

MAKING AN IMPACT ON U.S. MANUFACTURING

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

NIST MEP Advisory Board

May 19, 2015

Agenda

Time	Topic	Lead
8:30am	Meeting Logistics	Kari Reidy, NIST MEP
8:35am	Welcome Introductions and Opening Remarks	Vickie Wessel, Chair
8:45am	Audience Introductions	
8:55am	MEP Director Update on Activities	Phil Singerman, NIST Carroll Thomas, NIST MEP
9:45am	Technology Acceleration Subcommittee Update	Jeff Wilcox, Committee Chair Mark Troppe, NIST MEP Lead
10:45am	Break	
11:00am	Board Governance Subcommittee Update	Vickie Wessel, Committee Chair Mike Simpson, NIST MEP Lead
12:00pm	Lunch	
1:00pm	Board Discussion on Subcommittee Recommendations	
1:45pm	Workforce Activities	Mary Ann Pacelli, NIST MEP
3:00pm	Break	
3:15pm	Competition Update	Bill Kinser, NIST MEP
3:45pm	Board Discussion	

NIST MEP Update

Phillip Singerman, NIST

Carroll Thomas, NIST MEP



Agenda

- Budget
- Strategic Planning
- MEP: The Next Chapter

NIST MEP Budget



NIST MEP Appropriations History

(\$ million)

FY 2010	\$124.7
FY 2011	\$128.4
FY 2012	\$128.4
FY 2013	\$120.0
FY 2014	\$128.0
FY 2015	\$130.0
FY 2016 (President's request)	\$141.0
House Appropriations Committee Mark	\$130.0
Senate Appropriations Committee Mark	TBD



NIST MEP FY 2015 Spend Plan

(\$ million)

Existing MEP Center Renewals	\$92.0 ^A
MEP Center Competitions – Rounds I, II	14.6
MEP Center Strategic Competitions (Business to Business (B2B) Network Awards)	2.5
Centralized MEP System Support (Programmatic and Non-programmatic Contracts/Cooperative Agreements)	6.2
NIST MEP (Staff Labor, Benefits, Supplies, Travel, etc.)	10.6 ^B
<u>NIST Overhead</u>	<u>5.6</u>
Total Expenditures	\$131.5

A. 12 months of funding for existing center cooperative agreements

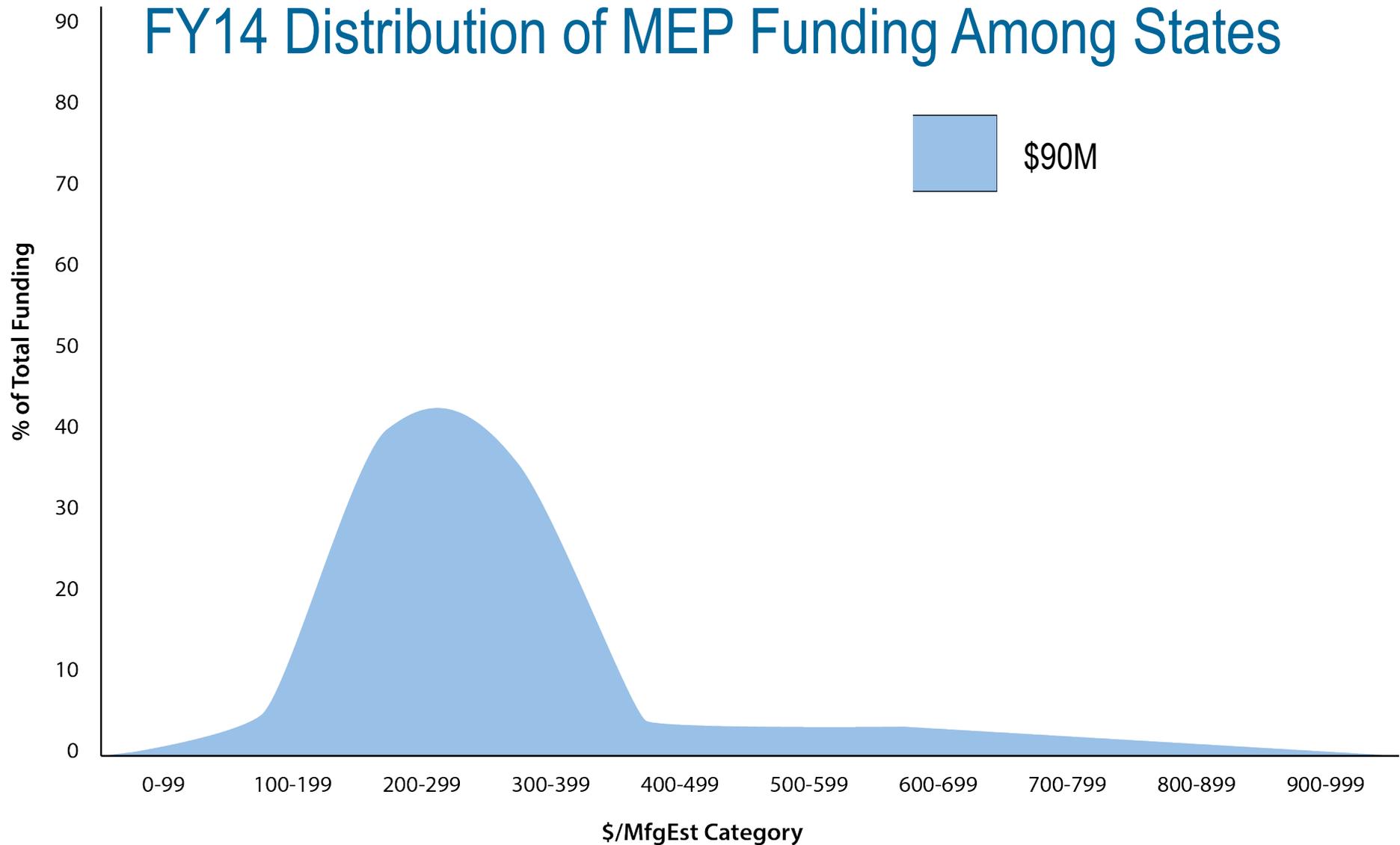
B. Assumes full NIST MEP Staffing

One Time Funding:

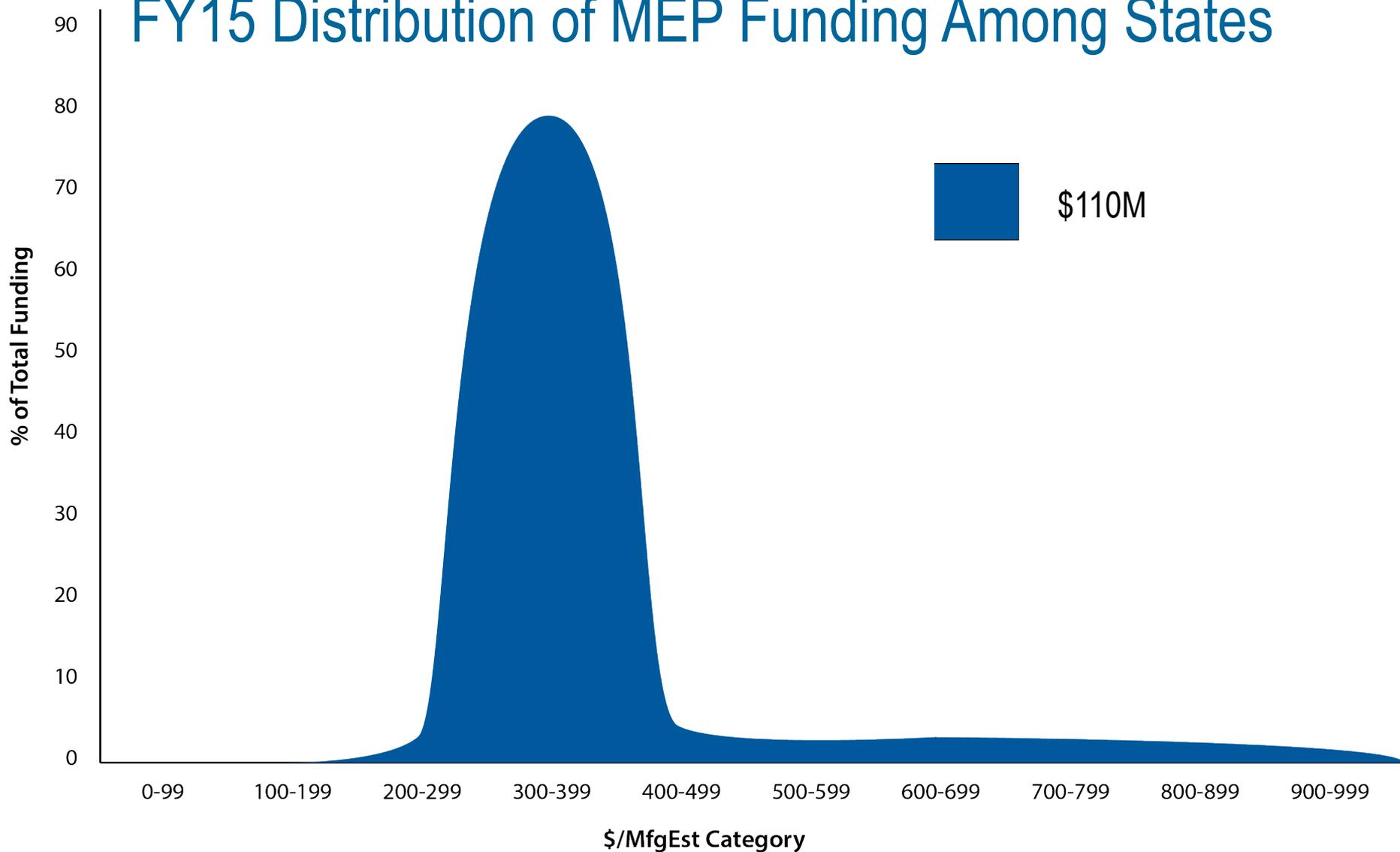
Supplemental Funding to Centers (est.)	\$ 7.0
6 Month Bridge Funding for Incumbent Round II Centers (7/1 – 12/31)	\$ 13.5



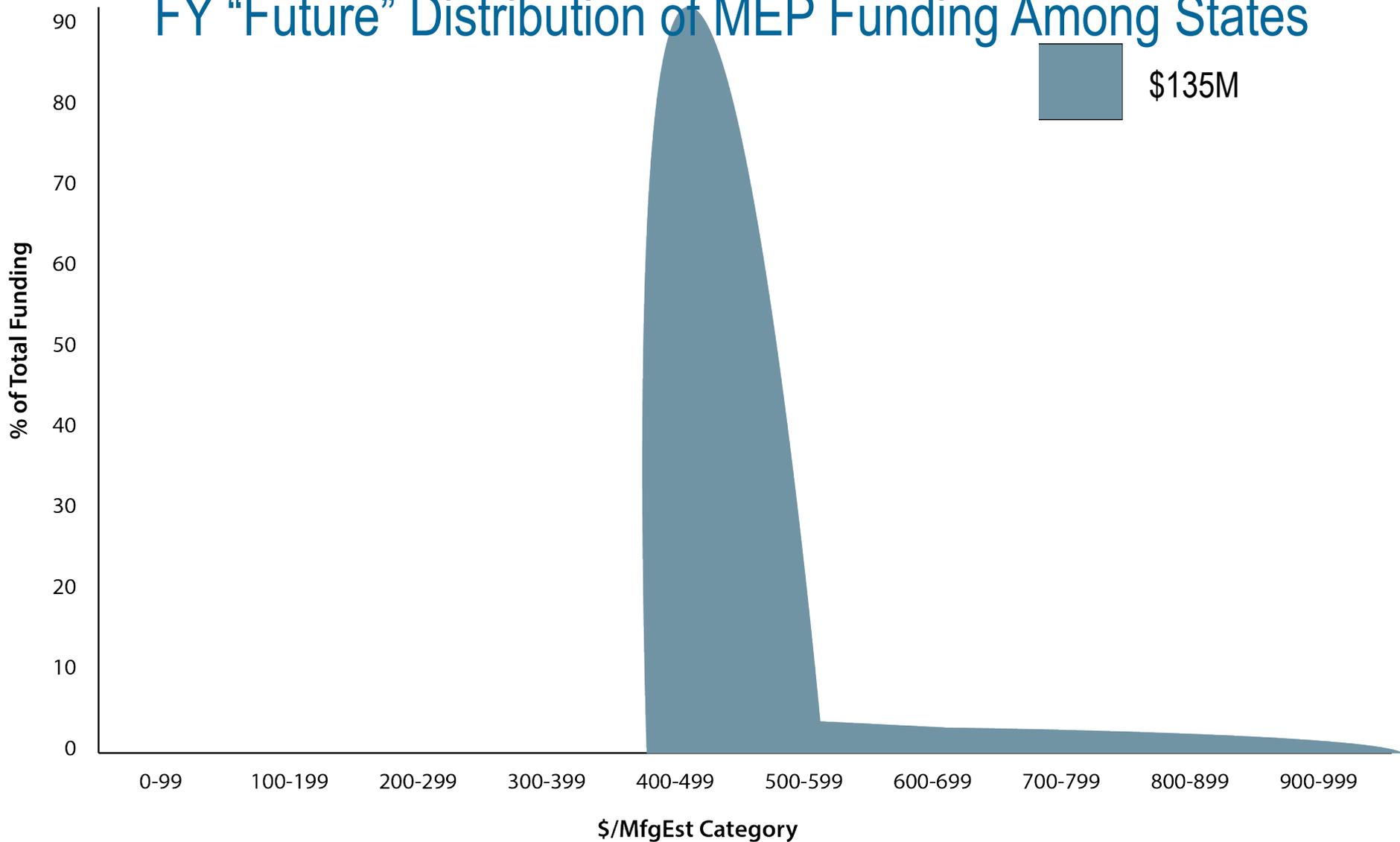
FY14 Distribution of MEP Funding Among States



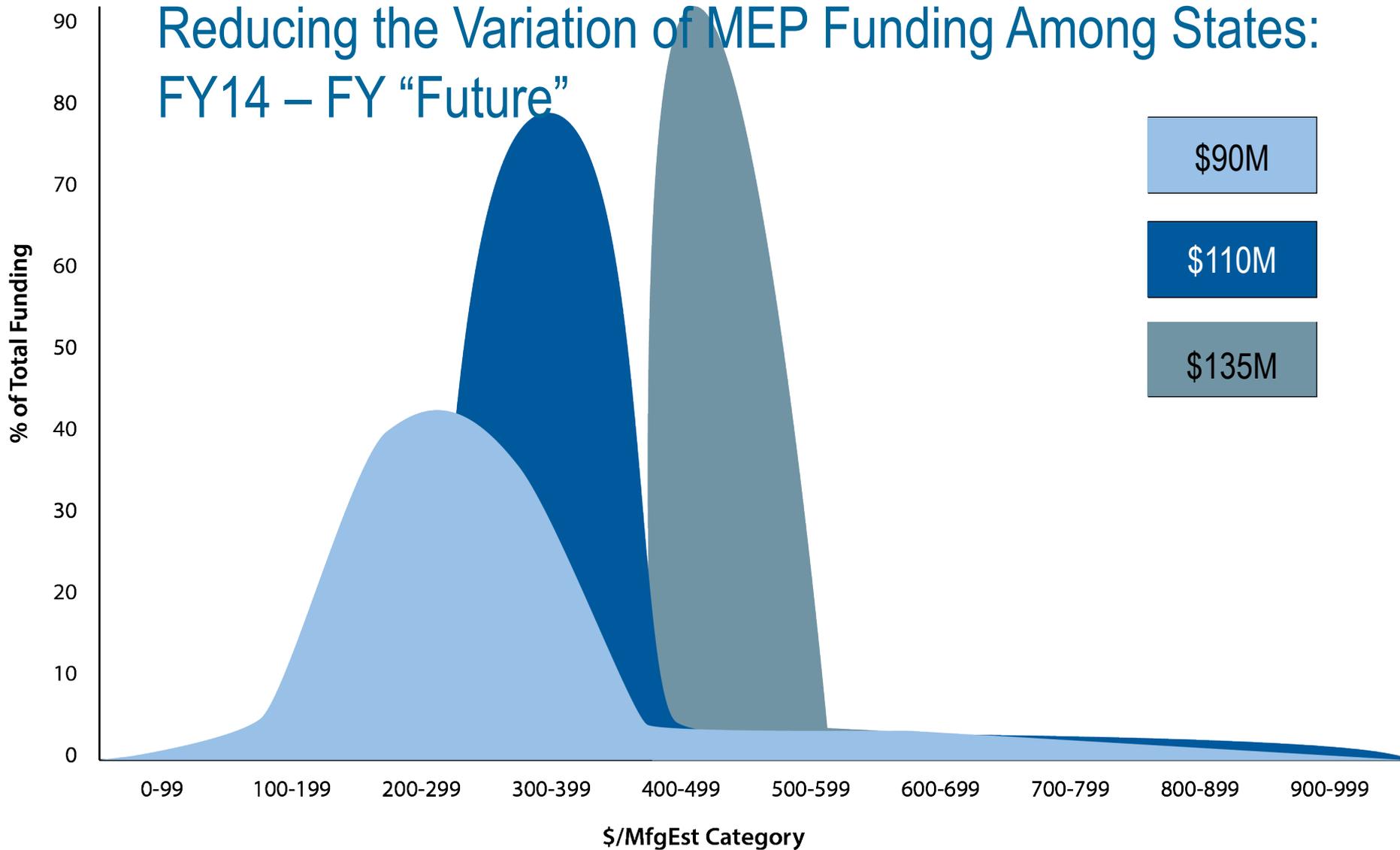
FY15 Distribution of MEP Funding Among States



FY “Future” Distribution of MEP Funding Among States



Reducing the Variation of MEP Funding Among States: FY14 – FY “Future”



MEP System Strategic Plan

Manufacturing Extension Partnership (MEP) System Strategic Plan 2014-2017

Draft Version 2.0 May 2014

MISSION

To enhance the productivity and technological performance of U.S. manufacturing.

ROLE

MEP's state and regional centers facilitate and accelerate the transfer of manufacturing technology in partnership with industry, universities and educational institutions, state governments, and NIST and other federal research laboratories and agencies.

PROGRAMMATIC STRENGTHS

- National Program with at least one center in every state.
- Federal/State, public-private partnership with local flexibility.
- Cost share policy that matches federal investments with state and private sector investments.
- Market driven program that responds to the needs of private sector manufacturers.
- Leverage partnering expertise as strategic advantage.
- Local knowledge of, focus on, and access to manufacturers.

STRATEGIC GOALS

<p style="margin: 0;">ENHANCE COMPETITIVENESS</p> <p style="margin: 0;">Enhance the competitiveness of U.S. manufacturers, with particular focus on small and medium-sized companies.</p>	<p style="margin: 0;">CHAMPION MANUFACTURING</p> <p style="margin: 0;">Serve as a voice to and a voice for manufacturers in engaging policy makers, stakeholders, and clients.</p>
<p style="margin: 0;">SUPPORT PARTNERSHIPS</p> <p style="margin: 0;">Support national, state, and regional manufacturing eco-systems and partnerships.</p>	<p style="margin: 0;">DEVELOP CAPABILITIES</p> <p style="margin: 0;">Develop MEP's capabilities as a learning organization and high performance system.</p>



Manufacturing Extension Partnership (MEP) System Strategic Plan 2014-2017

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Federal/State, public-private partnership with local flexibility.



Cost share policy that matches federal investments with state and private sector investments.



Market driven program that responds to the needs of private sector manufacturers.



Leverage partnering expertise as strategic advantage.



Local knowledge of, focus on, and access to manufacturers.



MEP Strategic Plan (2014-2017)

Strategic Goals

ENHANCE COMPETITIVENESS

Enhance the competitiveness of U.S. manufacturers, with particular focus on small and medium-sized companies.

CHAMPION MANUFACTURING

Serve as a voice to and a voice for manufacturing and manufacturers in engaging policy makers, stakeholders, and clients.

SUPPORT PARTNERSHIPS

Support national, state, and regional manufacturing eco-systems and partnerships.

DEVELOP CAPABILITIES

Develop MEP's capabilities as a learning organization and high performance system.



STRATEGIC PLAN UPDATE

Strategic Goal: Enhance the Economic Competitiveness of U.S. Manufacturers (Enhance Competitiveness)

Strategic Objective: Deliver services that create value for all manufacturers, particularly focusing on small and mid-sized manufacturers (“SME’s”)

Increased focus on SME’s is a major goal of the recompetition; permanently adjusting the cost share to 1:1 will provide Centers with flexibility to work with SME’s

Strategic Objective: Enable centers to make new manufacturing technology, techniques and practices usable by U.S. based SME’s

MEP Advisory Board Committee on Technology Acceleration has developed a detailed action plan for review by the Board in May 2015

Strategic Objective: Develop “Data as a Service” for Competitive Advantage

Extensive development and piloting of industry profiles, center “cohort” benchmarking (e.g., by organization type, size, region), mapping of industries and clients

STRATEGIC PLAN UPDATE

Strategic Goal: Serve as a Voice to and a Voice for Manufacturing (Champion Manufacturing)

Strategic Objective: Champion the importance of SME's and ensure their inclusion in the economic competitiveness policies and programs of the U.S. government.

Active participation in White House led initiatives in supply chain, NNMI, workforce

Strategic Objective: Increase the role of national and center boards

MEP Advisory Board Committee on Board Governance and Distinctive Practices has developed a detailed action plan for review by the Board in May 2015

MEP Advisory Board Committee on Technology Acceleration has developed a detailed action plan for review by the Board in May 2015

STRATEGIC PLAN UPDATE

Strategic Goal: Support National, State and Regional Manufacturing Eco-Systems and Partnerships (Support Partnerships)

Strategic Objective: Provide centers with local flexibility and adaptability to operate based on regional priorities and client needs.

Recompetition provides centers with the opportunity to align their strategies with their regional partners; permanently adjusting the cost share to 1:1 will provide Centers with flexibility to more actively participate in regional initiatives

Strategic Objective: Support national policy goals

Leveraging on-going work at the center level in workforce, supply chain, technology transfer; identifying national opportunities in defense adjustment, “maker movement”

STRATEGIC PLAN UPDATE

Strategic Goal: Develop MEP's capabilities as a learning organization and high performance system (Develop Capabilities)

Strategic Objective: Promote system learning

Restructure system meetings to encourage/facilitate center-to-center interaction
Reinstate national conference in 2016/2017

Strategic Objective: Evolve MEP performance system

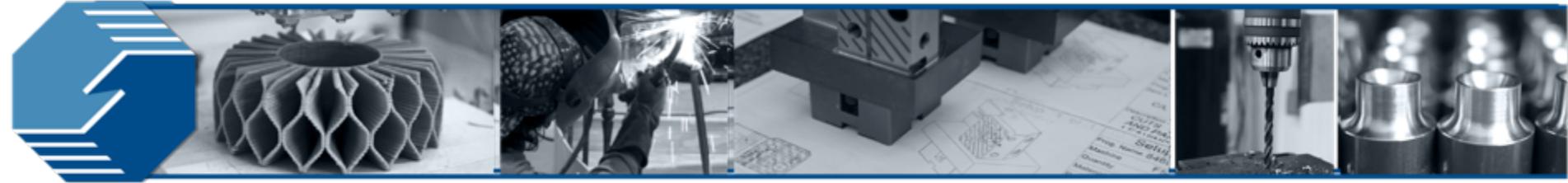
Continued emphasis on reporting on system-wide impacts
Recompetition provides opportunity to adjust measures of regional value creation and allow "center-specific" metrics

Strategic Objective: Continue administrative reform

Center reporting burden has been reduced for current centers and recompeted centers
Increased attention to financial reporting and compliance
Improved timeliness of grant processing procedures

MEP: The Next Chapter...

- My Perspective
- What I've learned at SBA that overlaps
- Revisiting the model for NIST MEP
- Basic Overall Vision



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Advisory Board Committee on Technology Acceleration (ABCTA) Report to the MEP Advisory Board

May 19, 2015

MEP Advisory Board Meeting

Phoenix, AZ

Agenda

- **Recap of ABCTA Activity**
- MEP ABCTA Background Report
- Technology Acceleration Implementation Plan
- Next Steps—Subject to full Board approval, implement!

Advisory Board Committee on Technology Acceleration Charter

Purpose:

To provide Board guidance to shape MEP's Technology Acceleration strategy and activities, which contribute to the MEP mission of enhancing the productivity and technological performance of U.S. manufacturing.

Objectives: The Advisory Board Committee on Technology Acceleration (ABCTA) will:

- Represent manufacturers' — and especially SMMs' (small- and medium-sized manufacturers') — viewpoints regarding current MEP services and emerging opportunities.
- Assist with setting priorities among competing demands and focus on highest-impact Technology Acceleration activities.
- Seek alignment between MEP Technology Acceleration activities and existing structures of MEP Centers.

Schedule:

- | | |
|--|---------------------|
| • Launch Committee and schedule meetings (NIST MEP) | Nov/Dec 2014 |
| • Collect data on current TA activities (NIST MEP) | Nov 2014-March 2015 |
| • Present to Board draft work plan for analysis and research (Committee) | Jan 21, 2015 |
| • Inform/validate findings and recommendations with Center leaders (NIST MEP) | Nov 2014-May 2015 |
| • Deliver MEP Technology Acceleration Implementation Plan to Board (Committee) | May 19, 2015 |

About Technology Acceleration:

- MEP defines Technology Acceleration as integrating technology into the products, processes, services and business models of manufacturers to solve manufacturing problems or pursue opportunities and facilitate competitiveness and enhance manufacturing growth. Technology Acceleration spans the innovation continuum and can include aspects of technology transfer, technology transition, technology diffusion, technology deployment and manufacturing implementation.

Contacts:

- | | |
|----------------|----------|
| • Mark Troppe | NIST MEP |
| • Ben Vickery | NIST MEP |
| • Clara Asmail | NIST MEP |

Committee Members:

- | | |
|----------------------|-------------------|
| • Jeff Wilcox, Chair | • Bernadine Hawes |
| • Carolyn Cason | • Bill Shorma |
| • Roy Church | • Ed Wolbert |

Opportunities for Center Input:

- Inventory of Center Activities Nov-Dec, Jan-Feb 2015.
- Nashville Quarterly Update meeting Nov.
- Inform/validate findings and recommendations Jan-May 2015.
- Convene Center Leadership Team (CLT) on TA March 2015.

CLT Members:

- | | |
|-------------------|------------------|
| • Christian Cowan | • Phil Mintz |
| • Dan Curtis | • Petra Mitchell |
| • Karen Fite | • Jim Watson |
| • Steve Hatten | |

Critical Issues:

- Collect and analyze data from inventory and Nashville System Update Meeting in time to incorporate into draft work plan.
- Respond to stakeholder interest in expanded MEP role with realistic goals.

Technology Acceleration Definition

“...integrating technology into the products, processes, services and business models of manufacturers to solve manufacturing problems or pursue opportunities and facilitate competitiveness and enhance manufacturing growth.

Technology Acceleration spans the innovation continuum and can include aspects of technology transfer, technology transition, technology diffusion, technology deployment and manufacturing implementation.”

ABCTA Work Plan

Presented to and approved by the MEP Advisory Board at the January 21 Meeting in Gaithersburg, MD and includes:

- **Setting the Foundation**
 - Reached consensus on charter, definition of Technology Acceleration
 - Provide materials needed for further inquiry
 - Determine plan(s) for engaging Center
- **Data Collection and Analysis**
 - Develop baseline understanding of current activity level for TA projects.
 - Use multiple methods to understand the nature and extent of technology acceleration activities and services in the MEP System.
 - Organize and analyze data collected.
 - Explore services needed and valued by manufacturers in the near-, medium- and long-terms.
- **Evaluation of Future Actions/Investments**
 - Using the knowledge gained in the first two task areas above NIST MEP and ABCTA developed an initial Technology Acceleration Implementation Plan, including draft recommendations.
- **Develop MEP Implementation Plan for Tech Acceleration**
 - Articulates the strategy to guide development and deployment of technology acceleration services in the MEP system.

Center Leadership Team (CLT) on Technology Acceleration

- An informal group of seven Center Directors representing a diverse set of perspectives to inform our efforts.
- Team Members Include:
 - Christian Cowan – Polaris MEP (RI)
 - Dan Curtis – Arkansas Manufacturing Solutions
 - Karen Fite – Georgia MEP
 - Steve Hatten – Idaho TechHelp
 - Phil Mintz – North Carolina MEP
 - Petra Mitchell – Catalyst Connection (PA)
 - Jim Watson – CMTC (CA)

ABCTA – NIST MEP – Centers Collaboration

- Seven monthly calls/webinars with full ABCTA, additional check-ins with Jeff Wilcox & Mimi Hsu
- Two group calls/webinars with Center Leadership Team (CLT), plus one-on-one conversations with each of seven Team members
- ABCTA planned types of data to be collected — for example:
 - ABCTA asked for barriers to SME adoption of technologies and ROI logic model
 - CLT asked for best practices among Centers and clarification of purpose for mapping technology sources and ROI logic model
- NIST MEP collected and reported data to ABCTA
- NIST MEP collected input from and reported data to CLT
- Group analyzed data in context of desired outcomes for TA
- ABCTA developed recommendations for Implementation Plan w/CLT input.

Agenda

- Recap of ABCTA Activity
- **MEP ABCTA Background Report**
- Technology Acceleration Implementation Plan
- Next Steps—Subject to full Board approval, implement!

ABCTA Background Report

- Prepared in response to ABCTA charge to provide Board guidance to shape MEP's Technology Acceleration strategy and activities.
- Compilation of information requested to provide necessary background for the construction of a Technology Acceleration Implementation Plan, with recommendations from the MEP Advisory Board on how NIST MEP can accelerate the rate of technology adoption services throughout the MEP network and by MEP clients.
- Identified sources of relevant information, collected and analyzed data from a variety of sources, including: MEP Centers, MEP clients, published research, existing databases, and others.

Agenda

- Recap of ABCTA Activity
- MEP ABCTA Background Report
- **Technology Acceleration Implementation Plan**
- Next Steps—Subject to full Board approval, implement!

Technology Acceleration Implementation Plan

Structure of Implementation Plan:

- Background — Provides context and history of ABCTA, including Committee's charge
- Work Plan — a slightly abbreviated & updated edition of the *Draft Work Plan* presented to and approved by the MEP Advisory Board at the January 21 Board Meeting
- Key Findings from executing the Work Plan — summary of data collected and analyzed
- Recommendations — focus of our discussion today

ABCTA Recommendations to full MEP Advisory Board

Structure of Recommendations:

- I. Setting Priorities
- II. Barriers and Incentives
- III. Scale-Up and Sustainability

ABCTA Recommendations

I. Setting Priorities

1. NIST MEP should adopt a rubric of agreed-upon criteria for evaluating future Technology Acceleration opportunities, setting priorities, and investing and allocating resources.
2. MEP should give priority to developing and implementing Technology Acceleration opportunities with NIST labs and National Network for Manufacturing Innovation (NNMI) Institutes over the next year, while also pursuing the emerging collaboration with DOE labs.

ABCTA Recommendations

II. Barriers and Incentives: *Reduce Risk*

1. The MEP system should work diligently to enable permanent change in the cost share requirement to 1:1 to reduce Centers' risk of experimenting with Technology Acceleration services.
2. NIST MEP should provide more competitive funding and, when available, supplemental funding, to Centers willing to experiment with Technology Acceleration strategies, tool development, and partner development.

Recommendations for ABCTA

II. Barriers and Incentives: *Professional Development / System Learning*

1. Develop an 18-month systematic plan for system learning across the MEP system that would include education on new technologies, their implications, and Technology Acceleration strategies employed by Centers.
2. Launch a Technology Acceleration Working Group to encourage peer-to-peer learning and build relationships that strengthen the network.

Recommendations for ABCTA

II. Barriers and Incentives: *Performance Measures*

1. Review MEP Center performance measures to explore quantitative and qualitative options for capturing impacts or other ways for acknowledging Centers' work as they engage in Technology Acceleration activities.
2. As the MEP performance measures seek to increase Centers' ability to articulate their own metrics, work with Centers to encourage and assist in developing useful metrics for Technology Acceleration activities.

ABCTA Recommendations

III. Scale-Up and Sustainability

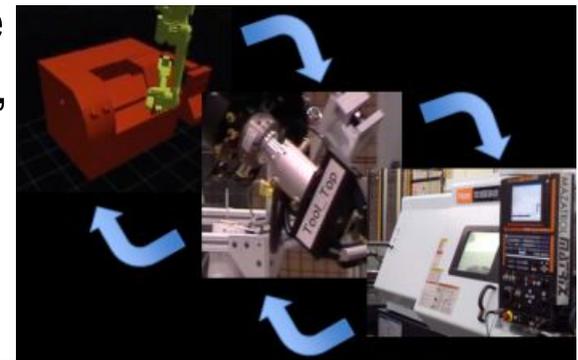
1. NIST MEP should work with Centers to consider formal options for how to best stay informed about the growing number of cross-cutting technologies and emerging opportunities in order to fully engage and leverage the value of the MEP Centers.

Agenda

- Recap of ABCTA Activity
- MEP ABCTA Background Report
- Technology Acceleration Implementation Plan
- **Next Steps—Subject to full Board approval, implement!**

NIST MEP/Lab Partnerships: Robotics

- NIST MEP and the NIST Engineering Laboratory (EL) are collaborating to identify and conduct outreach to a collection of Mid-Atlantic small manufacturers with experience with and/or interest in robotics for manufacturing applications.
- Will identify and develop small manufacturers as best in class, early adopters of robotics and flexible automation, which serve as important process improvements to increase their competitiveness and help enable growth.
- Will contribute to development of tool suite to improve robotics implementations for assembly-centric tasks in unstructured surroundings typical of SME operations.
- Intended to ease installation of robotic systems, ensure greater robustness of robotic systems during operation, support rapid re-tasking of robotic systems, and facilitate smooth integration of sensors, grippers, and other tooling for the small manufacturers.



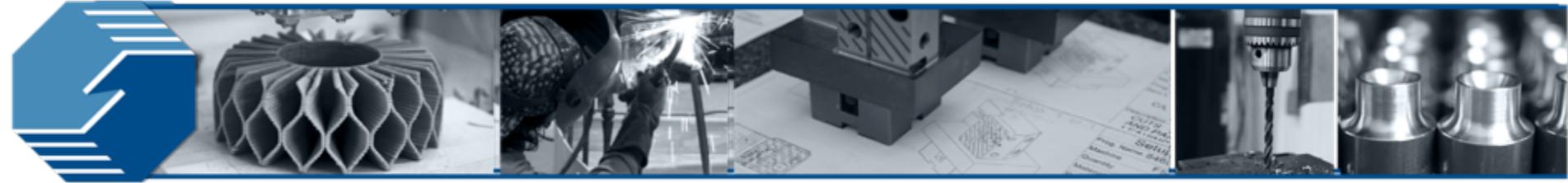
NIST MEP/Lab Partnerships: Smart Manufacturing

- NIST MEP and the NIST EL are collaborating to assess and assist Mid-Atlantic small manufacturers with experience/interest in predictive maintenance implementations in their manufacturing operations.
- Collaboration emphasizes the use of production system assessments of small manufacturers that conduct machining, forming, and other metal-working manufacturing operations, with varying degrees of automation.
- Working with small manufacturers that are deploying different degrees of predictive maintenance within their production systems to assess operations and contribute to NIST EL research working to identify, characterize and enable communication of metrics supporting diagnostics and prognostics within smart manufacturing systems to increase efficiency.
- Small manufacturers that participate in these assessments can become best-in class, early adopters of enhanced diagnostic and prognostic capabilities.



NIST MEP/Lab Partnerships: Technology Showcases

- MEP organizing Technology Showcases to introduce NIST Labs expertise and technologies to SMEs across different regions.
 - Green-Advanced Manufacturing & Engineering Showcase, August 2013
 - NIST Boulder Labs Showcase, October 2014
 - Cybersecurity of Unmanned Systems, September 2015
 - Cybersecurity for Economic Security, November 2015
- Additional colloquia to internal NIST researchers/entrepreneurs have introduced MEP services.



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MEP Advisory Board: Committee on Board Distinctive Practices and Governance

May 19, 2015

The Team ...

• MAB Committee Members

- Vickie Wessel – Chair
 - Denny Dotson
 - Eileen Guarino
 - Tommy Lee
- RevAZ**
Enterprise MN
NY MEP
ATN

NIST MEP

- Mike Simpson** Lead, NIST MEP System Operations Director
- Gary Thompson** NIST RMST (former Center Director, Techhelp)
- Phillip Wadsworth** NIST RMST (Former Center Director, Indiana MEP)
- Wiza Lequin** NIST MEP, Program Manager for Center Operations

MEP Center Boards

Ray Yeager	Catalyst	Fiduciary
Carl Spang	Maine MEP	Fiduciary
Mark Tyler	NW-Stout	Advisory
Tom Fallo	CMTC	Fiduciary
Loren Lyon	Impact WA	Fiduciary

Felipe Hernandez	PR	Fiduciary
Robert Sproles	AMS	Advisory
Alan Edington	TN MEP	Advisory
Grant Goodwin	NC MEP	Advisory
Eric Stebbins	NM MEP	Fiduciary

MEP Center Directors

1. Bonnie Del Conte	Executive Director	ConnStep	501c3	Fiduciary/Advisory Boards
2. Paddy Fleming	Center Director	Montana MEP	University based	Advisory Board
3. Bill Donohue	Executive Director	GenEdge, VA	State Entity	Advisory Board
4. Mike Coast	Executive Director	Michigan MEP	501c3	Fiduciary Board

Agenda

- What is in the Notebook ...
- The Environment
- Complex System Demographics
- MEP Advisory Board Sub-Committee Charter
- Framework & Approach
- Resulting Areas of Focus
 - Objective 1 Output – Develop a Communication Plan
 - Objective 2 Output – Develop a Distinctive Practice Prgm
 - Objective 1 Output – Board Assessment Tools
- Recommendations and Next Steps

Overview of the Notebook

- Tab 1 – Presentation
- Tab 2 – MAB Board Sub-Committee Charter
- Tab 3 – Communications Plan
- Tab 4 – Distinctive Practice Approach
- Tab 5 – Assessment Tool Samples
- Tab 6 – Building Better Boards Manual
- Tab 7 - MEP Connect Reference Material

Strategic Plan, Legislation, General Terms & Conditions

THE ENVIRONMENT



MEP Strategic Plan:

CHAMPION MANUFACTURING

Serve as a Voice to and a Voice for Manufacturers

STRATEGIC OBJECTIVES:

- Champion the importance of SMEs and ensure their inclusion in the economic competitiveness policies and programs of the U.S. government.
- Increase Role of National and Center Boards.

MEP General Terms & Conditions V.5

- **Section 7. BOARD OF DIRECTORS/TRUSTEES**
- Each Center shall establish and maintain an oversight board that is broadly representative of local stakeholders with a majority of board members drawn from local small- and medium-sized manufacturing firms.
- Board members may not concurrently serve on more than one Center's oversight board.
- If a Center's oversight board does not meet the requirements of this paragraph at any time during the term of an MEP award, the Center must disclose the deficiencies to the FPO and must submit a detailed plan to the FPO for bringing its oversight board into compliance with this term within 12 months.
- Additionally, each Center oversight board shall adopt bylaws governing the operation of the board, including a conflict of interest policy to ensure relevant relationships are disclosed and proper recusal procedures are in place.
- Upon request, a Center shall provide the FPO and/or NIST Grants Officer with copies of its organizational documents, including ratified by-laws and conflicts of interest policies

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

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1 “(8) **ADVISORY BOARDS.**—Each Center’s advisory
2 boards shall institute a conflict of interest policy,
3 approved by the Director, that ensures the
4 Board represents local small and medium-sized manufacturers
5 in the Center’s region. Board Members
6 may not serve as a vendor or provide services to the
7 Center, nor may they serve on more than one Center’s
8 oversight board simultaneously.

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

11 “(6) CENTER OVERSIGHT BOARDS.—
 12 “(A) IN GENERAL.—Each Center that re-
 13 ceives financial assistance under this subsection
 14 shall establish an oversight board that is broad-
 15 ly representative of regional stakeholders with a
 16 majority of board members drawn from local
 17 small- and medium-sized manufacturing compa-
 18 nies.

46

1 “(C) BYLAWS AND CONFLICT OF INTER-
 2 EST.—Each oversight board under subpara-
 3 graph (A) shall adopt and submit to the Direc-
 4 tor bylaws to govern the operation of the board,
 5 including a conflict of interest policy to ensure
 6 relevant relationships are disclosed and proper
 7 recusal procedures are in place.
 8 “(D) LIMITATIONS.—Board members may
 9 not—
 10 “(i) serve as a vendor or provide serv-
 11 ices to the Center; or
 12 “(ii) serve on more than 1 Center’s
 13 oversight board simultaneously.

Diversity in Organization Structures, and Board Types,

COMPLEX SYSTEM DEMOGRAPHICS



MEP Centers Organizational Structure



501 C(3)

- California (2)
- Colorado
- Connecticut
- Florida
- Illinois
- Kansas
- Massachusetts
- Maryland
- Maine
- Michigan
- Minnesota
- Missouri
- Mississippi
- North Dakota
- New Hampshire
- New Jersey
- New Mexico
- Oklahoma
- Oregon
- Pennsylvania (7)
- Puerto Rico
- Rhode Island
- South Carolina
- Utah
- Washington
- Wisconsin



University

- Delaware MEP
- Georgia
- Iowa
- Idaho
- Kentucky
- Louisiana
- Montana
- North Carolina
- Nebraska
- Nevada
- South Dakota
- Tennessee
- Texas
- Vermont
- Northwest Wisconsin
- West Virginia
- Wyoming



State Entity

- Alabama
- Arkansas
- Arizona
- Hawaii
- Indiana
- New York
- Ohio MEP
- Virginia

Fiduciary versus Advisory

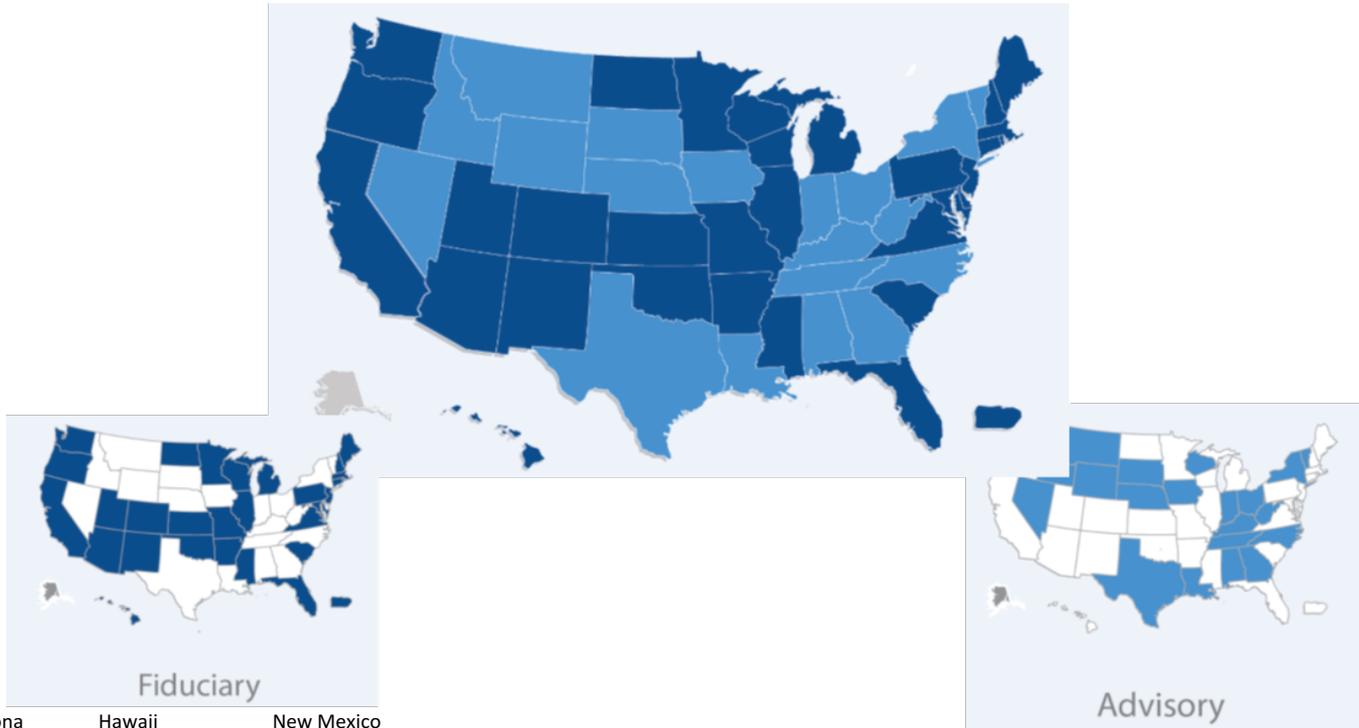
Fiduciary

- 501c3s
- Cooperative Agreement holder has programmatic responsibilities over program

Advisory

- State/University based
- Host organizations create advisory councils to advise and broaden expertise available to the Board

Fiduciary versus Advisory



- | | | |
|----------------|---------------------|------------------|
| Arizona | Hawaii | New Mexico |
| Arkansas | Minnesota | North Dakota |
| California (2) | Missouri Enterprise | Oklahoma |
| Connecticut | Mississippi | Oregon |
| Colorado | Maine | Pennsylvania (7) |
| Delaware | Maryland | Puerto Rico |
| Florida | Massachusetts | South Carolina |
| IMEC | Michigan | Rhode Island |
| Washington | New Hampshire | Utah |
| Kansas | New Jersey | Wisconsin |
| | | Virginia |

- | | |
|------------------|----------------|
| Kentucky | NYSTAR |
| Alabama | North Carolina |
| Georgia | Ohio |
| Idaho | South Dakota |
| Indiana-TAP | Tennessee |
| Iowa CIRAS | TMAC |
| MEP of Louisiana | UW Stout |
| Montana MMEC | Vermont |
| Nebraska MEP | West Virginia |
| Nevada | Wyoming |

Purpose, Objectives, Partners, and Goals

MEP ADVISORY BOARD CHARTER



MEP Advisory Board Committee on Board Practices and Governance - Charter

Purpose:

The purpose is to implement the strategic objective - Increasing Roles of the National and Center Boards including:

- Increase connectivity between national/center Boards
- Ensure Board members serve as manufacturing advocates
- Strengthen Board governance and accountability

Benefit: By the sharing of distinctive practices we improve the performance of the boards in the governance/oversight of the MEP Center

Objectives: The MEP Advisory Board Committee will:

- Evaluate mechanisms and facilitate increased communications between the MEP Advisory Board & Center Boards
- Inventory distinctive practices across Center Boards
- Develop and Evaluate Performance Systems for Advisory and Fiduciary Boards

Schedule:

- Forming subcommittee and establish prioritization of key objectives and tasks Nov 2014
- Collecting data/profile of current MEP Center Boards Nov-Dec 2014
- Completing tasks 3-6 months Jan-June 2015

Initial Issues:

- Recruit Local MEP Center Board members to the Board Committee and schedule meetings
- Define the project plan, including deliverables
- Collect information to inform the Performance Measurement and distinctive practices tasks

Interfaces:

- Mike Simpson NIST MEP
- Gary Thompson NIST MEP
- Phillip Wadsworth NIST MEP
- Wiza Lequin NIST MEP

MEP Advisory Board Committee Members:

- Vicki Wessel Chair AZ-RevAZ
- Denny Dotson Ent MN
- Eileen Guarino NY MEP
- Tommy Lee ATN

Center Board Members :

(Note these Members are non-Voting)

- Ray Yeager Catalyst Connection 501c3
- Carl Spang Maine MEP 501c3
- Mark Tyler UW-Stout University
- Tom Fallo CMTC 501c3
- Felipe Hernandez Primex 501c3
- Alan Edington TN MEP University
- Eric Stebbins New Mexico MEP 501c3

Center Director Members

1. Bonnie del Conte ConnStep 501c3
2. Bill Donohue GenEdge State
3. Mike Coast Michigan 501c3
4. Mike O'Donnell CIRAS University
5. Loren Lyons Washington 501c3

Mission

- Strategic Planning Cycle
- Integration of New MEP System Strategy
- Operating Plans and Budgets

Leadership

- Key staff hiring
- Leadership accountabilities
- Succession Planning
- Appraise Performance

Conduct of Operations

- Policy Formulation
- Legal Requirements
- Decision Making

Financial Health

- 5 year Budgeting for MEP Cooperative Agreements
- Center Cost Share Management
- Financial Controls
- Fiscal Goal setting within an MEP Center

Board Organization and Development

- With State in support of Manufacturing
- Board evaluation, recruitment, orientation
- Board Information System
- Voice for/of Manufacturing

Purpose of the Committee on Board Distinctive Practices and Governance

- To implement the strategic objective of increasing roles of the national and center boards including:
 - Increase connectivity between national and Center Boards
 - Ensure Board members serves as manufacturing advocates
 - Strengthen Board governance and accountability

Objective of the Committee

- Evaluate mechanisms and facilitate linkages to increase communication between the MEP Advisory Board and MEP Center Boards
- Inventory distinctive practices across Center Board
- Develop and evaluate performance systems for Fiduciary and Advisory Boards

Purpose, Objectives, Partners, and Goals

FRAMEWORK & APPROACH



Framework Development



Recruitment

MEP AB Committee

- Vickie Wessel – Chair
- Denny Dotson
- Tommy Lee
- Eileen Guarino

Center Board Members

- Ray Yeager
- Carl Spang
- Mark Tyler
- Felipe Hernandez
- Eric Stebbins

Center Directors

- Bonnie Del Conte
- Mike Coast
- Mike O'Donnell
- Bill Donohue
- Loren Lyons



Committee & NIST MEP Team Activities

Information Collections

- Nov Quarterly Update meeting
- Board session Questions
- Inventoried Center Board Materials
- Est a larger team MAB Subcommittee, Center Boards, and Center Directors
- Research Outside Sources

Developed & Tested

- Established Charter
- Establish MEP Connect Webpages
- Monthly calls with each groups to vet learnings
- Developed a framework and each Objective
- Through conversations resolved the objectives into 3 outputs



Objective Outputs

- Establish a Communication Plan
- Establish a Distinctive Practice Program
- Evaluate Board Self-Assessment Tools

Nashville Quarterly Update Meeting Session on Board Practices and Governance

- Question 1: What are the 3 main areas Board provides support to the Center?
- Question 2: What is the Board's involvement with Center strategy, roles, goal setting and process?
- Question 3: How does your board assist or support in selecting, testing, or opening new markets for a new product or service for the Center?

Analysis of Center Board Documents

- MEP Centers were asked to submit to NIST MEP documents that pertain to their Boards including
 - By-laws
 - Conflicts of Interest
 - Policies
 - Roles & Responsibilities
 - Guidelines

Summary of Non- Center Board Information

- Board Source - www.boardsource.org
 - The Board Building Cycle – Tab 7
 - Regional Managers Training – Starts This Week
- Lisë Stewart – Galliard Group - galliardinc.com
 - Building Better Boards
 - Consults with Many Centers
- Other Sources
 - Guide Star
 - Nonprofit Alliance

Communications, Distinctive Practices, and Self Assessments

OUTCOMES



Objective 1: Evaluate mechanisms and facilitate linkages to increase communication between the MEP Advisory Board and MEP Center Boards

Approach -

- Discuss all potential mechanisms for Board to Board connections
 - Written, Web Based
 - Board Orientations
 - Face to face opportunities
- Select appropriate activity to increase Board to Board connections
- Determine appropriate timeframe for evaluation of communication tools

Conclusion – Establish a Communication Plan which lays out the Regular Interactions Between the Boards

Reactions and Observations from Team “Communication Plan”

- Clarity of Commitment, be respectful of Board’s time
- Frequency of activities planned
- Positive response to face to face meetings
- Confusion between requirement vs opportunities

Proposed Communication Plan

Activity	Who	Quarterly	Annually	Other	Purpose
New Board Orientation WebEx	RMST, New Board Members at Centers	XX Also available on-line			On-boarding new Board members – optional supplement to Centers new Board member orientation
Distinctive Practice WebEx	Center Boards, Regional managers	XX Also available on-line			Board Development Webinars on key issues selected by Boards, input from the semi-annual board calls and local Board requests.
Regional Board teleconference/WebEx Calls	MAB, Regional manager, Center Board Chairs			XX Semi annually	Semi-annual teleconference update Center Board Chairs or designee. Will include MAB member to engage local boards
BoD educational sessions /track presented at NIST Quarterly meeting or National Conference	MAB member		XX		Board focused meetings/track during either quarterly update or national Conference. Opportunity for face to face exchange between MAB and local Center Boards
Annual Board Chair discussion	RMST and Board Chair		XX		Annual one-on-one discussion with Board chair on progress at Center
MAB visit to local Boards	MAB members			XX	Insight in to other Board operations
Semi Annual MAB communication to Center Boards – one pager				XX Semi Annual	To maintain communications from MAB to all Center board members a one-page update will be sent out semi-annually

Proposed Next Steps for the Communication Plan:

- Incorporate May 19th and 20th Feedback
- Proposed Deployment Plan (including)
 - Develop a 1-year Deployment Plan
 - Propose Assignment of Resources
 - Working with MEP Staff and Management
 - Launch Components of the Plan
 - With MEP Director and Sub-Committee Approval
 - Provide a Status Report Next Board Meeting

Objective 2: Identification of possible distinctive practices important to Center Boards

Approach -

- Discuss and research major categories of Board responsibilities
- Align selected appropriate headings and sub categories with Board governance
- Discussed approaches and arrived at appropriate detail level
- Added MEP specific categories

Conclusion – Establish a tiered framework, and establish a Distinctive Practice Program

Proposed Distinctive Practice Framework

Research Validated Distinctive Practice	A program, activity or strategy that has the highest degree of proven effectiveness supported by objective and comprehensive research and evaluation.
Field Tested Distinctive Practice	A program, activity or strategy that has been shown to work effectively and produce successful outcomes and is supported to some degree by subjective and objective data sources.
Promising Practice	A program, activity or strategy that has worked within one organization and shows promise during its early stages for becoming a best practice with long term sustainable impact. A promising practice must have some objective basis for claiming effectiveness and must have the potential for replication among other organizations

Proposed Distinctive Practices for Center Boards

Mission

- Strategic Planning Cycle
- Integration of New MEP System Strategy
- Operating Plans and Budgets

Leadership

- Key Staff Hiring
- Leadership Accountabilities
- Succession Planning
- Appraise Performance

Conduct of Operations

- Policy formulation
- Legal Requirements
- Oversight
- Decision Making

Financial Health

- 5 Year Budgeting for MEP Cooperative Agreements
- Center Cost Share Management
- Financial Controls
- Fiscal Goal setting within an MEP Center

Board Organization and Development

- Board Self-Evaluation
- Board Recruitment, Orientation
- Board Information System
- Voice for/of Manufacturing

Reactions and Observations from Team “Distinctive Practices”

- General agreement, good to capture
- Cautioned about making it too complex
- All work feeds into best/distinctive practice objective

Proposed Next Steps for the Distinctive Practices:

- Incorporate May 19th and 20th Feedback
- Proposed Deployment Plan (including)
 - Develop a 1-year Deployment Plan
 - Propose Assignment of Resources
 - Working with MEP Staff and Management
 - By Next Board Meeting Collect 1 Field Tested and Promising Practice in Each Region (Total of 12)
 - Provide a Status Report Next Board Meeting

Objective 3: Develop and Evaluate Performance Systems for Advisory and Fiduciary Boards

Approach –

- Research other system of Board Monitoring
- Discussion of attributes of a successful Board
- Research other measures for effective Boards
- Determine a monitoring approach

Conclusion – Evaluate Board Self Assessment Tools and Propose an approach for voluntary adoption

Reactions and Observations from Team “Assessment Tools”

- Small number of centers uses it
- Differing impressions
 - Center Management thought it may be burdensome
 - Center Board were encouraging and thought it was helpful and needed
- Group was supportive in assessments being self-directed
- Found that language geared more towards fiduciary, need to modify for advisory boards
- Several members Center Boards have expressed interest in piloting with their Board

Board Assessment Tools

- 4 Samples
- varying depth, breadth, complexity
 - Annual Board Self-Assessment Survey (MAGNET)
 - Self-Evaluation of a Board Member (B3 Manual))
 - McKinsey & Company Self-assessment Short Form
 - McKinsey & Company Self-Assessment Long Form

Proposed Next Steps for the Distinctive Practices:

- Incorporate May 19th and 20th Feedback
- Gather additional Information from Boards which use self-assessment tools or are willing to try one or more of the tools at an upcoming meeting
- Goal will be to have 1-2 examples from Center Boards in each Region. (Total 6-12)
- Provide a Status Report and Recommendation by Next Board Meeting

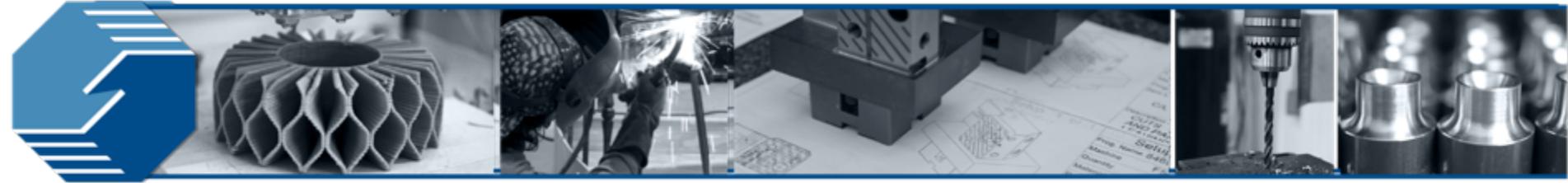
Communications, Distinctive Practices, and Self Assessments

DISCUSSION



Thank You





MAKING AN IMPACT ON U.S. MANUFACTURING

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

Workforce Activities

Mary Ann Pacelli, Workforce Manager

Agenda

- Intro
- Update
 - Activities to date
 - Go-Forward Plan
- Discussion

Mark Troppe

Mary Ann Pacelli

All

Introduction and Remarks

- 2014 highlights
- Transition
- Strategy and fit with PPDO

MEP Workforce— Aligned with DOC

U.S. Department of Commerce’s Commitment to “the Skills Agenda”

The U.S. Department of Commerce serves as the voice of American business, promoting job creation, economic growth, sustainable development and improved standards of living for Americans.

“Workforce” is a first-time priority for the Agency and the Secretary is committed to having Commerce activities include helping workers develop the skills they need to do the jobs of a 21st century global economy.*

* Secretary Pritzker to White House Business Council on Manufacturing April 2014

DOC “Skills for Business”

“SKILLS FOR BUSINESS” – *PARTNERING WITH BUSINESS TO EQUIP WORKERS FOR 21ST CENTURY CAREERS.*

- A branding umbrella for DOC’s skills activities and initiatives.
- *As part of Commerce’s mission to help set the conditions for economic growth for U.S. companies, the Department is committed to helping employers develop talent pipelines for today’s and tomorrow’s in-demand jobs that put American workers on a middle-class career path.*

MEP Workforce Activities

- Partnerships and Relationships
- Center Support
- Special Initiatives

Partnerships and Relationships

Collaborate with Education and Economic Development to improve organizational policies that reflect progressive workforce and business practices

Agencies:

- DOC
 - Skills Working group
 - White House Initiatives: Upskilling, TechHire
 - Learning Network pilot
- DOL
 - New office – Workforce and Industry Partnerships
 - Office of Apprenticeship – Advisory Committee Apprenticeship (ACA)
- DOE (education)
 - CTE programming on Manufacturing Careers

Partnerships and Relationships

Institutes, Organizations, Economic Development:

- AACC – conference support, connections with Manufacturing Day
- Manufacturing Institute – ROI tool development, Dream It, Do It
- America Makes – New Workforce Advisory Board
- NSF ATE – discussions to connect centers to new ATE projects

Center Support

- **Coordinating connections to NNMI**
 - LIFT: attending state meetings, helping OHMEP get in a proposal to do employer engagement
- **Learning about Center activities**
 - Contacting centers on specific projects
 - Providing assistance/input to center requests for information

Special Initiatives

- **SMARTalent**
 - Technical review
 - 7 Centers committed to ‘re-pilot’
 - Started April 24
 - Pilot window is 8 weeks
 - All are trained and starting activity
 - Each are committed to at least 2 companies to trial
 - Each will complete an evaluation format
 - Early input
 - Still some technical issues, resolving those as they occur
 - Diagnostic is lengthy, questions from centers on client access vs center access

Special Initiatives

- **DMDII**
 - Supporting collaboration for Training 101 development
 - Identifying how to connect MEP's in Workforce section of project calls

Go-Forward Plan

- **Partnerships and Relationships**
 - Continue and expand
- **Center Support**
 - Special focus to enhance relationships with to WIB's
 - WIOA opens opportunity for MEP's to become more engaged
 - West Region Centers – Coordinating joint center/WIB meeting to share best practices and develop opportunities for future joint activities
 - Gather input on center needs, prioritize
 - Update meeting input opportunity—what tools, resources do they need
 - What can MEP develop

Go-Forward Plan (Cont'd)

- Workforce Working Group
 - Solicit volunteers
 - Initial agenda topics:
 - Prioritize Center input, draft action items
 - Review SMARTalent feedback, provide input to recommendation
- SMARTalent
 - Pilot evaluation summary July 30
 - Recommendation for next steps from Pilot

Discussion

- What Questions do you have?
- What Suggestions do you have?

Competition Updates

Bill Kinser, Director of Center Operations

Competition Updates - Agenda

- Round 1: Launching The New Centers
- Round 2: Next Steps in the Competition Process
- Rounds 3 and 4: Projected Timeline

Round 1 - MEP State Competition

Federal Funding Opportunity Issued: Aug 2014

Awarded Date: Feb 2015

Start Date: July 2015

MEP Center Location and Assigned Geographical Service Area (by State)	Anticipated Annual Federal Funding for Each Year of the Award	Total Federal Funding for 5 Year Award Period
Colorado	\$1,668,359	\$8,341,795
Connecticut	\$1,476,247	\$7,381,235
Indiana	\$2,758,688	\$13,793,440
Michigan	\$4,229,175	\$21,145,875
New Hampshire	\$628,176	\$3,140,880
North Carolina	\$3,036,183	\$15,180,915
Oregon	\$1,792,029	\$8,960,145
Tennessee	\$1,976,348	\$9,881,740
Texas	\$6,700,881	\$33,504,405
Virginia	<u>\$1,722,571</u>	<u>\$8,612,855</u>
TOTALS	\$25,6988,657	\$129,943,285



2.0 MEP Centers – Round 1 Competition

Pre-Award Monthly Webinars / Activities

- Conducted first two webinars on April 15, 2015 and May 13, 2015; final webinar is scheduled for June 18, 2015.
- Developing three-year detailed measurable outcomes and budgets to match the Statement of Work (SOW) outlined in proposals.

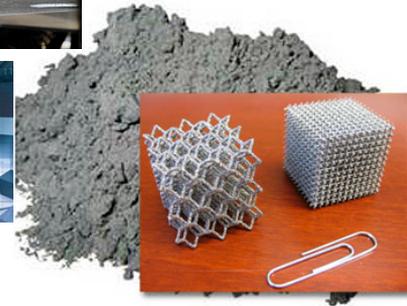
Kick-Off Meeting – Week of July 27, 2015

- Participants – Center Directors, Financial Staff, Operations Managers, NIST MEP Staff, and Grants Management Division (GMD) / Federal Assistance Law Division (FALD).
- Opportunities for Center Representatives to engage with various NIST Labs.

Potential NIST Laboratory Tours

A Glimpse of NIST Resources Accessible to Small Manufacturers – Plus a Dialogue on How to Access Them

- **NIST Center for Automotive Lightweighting**
NIST Material Measurement Laboratory
- **Additive Manufacturing**
NIST Engineering Laboratory
- **Digital Manufacturing**
 - **Cyber Security for Manufacturing**
NIST Information Technology Laboratory
 - **Cyber Physical Systems**
NIST Engineering Laboratory
- **Robotics for Manufacturing Applications**
NIST Engineering Laboratory
- **NIST Measurement Services and Standard Reference Materials / Data**
NIST Physical Measurement Laboratory,
Office of Reference Materials



Round 2 - MEP State Competition

Federal Funding Opportunity Issued: Mar 2015

Anticipated Award Date: Sept 2015

Anticipated Start Date: Jan 2016

MEP Center Location and Assigned Geographical Service Area (by State)	Anticipated Annual Federal Funding for Each Year of the Award	Total Federal Funding for 5 Year Award Period
Alaska	\$500,000	\$2,500,000
Idaho	\$640,236	\$3,201,180
Illinois	\$5,029,910	\$25,149,550
Minnesota	\$2,653,649	\$13,268,245
New Jersey	\$2,814,432	\$14,072,160
New York	\$5,985,194	\$29,925,970
Ohio	\$5,246,822	\$26,234,110
Oklahoma	\$1,309,080	\$6,545,400
Utah	\$1,147,573	\$5,737,865
Washington	\$2,534,872	\$12,674,360
West Virginia	\$500,000	\$2,500,000
Wisconsin	<u>\$3,250,792</u>	<u>\$16,253,960</u>
TOTALS	\$31,612,560	\$158,062,800



MEP State Competition – Round 2

MEP Competition Outreach Plan:

- **Conferences and Meetings:** NIST / MEP Senior Leadership raised awareness of the competition process at nine events between March and early May 2015.
- **Webinars:** March 30, April 13, and April 16, 2015 –Three Information Webinars Conducted (125 participants among three webinars).
- **Newsletters / Electronic Media:** 15 additional publications beyond the NIST MEP E-Blast to reach a wider population of eligible applicants.
- **Resources:** All competition-specific information is available and regularly updated on the NIST MEP website (e.g., FAQs). Various tools have been developed to support the Outreach Campaign (e.g., talking points, presentations, etc.)

MEP State Competitions – Rounds 3 and 4

Notice of Intent Published 5/11/15 via a Federal Register Notice (FRN)

- NIST MEP's intent to publish and post two separate announcements of funding availability for MEP Centers in 21 States and Puerto Rico during Calendar Year 2016.
- *The list of specific States may change until finalized in the announcements of funding availability.*
- NIST MEP's intent to conduct approximately two to three Regional Forums prior to or in conjunction with each announcement.
 - Expanding outreach efforts beyond information webinars.
 - Attempting to reach a fuller population of potential applicants across these States and Puerto Rico.

Round 3 - MEP State Competition

Anticipated Issue Date for Federal Funding Opportunity: Jan 2016

Anticipated Award Date: June 2016

Anticipated Start Date: Oct 2016

MEP Center Location and Assigned Geographical Service Area (by State)

Alabama

Arkansas

California

Georgia

Louisiana

Massachusetts

Missouri

Montana

Pennsylvania

Puerto Rico

Vermont

Round 4 - MEP State Competition

Anticipated Issue Date for Federal Funding Opportunity: July 2016

Anticipated Award Date: Dec 2016

Anticipated Start Date: Apr 2017

MEP Center Location and Assigned Geographical Service Area (by State)

Delaware

Hawaii

Iowa

Kansas

Maine

Mississippi

New Mexico

Nevada

North Dakota

South Carolina

Wyoming

Competition References / Resources

Competition Resource Page:

<http://nist.gov/mep/ffo-state-competitions-02.cfm>

Round 2 Federal Funding Opportunity (FFO):

<http://nist.gov/mep/upload/NIST-MEP-STATES-COMPETITION-FFO-ROUND-MEP-Final-1.pdf>

Rounds 3 and 4 Federal Register Notice (FRN) of Intent:

<https://www.federalregister.gov/articles/2015/05/11/2015-11256/manufacturing-extension-partnership-state-competitions-and-regional-forums>

Thank You

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