscareer.org is a comprehensive platform designed to support individuals pursuing careers in robotics by providing access to various educational resources, including training programs and industry certifications.



MxD's Virtual Training Center offers interactive, self-paced learning modules and simulation-based training in digital manufacturing and cybersecurity, designed with industry experts to meet current standards and real-world challenges.



BioFabUSA is working to close educational skills gaps in tissue engineering and organ manufacturing through accessible educational and training opportunities.



NextFlex's training programs provide cutting-edge education and hands-on training in flexible hybrid electronics (FHE), aimed at developing a skilled workforce to meet the demands of this emerging technology sector.



Manufacturing USA is a national network created to secure U.S. global leadership in advanced manufacturing through large-scale public-private collaboration on technology, supply chain, and education and workforce development.

For more information visit www.DoDManTech.mil