

MAKING AN IMPACT ON U.S. MANUFACTURING

The MEP National Network: Providing Hands-on Technical Assistance to U.S. Manufacturers

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MEP
**National
Network™**

*The Go-To Experts for Advancing
U.S. Manufacturing*

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

MEP Summary



Local → National Connection
 Network of Centers providing **localized, direct, hands-on service to manufacturers** in each State – with National reach and resources



MEP Strategy: Global Competitiveness and Growth

Serve as *trusted advisors* who provide direct, hands-on technical and business assistance to America's manufacturers

Strive to be the go-to resource to ensure U.S. manufacturing is resilient and leads the world in manufacturing innovation

MISSION

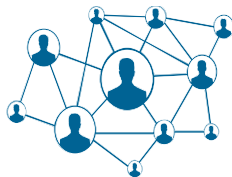
To strengthen and empower U.S. manufacturers



MEP National Network™

The Go-To Experts for Advancing U.S. Manufacturing

- **MEP Center in all 50 U.S. states plus Puerto Rico, operating in over 400 field locations.**
- More than 1,300 trusted advisors and manufacturing experts nationwide, with nearly 2,100 service providers and partners



MEP Budget & Business Model

\$130M FY17 Federal Budget with Cost Share Requirements for Centers



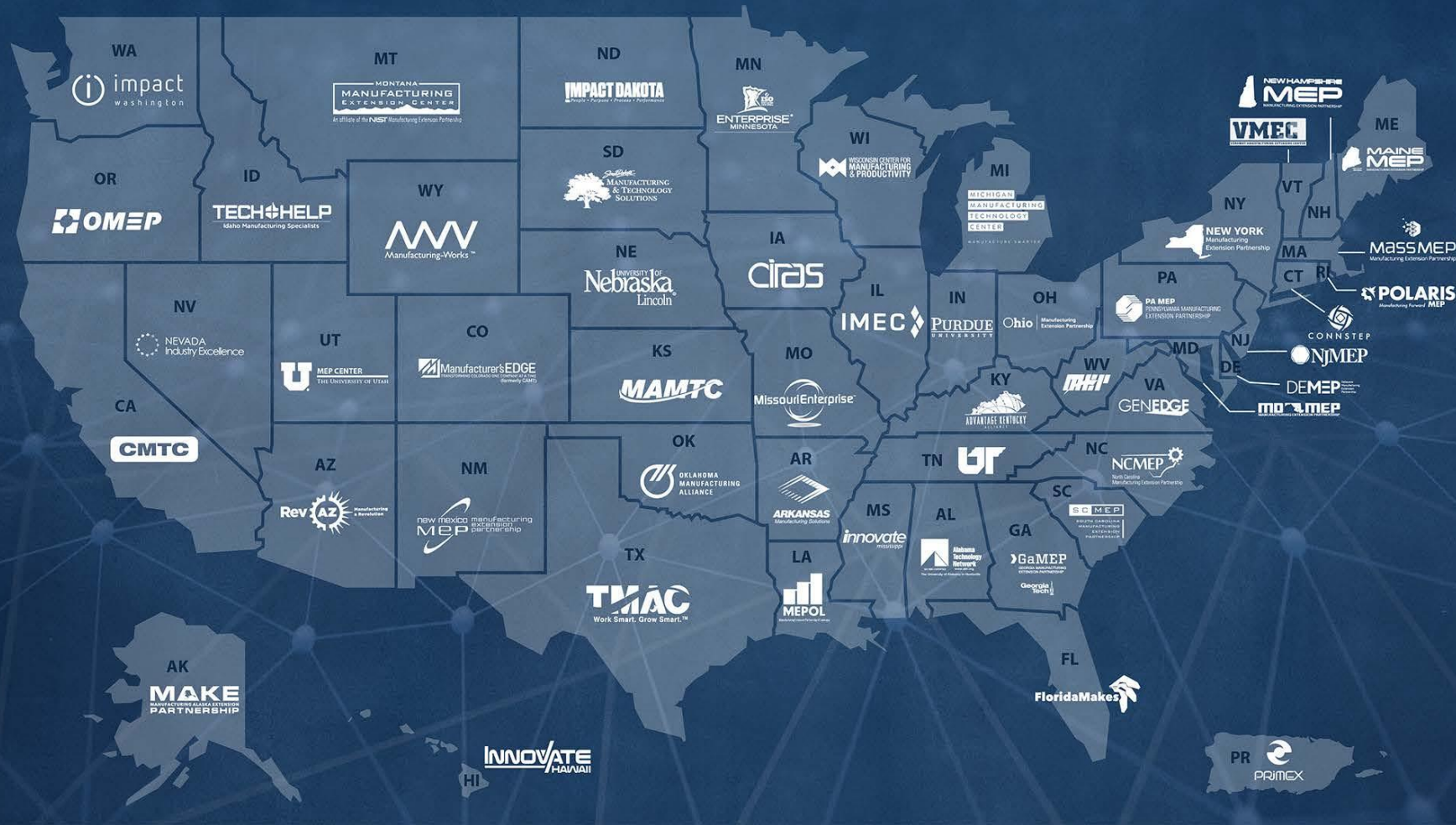
Partnership Model

- Federal, State, Industry
- Managed by NIST at Federal level
- Well aligned with state and local economic development strategies



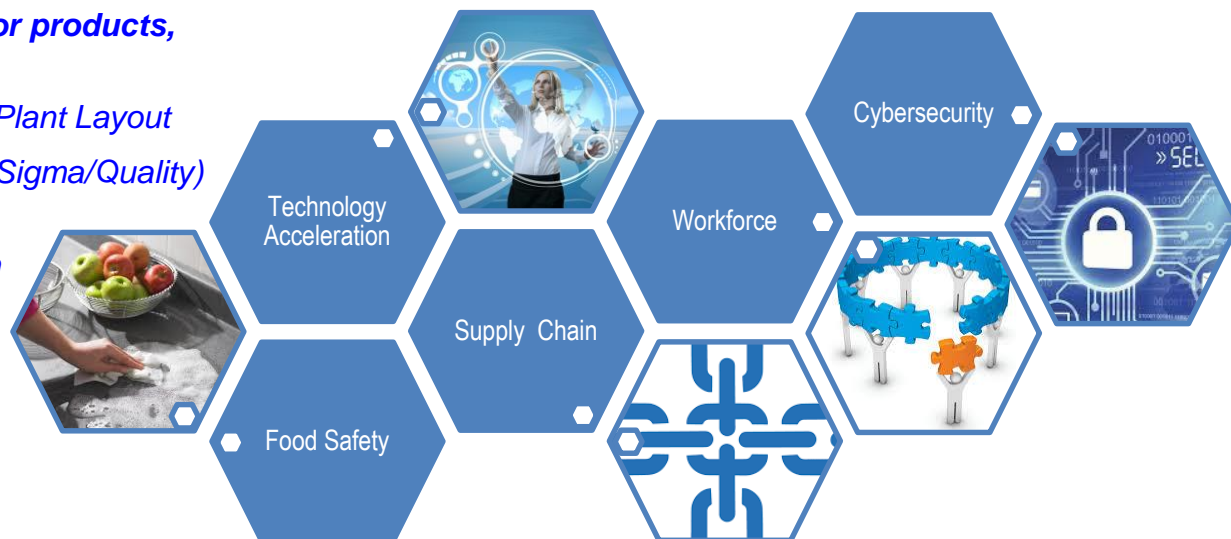


The Go-To Experts for Advancing U.S. Manufacturing



Key MEP Service Areas

- MEP Centers *provide technical assistance* to manufacturers, including:
 - ✓ **Technical manufacturing services for products, processes**
 - *Manufacturing Strategy, Scale-up, Plant Layout*
 - *Production Optimization (Lean/Six Sigma/Quality)*
 - *Production Improvements and Modernization, Tooling, Automation*
 - *Engineering Practices*
 - *Cybersecurity*
 - ✓ **Product/Process Development and Innovation**
 - ✓ **Supply Chain Development**
 - ✓ **Workforce Development**
 - ✓ **Marketing, IP Management, Financing/Access to Capital**
 - ✓ **Sustainability**
 - ✓ **Exporting, Market Diversification**



FY 2017 MEP National Network Results for U.S. Manufacturers

FY2017: MEP National Network connected with 26,313 manufacturers, conducting projects and providing services leading to \$12.6 billion in sales, \$1.7 billion in cost savings, \$3.5 billion in new client investments, and helping to create and retain more than 100,000 U.S. manufacturing jobs.



MEP Supply Chain Development

MEP National Network:

- Has extensive, decades-long experience providing direct, hands-on assistance with manufacturing supply chains
- Targets whole supply chains, plus individual manufacturer assistance to OEMs, lower tier suppliers
- Capitalizes on MEP Centers' ability to provide localized assistance on national scale to maximize impacts at micro (individual supplier) and macro (overall supply chain) levels
- Primary aspects of MEP National Network Supply Chain support:
 - ✓ Supply Chain Optimization
 - ✓ Supplier Improvement
 - ✓ Supplier Scouting
 - ✓ Supply Chain Technology Acceleration
 - ✓ Supply Chain Sustainability

MEP and the DoD



MEP National Network routinely works with manufacturers who supply products to DoD

- Since 2013 MEP Centers have completed over 2,500 projects with 1,650 companies that are prime suppliers to DoD.
- From 2014-2017 MEP Centers in 23 States worked with DoD's **Office of Economic Adjustment (OEA) Defense Industry Adjustment** program to help communities and companies diversify their capabilities and products.
- **MilTech** Partnership Intermediary organization leveraging MEP Centers to provide technical assistance to U.S. manufacturers to transition critical technology into products needed for DoD warfighter
- NIST MEP has funded MEP Centers to **embed** personnel at all 8 of **Manufacturing USA Institutes** sponsored by DoD – focused on engaging small manufacturers in technology focus areas of Mfg USA Institutes via hands-on assistance mechanisms and services offered by MEP Centers
- **Supplier Scouting and Development** for various DoD needs



NIST MEP Cybersecurity Program



2017 Focus

- Leverage nationwide assets of MEP National Network to provide needed, direct cybersecurity assistance to (small) U.S. manufacturing companies, one-at-a-time, on national scale
 - ✓ *National project to deploy cybersecurity awareness, tools and services across the MEP National Network (MI, CA, TX, PA, CO, WI plus)*
 - ✓ *Nearly half of MEP Centers actively providing cybersecurity assistance to U.S. manufacturers; another third actively developing cybersecurity practice*
- Focus on unique value-add of MEP National Network for implementation of holistic NIST approach to address Cybersecurity needs of U.S. manufacturers:
 - ✓ ***MEP Centers help small manufacturers understand and implement cybersecurity protections, including NIST guidance, and with a focus on supply chain requirements***

5 Steps to Reduce Cyber Risks

Protecting the information of your company, employees, and customers is an ongoing process. Manufacturers will benefit from a program that:



NIST MEP Cybersecurity Program

2017 Focus

- Increased awareness, understanding of U.S. manufacturer cyber risk management, especially focused on implementing DoD's DFARS (252.204-7012) requirements.
 - ✓ MEP Centers, in collaboration with DoD's Procurement Technical Assistance Centers (PTACs), and with guidance from NIST MEP, provided awareness briefings to *more than 1,000 DoD suppliers in 20 states during 2017.*
 - ✓ Working with NIST ITL, NIST MEP published Cybersecurity Self-Assessment Handbook, NIST Handbook 162, to assist small manufacturers with NIST SP 800-171 implementation, DFARS compliance
 - *NIST Handbook 162 downloaded from NIST MEP webpages over 3,400 times during its first 2 months of availability, November – December 2017*
 - *NIST MEP has also trained manufacturing specialists in >50% of MEP Centers in its usage.*



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NIST MEP Cybersecurity Program



2018 Focus

- MEP National Network continue to develop replicable Cybersecurity assistance practices that MEP Centers can deploy to small U.S. manufacturers nationwide
- NIST MEP continue to work with NIST Labs to develop resources for MEP Centers to use in provision of assistance to manufacturers
- NIST MEP continue to serve as subject matter expert to MEP Centers and their manufacturing clients on Cyber related efforts
- NIST MEP continue to provide manufacturing-specific cybersecurity guidance to the MEP National Network.

- Continue working closely with DoD as it conducts comprehensive assessment of defense industrial base, including defense manufacturing supply chain resiliency, in response to July 2017 White House Executive Order 13806.
 - ✓ *NIST MEP is member of Interagency Task Force (ITF) responding to EO*
 - ✓ *NIST MEP Chairs ITF Cybersecurity for Manufacturing Working Group*

Embedding MEP into Manufacturing USA Institutes

14 NIST MEP-funded **Embedding Projects** operating with MEP National Network and all 14 Manufacturing USA Institutes

Projects represent ~\$17M investment from NIST MEP

LEAD MEP CENTER	MFG USA INSTITUTE
CA MEP	CESMII
CA MEP	Next Flex
DE MEP	NIIMBL
Illinois Mfg Excellence Center	DMDII
Mass MEP	AFFOA
Mass MEP	BioFab USA
Michigan Mfg Technology Center	LIFT
NC MEP	Power America
NY MEP	AIM Photonics
NY MEP	REMADE
OMEPA	RAPID
PA MEP	Advanced Robotics
PA MEP	America Makes
TN MEP	IACMI

Embedding MEP into Manufacturing USA



Embedding MEP into Manufacturing USA Institutes

Emphasis of Embedding Projects

- ✓ *Create approaches to engage small manufacturers in technology focus areas of Mfg USA Institutes via hands-on assistance mechanisms and services offered by MEP Centers*
- ✓ *Develop and test business models by which small U.S. manufacturers can be served in Institute technology areas – business models that are viable to the small manufacturers, to the MEP Centers, and to the Institutes*
- ✓ *Develop expert national resources within the MEP National Network in the Institute technical focus areas*

...and doing this will

- ✓ *Transfer technology from Institutes to small U.S. manufacturers*
- ✓ *Facilitate knowledge, best practice sharing among Institutes and MEP Centers*
- ✓ *Cultivate enhanced nationwide network of partnerships among Institutes and MEP Centers for benefit of small U.S. manufacturers*

Questions / Discussion



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