

**National Institute of Standards and Technology
Manufacturing Extension Partnership
Advisory Board
Minutes of the March 9, 2022 Meeting**

Background

The Department of Commerce (DOC) National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP) Advisory Board (Board) met in an open session from 1 p.m. to 5 p.m. on March 9, 2022, via video teleconference. The meeting had 76 attendees, including Board members, NIST and NIST MEP staff, participants from MEP Centers, guest speakers and observers. Cheryl Gendron is the Designated Federal Officer for the MEP Advisory Board.

Attendees

Board Members

Ray Aguerrevere, Vice President and General Manager, Custom Metal Designs
Jose Anaya, Dean of Community Advancement, El Camino Community College
Donald Bockoven, CEO, Fiber Industries LLC
E. LaDon Byars, President and CEO, Colonial Diversified Polymer Products, LLC
Bernadine Hawes, Senior Advisor, Econsult
Mary Isbister, Vice Chair, MEP Advisory Board and President of GenMet Corporation
Miriam Kmetzo, Executive Vice President, Welding Technology Corp.
Mitch Magee, Manufacturing Industry Consultant
Patricia Moulton, President, Vermont Technical College
Matthew Newman, Chair, MEP Advisory Board and Managing Partner of New Era Advisors
George Spottswood, Owner and CEO, Quality Filters, Inc.
Leslie Taito, Executive Vice President of Business Operations, Taco Comfort Solutions
Jim Wright, Vice President of Operations, Proof Research

NIST MEP Participants

Pravina Raghavan, MEP Director
Cheryl Gendron, NIST MEP, Advisory Board Liaison and Designated Federal Officer, MEP Advisory Board

Guest Speakers

Mojdeh Bahar, Associate Director for Innovation and Industry Services, NIST
James Olthoff, Performing the nonexclusive functions and duties of the Under Secretary of Commerce for Standards and Technology and NIST Director

Observers

Nicole Ausherman, NIST MEP
Melissa Ayala, NIST MEP
Robert Barnes, NIST MEP
Dan Berglund, State Science & Technology Institute (SSTI)
Megean Blum, NIST MEP
Rebecca Callahan, U.S. House of Representatives

Steve Campbell, NIST MEP
Scott Chaiken, Michigan Manufacturing Technology Center
Allegra Chilstrom, Neal R. Gross & Co., Inc.
Monica Claussen, NIST MEP
Mike Coast, Michigan Manufacturing Technology Center
Jose Colucci-Rios, NIST MEP
Peter Connolly, ShockTech, Inc.
Dusty Cruise, Missouri Enterprise
Larry Danner, The Clearing
Melissa Davis, NIST MEP
Nadine DeJesus, NIST MEP
Emily Durham, Lewis-Burke Associates, LLC
Laura Graham, SSTI
Diane Henderson, NIST MEP
Autumn Hernandez, NIST MEP
Carrie Hines, American Small Manufacturers Coalition/Foundation for Manufacturing Excellence
(ASMC/FORME)
KeAnne Hoag, North Carolina MEP
Rob Ivester, NIST MEP
Elliot Johnson, The Clearing
Brian Lagas, NIST MEP
Wiza Lequin, NIST MEP
Mia Lockett, Lewis-Burke Associates, LLC
Chancy Lyford, NIST MEP
Drew Mackey, Northeastern Pennsylvania Industrial Resource Center
Anthony Mastalski, NIST MEP
G. Christopher Mathews, National Custom Hollow Metal Doors and Frames
Heather Mayton, NIST MEP
Kevin McIntyre, NIST MEP
Dimitrios Meritis, NIST MEP
Justin Mocca, NIST MEP
Mary Ann Pacelli, NIST MEP
Annette Parker, South Central College
Andrew Peterson, NIST MEP
Kim Pinckney, NIST MEP
Katie Rapp, NIST MEP
Kari Reidy, NIST Office of Congressional and Legislative Affairs
Rikki Riegner, Pennsylvania MEP
Kirsten Rieth, Research Triangle Institute
Alyssa Rodrigues, Alaska MEP
Jennifer Rosa, NIST MEP
Mark Schmit, NIST MEP
Carol Shibley, NIST MEP
Hope Snowden, NIST MEP
Megan Spangler, NIST MEP
Michael Taylor, NIST MEP
Carroll Thomas, NIST MEP
Nico Thomas, NIST MEP
Ben Vickery, NIST MEP
Phill Wadsworth, NIST MEP
Marlon Walker, NIST MEP

Brian Weiss, NIST
Tom Williams, NIST MEP
Michael Wilson, NIST MEP

Welcome and Introductions

Speakers:

Pravina Raghavan, MEP Director
Matt Newman, Chair, MEP Advisory Board
James Olthoff, Performing the nonexclusive functions and duties of the Under Secretary of Commerce for Standards and Technology and NIST Director
Mojdeh Bahar, Associate Director for Innovation and Industry Services, NIST

M. Newman made introductory remarks and expressed his gratitude to the NIST MEP staff, MEP Centers in the U.S. and Puerto Rico, and their Center boards for their response to the COVID-19 pandemic and supply chain resilience issues. After reviewing the agenda, he noted that Board member Kathay Rennels has retired and thanked her for two terms of Board service. P. Raghavan welcomed participants and noted that this would be her first Board meeting. She introduced J. Olthoff and M. Bahar, who each gave opening remarks. J. Olthoff said that NIST is awaiting Senate approval for the appointment of the next NIST Director. He welcomed new Board members M. Kmetzo and past Chair B. Hawes. He shared that the NIST MEP staff recently received the U.S. Department of Commerce Gold Medal for speed, efficiency and transparency in their work to issue Coronavirus Aid, Relief, and Economic Security (CARES) Act funds to all MEP Centers. He also congratulated Dr. M. Walker, who received the George A. Uriano Award for leadership in the development and implementation of the MEP-Assisted Technology and Technical Resource (MATTR) service to connect NIST laboratory technical capabilities and resources with the needs of small U.S. manufacturers through MEP Centers, and D. Thatte, who received the Distinguished Career Award for his support of the NIST mentoring program. M. Bahar shared ongoing efforts to ensure the future success of the MEP National Network™ (MEPNN), including the upcoming conclusion of the MEPNN 2017-2022 Strategic Plan, development of the MEPNN 2023-2028 Strategic Plan, and the three key MEP program themes of supply chain, workforce, and technology and innovation. Board members introduced themselves and their organizations and MEP Center Directors, NIST MEP leadership and Division Chiefs were recognized for their participation,.

MEP Director's Update

Speaker: Pravina Raghavan, MEP Director

MEP program budget outlook

- Fiscal year (FY) 2021 appropriation status
 - Base funding: \$150 million
 - \$4 million increase over FY 2020
 - Funding not subject to cost share requirements – elective for Centers receiving state funds conditioned on federal cost share requirement
- FY 2022 appropriation status
 - Currently under continuing resolution (CR) through March 11
 - President's budget and House bill contain \$275 million for MEP
 - Senate mark is \$175 million

- FY 2022 appropriation status outlook
 - House passed FY 2022 Omnibus language on March 9
 - Another short-term CR expected to March 15
 - \$158 million for MEP
 - Includes cost share exemption
- NIST MEP projected spend plan through March 11, 2022
 - Available funding
 - CR appropriation: \$66.6 million
 - Carryover from FY 2021: \$2 million
 - Funding from other agencies: \$0
 - Total available funding: \$68.6 million
 - Planned expenditures
 - Center renewals: \$58 million
 - Strategic competitions: \$0
 - Contracts: \$1.2 million
 - NIST MEP labor: \$5.2 million
 - NIST and program overhead: \$4.2 million
 - Total planned expenditures: \$68.6 million

Plan for potential additional program funding

- What is the plan for any potential additional funding?
 - Awards will occur through the Competitive Awards Program (CAP)
 - No cost share requirement
 - Focused on three program themes
 - Supply chain
 - Workforce
 - Technology and innovation
- Program theme example (workforce)
 - Fund Center-specific projects including
 - Potential project: expand manufacturing apprenticeships and include a diverse workforce
 - Manufacturer impact
 - Upskilled workforce
 - Workforce impact
 - Diversity of new workforce
 - Skilled workforce
 - Metrics
 - Number of companies participating
 - Number of new apprenticeships
 - Number of underrepresented people in apprenticeship
 - Number of minority-serving institutions (MSI) participating
 - Number of new partners engaged to support statewide efforts
 - Project pricing estimates
 - \$150,000 to \$500,000
 - This could pay for staff, trainers, materials, depending on how long and how many different types of apprenticeships
 - Potential project: expand/develop new workforce training with local and state partners (e.g., industry supported boot camps)
 - Manufacturer impact
 - Access to unskilled workforce

- Jobs filled
 - Input to current and future education and training programs
- Workforce impact
 - Job placement
- Metrics
 - Number of companies participating
 - Number of new placements
 - Number of underrepresented people trained
 - Number of underrepresented people placed
 - Number of MSI participating
 - Number of new partners engaged to support statewide efforts
- Project pricing estimates
 - \$100,000 to \$400,000
 - Like apprenticeships, costs are for staff, materials, trainers. A smaller Center could do a lot with \$100,000 for 1-2 years.
- Potential project: promote advanced workforce practices to improve culture, especially through historically Black colleges and universities, with a focus on diversity, equity and inclusion (e.g., implement and enhance Smart Talent)
 - Manufacturer impact
 - Retention of skilled workforce
 - Improved recruitment success
 - Workforce impact
 - Job satisfaction
 - Metrics
 - Number of companies with projects
 - Turnover rate improvement
 - Demographic data tracked (yes/no)
 - What are you tracking?
 - Project pricing estimates
 - \$200,000 to \$400,000
 - Depending on project timeline, \$400,000 would be for up to three years
- How will MEP Centers participate?
 - MEP Centers will choose tactics that are most relevant to their MEP Center and state
 - Pick and choose from any of the program themes
 - Pick one or multiple tactics across the program themes
 - Proposed funding levels
 - Up to \$1 million per MEP Center proposal
 - Up to \$5 million for multiple MEP Center proposals
 - Engage with other MEP Centers and states to explore potential proposal partnerships

Strategic competition update

- FY 2022 Center State Competition
 - NOFO for group one (Kentucky, Nebraska, Rhode Island and South Dakota) posted on grants.gov on Jan. 26, 2022
 - The NOFO is also on the MEP website: <http://www.nist.gov/mep/mep-center-state-competition-fy-2022>
 - Applications are due April 26, 2022
 - Awards will be announced in October 2022 for Jan. 1, 2023 start
 - Award recommendations must be made to GMD no later than July 8, 2022

- NOFO for group two (Arizona and Maryland) will be posted in June 2022
 - Applications will be due in mid-September 2022
 - Awards will be announced in April 2023 for July 1, 2023 start
- A virtual information session was held on Feb. 14, 2022 and a recording of that webinar can be accessed at: <https://bluejeans.com/s/cipYJUMNK6A>
- MEP Disaster Assistance Program
 - Applications must be received by NIST no later than 60 calendar days following the date that a major or an emergency disaster declaration is declared by the Federal Emergency Management Agency
 - Two fundable applications (Louisiana, Texas) are on hold due to budget constraints
- CARES Act results through FY 2021
 - 2021 Department of Commerce Organizational Gold Medal to NIST MEP
 - Additional information shared later in this presentation/minutes.

MEP National Network Updates

- NIST MEP
 - Pravina Raghavan has joined the team as the MEP Director
 - Rob Ivester previously filled the roles of both Acting MEP Director and MEP Deputy Director
 - Dave Stieren, Division Chief of the Extension Services Division, retired in December 2021
 - Jose Colucci-Rios is now the Acting Division Chief of the Extension Services Division
- Center Leadership Team (CLT)
 - Active members include the following people:
 - Center Directors: Buckley Brinkman (Wisconsin), Mike Coast (Michigan), Bill Donohue (Virginia), Carrie Hines (ASMC/FORME), Ethan Karp (Ohio), Kathie Mahoney (Rhode Island), Alyssa Rodrigues (Alaska), Jennifer Sinsabaugh (New Mexico), Tiffany Stovall (Kansas), Jim Watson (California)
 - NIST MEP staff: Pravina Raghavan, Rob Ivester, Mark Schmit
 - Tom Bugnitz, Center Director for Manufacturer's Edge (Colorado MEP Center), retired
- Recognition of New MEP Center Directors
 - Dayna Blanchard (MEP of Louisiana), Andy Carr (South Carolina MEP), Jodie Mjoen (Impact Dakota), Aaron Patrick (Ohio MEP), Rodney Reddic (Texas Manufacturing Assistance Center)
 - Plus Interim MEP Center Directors were listed:
 - Carolyn Miller (Mississippi Manufacturers Association), Jennifer Hagan-Dier (Manufacturer's Edge), Gregory Head (Advantage Kentucky Alliance)
- Center board support
 - NIST MEP Network Learning has been coordinating MEP Center board support since 2017
 - Board member assessments using an MEP-centric assessment tool
 - Results are confidential
 - Action planning sessions as a result of the assessments and workshops targeted to specific needs of boards
 - Sessions have covered topics such as strategic planning, advocacy and board recruitment
 - 35 states have used some form of board development services
 - 25 assessments
 - 19 action planning consultations
 - 15 workshops

- 10 individual consultants
 - MEP BoardSource subscription
 - A nationally recognized organization whose mission is to increase effectiveness in board governance, education and training. Valuable for both Center Directors and Center board members.
 - Subscription gives access to the various best practices, blogs, studies and various governance materials.
- Network learning events
 - Center Director Executive Support Program
 - This new program in development will offer a range of new resources to support Centers (will launch September 2022)
 - Engaging Center Directors in the design and delivery of the program
 - Will provide a range of resources to meet the varied needs of individual Center Directors and local circumstances
 - Program includes series of workshops, facilitated panel discussions and peer-to-peer councils
 - MEPNN New Employee Orientation
 - March 29 at 2 p.m. EDT
 - New MEP Center Board Member Orientation
 - March 31 at 2 p.m. EDT
 - New MEP Center Director Orientation and Onboarding
 - Two half-days (new format) Jan. 18 and 26, 2022
- Tab Wilkins Emerging Leaders Program (TWELP)
 - Current 1.13 cohort will graduate in April
 - TWELP Class 1.14 open for nominations
 - Center Directors who are alumni of the TWELP program
 - Andy Carr (South Carolina MEP, Class 1.9), Dusty Cruise (Missouri Enterprise, Class 1.2), Wayne Inouye (INNOVATE Hawaii, Class 1.4), John W. Kennedy (New Jersey MEP, Class 1.6), Kathie Mahoney (Polaris MEP, Class 1.5), Carolyn Miller (Mississippi Manufacturers Association, Class 1.2), Phillip Mintz (North Carolina MEP, Class 1.2), Aaron Patrick (Ohio MEP, Class 1.8), Keith Phillips (Alabama Technology Network, Class 1.5), Dwaine Raper (Tennessee MEP, Class 1.9), Rikki Riegner (Pennsylvania MEP, Class 1.11), Jennifer Sinsabaugh (New Mexico MEP, Class 1.1), Rustyn Stoops (Delaware MEP, Class 1.7), Tiffany Stovall (Kansas Manufacturing Solutions, Class 1.7), Deloit R. Wolfe, Jr. (Impact Washington, Class 1.9)
- Network learning: connect, communicate and collaborate
 - Network Learnings Corner in the Network News biweekly newsletter
 - To effectively share, transfer and discuss NIST MEP's vision, learnings, distinctive practices, meeting and webinar recordings, programs, success stories and special announcements
 - Network Learnings section in MEP Connect (internal platform)
 - Knowledge sharing from NIST MEP – working groups, extension services, distinctive practices, helpful resources and more
 - Competitive Awards Program highlights and closeout meeting recordings
 - Funding opportunities
 - Project outcomes and deliverables
- NIST MEP's National Network support – notable service areas
 - Cybersecurity

- Continued awareness and training focused on Defense Federal Acquisition Regulation Supplement and ransomware
 - Creating internal and external partnerships
- Advanced Manufacturing Technology Services/Industry 4.0
 - Opportunity for increased small and medium-sized manufacturer (SMM) adoption due to workforce challenges exacerbated by the pandemic
 - Increased Center participation via NIST MEP special project awards and the Advanced Manufacturing Technology Services/Industry 4.0 Working Group
- MEP-Assisted Technology and Technical Resource (MATTR)
 - Continuing to operationalize at Centers and increase awareness, participation of NIST laboratories – focus on MATTR value for manufacturers, Centers, NIST
 - Three active cooperative research and development agreements involving NIST laboratories, MEP Center clients and NIST MEP
- Food Industry Services/Food Safety
 - Active partnerships with the Food and Drug Administration and Food Safety Preventive Controls Alliance focused on food safety
 - All 51 Centers participating in Food Industry Services Working Group
- MEPNN Supplier Scouting
 - Supply chain need identified
 - MEPNN Supplier Scouting opportunity synopsis is created with assistance from NIST MEP
 - NIST MEP distributes
 - MEP Centers conduct a nationwide search for U.S. manufacturers
 - Aggregate results
 - NIST MEP gathers, analyzes and aggregates MEP Center submissions
 - NIST MEP prepares report
 - Prepares scouting results report and requests submitter to follow up with NIST MEP

Discussion

- M. Newman said that he would like to see a focus on controlling intellectual property (IP), especially as there are many new high-tech industries developing. The U.S. has a history of offshoring manufacturing of critical parts and pieces to unfriendly countries. P. Raghavan said that while they are focusing on immediate needs, the goal of supplier scouting is also to think long-term about creating technology and supply chains in America.
- M. Magee praised the NIST MEP team's flexibility with the budgeting process and said that he has learned over the years to plan for both expansion and contraction of operations. He noted the importance of having programs in mind that can be implemented if funding is increased.
- L. Byars said that as a manufacturer she gets concerned when she receives requests for quotes from people who claim that there is a lack of competitiveness just so that they can receive exemptions.
- M. Isbister noted that she chairs the Manufacturing USA Manufacturing x Digital (MxD) institute and they also focus on the key program themes of supply chain, workforce, and digital and advanced manufacturing technology. It feels like there are many opportunities to work together in those areas and yet little progress is made. She asked what they can do to work together more closely to achieve mutual benefit. P. Raghavan agreed and said that this topic of leveraging partnerships would be addressed later in the meeting.

- L. Taito said that one of the biggest challenges with near-sourcing in supply chains is redundant tooling and access to that tooling, and this could be a focus area for the MEPNN to provide assistance and information through peripheral support services. There could also be opportunities to provide training to organizations that spent the last two years leading their organizations away from lean principles to accommodate for COVID-19.
- J. Wright echoed L. Taito's comments about lean principles and asked about SMMs' need for IP development and what services MEP offers in that area. P. Raghavan said that she did not have a specific answer, but there is a partnership with the NIST Technology Partnerships Office and that IP development was an important area to focus on. In the chat, M. Magee asked what percentage of MEP Centers' business comes from new technology and startups versus more traditional business models. P. Raghavan said that about 10% of MEP clients over the last five years are startups. Those companies are more likely to receive technology services from MEP, at 10% versus 1%.
- P. Moulton said that many states are currently engaged in workforce development conversations, and it is critical for the MEP Centers to coordinate with state workforce development boards and educational institutions in order to take advantage of existing workforce networks and avoid reinventing the wheel.
- B. Hawes said that the MEPNN has taken root but there does not seem to be a strong connection with USA Manufacturing institutes. She echoed M. Newman's comments about IP and added that they need to provide a pathway to bring IP into the MEPNN.
- M. Bahar said that Manufacturing USA and MEP do coordinate on workforce events and have staff members attend each other's meetings. Technology transfer is one of the mandates of the MEP program; if the transfer happens outside a federal laboratory, the IP is already spelled out, and if it happens at the MEP Center, then they identify IP regimes that work for that particular Center. She cautioned against a one-size-fits-all approach for technologies that are not owned by a university or a federal laboratory. M. Newman said that he was thinking about the supplier portal and how to facilitate connections between IP owners and manufacturers in the U.S.
- In the chat, M. Isbister added that they needed to define the MEP unique contribution to workforce and then make the links to other entities.

MEP National Network Current Strategic Plan Update

Speaker: Pravina Raghavan, MEP Director

MEP National Network 2017-2022 Strategic Goals

- Empower manufacturers
 - Objective: assist U.S. manufacturers in embracing productivity-enhancing innovative manufacturing technologies, navigate advanced technology solutions, and recruit and retain a skilled and diverse workforce
- Champion manufacturing
 - Objective: 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
- Leverage partnerships
 - Objective: 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

- Transform the Network
 - Objective: 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

Measures for the current strategic plan

- Strengthening the national supply chain
- Increased awareness
- Serving the manufacturing workforce
- Leading in technology deployment

18-month measures of success

- Measure 1: strengthening the national supply chain – increase supplier scouting matches and clients served in critical areas
 - Goal: increase supplier scouting requests by 10%
 - Baseline: 124
 - Update through 2021 quarter 4 (6 months): 58
 - Goal: 137
 - Goal: increase successful supplier scouting matches by 10%
 - Baseline: 298
 - Update through 2021 quarter 4 (6 months): 80
 - Goal: 328
- Measure 2: serving the manufacturing workforce – increase client engagement in workforce services
 - Goal: increase clients engaged with workforce projects by 10%
 - Baseline: 1,800
 - Update through 2021 quarter 4 (6 months): 996
 - Goal: 1,980
- Measure 3: increasing awareness – amplify and measure Network brand awareness
 - Goal: amplifying Network brand awareness by at least 10%
 - #MEPNationalNetwork hashtag occurrences
 - Baseline for current 18 months: 567
 - Progress to date: 608
 - New goal for current 18 months: 624
 - Change: +7%
 - Brand mentions
 - Baseline for current 18 months: 194
 - Progress to date: 202
 - New goal for current 18 months: 213
 - Change: +4%
 - Manufacturing Innovation blog subscribers
 - Baseline for current 18 months: 40,130
 - Progress to date: 44,809
 - New goal for current 18 months: 44,143
 - Change: +12%

- Backlinks
 - Baseline for current 18 months: 186
 - Progress to date: 204
 - New goal for current 18 months: 205
 - Change: +10%
 - Social media followers
 - Baseline for current 18 months: 18,419
 - Progress to date: 18,742
 - New goal for current 18 months: 20,261
 - Change: +2%
 - Measure 4: Leading in technology deployment – increase client engagement in technology services and implementation
 - Goal: increase clients engaged with technology services projects by 10%
 - Baseline: 983
 - Update through 2021 quarter 4 (6 months): 763
 - Goal: 1,081
 - Goal: increase MATTR requests/inquiries by 10%
 - Baseline: 25
 - Update through 2021 quarter 4 (6 months): 7
 - Goal: 28

Discussion

- B. Hawes asked if there were barriers to the MEP Centers pushing MATTR to their clients. P. Raghavan said that they have not done a formal assessment, but the relaunch will focus on breaking MATTR down into more digestible segments.
- M. Magee said that NIST cutting edge technology may not be relevant for all SMMs, but doing small projects is a good start for those who are interested. P. Raghavan agreed and said that they need to work on messaging correctly to the MEPNN so that they can use tools appropriately for their clients.

MEP Program Performance Overview

Speaker: Pravina Raghavan, MEP Director

Looking back: FY 2021 client impact survey results

- 125,746 jobs created or retained
- \$14.4 billion in new and retained sales
- \$5.2 billion in total investment in U.S. manufacturing
- \$1.5 billion in cost savings

MEP CARES Act results

- CARES Act results through January 2022
 - MEP Centers served 5,300 companies with 7,300 CARES Act-funded projects
 - 2,287 companies received MEP services for the first time as a result
 - 5,300 unique clients served with over 7,300 projects
- Impacts directly attributable to the CARES Act
 - 17,385 jobs created or retained
 - \$1.5 billion in new and retained sales
 - \$482 million in new investment in U.S. manufacturing

- \$175 million in cost savings

MEP National Network rising to the challenge

- Assessed the pandemic's impact on manufacturing
- Forged partnerships and created connections
- Helped manufacturers pivot
- Evolved operations in a new normal

Success stories were referenced in the following areas and can be reviewed on the NIST MEP site here:
<https://www.nist.gov/mep/successstories>

- Pivot to produce personal protective equipment, medical supplies and medical devices
 - MEP Centers in Connecticut, Iowa, Michigan and North Carolina
- Supplier scouting
 - MEP Centers in Maryland, New Jersey and South Carolina
- Workforce
 - MEP Center in Rhode Island

Key takeaways

- Manufacturers adapted
- Manufacturing thrived
- New partnerships developed

Discussion

- M. Newman said that it would be good to see some of the success stories highlighted on LinkedIn.

Looking at Partnerships Through the Lens of Economic Development

Speaker: Pravina Raghavan, MEP Director

MEP National Network strategic partnerships

- The MEP program
 - Serves as a bridge to other organizations and federal research labs that share a passion for enhancing the manufacturing community
 - Fosters, develops and leverages these relationships
 - Permits MEP Centers to expand the reach and value of the program to the manufacturing industry

Value of partnerships for manufacturers

- Enhanced operational performance, finance growth, better manage risks while innovating, products to market faster
- Public-private partnerships can bring to manufacturers capabilities that they cannot access alone
- Our understanding of and ability to align state, regional, and local policy goals and objectives with national policy goals leverages the strength of each entity

MEP Centers connect manufacturing ecosystems

- MEP Centers partner with federal government, state/local government, associations, higher education, regional economic development organizations, nonprofit organizations, for-profit consultants and others

Existing partnerships

- Federal government partners
 - Economic Development Administration (EDA) economic development district
 - EDA trade adjustment assistance center
 - EDA university center
 - Federal laboratory
 - Department of Energy industrial assessment center
 - Procurement technical assistance center
 - Small business development center
 - International Trade Administration U.S. export assistance center
- State/local government partners
 - Local government (e.g., mayor or council)
 - State commerce/economic development agency
 - State energy/environment protection agency
 - State science or technology agency
 - State workforce/labor agency
- Local/regional economic development organizations
 - Workforce investment board
- Nonprofit organizations
 - Foundations
 - Manufacturing alliances
- Associations
 - Chamber of commerce
 - Industry/trade association
- Higher education
 - Community colleges
 - Technical college
 - University
- Other partners
 - Other MEP Centers
 - Power/utility
 - Manufacturers

The MEP National Network's partners are vast

- Centers with diverse partnership portfolios tend to be higher performing
- Partnerships allow them to provide more services to their clients; therefore, Centers with more partners perform more highly and have more impact

Department of Defense (DOD) partnerships benefit manufacturers

- Successful partnerships with the Office of Local Defense Community Cooperation (OLDCC), formerly the Office of Economic Adjustment, provide additional Center funding
- Since 2016, over 30 MEP Centers have received awards from OLDCC's Industry Resilience and Defense Manufacturing Community Support Programs
- MEP identifies manufacturers in the DOD supply chain and works with them to adapt to new economic realities (including responsiveness to cybersecurity initiatives and threats), retain employees, preserve key defense critical capabilities and grow profitably

Potential new partners to consider

- Minority service institutions
 - Historically Black colleges and universities

- Professional associations
- Minority business development centers
- Community development financial institutions
- State small business credit initiative program

Partnerships: future strategy

- Who do we need to fill the gaps?
 - Are there individual state gaps?
- Do we prioritize certain partnerships?
 - Is there a national or state value to certain ones?
 - Top down and bottom up
- Do we pilot a few?
- Challenges or barriers?

Discussion

- R. Aguerrevere said that in Florida they conducted a poll of 16,000 people working in manufacturing and the majority identified workforce as the preeminent issue. The enrollment and graduation rates for engineering schools in the U.S. are not sufficient to meet the projected demand for engineers by 2030. He said that while there has been a good focus on education delivery methods and programs, it is equally important to create demand for manufacturing jobs. He asked whether there were partnerships or best practices to engage young people in elementary and middle school to highlight the opportunities inherent in manufacturing. P. Raghavan agreed and said that Manufacturing Day was a good example of an initiative to have people visit to see what it's like to work in manufacturing. Some Centers have youth apprenticeships and these could be expanded to all 51 Centers.
- G. Spottswood noted that Alabama's Center is very connected with manufacturing entities in the state as well as with other states' Centers and this networking has allowed them to be very successful.
- D. Bockoven suggested getting Centers together to talk about best practices that can then be shared and leveraged with other Centers. The U.S. education system emphasizes four-year degrees, but that is not what is needed or appropriate for every student. He echoed comments about the importance of reaching students and parents in elementary schools to make them aware of the opportunities in manufacturing.
- M. Newman challenged NIST MEP and Center Directors to think about which Center Directors have issues with building partnerships and how Board members can help to bridge those gaps.
- M. Magee said that one challenge in leveraging best practices is the fact that many partnerships are driven by the nature of the particular MEP Center, which varies widely. He said that there could be opportunities partnering with the National Association of Manufacturers. MEP has the trust of SMMs, which can be helpful when leveraging existing programs.
- J. Wright suggested that small business loans could be tied to automation. P. Raghavan said that she would like MEP to think about how to make connections between local lenders and clients.
- B. Hawes suggested a pilot program that would embed historically Black colleges and universities with the university-based MEP Centers. She added that the Pennsylvania MEP has a program called What's So Cool About Manufacturing? This program is tailored to middle school students and involves visiting manufacturing firms and creating video presentations. M. Newman added that Native American tribes should also be involved in collaborations.
- M. Isbister suggested that NIST MEP should define their unique contributions so that MEP Centers and potential partners see those partnerships as collaborations, not competitions.
- J. Anaya said that in the last two years they have successfully impacted the talent/education pipeline and the impacts that COVID-19 had on SMMs were also felt in education. He added that

they should also consider alternative sectors of workers outside of the education system, such as immigrants or unemployed individuals.

- M. Kmetzo asked for three key factors that Centers should prioritize, given the large amount of available information. P. Raghavan said that it depends on a Center's focus and where they have ongoing projects. She would challenge Centers to think about what they are good at, how they can expand and what kinds of partnerships they need.
- L. Taito said that it is important to sustain programs that have been built over time so that the focus remains on manufacturing even when administrations change and resources shift to different industries.

MEP Advisory Board Working Group Updates

Supply Chain Development Working Group

Speaker: Don Bockoven, MEP Advisory Board

Committee members

- Board leadership: Don Bockoven
- Board members: Ray Aguerrevere, LaDon Byars, Mary Isbister, Matt Newman
- NIST MEP support: Rob Ivester

Working group deliverable

- Guidance and perspectives on the MEPNN support and development of manufacturing supply chains, with an emphasis on how coordination and execution of MEP services can improve supply chain resilience and improve global competitiveness for key products and critical technologies

MEPNN Strategic Plan 2023-2028 Working Group

Speakers

Jim Wright, MEP Advisory Board

Larry Danner, The Clearing

Committee members

- Board leadership: Bernadine Hawes, Jim Wright
- Board members: Don Bockoven, Mary Isbister, Miriam Kmetzo, Mitch Magee, Matt Newman
- Past board member: Kathay Rennels
- NIST MEP support: Cheryl Gendron, Wiza Lequin, Mary Ann Pacelli

Working group deliverable

- To provide long-term program direction, guidance and perspectives for the MEP National Network Strategic Plan for 2023-2028. The working group will consider feedback from Centers, stakeholders, partners, management and staff as the plan is developed

Overview of the strategic planning process

- The strategic plan will build on the four pillars of the previous plan: empower manufacturers, champion manufacturing, leverage partnerships and transform the Network
 - This will be a Network plan, not an organizational plan
 - This is a strategic plan, not an implementation or execution plan

- Preparation
 - Buy-in from stakeholders
 - Strategic Planning Committee (SPC) consisting of three subcommittees/research teams
 - American manufacturing ecosystem subcommittee
 - National Network subcommittee
 - State and legislative subcommittee
- Situational analysis research (conducted by three subcommittees)
 - Mine available data and prior work
 - Prior strategic plan, MEP Advisory Board Strategic Plan Working Group, Center Leadership Team strategy group, MEP strategy group, ASMC strategy work, MEP resources
 - Gather data from identified sources
 - Interviews with MEP Advisory Board members, Center Directors, Center boards, MEP staff and others, as identified
 - Research domains and fields as identified by subcommittees and other sources
- Formulation and dissemination
 - Interactive process of drafting and revising the strategic plan
 - This will involve the working group, the MEP Advisory Board and the SPC
 - The MEP Director will review the strategic plan and make sure it aligns with the governing authorities, NIST and the Department of Commerce
 - The strategic plan will then be submitted to NIST and the Department of Commerce for final approval

National Network Strategic Planning Roadmap 2021/2022

- November 2021: SPC kickoff, regular SPC meetings
- December 2021-March 2022: regular SPC meetings, situational analysis of the American manufacturing ecosystem, situational analysis of the National Network and its stakeholders, situational analysis of the state and national political environments
- April 2022: regular SPC meetings, presentation of the subcommittee recommendations to the MEP Advisory Board for review and input
- May-June 2022: regular SPC meetings, drafting of the strategic plan by the SPC with MEP Advisory Board input
- July 2022: regular SPC meetings, drafting of the strategic plan by the SPC with MEP Advisory Board input, approval of the strategic plan by MEP Director
- August 2022: regular SPC meetings, submission of the strategic plan to NIST and Department of Commerce for approval, presentation and socialization of strategic plan

Discussion

- M. Newman clarified that Advisory Board members, Center Directors, Center Boards and NIST MEP staff could volunteer to join any of the three subcommittees.
- M. Magee said that it was valuable to have a third party come in and make sure that the strategic plan is focused. A key is that it's data driven, and while you may use different terminology, what you are doing is lean.
- B. Hawes said that there will be a crosswalk between what is provided to the Department of Commerce and NIST and that crosswalk will also include the authorizing legislation for the MEP Centers.

Executive Committee Working Group

Speakers

Mary Isbister, Vice Chair, MEP Advisory Board
Mitch Magee, MEP Advisory Board
Matthew Newman, Chair, MEP Advisory Board
Donald Bockoven, MEP Advisory Board
George Spottswood, MEP Advisory Board

Committee members

- Board leadership: Mary Isbister
- Board members: Mitch Magee, Pat Moulton, Matt Newman, George Spottswood
- NIST MEP support: Pravina Raghavan, Cheryl Gendron, Wiza Lequin, Phill Wadsworth

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

MEP Advisory Board: other discussion topics

- Succession planning into the future
 - Goals: diverse membership matching the statutory requirements
 - Appointed by the NIST Director
 - Three proposed candidates currently being vetted through DOC and NIST
 - Seats open on a rolling basis
 - Recommendations from Center Directors
 - Federal Register Notice: call for nominations
- 2021 MEP Advisory Board Annual Report coming soon
 - Will be submitted to the DOC in the coming weeks
 - DOC will approve and distribute to Congress
 - Once the report is with congressional representatives, members may share it and the report will be published on the NIST MEP website

MEP Advisory Board: local Center board outreach

- Center Board Outreach Program goal
 - Enhance strength of relationships between national and local boards
- Opportunities to create connection with volunteers across the Network
 - Contact with 51 Center board directors by the MEP Advisory Board outreach team (email, phone calls)
 - Connections made over the last year continue; include informal conversations and attendance at Board meetings; continuing into 2022
- Discussions around
 - Source of feedback to MEP Advisory Board in its advisory role
 - Communication of and feedback on key National Network initiatives
 - Help leverage Network resources
 - Quarterly orientations for Center board members
 - BoardSource memberships
 - Board development programs (governance, leadership, advocacy, strategic thinking and more)
 - Showing appreciation to the state board chairs for their time and commitment

Discussion

- M. Newman noted that many of the current Board members had served on their state Centers' boards which helps build camaraderie and provides a venue to have peers to talk to.
- D. Bockoven noted that they get good feedback from Center boards and this can inform the strategic plan.
- G. Spottswood agreed that this leads to engaging conversations and is another form of networking that continues to pay off.

Public Comments/Wrap Up

There were no public comments.

Concluding comments

- R. Aguerrevere said that in his 20 years of experience, between labor shortages, supply chain problems and COVID-19, there has never been a harder time to run a manufacturing business. It has been encouraging to see that NIST MEP is continuing to do great work to support SMMs, who greatly need the help. He noted that the demand side of the manufacturing workforce equation concerns him and the long game needs to be engaging elementary and middle school children.
- J. Anaya volunteered to give advice on workforce development and share best practices that his organization is using.
- D. Bockoven said that he appreciated the discussions around partnerships and the explanation of the strategic plan. He remarked on the recent loss of Chuck Spangler from South Carolina MEP, who first introduced him to his local MEP Center board.
- L. Byars said that navigating the pandemic, the ensuing economic and political distress, and its effects on manufacturing would have been overwhelming for SMMs like hers without the support of NIST MEP and the National Network.
- B. Hawes said that her word for the meeting was horizon. As the nation comes out of the pandemic, a new strategic plan is on the horizon for the MEP National Network and a new order is emerging for manufacturers and manufacturing.
- M. Isbister said that MEP's time is now. Supply chain and workforce challenges are not new, but they were exacerbated by the pandemic and MEP is more valuable than ever. The country is watching and this is MEP's opportunity to make a meaningful difference for manufacturers and manufacturing.
- M. Kmetzo thanked her fellow Board members and NIST MEP staff for their patience and guidance during her first months on the Board.
- M. Magee said that two years ago most people did not know what the words supply chain meant, but now is a different time and a good time to be part of manufacturing.
- G. Spottswood said that MEP's success has never been more important because SMMs are the backbone of American manufacturing and American manufacturing is the key to the country's continued freedom.
- L. Taito said that in her 30-year career she has never seen such complicated issues in manufacturing and there has never been a stronger need for MEP and the work of MEP Centers with their boots on the ground in the states.
- J. Wright commended the NIST MEP staff for the seamless transition in leadership. MEP has a handle on what SMMs are struggling with and though there are no easy answers, the opportunity is there for MEP to make a difference.

- M. Bahar thanked the Board members for their comments throughout the meeting and said that at every meeting she is awed by the passion and collective knowledge of the Board. She could not wish for a better organization or a better Advisory Board.
- P. Raghavan thanked the Board members for their service, and the Center Directors and staff for their work throughout the pandemic. She echoed previous comments that the horizon is bright and the time is now and said she looked forward to working with the Board on the path forward.
- M. Newman thanked the NIST MEP staff, Center executives and Center boards, and said that his word for the meeting was agility. Over the past two years, the MEP program figured out how to be resilient and thrive under difficult situations and if they maximize and leverage their agility they can bolster supply chain resilience and continue to grow the economy in the future.

Next Meeting

The next MEP Advisory Board meeting is set for June 8, 2022 in Tulsa, Oklahoma. The subsequent meeting will take place in Chicago, Illinois, on Sept. 20, 2022 and will be co-located with the MEP National Network Update meeting and the FORME Center Best Practice Conference.

Adjournment

With no further business, M. Newman adjourned the meeting at 5:05 p.m.