

Manufacturing a Key Priority: Expand MEP and Manufacturing USA

- Executive Orders call for more Federal purchases to be Made in America (EO 14005) and shoring up America's key supply chains (EO 14017).
- National Defense Authorization Act of 2020 – authorizes Manufacturing USA institute on semiconductor manufacturing, calls for NIST analysis of potential MEP national supply chain database.
- American Rescue Plan appropriated \$150M to NIST for Manufacturing USA Pandemic Response Projects.
- Administration has proposed to increase FY22 MEP investment to \$275M and Manufacturing USA to \$166M.
- American Jobs Plan and the President's Budget Request call for long-term investment increases in manufacturing at NIST, including \$7B for MEP and \$3B for Manufacturing USA.



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EXTENSION PARTNERSHIP®



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Hollings Manufacturing Extension Partnership Program's Planned Expansion: Why and How We Will Grow



Challenge/Need

- U.S. manufacturing is critical to the nation's economic recovery.
- The president has proposed historic levels of infrastructure investment.

MEP Role

- Increase capabilities to respond to manufacturing needs (EO 14007).
- Identify initiatives for recruiting and retaining workers.
- Initiate a national supply chain initiative (EO 14005).
- Create Manufacturing Technology Demonstration Facilities.

Impact

- More manufacturers will receive critical assistance.
- MEP Centers can provide expanded services.
- MEP will lead the way to building a new manufacturing ecosystem.

Challenge/Need

- MEP Centers lack resources to serve all the needs of all manufacturers.
- Proposed infrastructure investment demands greater U.S. manufacturing.

MEP Role

- Provide direct support that better enables manufacturers.
- Enable MEP Centers to deliver more diverse and comprehensive services.
- More effectively partner with and leverage other key stakeholders.

Impact

- MEP Centers will provide services to at least 25% more manufacturers.
- More materials and products will be made in the U.S.
- U.S. manufacturing economy will be stronger and more resilient.

Challenge/Need

- As many as 2.1M manufacturing jobs will be unfilled through 2030.
- U.S. could have more than 2.1M unfilled without strong action.
- Worker shortage could cost the U.S. economy up to \$1 trillion by 2030.
- Systems and resources that can support manufacturers are often not connected.
- Unemployed and under-employed workers can help grow the industry.
- Recruiting this untapped talent pool requires addressing systemic barriers.

MEP Role

- MEP Centers will help manufacturers attract a new workforce to manufacturing.
- MEP Centers will upskill the workforce – focus on women and underrepresented groups.

Impact

- Increase in manufacturers with upskilling programs.
- Increase manufacturing companies on “Best Places to Work” list.
- Increase women and people of color in manufacturing jobs.

Challenge/Need

- Pandemic emphasized U.S. dependence on global supply chains for goods.
- Significant U.S. domestic manufacturing base gaps exist.

MEP Role

- Partner with federal agencies and private top-of-supply chain entities to identify supply chain gaps in support of EO 14005.
- Expand MEP National Supplier Scouting in support of EO 14017.
- Assist individual U.S. manufacturers to become more resilient.

Impact

- Key products and critical technologies (EO 14017) will be more effectively and comprehensively sourced domestically.
- U.S. supply chains will be more resilient:
 - ✓ More robust domestic supply strategies.
 - ✓ More visibility into lower tiers.
 - ✓ Increased diversification of manufacturers' customers and markets.
 - ✓ Improved risk management.
 - ✓ Improved manufacturer operational agility.

Challenge/Need

- U.S. Manufacturing: 11.4% U.S. economic output, employing >8.5% of the workforce.^[1]
- Nearly 99% of all U.S. manufacturing establishments <500 employees; ~91% have <100 employees. SMMs employ ~71% of domestic manufacturing workforce.^[2]
- SMM technical sophistication lags that of large companies.
- SMMs need assistance to bridge the gap between their state of practice and the state of the art available in supply chains for key products and critical technologies (EO 14017) .

MEP Role

- Establish Manufacturing Technology Demonstration Facilities that implement critical technologies to make key products (EO 14017).
- Expand the MEP Assisted Technology and Technical Resource (MATTR) service.

Impact

- Higher technology adoption by SMMs for key products and technologies (EO 14017) such as:
 - ✓ Industry 4.0, AI, IIoT, additive manufacturing
 - ✓ Advanced materials
 - ✓ Broadband technology
 - ✓ Cybersecurity
 - ✓ Semiconductors
 - ✓ Food
 - ✓ Medical equipment / supplies
- More technically skilled workers.
- Increased SMM productivity.