

**National Institute of Standards and Technology  
Manufacturing Extension Partnership  
Advisory Board**  
**Minutes of the September 18, 2014 Meeting**

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**Background**

The Department of Commerce (DOC), National Institute of Standards and Technology (NIST), Manufacturing Extension Partnership (MEP), Advisory Board met in an open session from 8:30 a.m. to 5:00 p.m. on September 18, 2014 at the National Institute of Standards and Technology in Gaithersburg, Maryland. Approximately 55 attendees, composed of Advisory Board members, NIST, and MEP participants, guest speakers, and observers, attended the meeting. Phillip Singerman, Acting Director of MEP, is the Designated Federal Officer for the MEP Advisory Board.

**Attendees**

**Board Members**

Carolyn Cason, Vice President of Research, University of Texas, Arlington  
Roy Church, President, Lorain County Community College  
Denny Dotson, Chair, NIST MEP Advisory Board, and Chair, Dotson Iron Castings  
Bernadine Hawes, Senior Analyst, Community Marketing Concepts  
Tommy Lee, President, Vulcan, Inc.  
Bill Shorma, President, Rush-Co  
Vickie Wessel, Vice Chair, NIST MEP Advisory Board, and Founder and President, Spirit Electronics, Inc.  
Jeff Wilcox, Vice President for Engineering, Lockheed Martin  
Ed Wolbert, President, Transco Products, Inc.

**NIST MEP Participants**

Ron Gan, Administrative and Financial Management Officer, NIST MEP  
Bill Kinser, Director, Center Operations, NIST MEP  
Jeff Lucas, Policy and Research, NIST MEP  
Kari Reidy, Communications Team Lead, NIST MEP  
Mike Simpson, Director, System Operations, NIST MEP  
Phil Singerman, Acting Director, NIST MEP  
Mark Troppe, Manager, Strategic Partnerships, NIST MEP  
Gary Yakimov, Manager, Policy and Research, NIST MEP

**Observers**

Linda Acierto, NIST Congressional and Legislative Affairs

Clara Asmail, NIST MEP  
Buckley Brinkman, WMEP

Robin Bunch, Grants Management Division, NIST	Carrie Hines, ASMC
Jannet Cancino, Grants Management Division, NIST	Michael Kelleher, MD MEP
Gilbert Castillo, Grants Management Division, NIST	Brian Lagas, NIST MEP
Jennifer Clark, Georgia Tech	Wiza Lequin, NIST MEP
Monica Claussen, NIST MEP	Dan Lilley, NIST MEP
Beth Colbert, NIST MEP	Sunni Massey, NIST MEP
Kelly Coles, WMEP	Deirdre McMahon, NIST MEP
Dave Cranmer, NIST MEP	Curt Reimann, NIST MEP
Floyd DesChamps, Desner Group	Mark Schmit, NIST MEP
Doug Devereaux, NIST MEP	John Stanton, WMEP
Eric Esoda, NEPIRC	Dave Stieren, NIST MEP
Paddy Fleming, MMEC	Michael Stone, Stone & Associates
Antwaun Griffin, International Trade Administration	Brian Sweeney, MD MEP
Anthony Henderson, International Trade Administration	Mike Teske, Grants Management Division, NIST
Diane Henderson, NIST MEP	Nico Thomas, NIST MEP
	Gary Thompson, NIST MEP
	Jedd Vertman, Financial Assistance Law Division, NIST
	Ken Voytek, NIST MEP
	Tab Wilkins, NIST MEP

## **Welcome, Introductions, and Opening Remarks**

***Speaker: Denny Dotson, Chair, NIST MEP Advisory Board***

Mr. Dotson called the meeting to order at approximately 8:40 a.m.; Mr. Dotson made introductory remarks and asked the Advisory Board members and meeting participants to introduce themselves.

## **Presentations**

### **NIST MEP Director Update on Activities**

***Speaker: Phil Singerman, Acting Director, National Institute of Standards and Technology,  
Manufacturing Extension Partnership***

Dr. Singerman provided an overview of NIST MEP activities, including budget and legislative updates, the Center competition process, and plans for the NIST MEP Director selection.

Ron Gan provided an overview of the budget.

### **NIST MEP Appropriations History**

- NIST MEP is experiencing stability in operating at \$128M
- The FY 2014 budget was \$128.0M
- The FY 2015 (requested) budget by the President is \$141.0M

- In FY 2014 NIST MEP identified more Center renewal funding, and injected more money into the system for re-base lining and supplemental one time funding
- Labor numbers have decreased-
  - Stopped creating additional positions internally
  - Active in process of rehiring to fill open positions
- MEP pays overhead to NIST
  - Overhead increased as MEP cooperative agreements increased
- Received infusion of \$2.5M for B2B initiative
- Additional \$300,000 for “forensic auditing” analysis – (best practices for financial accounting)

**Q:** How often are NIST overhead expenses renegotiated with Commerce?

**A:** NIST overhead expenses were reviewed and updated about two years ago. Previously, the overhead expense was static for 8-10 years. It was previously charged based on labor, now it is charged more evenly based on grants and contracts. Each year they reevaluate how much the overhead rate needs to be, but it only differs by one or two percentage points.

**Q:** If funding is between \$130M and \$141M, does NIST MEP have a projected budget to account for the increase?

**A:** 90% of the increase in funding would go to Center competitions, with the remaining 10% possibly being allotted to strategic competitions and staffing. By FY 2017, NIST MEP hopes to increase funding to Centers by 50%, contingent upon increased appropriations.

Key Points by Dr. Singerman:

- MEP is putting an additional \$10M annually into states that are at the bottom level of funding on per capita basis.
- The re-competition process will reduce variation of funding among Centers to better reflect the distribution of manufacturing activity across the nation.
  - NIST MEP has the ability to re-compete, and is doing so.
- The MEP Centers already generates as much funds, in fees for services as granted by the Federal government.
- If there is no increase in the FY 2015 budget, MEP will have permanently infused the \$10 million in funding by reducing contracts and overhead.
- There is flexibility to move money around.
- The Senate Appropriations Committee has approved the President’s request of \$141M for the NIST MEP FY 2015 budget.
- In The House, the current proposed funding number is \$130M.
  - The steady funding proposed by The House is a positive sign for the MEP program at a time when other programs are losing funding.

- The legislation proposed by both The Senate and The House are similar in all major aspects.
  - S.2757 – America COMPETES Reauthorization Act of 2014 and H.R. 5035 - NIST Reauthorization Act of 2014
  - Both pieces of legislation provide greater accountability for local Boards.
  - Most likely will not be acted on before elections.
- NIST MEP is looking at a continuing resolution to carry the budget to Dec. 11 in the form of prorated funding.

**“America COMPETES Reauthorization Act of 2014” – S.2757**

- Introduced in the Senate on July 31, 2014
- Cost share would be adjusted to 1:1
- Panel reviews of performance at years 3, 5, and 8
- Mandatory Re-competition after 10 consecutive years of funding
- Protection of Center client confidential information
- Center Advisory Boards – conflict of interest policy (submitted to the NIST Director), oversight board representative of regional stakeholders with majority of SMEs on board; Board members may not serve as vendors, or provide services, or serve on more than one Board simultaneously
- MEP Advisory Board increased to minimum of 10 members

H.R. 5035 - NIST Reauthorization Act of 2014 “To reauthorize the National Institute of Standards and Technology, and for other purposes”

Passed the House on July 22, 2014

- Cost share adjusted to 1:1
- Panel reviews of performance at years 3, 6, 8
- Recompetition after 10 consecutive years of funding
- Protection of Center client confidential information
- Center Advisory Boards – conflict of interest policy (approved by NIST Director), representation of SME’s on Board from the Center’s region; Board members may not serve as a vendor or provide services, or serve on more than one Board simultaneously
- MEP Advisory Board increased to minimum of 10 members

The cost share adjustment and competition is a way for MEP to better fulfill its public purpose for example: to assist smaller, rural firms, startup firms, and work in areas such as workforce or technology transfer where there is no 2:1 business model.

States selected to compete:

Colorado, Connecticut, Indiana, Michigan, New Hampshire, North Carolina, Oregon, Tennessee, Texas, Virginia

Center Competition Timeline

August 1 – Federal Funding Opportunity Released  
October 15 – Proposals Due  
October 15 – December 15 – Technical Review  
December 15 – December 31 – Review by Selecting Official  
January 1 – January 31 – Review by Grants

MEP Director Selection Timeline  
October 1 – Issuance of Pre-Vacancy Announcement  
October 15 – Vacancy Announcement  
November 15 – Applications Due  
November 15 – 30 – Technical Review of Applications  
December 1 – Panel Interviews  
January 1 – Recommendation to Human Resources

Aggressive schedule on Director hiring process:

- NIST needs to approve the modifications by senior management recommended in position description to closely reflect Strategic Planning elements.
- The Pre-Vacancy announcement is ready to be released.
- NIST MEP is hopeful to have finalists determined for the position before the January Board meeting.

### **MEP Strategic Plan- Implementation**

***Speakers: Gary Yakimov and Jeff Lucas, NIST MEP***

Mr. Yakimov conducted a review of the timeline around MEP Implementation activities:

September

- Draft Implementation Plan
- Draft framework of Center performance metrics
- Review by Center workgroup
- Review/discussion of implementation plan with Advisory Board

October

- Refine Implementation Plan
- Discussion with Center workgroup on Center performance metrics

November

- Refine Implementation Plan
- Review/discussion with Centers at System Meeting

November/December

- Final Implementation Plan

January

- Endorsement by MEP Advisory Board

2015-2017

- Execute Plan

Mr. Yakimov and Mr. Lucas asked for input from the Board on issues and indicators of success surrounding the six outcome areas from the Implementation Plan. The following observations were made:

#### Enhance Competitiveness- Technology Acceleration

- Include a “technology symposium” in activities
- Include needs of small manufacturers
  - Don’t overlook the end recipient
- Need to identify dissemination channels
- Need to identify a framework to expose information to people
- Need a “current progress” status section, which would allow for assessment of the strategic plan
- Local Center’s role in region
  - Need to take on role as regional facilitators
- Regional inventory of tech transfer/ NIST capabilities
- Determine the role of the Advisory Board in building the framework around tech transfer
  - Don’t think the Advisory Board should be the platform, but more so help build the framework
- Need to smooth out MEP’s brand around technology transfer
- MEP needs to be the go to organization for technology transfer
- Include the need for better marketing
  - Around current/emerging capabilities
  - Helps disseminate NIST MEP knowledge
- Center perspective on metrics

**Q:** Points can become confusing when going through this plan at first. Is the plan focused on Centers or NIST MEP?

**A:** The implementation plan is focused on the National MEP.

#### Champion Manufacturing- Data as a Service

- Client access to data
- Client benchmarking a la The Association for Talent Development or The American Productivity and Quality Center (ASTD/APQC)
- Educate Centers to effectively use data
- Include dissemination of data to SMEs
  - The data can help SMEs attract clientele as well as inform their decisions
- Include some of the bullets from the Strategic Plan in starting activities
- Ensure use of NIST MEP data in decisions

- Track the data usage once it is actually released

**Q:** If we create a central database that everyone can tap into does that effect confidentiality?

**A:** At NIST MEP we ensure that no client data gets out under any circumstances.

**Q:** What is the link between the strategic plan and the implementation plan?

**A:** There are a few instances of overlap and a few differences, but the implementation plan outlines what NIST MEP will be doing to reach the outcomes listed in the strategic plan.

#### Champion Manufacturing- Increased Role of National and Center Boards

- Lack of connectivity between NIST and Centers
- Adopt a local Board that is not your own
- Identify expectations for National Board and cascade those down to local Boards
- Annual survey of local Boards
- Open local Board meeting to public
  - Have NIST MEP representatives attend a few meetings, and invite some Center Board representatives to the National Advisory Board meetings
- Foster obligations/expectations for Centers to engage Boards on NIST goals
- Two way conversation of priorities between National and Center Boards
- Spread knowledge of Center Boards to Advisory Board

**Q:** Will NIST MEP evaluate the strategic plan of newly competed Centers and how the Board interacts with that?

**A:** Yes, there is a section devoted to strategy in the FFO.

#### Support Partnerships- Manufacturing Eco-system

- Branding remains an issue
  - Currently going through an assessment of all Center's websites to check branding
- Local Centers need to understand their eco-system's
- Highlight flexibility and adaptability
- Debate around requirement to mention MEP affiliation
- Start small- outreach to NNMI Boards
  - Outreach/collaboration with SBDCs, INEAP, technical assistance Centers
- Local Centers need to understand their local eco-systems
- Flexibility/adaptability

#### Develop Capabilities- Learning Organization

- MEP staff will talk to local Centers and their Boards about this activity

#### System Refresh

- Add in bullets from Strategic Plan

- Look at management/governance in criteria

**Q:** How much of the proposals of Centers focused on NIST MEP's strategic plan?

**A:** NIST MEP has not seen the proposals yet, but the FFO is set up in a way to have the Centers respond to elements in the strategic plan.

**Q:** Does the system refresh speak to Centers or states?

**A:** States

**Q:** Is there anything in place to stop a state from applying for a cooperative agreement form another state?

**A:** Structurally no, but the applicants will get weeded out through the application process.

#### Discussion

- The strategic mission should complement center flexibility and adaptability.
- This is a lot of work for NIST MEP to do. Will be difficult to show progress.
- Strategy and governance are major components of the competition applicants. There is an ongoing monitoring process, annual review, and biannual panel review that focus on strategy.
- MEP ensures strategy is tied to program activities and finances. Rigorous updating of strategy is the number one focus in panel reviews.
- Need a well-functioning Board to have a well-functioning organization.
- Sub recipient agreements are submitted with operating plan. MEP ensures compliance requirements. Sub recipient agreements are the responsibility of the prime recipient. MEP is monitoring the relationship with the prime.
- At the conclusion of the discussion on the Implementation Plan it was requested that a briefing on capabilities of staff and organizational structure be sent to members of the Advisory Board.
- The Advisory Board was asked to think about scheduling regarding reviewing results on progress.

#### Technology Acceleration

**Speaker:** *Mark Troppe, NIST MEP*

Mr. Troppe provided the following opening remarks in MEP's plans for Technology Acceleration:

- MEP is an important intermediary to help with small manufacturers accessing technology.

- External forces are pointing MEP in the direction of being an intermediary. MEP wants to know Board opinions on developing a framework to meet the objectives of external forces.
- What NIST MEP is looking to do is different from traditional technology transfer.
- Support for new product development is primarily in existing firms, but also around process improvement, enhancing process by new technologies, and deploying them.

### **“Building the Nation of Makers”- The Miller Center Report**

***Speakers: Jennifer Clark, Associate Professor, School of Public Policy; Director, Center for Urban Innovation, Georgia Institute of Technology***

Ms. Clark presented the Miller Center Report. In September 2013 the University of Virginia’s Miller Center launched The Milstein Symposium: Ideas for a New American Century. The nonpartisan initiative convenes scholars and stakeholders, including former governors, to define and advance innovative, action-oriented ideas.

The theme of the Milstein Symposium’s first year is middle-class job creation. The recommendations focused on how to facilitate the growth of small- and medium-sized manufacturing enterprises – a key engine of middle-class jobs.

The Commission released its final report in June 2014, entitled Building a Nation of Makers: Six Ideas to Accelerate the Innovative Capacity of America’s Manufacturing SMEs. It includes the following recommendations:

1. Talent Investment Loans to Expand Human Capital
2. Upside-Down Degrees to Connect Classroom Learning with On-the-Job Learning
3. A Skills Census to Build a More Efficient Skilled Labor Force
4. A National Supply Chain Initiative to Fully Map America’s Manufacturing Enterprises
5. Up-Skilling High School Students with Expanded Technology and Engineering Certification Programs
6. A “Big Trend-Small Firms” Initiative to Diffuse the Latest Technologies to Manufacturing SMEs

### **Challenges**

SMEs are especially vulnerable to technology-driven disruptions. How can SMEs be empowered with resources to capitalize on emerging trends and leverage them to their advantage?

- Standing national effort to track the latest trends and analyze their impact
- Vehicle to connect SMEs to these trends so they can employ them to their benefit

### **AMP 2.0- Advanced Manufacturing Partnership**

- Executive Committee initiative, originally Amp 1.0, was composed of universities and firms to create policies recommended for adoption regarding manufacturing.
- NNMIs was a recommendation.
- AMP 2.0 was recommended to build on recommendations and include ways to integrate NNMIs with existing systems, and integrate a small firms and workforce agenda into NNMIs.

## Key Points

- Intermediaries help SMEs leverage new trends through technical assistance. Instead of starting from scratch the idea is to build upon existing work and make it scalable.
- Since state MEPs have historically provided SMEs with performance-enhancing services, what if their scope was broadened to track these trends and deliver them back to SMEs manufacturing base?
- MEP's existing private-public model is well-positioned to implement a "Big Trends-Small Firms" project. Additionally, the market for dispersing big ideas back to the manufacturing base is strong, with existing non-profits already doing some of this work currently.
- Impact
  - Firm Growth
  - Participation in the Digital Economy
  - Flexible IT
  - Efficient Workforce
  - Operational Improvement
- Catalysts
  - Government
  - MEP Centers and Nonprofits
  - SMEs
- There exist challenges on supply chain for intermediary
- Information asymmetry problem- manufacturers do not know where to go
- Capital sources/access- concern by venture capitalists with return on investment
- Uncertainty/risk issue persists
- Regional qualified intermediary solutions- each region needs to have an organization that is able to qualify solutions through technical expertise
- Requires appropriate assessment of market
- Streamlining communication

## Discussion

**Q:** Did the RFPs for NNMIs specifically require technology transition?

**A:** The requirements for NNMIs and what were implemented as requirements were not the same due to funding. Specifications that include technology, engagements with regional economy are

to be continued. Some of the project calls are placing specific requirements for technology transition. NIST MEP has been engaged with agencies sponsoring NNMI institutes to try to encourage that the requirements in FFOs include technology transition.

**Q:** How involved was MEP with the research?

**A:** MEP was not involved with The Milstein Report. With AMP, MEP was involved with commission members and staff, weighing in on early drafts. MEP provided input to working groups.

### **MEP's Approach to Technology Acceleration**

**Speakers:** *Clara Asmail, David Cranmer, David Stieren, and Mark Troppe, NIST MEP*

Context Setting – What is Driving MEP's Approach to Technology Acceleration?

- Legislative authority- MEP statutory authority, MEP's role in enhancing access to technology for manufacturers.
- Administration Priorities (AMP 2.0)
- MEP Priorities (New Strategic Plan)
- Stakeholder Priorities (Miller Center/Milstein Commission report)-
  - “Building a Nation of Makers” – July 2014
  - Idea #6: Big Trends-Small Firms Initiative to Diffuse the Latest Technologies to SMEs
  - Emerging technologies promise to produce major disruption to established business models
  - SMEs often do not possess the tools to leverage these technologies
  - Connect SMEs with the latest trends; implement through MEP

AMP Report envisions a major role for MEP, and provides:

- Support for Manufacturing Day (MFG DAY)
- Support for MEP as an intermediary to help SMEs leverage manufacturing technologies
- Support to ensure that the MEP becomes a major “tool in the NNMI toolbox”
- Support for MEP role to assist SMMs with market entry support and scale-up

### **Current activities**

#### **Connect and Assist**

- Accelerate technology development and commercialization by connecting U.S. manufacturers' capabilities, needs with technology sources
- Enhance business opportunities for U.S. manufacturers by connecting their capabilities and capacities with supply needs of government agencies, OEMs

- Provide commercialization assistance to manufacturers: manufacturing strategy, scale-up, product development, IP management, financing
- Provide tools, manufacturer assistance mechanisms, opportunities

#### MEP Tools/Approaches/Services - Connect

- Technology Scouting
- Supplier Scouting
- B2B Network Pilots
- Regional Innovation Clusters and Technology Collaboratives

#### MEP Tools/Approaches/Services – Assist

- IP Awareness, Assessment, and Management
- Lean Product Development
- Technology-Driven Market Intelligence
- SBIR Assistance
- Access to Capital

**Technology Scouting:** Identifies enabling technologies for specific target applications and what potential technologies might solve.

**TDMI** (Technology driven market intelligence): Analyzes technology-specific perspective of industry/adoption and market requirements

- MEP has trained/reached almost 600 people
- 422 people have been trained and qualified as practitioners
- Just over 100 projects completed in Tech Scouting and TDMI
- MEP has spent about \$2.5M in contractor efforts
- Centers have seen about \$1M returned
- Roughly \$15M in economic impact from services provided

#### Technology Collaboratives

- Using the TDMI process to inform the creation and activities of the collaborative
- Process guide created
- Three projects:
  - California Network for Manufacturing Innovation (CNMI)
  - Nevada Industry Excellence Unmanned Autonomous Systems (NVIUE UAS)

- North Central Massachusetts Collaborative Communities Manufacturing Growth Initiative

### **SBIR** (Small Business Innovation Research)

ROI looking at period of 4 years:

- 14% of SBIR awards were MEP clients
- \$80M in new sales
- \$32M in cost savings
- \$67M in additional investments
- 845 jobs attributed to MEP services

### Emerging Opportunities

- Continue partnerships with federal labs, universities, and intermediaries to foster awareness of MEP as commercialization partner
- Continue to work with Centers to expand services to become comprehensive in scope
- Pursue unique high-potential impact opportunities

### **M-Tac Pilot**

- 2014 - Initiated series of 5 pilots designed to provide a supply chain oriented focus to the provision of technology transition to commercialization's services to SMEs
- Leveraging MEP network M-TACs intended to amplify MEP service offerings related to technology transition/commercialization
- M-TAC Pilots consists of teams of experts in specific technology/supply chain areas, partnered together to offer services, deep expertise to support small & mid-sized manufacturer needs
- Act as coordination point within key supply chains across the country

The 5 Pilot focus areas

- Oregon- Food
- California- Transportation
- Texas- Aerospace/Defense industry
- GA Tech- Auto supply chain
- Wisconsin- Manufacturing/Agriculture/Alternative energy

**Q:** How do they select the SMEs they are working with?

**A:** Each of the projects is doing it differently. GA Tech is working closely with the State's Automobile Manufacturers Association in the region to identify OEMs and connect with them to understand supplier needs.

**Q:** How do you reach the OEMs that are not engaged?

**A:** They are doing both. They are also realizing there are supply chain resource needs that they can't meet locally. They are going out and looking to identify those that are ready to become part of the supply chain. These are pilots. We are testing different approaches.

**Q:** What is the long term intention for the M-TAC program?

**A:** The original intent was for them to become the basis for a broader network to become part of the MEP system. The long-term goal is to develop supply chain tools and techniques that can be deployed as appropriate, on a sustainable basis by MEP Centers.

## NNMI

- MEP involved in suggesting language for FFOs and serving on proposal review panels
- MEP developing relationships with the NNMI Institutes for Manufacturing Innovation (IMI)
  - Partnering at both Federal sponsor level – NIST MEP – and individual IMI level – MEP Centers
- Initial Focus on DOD-led IMIs:
  - America Makes
  - Digital Manufacturing and Design Innovation (DMDI)
  - Lightweight & Modern Metals Manufacturing Innovation (LM3I)

MEP serves as a liaison to help the institutes leverage MEP nationwide assets and assist NNMI IMIs as they strive to engage and impact SMEs in the following ways:

- Increase small manufacturer awareness of IMI focus areas
- Facilitate small manufacturer informing IMI research
- Facilitate small manufacturer participation in IMI research
- Help deploy results of IMI research to small manufacturers

**Q:** There seems to be some difficulty in understanding NNMI's and MTAC's. Has NNMI taken over MEP's vision for MTAC?

**A:** MEP is organized to offer services for a fee in our different regions. It is hard for this system, to work at the national level, and MTAC is a way for us to work across state lines.

**A:** The scope of NNMI institutes is much smaller than originally thought. NNMI is more focused on research.

## Additive Manufacturing (AM)

- An emerging technology area becoming understood across a variety of industries that is finding industrial applications.

- Large companies, such as Boeing and GE, are using AM techniques to make processes more efficient.

Goals:

- Market Assessment
  - Explore the field
  - Obtain information about the needs and directions of industry
  - Hear the voice of MEP Centers regarding how much they currently, and would like to engage in prototyping assistance services to SMEs
- Education
  - Provide guidance for Centers to begin to engage SMEs interested in AM
  - Built a virtual community of practice for learning
  - Regularly scheduled webinars explore AM technologies, modes of use, applications, resources available, economic trends
  - Led regional AM cluster formation

## **Manufacturing Entrepreneurship: Makers**

MEP is trying to leverage recent trends in the Maker Movement to form partnerships and develop services to impact the manufacturing entrepreneurship community:

- Makerspaces
- Design sharing internet platforms
- Marketing e-platforms for makers
- Build on nascent relationships (CA, AR sub-recipients) to learn from them and expand to MEP manufacturers.

MEP will reach out to maker convenings (October- Urban Manufacturing Alliance) to educate makers about available resources and services, learn about where maker needs match available services, and explore potential relationships.

## **MEP collaboration with NIST labs**

- Engineering Laboratory – industrial robotics
  - Education for Centers
  - Leveraging Centers to deploy technologies to clients
- Additive Manufacturing – cross-cutting projects
  - Working with universities and 3D printers
- Boulder Labs Technology Showcase
  - NIST's portfolio of technologies and opportunities for collaboration will be presented to private firms, entrepreneurs, investors, intermediaries

**Q:** Are you limiting the group of people to those recommended by the Colorado Center; how are you broadening that, reaching out?

**A:** We have a variety of folks on the steering committee that have companies in other regions. Investment bankers, economic development organizations, casting a net as wide as possible. It's at the reach of the stakeholders.

**Q:** If successful, will activities like the Boulder labs technology showcase be expanded?

**A:** Yes, the Boulder showcase was just one of a continuing series. NIST MEP will look at ramping this up depending on the results.

#### Discussion

- Critical to give feedback on outcome of the boulder labs technology showcase event to Board in light of tech transfer trend.
  - Center in CO provide ears for feedback.
- It is important to see the metrics associated with these ventures.
  - What are the impacts created? What is the market?
  - All these ideas are very good, but we need to see the associated data and trends. There is risk inherent in all of these projects, but we need to at least identify the potential footprint.
  - Metrics associated with MEP activities help decide which activities to focus on going forward.
- Educate field workers on national goals, priorities, initiatives, and capabilities.
- Manufacturing Renaissance Tax credit could attract makers.
- SBIR ROI data mirrors the states that have the highest rate.
- The MEP-NNMI track is absolutely right. With pilots, they only work if you can glean something sustainable from them. With MTAC, the transition to the national platform is not obvious.

#### Center Competition Process

**Speakers:** *Diane Henderson and Bill Kinser, NIST MEP; Robin Bunch and Jannet Cancino, Grants Management Division; Jedd Vertman, Federal Assistance Law Division*

Ms. Cancino outlined the role of the Grants Office regarding the Center Competition Process:

- 5 Grant specialists dedicated to MEP program.
- Provide administrative services and guidance as needed.
- Worked closely with MEP on planning and development of designing Re-competition.

Mr. Kinser then provided background information:

- The Administration's FY 2015 Budget
  - Proposed a 10% increase (\$13 million) for MEP
  - MEP's strategic planning process and operational reform agenda; and
  - NIST Management's direction in FY 2014 to initiate a carefully planned, systematic, multi-year re-competition of the national system of Centers.

- The Government Accountability Office (GAO) (March 2014) report stated “MEP: Most Federal Spending Directly Supports Work with Manufacturers, but Distribution Could Be Improved” about the national system of Centers.
  - Recommended that *“Commerce’s spending on cooperative agreement awards be revised to account for variations across service areas in demand for program services and in MEP centers’ cost of providing services. Commerce agreed with GAO’s recommendation.”*
- “NIST Reauthorization Act of 2014 “To reauthorize the National Institute of Standards and Technology, and for other purposes” passed the House on July 22, 2014, which provided that if a recipient has received a Center award for 10 consecutive years, then the Director shall conduct a competition to select a Center operator. Current Centers in good standing are eligible.
- Primary objective: Optimize the impact of the Federal investment on U.S. manufacturing and to allocate additional funds to areas with higher concentrations of manufacturers.
- Goal: Complete competition of the entire 50 State (plus Puerto Rico) national network over three years.
- Tool: Demonstration Pilot

## Overview

### Threshold Criteria

- States where the MEP program has not been re-competed within past 10 years.
- States where NIST investment in terms of dollars per manufacturing establishment (\$/Mfg using 2012 County Business Patterns) is below the MEP national average.

### Quantitative Criteria

- Importance of manufacturing to the State's economy, as measured by manufacturing employment as a percentage of State employment.
- Importance of the State's manufacturing sector to national economy as measured by State's share of total U.S. manufacturing establishments.

### Qualitative Criteria

- State support for manufacturing and MEP.
- States where MEP has gone through a recent "refresh" (e.g., recent change in organizational leadership or structure).
- Federal program requirements such as audit repayment obligations, high risk/agency review status.

### State Visits

- Purpose was to share information with State leaders regarding MEP's strategic plan and re-competition process, and engage them in a discussion about the role of manufacturing/MEP in the State's economic development priorities.

Participants included:

- State Economic Development Leaders
- Host Organization Leaders
- Center Leaders, Center Staff, and Center Board Leaders
- MEP Center representatives were not included in the meeting with State leaders to keep process objective/impartial

Based on this rigorous process and selection criteria, NIST MEP determined that 10 States among six Regions should be included in the pilot program.

Ms. Henderson discussed the Re-competition activities. Two working groups were established with representation from different MEP, GMD, and FALD staff. Charters were put in place for the working groups which were approved by Dr. Singerman.

1. Federal Funding Opportunity (FFO)/Standard Operating Procedures (SOP) Working Group
  - Purpose
    - Develop FFO/FRN
    - Develop SOP
    - Update Guidance Documents
    - Launch of Pilot FFO/FRN by August 1, 2014
  - Activities
    - Federal Funding Opportunity/Federal Register Notice
    - Working Group Project Schedule
    - Communications Plan (Internal FAQs)
    - FAQs for Public
    - Staffing Plan for Evaluation Panels
    - Standard Operating Procedures (SOP)
2. Realignment Working Group
  - Purpose
    - Leverage the momentum created by the MEP re-competitions to align MEP reporting processes, including Strategic plans, CPRs/data sets, Panel/Annual reviews, 5-year Operating Plans, and Quarterly reports
    - Evaluate the current state of programmatic monitoring of Centers, identify the desired future state
    - Update guidance documents (General Terms and Conditions, Operating Guidelines, Special Award Condition Template, Renewal Webinar Slides, FAQ) in conjunction with the FFO SOP Working Group
  - Activities
    - Create a streamlining plan
    - Streamlining Annual & Panel Review Processes

- Looking at semi-annual reporting
- Working to support concept of post-award training
- Begin comparing document requirements across all mechanisms – develop future state
- Work on Review processes leading to renewal or new competition

#### Initial Results/ FFO Enhancements

- Alignment of Evaluation Criteria with MEP System Strategic Plan
- Adding language from Strategic Plan around:
  - Manufacturers/ Workforce
  - Top-line/bottom-line growth
  - Board creation
  - Metrics
  - Engagement with system/Sharing best practices
- Post-Award Kick-Off Conference
- Ramp up of Operations
- Multi-Year Funding
- Potential for Additional 5 Years
- Reduced Reporting Requirements

In an effort to ensure complete transparency of competition process, MEP has put into place the following staffing plan for reviews:

- Development of external pool of evaluators – Non-MEP Staff
  - Resources identified by knowledge/expertise
  - Familiarity with MEP Program
- Cross-utilization of Regional Managers and Federal Program Officers
- Establishment of 5 Review Panels for Pilot Competition – 2 States per Panel

MEP has enhanced their communication tools:

- Communication Plan for MEP Staff to ensure consistency
- Information Webinar
- MEP weekly E-Blast Newsletter
- MEP Public Website
- Frequently Asked Questions (FAQs)

#### Timeline

- August 1st – Federal Funding Opportunity (FFO)/Federal Register Notice (FRN) Published

- October 1st & 8th - Evaluator Training
- October 15th - FFO/FRN Closes – Proposals Due
- October 15th – December 15th - Technical Reviews/Discussions, Site Visits or Teleconferences
- December 15th – December 31st – Ranking Recommendation Review by Selecting Official
- January 1st – January 31st - Review and Execution of Awards by NIST Grants/FALD

**Q:** How different is this new Center competition process from the original competition process?

**A:** The processes are similar, but the new process provides a better way to optimize the FFO's.

**Q:** What are you going to do to keep it the re-competition work current so you don't start from scratch?

**A:** As the program evolves, we will continue to build on our working document that we can refine as we go forward on points of focus areas and what criteria specifically are. There should be a subset of people working on this to make sure we are current.

**Q:** What is the timeline for the competition process? Will this process be standard procedure?

**A:** We have no fixed period of time. The FFO will be on the street for 75 days, with an initial quality check of the applications once the FFO closes. This competition is a test case to determine how much time we need. Right now 4 weeks are blocked for reviews. We think the process from when the FFO posts to when the award is made is a 7 month process; we are looking for areas where we can reduce that time.

**Q:** Typically, information that is passed to local Boards is very tightly controlled by Center Directors. Do you have a document that goes to the Center Board Chair that talks about the importance of this process?

**A:** This goes to the issue of Board communication. The trend is to be cautious about overloading local Boards with information. We need the Advisory Board's guidance on the frequency and level of information to send.

**Q:** When applications are submitted, is the Board Chair's signature required?

**A:** The requirement is that it's an authorized representative. When you sign the application, you are making a legal representation that you are an authorized official of the recipient organization.

**Q:** Does making mid-year awards affect the budget at all?

**A:** All of the Centers went through the normal annual renewal last year, so they are all funded through the end of June. We're going to start the new awards in July 2015. We tried to give ourselves some flexibility, especially for new Centers.

**Q:** Do you keep an active list of Board members from each of the different centers?

**A:** Yes, but the Centers are responsible for updating these lists. They are housed in our MEIS database.

**Q:** Did you touch on technology acceleration in the FFO?

**A:** NIST MEP aligned parts of the FFO to the strategic plan, such as technology transfer and acceleration.

## Discussion

- When the application for the new competitions are submitted, they should be signed and approved by the Center Board.
  - At the highest level, NIST MEP should want to know that the Board has authorized the application.
- MEP should look into putting a second level of certification in the FFO to force better communication between the Boards and Center Directors signing off on applications.
  - Maybe put this second level of certification right above the signature line.
- NIST MEP should be careful not to impose a governance structure that steps on Boards authority and independence.

## MEP Export Initiatives

**Speakers:** *Mike Simpson, NIST MEP; Antwaun Griffin, Deputy Assistant Secretary for U.S. Operations, International Trade Administration; Michael Stone, President and CEO, Stone & Associates; Buckley Brinkman, Executive Director, Wisconsin MEP*

Mr. Simpson made opening remarks around MEP's Export activities:

- 47 MEP Centers have completed over 1,600 export output- related projects since 2006
- 106 ExporTech sessions
- 29 states have completed an ExporTech program
- 578 clients have completed the ExporTech program
- Export sales within 6 months of completing ExporTech program

## MEP Growth Approach

- New Markets & Customers
- New Products & Services
- New Processes & Business Models

## NEI/NEXT

Mr. Griffin spoke on supporting U.S. Exports through NEI/NEXT

Since 2009:

- 4 consecutive years of record exports, reaching \$2.3 trillion in 2013
- Nearly 30,000 U.S. businesses started exporting
- 1.6 million more export-supported jobs, bringing our total to 11.3 million
- With more and more businesses online, it is a new era for exporting
- Global middle class growth has created tremendous demand for U.S. goods and services
- The U.S. now has trade agreements with 20 countries and is negotiating agreements with countries that together make up over 60 percent of the world's GDP.

Key points

- Obama Administration builds upon the success of the National Export Initiative with NEI/NEXT.
- Announced in May 2014 by U.S. Secretary of Commerce Penny Pritzker, NEI/NEXT is a data-based, customer service-driven initiative to ensure that more American businesses can fully capitalize on markets that are opening up around the world.
- Implemented through the Export Promotion Cabinet and Trade Promotion Coordinating Committee (TPCC), which consists of representatives from 20 federal departments and agencies with export-related programs.
- The National Export Initiative achieved great success through a whole-of-government approach and through the efforts of American small and medium-sized firms. NEI/NEXT looks to replicate this success through collaboration from existing and new partners:
  - ExporTech
  - Startup Global and Centers of Innovation

Goals of the initiative:

- Help businesses find their NEXT customer abroad
- Increase the efficiency of a company's first and NEXT shipment
- Help firms finance their NEXT order
- Help communities integrate trade and investment into their NEXT growth plans
- Open up the NEXT big markets around the world while ensuring a level playing field

Trade events

- Discover Global Markets
  - An unprecedented national series of high-profile international business development events.
  - Organized by the U.S. Commercial Service Export Assistance Centers in collaboration with local trade partners across the U.S.
  - Featuring U.S. trade officials bringing the latest actionable market intelligence and industry trends directly to the U.S. business community.
  - Supported by key U.S. export promotion partners from the private and public sectors.

- Engage in private, pre-scheduled meetings with U.S. Commercial Diplomats visiting from American embassies and consulates abroad.
  - Participate in dynamic panel discussions on emerging overseas opportunities and industry trends important to U.S. business.
  - Learn about U.S. export assistance programs that will cut the time to market, mitigate risks, and provide export financing solutions.
  - Network with U.S. trade officials, leading private sector experts and like-minded U.S. businesses active in overseas markets.
- Trade Winds
  - A business conference highlighting opportunities and challenges across a region or set of markets.
  - One-on-one meetings with Senior Commercial Officers/Specialists from U.S. Embassies and Consulates for guidance on market entry strategies.
  - Business-to-business meetings with potential partners/customers in select or multiple markets.
  - High-visibility business networking events with leading industry and government officials in select markets.
  - Host locations for 2014.
  - The Americas (Colombia, Panama, Ecuador, Peru, Chile).
- Client satisfaction surveys are main form of performance measures.
- Trade event schedules are posted on website.

**Q:** Is there anything inside of this initiative for anybody exporting defense items, or is this commercial only?

**A:** Commercial, primarily. Our specialists work with any number of industries. Our only prohibitions are guns, alcohol, and tobacco. We can help most U.S. businesses get abroad.

**Q:** What is the profile of the attendees of these trade events?

**A:** The attendees are very diverse and are from all over. Around 20% of the people who attend these events have been to one previously.

**Q:** What does “continuity in service” refer to?

**A:** This refers to getting the company form their 5<sup>th</sup> to 15<sup>th</sup> market.

## **ExporTech**

Mr. Stone discussed how his consulting firm helped develop ExporTech, an Export Strategy and business development process that includes an intensive program to “jump start” international sales growth.

Structured process for developing international growth plan:

- 4-8 companies
- Leads to export plan in 10 weeks
- Plans vetted by panel of experienced exporters
- Combines three group workshops and individual coaching:
  - Session 1: Export Strategy & Best Practices
  - Session 2: Mechanics of Exporting
  - Session 3: Export Growth Plan Presentations
- Efficient connection to experts/organizations in one place
- C-level peer group model drives learning and action

Target companies

- New-To-Export
  - Receive foreign inquiries
  - Ready to commit resources
- Moderate or Reactive Exporter
  - <10% of sales, reactive approach, serve 1-5 markets
  - Wants to become more proactive and aggressive about international sales
- Experienced Exporter
  - International sales have grown to 10-35%
  - But wants to become more proactive, reach the next level, develop plan for new region

ExporTech 2.0: Combines ExporTech Strategy and planning process with go-to-market component.

Benefits

- Increased implementation of plans
- Enhanced program value, improved marketing
- Pipeline of better prepared companies for trade missions/shows, Gold Keys

Key challenges

- Recruitment of Companies/Selling and Marketing
- Business Model

**Q:** Is the cost of the program a barrier to entry for SMEs?

**A:** Yes, cost is a barrier but it is not the top barrier. The bigger barrier is the time commitment necessary.

**Q:** Can you give a sense of what the cost of the ExporTech program is?

**A:** It ranges per the user and there are grants. Some users pay below \$1000 or up to \$8,000.

**Q:** How do you handle a barrier to entry where DOC is offering a similar program?

**A:** That is a challenge, but the ExporTech program is quite different than what the DOC offers. There are actually unique elements in both programs which complement each other.

**Q:** Does ExporTech 2.0 exist?

**A:** Not as of yet, but it is an idea that has been actively discussed with key partners.

**Q:** Could collaborative efforts take away some of the barriers to entry associated with the ExporTech program?

**A:** Yes, we have been working to establish better communications between different partners.

**Q:** If we, as a SME, get a new export award/grant in January, where should we go next?

**A:** We may develop something in ExporTech to address this very issue. There is a possibility to become a go to resource for exporting. ExporTech could pull together information and resources to aid users. It may not be our specialty, but we could get the users the right resources.

**Q:** There is a lot of confusion with exporting that stems from different sectors of the government telling you different things. An example is one section saying go ahead and export, and another stepping in and saying that you cannot export. In ExporTech, how much time is devoted to dealing with both sides?

**A:** A balance is challenging, but we do have to address both the advocates of exporting and the compliance aspects of exporting. People actually want to know the compliance aspects so that they do not get into trouble.

## **Wisconsin MEP**

Mr. Brinkman discussed WMEP's ExporTech program.

Exporting is Critical to Wisconsin's Growth:

- \$262 billion GSP – \$50 billion (19%) Manufacturing
- Exports \$23 billion
- Manufacturing 94.6% of Exports
- SMEs count for 1/3 of Exports
- In Milwaukee in the past 10 years:
  - Exports have grown by 45% offsetting a 6% loss in Domestic sales.
- Many companies don't understand their value proposition.
- Extensive network of experts involved in program.

- On average \$900,000 in first year growth for companies in program.
- Value = EBITDA X Multiple
  - WMEP is finding in exports that volatility of earning goes down; causes multiple to increase.

### Challenges for MEP Centers

- Financial Investment – WMEP will invest over \$350,000
- Equal partnership between State, U.S. Export Assistance Centers (USEAC), and MEP
- Volunteer Network – Finding Value-Adding Partners
- Effective Champion

### Opportunities for MEP system

- Global Cities Initiative – 19 other markets
- Export Communities (ExporTech 2.0)
- National Network
- Visibility in a high-profile area
- NIST-MEP is the organization connecting with SMMs

**Q:** How do you fund the \$350K financial investment?

**A:** Through revenues, ExporTech sessions, we collect in-kind, and excess earnings from consulting work.

**Q:** When talking about the EBITDA, what time horizon must a company consider to increase its enterprise value?

**A:** 12-18 months. The barrier is not money; it's getting the senior executives together. Minimum of five years for a transition plan.

### Board Discussion, Feedback, and Public Comments

**Q:** Are we as Board members allowed to individually go to another Center Board's meeting?

**A:** This should be a fundamental program of the National Advisory Board. NIST MEP can outline a process to systematically support the Board in this effort. This will include things like ensuring the Chair of the Center Board knows a National Advisory Board member will be sitting in on their meeting.

- Concern with number of initiatives in Strategic Plan versus available resources
- Revisit having an annual conference
- Think hard about communication and delivery channels

- Focus on what MEP does well
- Fine tune definitions of technology acceleration/ technology transfer/technology transition
- Local Boards must be involved in re-competition process
- Regarding re-competition, be aware of competitors on Board
- Challenge connecting outcomes in the Strategic Plan to the implementation plan
- Appreciation expressed for:
  - ExporTech presentation
  - MEP staff's work on Strategic Plan
- Dr. Singerman was thanked for his leadership and noted for his unprecedented transparency regarding the program's financials.

Dr. Singerman asked the Board Chair and Vice Chair to form committees on the following issues to report back at the January Board meeting:

- Strategy
- Technology acceleration/transfer
- Board governance/performance/accountability

### **Next Meeting**

The next Advisory Board Meeting is January 21, 2015.

### **Adjournment**

With no further business, Mr. Dotson adjourned the meeting.