MEP Advisory Board

Tuesday, March 7, 2023
Wednesday, March 8, 2023

FACA Board Meeting

This is a simplified version of the presentation for website purposes. A full version may be requested by emailing Cheryl.Gendron@nist.gov
FACA and the Advisory Board

- The MEP Advisory Board is authorized under Section 3003(d) of the America COMPETES Act (Pub. L. 110–69), as amended by the American Innovation and Competitiveness Act, Public Law 114–329 sec. 501 (2017), and codified at 15 U.S.C. 278k(m), in accordance with the provisions of the Federal Advisory Committee Act, as amended, 5 U.S.C., App.
Welcome and Introductions

- Pravina Raghavan, MEP Director
- Secretary Gina Raimondo, U.S. Department of Commerce
- Matthew Newman, MEP Advisory Board, Chair

- Welcome New Members
- Sean Ketter, Oshkosh Corporation, Wisconsin, Feb 2023
- Tyrome Smith, Common Mission Project, Maryland, Feb 2023

- Welcome MEP Advisory Board Special Guests
- Beth Bafford, Calvert Impact Capital, Washington, DC
- Gail Friedberg Rottenstrich, ZAGO Manufacturing Co. New Jersey
- Louis Foreman, Eventys Partners, North Carolina
- Michael Garvey, M-7 Technologies, Ohio

- Review the Agenda
Welcome from Board Chair

Chair: Matthew Newman, New Era Advisors, Inc.
Vice Chair: Bernadine Hawes, Econsult

Don Bockoven, Fiber Industries LLC
Miriam Kmetzo, Welding Technology Corp
Mitch Magee, Consultant
Chris Mathews, National Custom Hollow Metal Doors and Frames & Maple Leaf Awning & Canvas
Pat Moulton, Vermont State Colleges Workforce Division
Annette Parker, South Central College
George Spottswood, Quality Filters, Inc
Day One Agenda
Tuesday, March 7, 2023

Welcome and Introductions
Briefing from Associate Director of Innovation and Industry Services, Mojdeh Bahar
MEP Director’s Update
2023-2027 MEP Strategic Plan Overview and 18-month Metrics
Welcome/Brief on Information Technology & Innovation Foundation, Rob Atkinson
2023 Working Groups
Day One Wrap Up
With Dr. Laurie Locascio, NIST Director & Under Secretary for Standards and Technology
Day Two Agenda
Wednesday, March 8, 2023

• Welcome Back
• MEP Expansion Awards Strategy
• Recognize New Board Leadership
• Public Comments
• Meeting Wrap Up
Briefing from Associate Director of Innovation and Industry Services

Mojdeh Bahar
Associate Director,
Innovation and Industry Services, NIST
Briefing from ADIIS

- DOC, NIST and Innovation and Industry Services
- Go-To Resources for U.S. Manufacturing
- CHIPS and Science Act and NIST
NIST is part of the US Department of Commerce

The Hollings Manufacturing Extension Partnership (MEP) is one of four Innovation and Industrial Services programs at NIST.

DOC’s Mission:
To create the conditions for economic growth and opportunity.
Innovation and Industry Services Programs

- **Manufacturing Extension Partnership (MEP)**
  - 51 Centers, one in each state and Puerto Rico, with 1,400 manufacturing experts to assist small and medium manufacturers (SMMs) on various areas such as automation, cybersecurity, workforce development and supply chain scouting and resiliency.
  - MEP assists the federal government agencies and private sector entities in finding suppliers and assist SMMs to pivot into new sectors.
  - MATTR+ allows for small and medium manufacturers to access to NIST labs and their world-renowned scientist to solve technology problems effecting manufacturers.

- **Technology Partnerships Office**
  - Structures collaborative relationships between NIST researchers and external partners
  - Manages the NIST Small Business Innovation Research (SBIR) program
  - Provides R&D related economic analysis
  - Administers and hosts the Federal Laboratory Consortium

- **Office of Advanced Manufacturing**
  - Manufacturing USA Program Office - coordinates program of 9 Federal agencies and 16 Advanced Mfg. Innovation Institutes
  - Manages NIST NIIMBL institute on biopharmaceutical manufacturing
  - Manages NIST extramural advanced manufacturing programs, including current Technology Roadmaps
  - Manages Advanced Manufacturing Pandemic Response Projects - $150 million on 45 high impact projects
  - Coordinates Advanced Manufacturing for National Science and Technology Council

- **Baldrige Performance Excellence Program**
  - Maintains and promotes the use of the Baldrige Excellence Framework and Criteria for Performance Excellence
  - Manages the Baldrige Award, the highest level of recognition for quality and performance excellence in the nation
  - Supports and encourages performance excellence in all sectors
  - Supports nationwide network of state/regional programs
  - Provides assessment tools and educational offerings, including the annual Quest for Excellence conference, the Baldrige Executive Fellows Program, and the Job Quality Toolkit
Go-To Resources for U.S. Manufacturing

**MEP Focus:** Primarily one-on-one interactions between MEP Centers and SMMs in their states

- **Business Practices:** Lean and Continuous Improvement, Quality Management, Sustainability, Business Growth Services, Financial Services, Supply Chain services, and Risk Management
- **Technical Services:** Engineering services/plant layout. Cybersecurity and information Services, Advanced Manufacturing/Industry 4.0, Product Development support, Process Integration
- **Innovation Ecosystem:** Go-to resource for building manufacturing communities within states
- **Workforce:** Talent planning, customized skills training, including apprenticeships & industry recognized certifications, connections with states and local resources

**MFG USA Focus:** Large-scale collaborations with multiple organizations working together on R&D innovation projects

- **Advanced Manufacturing:**
  - Develop specific new and innovative manufacturing technologies
  - Scale-up new manufacturing technologies to produce new products and processes across entire industry sectors
- **Innovation Ecosystems:**
  - Spur creation and expansion of local and regional technology ecosystems
  - Work across the national innovation ecosystem to strengthen manufacturing
- **Workforce:** Strengthen workforce pipeline in specific technologies
CHIPS for America Incentives

$39 billion for manufacturing

- Incentivize expansion of manufacturing capacity for semiconductors
- Attract large-scale investments in advanced technologies such as leading-edge logic and memory
- Advance U.S. technical leadership
- NDAA Section 9902

$11 billion for R&D

- National Semiconductor Technology Center
- National Advanced Packaging Manufacturing Program
- Manufacturing USA institute(s)
- National Institute of Standards and Technology measurement science
- NDAA Section 9906

Workforce development

Note: These funds were appropriated by Congress through CHIPS.
# CHIPS and Science Act: NIST

National Institute of Standards and Technology Authorization ($9 billion total, +$4 billion over baseline)

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Support Critical Technology Research and Standards</td>
<td>Advances research and standards development for industries of the future, including quantum information science, artificial intelligence, cybersecurity, advanced communications technologies, and semiconductors.</td>
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<tr>
<td>Strengthen Small Manufacturers</td>
<td>Triples funding for Manufacturing Extension Partnership, to support small- and medium sized manufacturers with cybersecurity, workforce training, and supply chain resiliency ($2 billion total)</td>
</tr>
<tr>
<td>Combat Supply Chain Disruption</td>
<td>Leverages the Manufacturing Extension Partnership to creates a National Supply Chain Database, to assist the businesses with supplier scouting and minimizing supply chain disruptions ($131 million total)</td>
</tr>
<tr>
<td>Grow Manufacturing USA</td>
<td>Supports the creation of new competitively-awarded manufacturing research institutes with expanded capacity for education and workforce development ($829 million total)</td>
</tr>
<tr>
<td>Promote Competitiveness in International Standards</td>
<td>Expands interagency coordination and information exchange activities to support private sector engagement and ensure effective Federal engagement in the development and use of international standards</td>
</tr>
</tbody>
</table>

Note: Five-year authorization figures; not appropriation figures.
Job Quality Toolkit

Job Quality Toolkit was developed by the NIST Baldrige office with support from DOC. The Job Quality Toolkit, rooted in the Baldrige Excellence Framework, is a tool that organizations can use to improve the quality of the jobs they offer.

MEP support will include:

- NIST MEP website
- A NIST MEP Infographic for Centers to brand and post to their website
- Information webinars for Centers
- Development of an on-line self-assessment for companies that will align with the JQT
FY22 Impact Survey Results

- Over 116,700 jobs created or retained
- $18.8 Billion in New and Retained Sales
- $6.4 Billion in Total Investment in US. Manufacturing
- $2.5 Billion in Cost Savings

Results are based on FY 2022 MEP National Network Client Impact Survey (over 9,100 surveys completed)
FY22 Top MEP Projects

Last year, MEP Centers worked with more than 10,200 manufacturers on over 16,100 projects.
FY22 Manufacturer Challenges Reported

- Employee Recruitment: 66%
- Cost Reduction: 60%
- Growth: 41%
- Product Development: 34%
- Managing Partners: 25%
- Sustainability: 18%
- Technology Needs: 17%
- Financing: 11%
- Other Challenges: 7%
- Exporting: 5%
National Programs: Leveraging Technology & Empowering Manufacturers

Food Industry Services
FY22 MEP Center Sample as of Feb. 2023
- 45 Webinar presentations
- 403 Projects
- 717 Workshops/Training Sessions

Industry 4.0
- 2,699 projects FY15-FY22
- $501.9M New/Retained Sales
- 3 AMTS Projects completed
- MEP-MxD MOU

Cybersecurity
- ~50% of projects help DOD contractors and subs
- 140% increase since 2020
- 705 projects completed in FY22

ExporTech (2006 to present)
- ~80 clients/yr
- $469K avg sales inc./retain
- $93K avg savings
- $623 Million in total program sales
- 6 new jobs per company

New Partnerships
- 4 MFG USA Institutes
- 6 Universities
- 7 Federal Labs
- 9 Federal Agencies
- 7 Other Stakeholders (e.g., NEMA, ACS, MRS)
- 7 NIST Lab Divisions within 6 OUs.

Toyota Kata FY22
- 10 Projects/yr Increase
- 93 Projects FY22
- $514K saved per client

OEM Engagement
- Semiconductor (Intel, NXP, Applied Materials)
- Food (Whole Foods)
- Medical Devices (Stryker, Medtronic, Baxter, Edwards S.)
- I4.0 (Rockwell)
- Aerospace (Boeing)

Targeted Industry Sectors
- Semiconductor
- Clean Energy
- Electric Vehicles
- Space Sector
- Medical Devices
- Biomanufacturing
Supplier Scouting

CY2021 Supplier Scouting Metrics

• **118** opportunities scouted
  – **3** opportunities from **2** federal agencies
  – **115** opportunities scouted for MEPNN
• **20** industries served
• **43** manufacturing processes
• **397** matches submitted by MEP Centers
• **$130** million business opportunities

CY2022 Supplier Scouting Metrics

• **155** opportunities scouted
  – **65** opportunities from **8** federal agencies
  – **90** opportunities scouted for MEPNN
• **19** industries served
• **33** manufacturing processes
• **98** matches submitted by MEP Centers
• **$33.9** million business opportunities
FY 2022 Center State Competition

Notice of Funding Opportunity One: Complete

• Kentucky and South Dakota awarded to new host organizations
• Nebraska, Rhode Island awarded to incumbent hosts
• All awards started on Jan. 1, 2023

Notice of Funding Opportunity Two

• Arizona and Maryland with service to Washington, DC
• Selection process is complete
• Awards to be announced April 2023 for July 1, 2023 start
MEP Economic Impact Analysis

In February 2023, Summit Consulting and the W.E. Upjohn Institute for Employment Research completed a study that found the MEP Program generated a substantial return on investment of nearly 18.1:1 for the $158 million invested in FY 2022 by the federal government.

<table>
<thead>
<tr>
<th>JOBS</th>
<th>GDP</th>
<th>RETURN ON INVESTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>269,373</td>
<td>$29.9 Billion</td>
<td>18.1:1</td>
</tr>
</tbody>
</table>
Strategies for NIST MEP From Strategic Plan FY 23-27

To execute and continue to build on the four strategic foundational pillars, the NIST MEP will:

- Recast and adapt its operations, policies, processes, practices, and structures
- Expand partnerships and strategic
- Develop its knowledge and learning capabilities and leverage its convening
- Build the MEP brand, messaging, and marketing reach
MEP Program Budget Outlook

FY 2022
Appropriation Status

- $158 million for MEP
- Funding not subject to cost share requirements (elective for Centers receiving state funds conditioned on federal cost share requirement)

FY 2023
Appropriation Status

- $175 million for MEP
- $13 million in Disaster Supplemental
- Funding not subject to cost share requirements (elective for Centers receiving state funds conditioned on federal cost share requirement)
# NIST MEP Projected Spend Plan Through Sept. 30, 2023

<table>
<thead>
<tr>
<th>Available Funding</th>
<th>$ Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriation</td>
<td>175</td>
</tr>
<tr>
<td>Disaster Supplemental</td>
<td>13</td>
</tr>
<tr>
<td>Carryover from FY 2022</td>
<td>5.6</td>
</tr>
<tr>
<td>Prior-year recoveries</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total available funding</strong></td>
<td><strong>193.8</strong></td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Planned Expenditures</th>
<th>$ Millions</th>
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<tbody>
<tr>
<td>Center renewals</td>
<td>134.4</td>
</tr>
<tr>
<td>MSE/MDAP</td>
<td>0.8</td>
</tr>
<tr>
<td>Expansion awards</td>
<td>20.4</td>
</tr>
<tr>
<td>State Relations - SSTI</td>
<td>1.2</td>
</tr>
<tr>
<td>Disaster Awards</td>
<td>3</td>
</tr>
<tr>
<td>Contracts</td>
<td>7.2</td>
</tr>
<tr>
<td>NIST MEP labor</td>
<td>12.4</td>
</tr>
<tr>
<td>NIST and program overhead</td>
<td>14.4</td>
</tr>
<tr>
<td><strong>Total planned expenditures</strong></td>
<td><strong>193.8</strong></td>
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Projected FY 2023 efficiency rate = 11.21%; Actual FY 2022 efficiency rate = 10.89%
Major Legislation

The President signed into law the CHIPS and Science Act of 2022 on August 9, 2022

Key provisions include:

- Creates an Expansion Award Pilot Program
- Establishes a voluntary National Supply Chain Database
- Language which doesn’t require MEP Centers to enroll their clients in the GSA Advantage Program
- Triples MEP’s Authorized Funding Levels: FY23 $275 million, FY24 $300 million, FY25-27 $550 million

“[The Act will] strengthen American manufacturing, supply chains, and national security, and invest in research and development, science and technology, and the workforce of the future to keep the United States the leader in the industries of tomorrow, including nanotechnology, clean energy, quantum computing, and artificial intelligence.”— White House Press Release 8/9/2022
MEPNN Expansion Award Pilot Program

The group will discuss and review expansion awards to provide the following services:

- Workforce development (which may include training advanced manufacturing personnel)
- Resiliency of domestic supply chains
- Expanded support for adopting advanced technology upgrades at small and medium manufacturers
- Global marketplace projects - projects that have potential for enhancing the competitiveness of U.S. SMMs in the global marketplace
- Allow NIST to accept funding from other Federal departments and agencies for competitive MEP grants
- Require MEP to increase outreach to underserved communities
- Ensure the MEP Centers are specifically focused on supporting American manufacturing
- PLUS - Other Award amounts at the discretion of the Director
Expansion Award Pilot Programs on Supply Chains

• Why is MEP focused on supply chain?
  – Executive Order 14005 requests Federal Agencies to utilize MEP Supplier Scouting.
  – CHIPS ACT establishes a pilot program of expansion awards to provide services, including **resiliency of domestic supply chains** and to **build capabilities** across the Hollings Manufacturing Extension Partnership for **domestic supply chain resiliency and optimization**.

• What is MEP doing?
  – **$20.4 million** investment in MEPNN on supply chain optimization and intelligence network through a Request for Application (RFA)
  – Centers may request **up to $400,000** funding
  – Period of performance is **2 years**
  – RFA published in **March 2023**
  – Projects can start as early as **June 1, 2023**
  – Report is due to Congress by **October 1, 2025**.
National Supply Chain Optimization and Intelligence Network

Goals:

• Expand existing MEP Center and Network capabilities to provide services focused on national supply chain optimization

• Establish a National Supply Chain Intelligence Network that will:
  – Comprehensively support supplier scouting services,
  – Rigorously assess and analyze domestic manufacturing capabilities,
  – Expand the inherent knowledge of each MEP Center’s local manufacturing ecosystems
  – Build an integrated knowledge of U.S. supply networks
Discussions & Questions
Discussion:

2023-2027 MEP National Network Strategic Plan Overview and 18-month Metrics

- MEP National Network Tenets
- Previous Strategic Goals and 18-month Metrics
- 2023-2027 National Network Strategies
- NIST MEP Strategies
- MEPNN in 2027
- Discussion: Achieving 2027 Goals and Updated 18-month Metrics
## MEP National Network Strategic Foundational Pillars

<table>
<thead>
<tr>
<th>Empower Manufacturers</th>
<th>Champion Manufacturing</th>
<th>Leverage Partnerships</th>
<th>Transform the Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assist U.S. manufacturers in embracing productivity-enhancing innovative manufacturing technologies, navigate advanced technology solutions and recruit and retain a skilled and diverse workforce.</td>
<td>Actively promote the importance of a strong manufacturing base as key to a robust U.S. economy and for the protection of national security interests; create awareness of innovations in manufacturing; create workforce development partnerships to build a stronger and diverse workforce pipeline; and maximize market awareness of the MEP National Network.</td>
<td>Leverage national, regional, state and local partnerships to gain substantial increase in market penetration; identify mission-complementary advocates to help MEP become a recognized manufacturing resource brand; build an expanded service delivery model to support manufacturing technology advances.</td>
<td>Maximize National Network knowledge and experience to operate as an integrated national network; increase efficiency and effectiveness by employing a Learning Organization platform; and create a resilient and adaptive MEP National Network to support a resilient and adaptive U.S. manufacturing base.</td>
</tr>
</tbody>
</table>
Previous Strategic Goal Areas

1. Strengthening the National Supply Chain
   Increase supplier matches and clients served in critical areas

2. Serving the Manufacturing Workforce
   Increase client engagement in workforce services

3. Increasing Awareness
   Amplify and measure Network brand awareness

4. Leading in Technology Deployment
   Increase client engagement in technology services and implementation
Previous 18-month Measures of Success
In 2027, the MEPNN…

- Has the dual capacity to excel at serving SMMs in individual states and to function as a powerful cohesive, collaborative network capable of impacting complex regional and national issues.
- Established as a recognized national resource and expert authority in American manufacturing.
- Is a valued partner with other federal agencies, state authorities, associations, and other groups working in manufacturing.
- Has the knowledge and capacity to support SMMs and manufacturing in anticipating and being prepared for future trends.
In 2027, the MEPNN...

- Enables consistent and cost-effective technology adoption.
- Annually increases its market penetration.
- Annually increases the economic impacts it creates for U.S. manufacturers.
- Enables SMMs access to a skilled workforce.
- Helps SMMs become nimbler in pivoting into new markets.
- Is engaged in the relevant new directions that the country is going in relation to manufacturing.
2023-2027 MEP National Network Primary Strategies

The MEP National Network Strategic Plan has three primary goals:

- Narrow the Workforce Gap
- Mitigate Supply Chain Vulnerabilities
- Leverage Technology
Goal 1: Narrow the Workforce Gap

- Enable SMMs to navigate the current workforce shortage while improving productivity and profitability through:
  - Upskilling
  - Use of technology and productivity enhancements
  - Partnerships (e.g., connect educational entities to manufacturing needs and jobs/careers)
  - Improving work conditions, job quality, career paths, etc.
  - Assessing underserved populations and integrating them into the manufacturing industry
  - Making the case for integration of underserved populations with SMMs

- Build a pipeline of future employees for the manufacturing sector through:
  - Rebranding and marketing the public image of manufacturing nationally and in the states
  - Broadening partnerships and connections with educational and other entities working in this space
Goal 2: Mitigate Supply Chain Vulnerabilities

• Increase supply chain visibility
  – End-to-end awareness (supplier’s supplier and customer’s customer)
  – Mapping Supply Chains (key industries; in individual states)
  – Working with OEMs to map out how SMMs fit into their supply chains

• Assess supply chain risk
  – Able to identify vulnerabilities
  – Able to rapidly detect risk as they emerge
  – Strengthen supplier development
  – Increase supplier scouting capacity
Goal 3: Leverage Technology

• Increasing tech adoption
  – ID early adopters and leverage them to move the early majority
  – Defining tech capabilities and business cases for adoption for customers to increase impact (IT and OT)
  – Educating Center staff on the different kinds of technology to increase impact with customers

• Ensuring wholistic, comprehensive application and use of technology (not just in production but in business operations, etc.)
  – Creation of roadmaps for customers and aligning them to customer’s strategic goals

• Strengthening cybersecurity capabilities
  – Communicating the importance of mitigating cybersecurity risks

• Partner with federal labs to accelerate the use of new technologies
  – Codevelop tech capabilities and business cases for adoption to bring new insights to industry
Intersections Across Network Strategic Goals

Narrowing the workforce gap through engagement future technologies

Increasing technology adoption across served customers

Strengthen workforce knowledge of supply chain dependencies to help predict supply chain risks

The strategic goals do not exist in silos. They intersect with each other.
What are the best measurements to track progress on these goals?
2023-2027 MEPNN Strategic Goals

1. Narrow the Workforce Gap

2. Mitigate Supply Chain Vulnerabilities

3. Leverage Technology
Goal 1: Narrow the Workforce Gap
Goal 2: Mitigate Supply Chain Vulnerabilities
Goal 3: Leverage Technology

Increasing tech adoption

- Increase clients engaged with technology services projects by 10%
Discussions & Questions
Welcome/Brief on Information Technology
Information Foundation, Rob Atkinson

Rob Atkinson
Founder and President, Information Technology and Innovation Foundation (ITIF)
Discussion: 2023 Working Groups

- Working Groups and Members

- Working Group Deliverables Refresh
  - Advisory Board Executive Committee
  - Strategic Goal: Narrow the Workforce Gap
  - Strategic Goal: Mitigate Supply Chain Vulnerabilities
  - Strategic Goal: Leverage Technology
  - MEPNN Expansion Awards - Ad-Hoc

- Discussion: Proposed Working Group Structure
MAB Working Group Members

Advisory Board Executive Committee

- Don Bockoven
- Louis Foreman
- Bernadine Hawes
- *Mitch Magee
- Chris Mathews
- *Matt Newman
- Tyrome Smith
- *George Spottswood

Narrow the Workforce Gap

- Beth Bafford
- Don Bockoven
- Louis Foreman
- Gail Friedberg Rottenstrich
- Bernadine Hawes
- Miriam Kmetzo
- *Mitch Magee
- Annette Parker

Mitigate Supply Chain Vulnerabilities

- Sean Ketter
- *Matt Newman

Leverage Technology

- Louis Foreman
- *Mitch Magee

MEPNN Expansion Awards

- Don Bockoven
- Bernadine Hawes
- Chris Mathews
- Tyrome Smith

* Outgoing Board Member
Advisory Board Executive Committee Working Group

**Deliverable**
Provide guidance on future MEP Advisory Board leadership and membership recruitment, provide insights into cultivating strong Board governance as well as explore ways to expand the MEP Advisory Board’s role in regard to the local MEP Center Boards.

**Board Members**
Don Bockoven, Louis Foreman, Bernadine Hawes, Mitch Magee, Chris Mathews, Matt Newman, Tyrome Smith and George Spottswood

**NIST MEP Support**
Pravina Raghavan, Wiza Lequin, Katie Rapp, Mark Schmit, Tom Williams and Cheryl Gendron
Narrow the Workforce Gap Working Group

Deliverable
Provide guidance back to full board on programming to enable SMMs to navigate the current workforce shortage while improving productivity and profitability.

Board Members
Beth Bafford, Don Bockoven, Louis Foreman, Gail Friedberg Rottenstrich, Bernadine Hawes, Miriam Kmetzo, Mitch Magee and Annette Parker

NIST MEP Support
Steve Campbell, Wiza Lequin, Heather Mayton and Gerson Santos-Leon
## Mitigate Supply Chain Vulnerabilities Working Group

<table>
<thead>
<tr>
<th>Deliverable</th>
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<tbody>
<tr>
<td>Provide guidance on programming to enable SMMs to mitigate supply chain vulnerabilities.</td>
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<td>Steve Campbell, Jyoti Malhotra and Ben Vickery</td>
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## Leverage Technology Working Group

<table>
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<tr>
<th>Deliverable</th>
<th>Board Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide guidance on programming to leverage technology.</td>
<td>Louis Foreman and Mitch Magee</td>
</tr>
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### NIST MEP Support
- Steve Campbell, Jose Colucci-Rios and Jyoti Malhotra
Deliverable
Provide guidance to the Board on the directive from the CHIPS and Science Act of 2022, Sec. 10251, Sec. 25B 
"Applications for awards under this section shall be submitted in such manner, at such time, and containing such information as the Director shall require in consultation with the Manufacturing Extension Partnership Advisory Board."

Board Members
Don Bockoven, Bernadine Hawes, Chris Mathews and Tyrome Smith

NIST MEP Support
Pravina Raghavan, Beverly Bobb, Autumn Hernandez, Kevin McIntyre and Nico Thomas
Current NIST MEP Working Groups with MEP Centers

- Supplier Scouting
- Industry 4.0
- Toyota Kata/Continuous Improvement
- Manufacturer Resilience
- Cybersecurity
- Food Industry Services
- Workforce
- Semiconductor
- Marketing
Proposed Working Group Structure

- **Advisory Board Executive Committee**: Remains comprised of MAB Members
- **Narrow the Workforce Gap, Mitigate Supply Chain Vulnerabilities, Leverage Technology**: Integrate MAB WGs with related MEPNN WGs to better share knowledge with MEPNN, expand capacity, and expand to non-MAB members.
- **MEPNN Expansion Awards**: Transition to regular MAB Meeting briefing
Closing Remarks

Dr. Laurie Locascio
Director of NIST and Under Secretary of Commerce for Standards and Technology
Day Two Agenda
Wednesday, March 8, 2023

- Welcome Back
- MEP Expansion Awards Strategy
- Recognize New Board Leadership
- Public Comments
- Meeting Wrap Up
Recognize Outgoing MAB Members
Thank you!
Class of 2017
MEP Advisory Board
Day Two
Wednesday, March 8, 2023
FACA Board Meeting
Welcome Back

Mojdeh Bahar
Associate Director, Innovation and Industry Services, NIST
Welcome Back

Pravina Raghavan, MEP Director

Matthew Newman, MEP Advisory Board, Chair
Day Two Agenda
Wednesday, March 8, 2023

• Welcome Back
• MEP Expansion Awards Strategy
• Recognize New Board Leadership
• Public Comments
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Discussion:
 MEP Expansion Awards Strategy

- Expansion Award Pilot Program National Supply Chain Optimization and Intelligence Network
- Discussion: Prioritization for Future Expansion Award Pilot Program
MEPNN Expansion Award Pilot Programs

The group will discuss and review expansion awards to provide the following services:

- Workforce development (which may include training advanced manufacturing personnel)
- Resiliency of domestic supply chains
- Expanded support for adopting advanced technology upgrades at small and medium manufacturers
- Global marketplace projects - projects that have potential for enhancing the competitiveness of U.S. SMMs in the global marketplace
- Allow NIST to accept funding from other Federal departments and agencies for competitive MEP grants
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National Supply Chain Optimization and Intelligence Network

Goals:

• Expand existing MEP Center and Network capabilities to provide services focused on national supply chain optimization

• Establish a National Supply Chain Intelligence Network that will:
  – Comprehensively support supplier scouting services,
  – Rigorously assess and analyze domestic manufacturing capabilities,
  – Expand the inherent knowledge of each MEP Center’s local manufacturing ecosystems
  – Build an integrated knowledge of U.S. supply networks
2023-2027 MEPNN Strategic Goals

1. Narrow the Workforce Gap

2. Mitigate Supply Chain Vulnerabilities

3. Leverage Technology
Mitigate Supply Chain Vulnerabilities

Exploring topics including but not limited to the following:

- Increase supply chain visibility
- End-to-end awareness (supplier’s supplier and customer’s customer)
- Mapping supply chains (key industries, in individual states)
- Working with original equipment manufacturers to map out how SMMs fit into their supply chains
- Assess supply chain risk
- Able to identify vulnerabilities
- Able to rapidly detect risk as they emerge
- Strengthen supplier development
- Increase supplier scouting capacity
Review Goal 2: Mitigate Supply Chain Vulnerabilities
Leverage Technology

Exploring topics including but not limited to the following:

- Increasing technology adoption
- Identify early adopters and leverage them to move the early majority
- Defining tech capabilities and business cases for adoption for customers to increase impact (IT and operational technology, or OT)
- Educating Center staff on the different kinds of technology to increase impact with customers
- Ensuring wholistic, comprehensive application and use of technology (not just in production but in business operations, etc.)
- Creation of road maps for customers and aligning them to customer’s strategic goals
- Strengthening cybersecurity capabilities
- Communicating the importance of mitigating cybersecurity risks
- Partner with federal labs to accelerate the use of new technologies
- Co-develop tech capabilities and business cases for adoption to bring new insights to industry
Goal 3: Leverage Technology

Increasing tech adoption

• Increase clients engaged with technology services projects by 10%
Narrow the Workforce Gap

Exploring topics including but not limited to the following:

- Upskilling
- Use of technology and productivity enhancements
- Partnerships (e.g., connect educational entities to manufacturing needs and jobs/careers)
- Improving work conditions, job quality, career paths, etc.
- Assessing underserved populations and integrating them into the manufacturing industry
- Making the case for integration of underserved populations with SMMs
- Build a pipeline of future employees for the manufacturing sector through:
  - Rebranding and marketing the public image of manufacturing nationally and in the states
  - Broadening partnerships and connections with educational and other entities working in this space
Goal 1: Narrow the Workforce Gap
If we received more resources, how should we prioritize future expansion award pilot programs?
Recognize New Board Leadership
2023 MEP Advisory Board Leadership Transition

Bernadine Hawes
New Chair, March 22, 2023
Econsult Solutions, Inc.
Pennsylvania

Donald Bockoven
New Vice Chair – March 22, 2023
Fiber Industries LLC
South Carolina
E. LaDon Byars  
Colonial Diversified Polymer Products, LLC  
Tennessee  
February 2023

Mitch Magee  
Independent Consultant  
Ohio  
March 2023

George Spottswood  
Quality Fillers  
Alabama  
May 2023

Jim Wright  
Proof Research  
Montana  
March 2023

Mary Isbister  
GenMet Corporation  
Wisconsin  
March 2023

Matthew Newman  
Chair, MEP Advisory Board  
New Era Advisors  
Oklahoma  
March 2023

Leslie Taito  
Taco Comfort  
Rhode Island  
July 2023

Thank You  
Members Leaving Service  
2023
 MEP Advisory Board
2023 Dates

Next MEP Advisory Board Meeting
Planning continues – details coming soon

- Tues, June 13- Wed, June 14, 2023*
  - Location TBD
- Wednesday, September 13, 2023*
  - Buffalo, NY
  - Collocated with a National MEPNN Meeting

*Dates are subject to change