

MAKING AN IMPACT ON U.S. MANUFACTURING



# MEP Board Networking and Distinctive Practice Meeting

March 1, 2016

## Agenda: Part 1

Time	Topic	Lead
8:30am	Meeting Logistics	Zara Brunner, NISTMEP
8:35am	Welcome Introductions and Opening Remarks	Vickie Wessel, Chair
8:40am	Audience Introductions	
8:50am	Importance of National and Local Center Boards	Phillip Singerman, NIST Associate Director
9:00am	Overview of the NIST MEP Vision and Strategic Objectives	Carroll Thomas, NISTMEP Director
9:15am	MEP National Board- Sharing and Linking the MEP Network	Vickie Wessel, Chair Mike Simpson, NIST MEP
10:15am	Break (National Advisory Board and Local Center Boards proceed to their meeting rooms at 10:45)	











## Safety Procedures- Ronald Reagan Building

In the event of an emergency, an announcement with specific instructions on how to proceed to safety will be made through the loud speaker system.

Thank you!









## **Welcome and Brief Introductions**

Vickie Wessel, Chair MEP National Advisory Board











## Importance of National and Center Boards

Dr. Phillip Singerman,

Associate Director for Innovation and Industry Services

National Institute of Standards and Technology











## Overview of the Vision and Strategic **Objectives for the MEP Program**

Carroll Thomas, Director

Hollings Manufacturing Extension Partnership

National Institute of Standards and Technology









## Manufacturing Extension Partnership Program













# MEP Mission: To enhance the productivity and technological performance of **U.S. Manufacturing**

## What is Vision?

- Vision is the leader's idea of the future—an image of the potential future state.
- To bring the vision to life we analyze the present as it is and form a plan with goals that help us pave the way to the future.

## **Strategic Goals**

To Enhance Competitiveness
Champion Manufacturing
Develop Capabilities
Support Partnerships











## An exciting time to be in manufacturing!?

The Third Industrial Revolution:
The digitization of manufacturing will transform
the way goods are made. The Economist April, 2012



"We're on the verge of a complete new era in manufacturing" Industry Week August 2014



There is nothing more difficult to take in hand or more perilous to conduct...than to take the lead in the introduction of a new order of things. – Niccolo Machiavelli











## On the Precipice of the Next Great Revolution in Manufacturing



May 2015 issue of Harvard Business Review

Chris Labrooy (rendering); Shapeways (3-D printing); Bruce Peterson (photography)

But what can a small meagerly funded program do that would make a difference?

Never doubt that a small group of thoughtful committed citizens can change the world. Indeed, it is the only thing that ever has. - Margaret Mead, Anthropologist









# We can and need to be enabling the next great revolution in manufacturing

Right now we're expanding, developing and strengthening our system capabilities and reach...

...intuitively guide our clients through the maze of new technologies, helping them build capabilities, making important connections by being their beacon to the future of manufacturing.



The MEP Network will advance and transform U.S. manufacturing through the power of technology and partnerships









## The Manufacturing Extension Partnership: Changing the Way the World Defines Manufacturing!



Change will not come if we wait for some other person, or if we wait for some other time.
We are the ones we've been waiting for.
We are the change that we seek.

- Barack Obama











## **MEP National Board- Sharing and** Linking the Network

Vickie Wessel, Board Chair **National Advisory Board** 

Mike Simpson, Director System Operations Hollings Manufacturing Extension Partnership









#### MEP Advisory Board Sub-Committee on Board 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

#### Goals and Objectives: The MEP Advisory Board Committee will:

- >Evaluate mechanisms and facilitate linkages to increase communication between the MEP Advisory Board and MEP Center Boards
- >Inventory distinctive practices across Center Board
- ➤ Provide Board development resources

#### **Approaches**

Communication Plan

Board Self-Assessment

To expand the communication between the MAB and NIST MEP with the

Distinctive Practice

Board is performing against generally accepted best practice standards.

#### **Mission**

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

#### Leadership

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

MEP Center Boards

To expand the sharing and learning and to develop MEP's capabilities

as a learning organization and high performance system

To emphasize the critical role the Board plays in the success of an MEP center.

Self assessment is an efficient way to get input from Board Members on how the

#### 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

#### Interfaces:

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

#### MEP Advisory Board Committee Members:

- Vicki Wessel Chair A7-RevA7
- Denny Dotson Ent MN · Eileen Guarino NY MEP
- Tommy Lee ATN

#### Center Board Members:

#### (Note these Members are non-Voting)

- Ray Yeager **Catalyst Connection**
- Carl Spang Maine MEP 501c3
- Mark Tyler **UW-Stout** University
- Tom Fallo CMTC 501c3

501c3

- Felipe Hernandez Primex 501c3
- Alan Edington TN MEP University
- Eric Stebbins New Mexico MEP 501c3

#### Center Director Members

- Bonnie del Conte ConnStep 501c3
- 2. Bill Donohue GenEdge State
- 3. Paddy Fleming Montana University
- Mike Coast Michigan 501c3
- Mike O'Donnell CIRAS University
- Loren Lyons Washington 501c3
- **Board Organization and Development**
- With State in support of Manufacturing
- Board evaluation, recruitment, orientation
- **Board Information System**
- Voice for/of Manufacturing

## MAB Advisory Board Sub-Committee Approaches

- Communication Plan
- To expand the communication between the MAB and NIST MEP with the MEP Center Boards

- **Board Orientation**
- Regional Board Calls
- Semi Annual Newsletter

Distinctive Practice

To expand the sharing and learning and to develop MEP's capabilities as a learning organization and high performance system

- Qtrly Distinctive Practice Webinar
- MEP Connect Website
- RM and Board Chair Sharing

**Board Self-Assessment**  To emphasize the critical role the Board plays in the success of an MEP center. Self assessment is an efficient way to get input from Board Members on how the Board is performing against generally accepted best practice standards.

Shared self-assessment tools



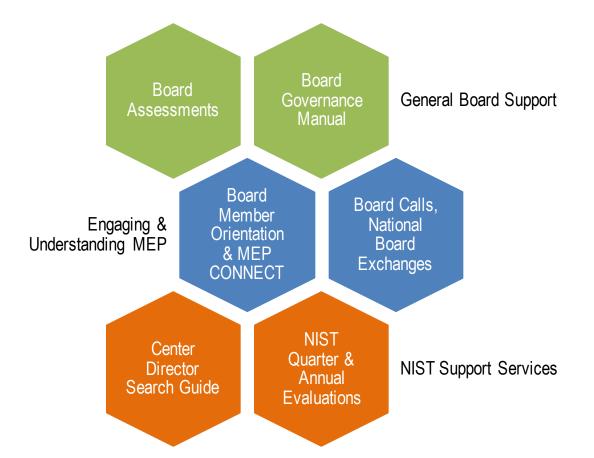


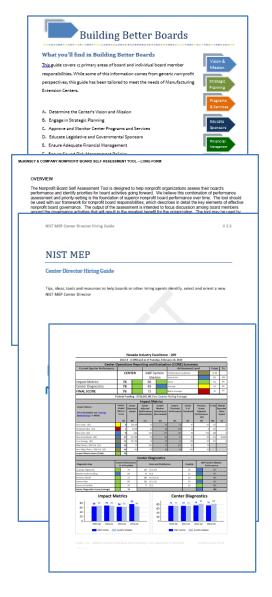






## Resulting Board Resources

















**MEP Connect** 

MEP Groups -

**Pilot Projects** 

Supplier Scouting

Inside MEP -

**Board Governance Home** National Advisory Board New Board Orientation Collaboration Tools Join the Discussion Calendar of Events Internal Communication Plan Board Assessment Site Contents

MEP Connect > MEP Groups > Board Governance

### MEP • MANUFACTURING EXTENSION PARTNERSHIP **BOARD GOVERNANCE**

Learn more >

#### Distinctive Practices

Collected from the system in order to expand sharing and learning and to develop MEP's capabilities as a learning organization and as a high performance system.



















## Sharing and Linking the Network

1. What 2 or 3 activities/topics would you like to hear about regularly from the MEP Advisory Board (MAB)? (e.g. Status of Sub-Committee Project, or Re-competition)?

2. What 2 or 3 items/issues would you like the MEP Advisory Board to represent the Local Boards on during this up coming years? (e.g. Cost Share Changes)?

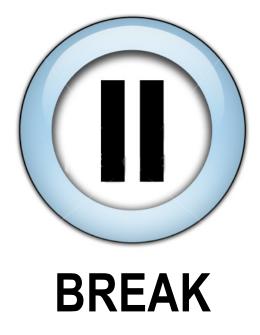
3. Given items 1 and 2 above, what/how is the best way to share/communicate/disseminate information between the MAB and the Local Boards? (e.g. Quarterly Newsletter)







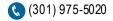




## National Advisory Board Moves to Horizon Room, 1st Floor











## State of MEP and Director's Update

Carroll Thomas, Director

Hollings Manufacturing Extension Partnership

National Institute of Standards and Technology









## **Topic Updates**

- Budget FY16 and FY17
- MEP Competition
- Preview of Federal Funding Opportunity
- Management & Staff Hires
- NIST MEP Culture Transformation and Structural Reorganization
- Performance Management Update
  - Performance approach
- MFG 2017- October 7, 2016
  - Goal to have an event in every county!











## **BUDGET: NIST MEP Appropriations History**

(\$ million)

FY 2011 \$128.4

FY 2012 \$128.4

FY 2013 \$120.0

FY 2014 \$128.0

FY 2015 \$130.0

Actual Requested

FY 2016 \$130.0 \$141.0

FY2017 \$142.0









## NIST MEP FY 2016 Spend Plan

Total Available Funds	(\$ million) \$143.4 <sup>A</sup>
Existing MEP Center Renewals	
Additional MEP Center Funding  Centralized MEP System Support  (Programmatic and Non-programmatic Contracts/Cooperative Agreements)	8.6 <sup>C</sup> 9.6
NIST MEP (Staff Labor, Benefits, Supplies, Travel, etc.)  NIST Overhead	10.4 <sup>D</sup> 5.4 \$137.8
Total Planned Expenditures  Anticipated Carry Over	\$5.6

- A. FY2016 \$130M appropriation, FY2015 carryover (\$9.347M) and prior year recoveries (\$4.078M)
  B. Includes Legacy, Round 1, Round 3 Extension, Round 3 Competition, Round 3's 6 months additional funding, Round 4 Competition
- C. Round 2 Competition, Round 3 "rightsizing" Competition Amount D. Assumes full NIST MEP Staffing











## FY 17 President's Budget for the Hollings Manufacturing Extension Partnership (+\$11.1 M)

- Complete the recompetition of national MEP centers
  - Enhance local flexibility and increase accountability
- Provide MEP centers with greater capability
  - Better serve very small, rural, and start-up companies
- Expand efforts to transfer federally funded technologies
  - Better reach smaller manufacturers
  - Connect manufacturers with business opportunities

# Provide additional manufacturers with tools needed to respond to the rapid technology change

12 M Americans employed in manufacturing jobs
12.5% manufacturing's contribution to the GDP
58MEP centers nationwide
1,200 MEP technical experts solving manufacturers' challenges
30,056 clients served by MEP centers in FY 2014









## MEP Center Competition Update

Authority: The statutory authority for the MEP cooperative agreement is 15 U.S.C. § 278k, as implemented in 15 C.F.R. part 290.

 The nature of NIST MEP "substantial involvement" will generally be a collaborative relationship between MEP and the recipient organization.

## State Competition Awards (for the operation of an MEP Center in each State)

- Round 4 FFO Projected release date Jun 2016
  - 11 States: DE, HI, IA, KS, ME, MS, NM, NV, ND, SC, WY
- Round 3 Active: Released Jan 2016
  - 13 States: AL, AR, CA, GA, LA, MA, MO, MT, OH, PA, PR, UT, VT
- Round 2 Awarded with start dates of Jan 2016
  - 12 States: AK, ID, IL, MN, NJ, NY, OH, OK, UT, WA, WV, WI
- Round 1 Awarded with Start date of July 2015
  - 10 States: CO, CT, IN, MI, NH, NC, OR, TN, TX, V











## Preview of New Federal Funding Opportunity

#### **EMBEDDING MEP IN NNMI INSTITUTES**

#### WHAT:

Pilot test approaches to provide technology acceleration assistance to small and mid-sized U.S. manufacturers through the establishment of strong collaborations between the nationwide system of MEP Centers and NNMI Institutes.

#### FOCUS:

Demonstrating ways to leverage capabilities and reach of the MEP Program to provide assistance to small U.S. manufacturers in technology areas that are the focus of the NNMI Institutes. *These Pilots will embed personnel from MEP Centers in NNMI Institutes to accelerate* the transition of technological innovations manufactured goods.

#### **FFO DETAILS:**

- Approximately 7 Pilot Project awards at a level of approximately \$300,000 \$600,000 per year for each award (up to 2-year period of performance).
- Applicants must be established and operating NNMI Institutes and be able to clearly identify the MEP Center or Centers involved
- NIST MEP is targeting an FFO release in March 2016 and funding awards made in FY16.









## Current Established and Operating Institutes

- America Makes- Ohio
- Digital Manufacturing & Design Innovation Institute DMDII- Illinois
- Lightweight Innovations for Tomorrow (LIFT)- Michigan
- Power America- North Carolina
- Institute for Advanced Composites Manufacturing Innovation (IACMI)- Tennessee
- Flexible Hybrid Electronics- California
- Integrated Photonics Institute for Manufacturing Innovation- New York









## The MEP Organization





**MEP DIRECTOR Carroll Thomas** Provides overall leadership and direction.

Coming Soon

**Deputy Director** 

**Dave Cranmer** 

Serves as the focal point for

MEP interactions with NIST on MEP program operational matters.

**Partnerships and Program** 

Development

Develops and maintains programs that will

help MEP centers improve/further/enhance/

leverage the services they offer. Work with MEP

centers to foster partnerships with federal,

state, and local partners.



#### Administration and Finance

Provides oversight of administrative, IT, panel reviews and financial activities.

Chancy Lyford, **Executive Officer** 















#### Center **Operations**

Oversees the use of federal funds awarded through MEP center cooperative agreements and grants.

Margy Phillips,







Regional managers serve as primary points of contact with MEP Centers.









Mark Troppe,









Kari Reidy, Manager



Manages public outreach and internal and external communications.









Mike Simpson,



















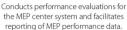






Ken Voytek, Acting Manager

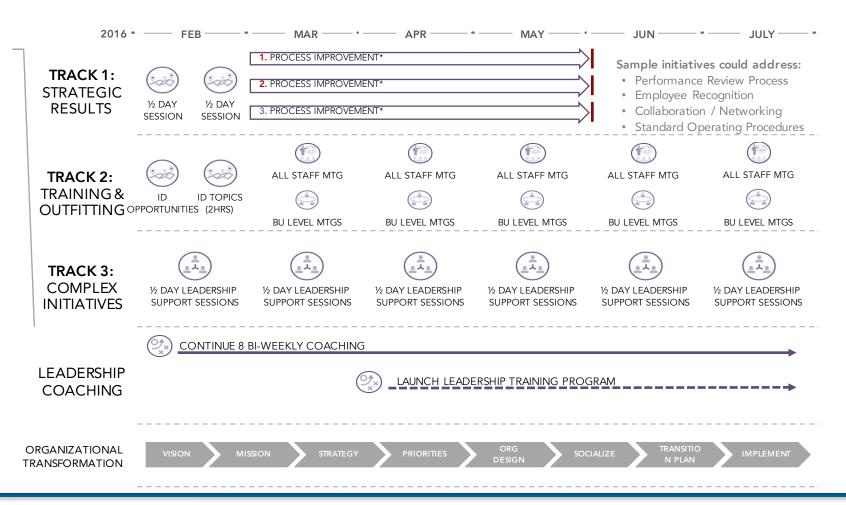
**Manufacturing Policy** and Research







## NIST MEP Culture Transformation and Structural Reorganization













#### **Future State**

#### LIVING THE CHANGE **WE SEEK AT MEP**

WE WILL WORK AND TREAT EACH OTHER WITH...

RESPECT EACH OTHER TIMELINESS INTEGRI

POSITIVE THINKING ACCOUNTABILITY FOLLOW THROUGH WILLINGNESS TO DELEGATE TRUTHFULNESS BALANCE TRANSPARENCY HONESTY

## OUR FULL POTENTIAL

EXPERTISE PRIORITIZATION OPTIMIZED OUTCOMES EFFECTIVENESS

COLLABORATION CUSTOMER-CENTRIC CROSS FUNCTIONAL TEAMS

HIGH QUALITY HONOR TRUST PATIENCE

"PRACTICE THE CULTURAL CHANGE WE WANT TO HAPPEN"



MEP: Changing the Way the World Defines Manufacturing by Enabling the Next Great Revolution in Manufacturing











### MEP Performance and Evaluation Management Value System

#### Performance Measurement Policy (an input into the decision-making process)

- Based on activity- and survey-derived impacts on SMEs, taking into account Center diversity and the strategy-specific metrics employed to arrive at net aggregate impacts which will be scaled to differing Center sizes to ensure equitable comparisons.
- Full performance dashboard to include levels, trends and appropriate comparisons.

#### Performance Management Policy

- Annual (RM, FPO, and others), Panel (Peer), Operating Outcomes (center reported data) and other Information.
- Panels will be peer to peer, advisory to Centers and to the MEP Director with the principal products focusing on actionable feedback reports to Centers.
- The panel reports will focus on improving Center performance, via diagnostic assessment and performance advice.
- Performance impact measures (levels, trends, and comparisons) will be tracked and reported over time and provide a common basis for linking Annual Review and Panel Review evaluations, thus revealing trends and other insights.
- Panels will not asses Center compliance (that is a NIST MEP responsibility).
- A process for sharing best practices across the system will be instituted.









## Performance Management Policy

Annual Review/Operating
Outcomes/Performance
Measures/Other information
(Qualitative/Quantitative)

Panel Review/Annual
Reviews/Performance
Measures/Operating
Outcome/Other Information
(Quantitative/Qualitative)

Decision Point: Based on the Information in blocks 1 & 2 and progress on these, helps determine type of center support needed and what is recommendation based on RM and other inputs? Renew or Compete?













#### MANUFACTURING DAY | 10.07.16 See Manufacturing in Action Across America

- 3,000 registered events
- 500k+ participants, especially students
- Continued positive trends in perception survey conducted by Deloitte
- Please help
  - Recruit endorsers
  - Get the word out to hosts and students/educators
  - Public relations
  - Day of participation











# NIST Director's Charge to the MEP Advisory Board

Dr. Phillip Singerman,

Associate Director for Innovation and Industry Services

National Institute of Standards and Technology











United States Department of Commerce

National Institute of Standards and Technology

Office of the Director

Memorandum For: Vickie Wessel, Chair,

Manufacturing Extension Partnership Advisory Board

Jeff Wilcox, Vice Chair,

Manufacturing Extension Partnership Advisory Board

CC: Carroll Thomas, Director,

Manufacturing Extension Partnership

FROM: Willie May, Under Secretary of Commerce for

Standards and Technology and NIST Director

DATE: February 29, 2016

SUBJECT: Charge to the MEP Advisory Board for 2016









#### Mandate of MEP Advisory Board

The MEP Advisory Board is authorized under Section 3003(d) of the American COMPETES Act of 2007 (P.L. 110-69) in accordance with the provisions of the Federal Advisory Committee Act (FACA) of 1972 (P.L.92-463) as amended.

The Advisory Board is appointed by the NIST Director to provide:

- Advice on Manufacturing Extension Partnership programs, plans and policies;
- Assessments of the soundness of Manufacturing Extension Partnership plans and strategies; and
- Assessments of current performance against Manufacturing Extension Partnership program plans

As the primary private sector advisory board for the National Institute of Standards and Technology Hollings Manufacturing Extension Partnership Program (MEP), the Board is best positioned to provide recommendations on several high priority operational and programmatic issues of major importance to MEP. I would like to request that the Board focus on the following areas:









# Areas of Interest:

- Reengaging senior management to provide guidance and advice to create the 2017-2022 strategic plan
- Guidance on the development of a protocol to connect user facilities, research and technologies at NIST and other federal laboratories with small and medium-sized manufacturers
- Recommendations on the establishment of an MEP **Learning Organization**









# Reengaging senior management to provide guidance and advice to create the 2017-2022 Strategic Plan

- MEP began development of a strategic planning process in fall, 2012, and has developed a Strategic Framework which now needs to support the vision that the Director has for the Program.
- Taking the next step of completing a 3-year strategic plan will aid in preparing the MEP Program for the next Administration, which will take office in January 2017.

The Board is requested to provide guidance to the MEP Program on the completion of a system-wide strategic planning process that would engage all stakeholders.









Guidance on the development of a protocol to connect user facilities, research and technologies at NIST and other federal laboratories with small and mid-sized manufacturers

- The development of a connection protocol would leverage the benefit that the MEP Program has in being part of the National Institute of Standards and Technology.
- The MEP Program is becoming more engaged in larger original equipment manufacturer supply chains that require smaller manufacturers to use advanced manufacturing production processes that are customizable and secure.

The Board is requested to provide advice concerning the MEP Program methods to connect NIST resources to the MEP Network for the benefit of U.S. small and medium-sized manufacturers.









# Recommendations on the establishment of an MEP Learning Organization: a continuance and further development of the Board Governance charge

- After the completion of competition in 2017, the MEP plans to have the first comprehensive gathering of the Network since 2012 to strengthen connections and reacquaint MEP staff with sharing best practices
- Working Groups and Communities of Practice will be reestablished and the MEP University will be reborn

The Board is requested to provide guidance on the development of an integrated MEP Learning Organization









# **Elephant and Castle 1201 Pennsylvania Ave, NW**











# Agenda: Part 2

Time	Topic	Lead
10:45am	State of MEP and Director's Update	Carroll Thomas, NIST MEP Director
11:30am	NIST Director's Charge to the MEP Advisory Board	Phil Singerman, NIST Associate Director
Noon	Lunch	Elephant & Castle
1:15pm	Technology Acceleration Subcommittee Final Report-out	Jeff Wilcox, MEP Advisory Board Mark Troppe, Clara Asmail, Ben Vickery, NIST MEP
1:45pm	National Board Governance Subcommittee Final Report Out	Vickie Wessel, Board Chair, MEP Advisory Board Mike Simpson, NIST MEP
2:15pm	2017 MEP National Summit	Dave Cranmer, NISTMEP Zara Brunner, NISTMEP
2:45pm	Break	
3:00pm	Advisory Board Review of Board Draft Report	Carroll Thomas, NISTMEP Director
3:45pm	Wrap-up and Adjourn	Vickie Wessel, Board Chair, MEP Advisory Board











# MEP Technology Acceleration Subcommittee Final Report-Out

Jeff Wilcox, Vice Chair MEP Advisory Board

Mark Troppe, Director PPDO
Hollings Manufacturing Extension Partnership
National Institute of Standards and Technology











# Agenda

- Recap of ABCTA Activity
- Technology Acceleration Implementation Plan: Executing on Recommendations and Actions
- Questions / Discussion









## **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)
- Collect data on current TA activities (NIST MEP)
- Present to Board draft work plan for analysis and research (Committee)
- 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.









Nov/Dec 2014

Jan 21, 2015

Nov 2014-March 2015



# About the Technology Acceleration Implementation Plan

# Structure of Implementation Plan:

- Background
- Work Plan
- Key Findings
- Eleven Recommendations:
  - Setting Priorities
  - Barriers and Incentives
  - III. Scale-Up and Sustainability
- Available at the NIST MEP public site (http://nist.gov/mep/about/advisory-board-meetings.cfm)









# Agenda

- Recap of ABCTA Activity
- Technology Acceleration Implementation Plan Implementation: Recommendations and Actions
- Questions / Discussion









### I. Setting Priorities

- NIST MEP should adopt a rubric of agreed-upon criteria for evaluating future
   Technology Acceleration opportunities, setting priorities, and investing and allocating
   resources.
  - Organizational Lead: ABCTA and NIST MEP
  - > Deliverable: Finalized list of criteria

### These include:

- aligning with Administration priorities
- aligning with NIST and MEP mission
- tapping core strengths of MEP Centers and the MEP System
- generating high return for low investment of resources,
- addressing key SME needs
- identifying ready, willing and able partners









## I. Setting Priorities

- 2. MEP should give priority to developing and implementing TA 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.
  - ➤ Organizational Lead: NIST (MEP, Labs and Advanced Manufacturing Program Office) and Centers that are engaging early with Institutes
  - ➤ Deliverable: Listing and descriptions of specific actions engaging MEP with NIST Labs, NNMI Institutes, and DOE Labs.









# ABCTA Recommendations - Execution

# Priority to developing and implementing Technology Acceleration opportunities with NIST, NNMI and DOE

- NIST MEP-DOD MOU including DMDII MEP Pilot
- DOC-DOE MOU to focus on collaboration with DOE Labs
- NIST MEP-DOE MOU to focus on DOE-funded NNMI Institutes
- Embedding MEP Center Staff in NNMI Institutes FFO
- Technology Acceleration Connector to connect MEP Centers and NIST Labs
- Penn State University Additive Manufacturing Challenge
- DOE Lab Small Business Voucher Pilot
- NIST Engineering Lab-MEP Collaborative Robotics & Flexible Automation Workshop









## 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.
  - ➤ Organizational Lead: MEP Centers, MEP advocates, partners and stakeholders, not NIST MEP
  - ➤ Deliverable: Legislation that permanently changes the cost share requirement from 2:1 to 1:1.
  - > EXTERNAL TO NIST MEP STAFF









## II. Barriers and Incentives: Reduce Risk

- 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.
  - ➤ Organizational Lead: NIST MEP advised by the Technology Acceleration Working Group
  - ➤ Deliverable: FFO to provide funds to Centers to develop Technology Acceleration products, services and practice across the system.









# ABCTA Recommendations - Execution

NIST MEP should provide more competitive funding and, when available, supplemental funding, to Centers willing to experiment with Technology Acceleration

- Embedding MEP Center Staff in NNMI Institutes FFO
- NIST MEP State Competition FFOs
- Technology Collaboratives
- Penn State University Additive Manufacturing Challenge
- Technology Acceleration Working Group (Committee on Scale-Up and Sustainability)









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

- 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.
  - > Organizational Lead: NIST MEP P-PDO working with System Operations team
  - ➤ Deliverable: A plan for system learning through Fall 2016.

## Execution:

- Work underway in the Technology Acceleration Working Group
- Working in concert with MEP System Operations Division and Workforce Working Group
- TA Professional Development / Systems Learning plan to serve as pilot for NIST MEP Systems Learning Strategy











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

- 2. Launch a Technology Acceleration Working Group to encourage peer-topeer learning and build relationships that strengthen the network.
  - > Organizational Lead: NIST MEP Partnership and Program Development team and the Center Leadership Team for the ABCTA
  - ➤ Deliverable: A charter and initial membership roster for the working group along with a plan of proposed activities for the first year.









## **Technology Acceleration Working Group (TAWG) Charter**

#### Purpose:

To encourage technology acceleration activities throughout the MEP system through peer-to-peer learning and building network-strengthening relationships. The TAWG is established in response to a recommendation of the MEP Advisory Board approved in May 2015.

#### Contacts/Staffing: from NIST MEP

Mark Troppe, Ben Vickery, Clara Asmail

#### TAWG Members:

 Members opt in via the dedicated MEP TA Connect portal.

#### Objectives: The TAWG will:

- Implement the recommendations of and continue to develop and operationalize the ABCTA vision, and;
- Seek foundational supports, partnerships and opportunities to advance the TA agenda.

#### **Near-Term Goals**: The TAWG will execute and/or provide input to:

- Form the TAWG, including charter, initial membership roster and plan of proposed activities;
- Explore methods to promote professional development among the MEP System for TA engagements;
- Establish policy for TA scale-up throughout the MEP system; and,
- Advise NIST MEP regarding enhancements to performance metrics to acknowledge and encourage Centers' TA activities.

#### **Long-Term Goals**: The TAWG will execute and/or provide input to:

- Encourage, expand and track prioritized projects with NIST Labs, Institutes for Manufacturing Innovation (IMIs) and DOE Labs:
- Identify distinctive TA practices and coordinate sharing among the MEP System this may include partnerships with universities and other technology sources:
- · Advise NIST MEP on strategic investments related to TA; and,
- Enhance and participate in knowledge management system for TA activities, information and opportunities.

#### Membership Policy:

- · TAWG membership is open to any Center staff willing to contribute expertise, share experiences, and/or volunteer to pilot activities to advance TAWG goals.
- TAWG members will share interest in engaging SMEs in transformational consultation.
- TAWG Committees to be formed for specific topic areas/recommendations.
- TAWG Steering Committee may be formed to help guide and move activity forward.
- TAWG to be facilitated by NIST MEP staff and convened via multiple mechanisms, including webinars, calls, and in-person meetings on an as-needed basis but at least three times per year.

#### Near-Term Opportunities for TAWG Input:

- Webconferences: 7/16/15, 8/19/15, 4/16
- MEP System Update & Advisory Board Meeting (Dallas, TX September 23-24, 2015)
- In-person dedicated TAWG Meetings (Atlanta, GA 11/17-18/15 & May '16 Update Meeting)
- TAWG Committee Call 2/9/16, ongoing
- · Ongoing utilization of TA knowledge mgmt sys











# ABCTA Recommendations - Execution

# Launch a Technology Acceleration Working Group to encourage peer-to-peer learning and build relationships that strengthen the network

- Three TAWG Committees:
  - System Learning (Dan Curtis, AMS & Karen Fite, GA MEP: Clara Asmail staffing)
  - Scale-up (Ron Lehman, TMAC & Jim Watson, CMTC: Ben Vickery staffing)
  - ➤ Metrics (Paul Jennings, TN MEP & Peter Russo, MA MEP: Gary Thompson staffing)
- In-person TAWG meeting11/15 Atlanta
- Next In-person TAWG Meeting in conjunction with May MEP Update Meeting









## 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 - execution**

 Metrics Committee: Next Steps for TA Metrics document produced and refined, focus on Engaging 2.0 MEP Centers via Operational Plans









## III. Scale-Up and Sustainability

- NIST MEP should work with Centers to consider formal options for how to best stay informed about the growing number of crosscutting technologies and emerging opportunities in order to fully engage and leverage the value of the MEP Centers.
  - > Organizational Lead: NIST MEP working with the Technology **Acceleration Working Group**
  - ➤ Deliverable: A plan for designating staff and/or Centers as expert resources in individual emerging technologies. The plan should take advantage of existing relationships and expertise and seek to disseminate that across the system as appropriate.









# ABCTA Recommendations - Execution

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

- Work underway in the Technology Acceleration Working Group (Committee on Scale-up and Sustainability)
- Embedding MEP Center Staff in NNMI Institutes FFO
- DOC-DOE MOU to focus on collaboration with DOE Labs
- DOC-DOE MOU to focus on DOE-funded NNMI Institutes
- Technology Acceleration Connector to connect MEP Centers and NIST Labs
- Technology Collaboratives
- Penn State University Additive Manufacturing Challenge
- DOE Energy Efficiency & Renewable Energy (EERE) State Workshops/ Bootcamp









# Agenda

- Recap of ABCTA Activity
- Technology Acceleration Implementation Plan Implementation: Recommendations and Actions
- Questions / Discussion









# **Questions / Discussion**













# MEP Board Governance Subcommittee Final Report-Out

Vickie Wessel, Chair MEP National Advisory Board

Mike Simpson, Director, System Operations
Hollings Manufacturing Extension Partnership
National Institute of Standards and Technology











## MEP Advisory Board Sub-Committee on Board 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

### Goals and Objectives: The MEP Advisory Board Committee will:

- >Evaluate mechanisms and facilitate linkages to increase communication between the MEP Advisory Board and MEP Center Boards
- >Inventory distinctive practices across Center Board
- ➤ Provide Board development resources

#### **Approaches**

To expand the communication between the MAB and NIST MEP with the

MEP Center Boards Communication Plan

To expand the sharing and learning and to develop MEP's capabilities Distinctive Practice

as a learning organization and high performance system

To emphasize the critical role the Board plays in the success of an MEP center.

Self assessment is an efficient way to get input from Board Members on how the

Board is performing against generally accepted best practice standards.

#### **Mission**

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

#### Leadership

Key staff hiring

Board Self-Assessment

- 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

#### Interfaces:

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

#### MEP Advisory Board Committee Members:

- Vicki Wessel Chair A7-RevA7
- Denny Dotson Ent MN
- · Eileen Guarino NY MEP Tommy Lee ATN

#### Center Board Members:

#### (Note these Members are non-Voting)

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

501c3

Eric Stebbins New Mexico MEP 501c3

#### Center Director Members

- Bonnie del Conte ConnStep 501c3
- 2. Bill Donohue GenEdge State
- 3. Paddy Fleming Montana University
- Mike Coast Michigan 501c3
- Mike O'Donnell CIRAS University
- Loren Lyons Washington 501c3

#### **Board Organization and Development** With State in support of Manufacturing

- Board evaluation, recruitment, orientation
- **Board Information System**
- Voice for/of Manufacturing



**MEP Connect** 

MEP Groups -

**Pilot Projects** 

Supplier Scouting

Inside MEP -

**Board Governance Home** National Advisory Board New Board Orientation Collaboration Tools Join the Discussion Calendar of Events Internal Communication Plan Board Assessment Site Contents

MEP Connect > MEP Groups > Board Governance

## MEP • MANUFACTURING EXTENSION PARTNERSHIP **BOARD GOVERNANCE**

Learn more >

#### Distinctive Practices

Collected from the system in order to expand sharing and learning and to develop MEP's capabilities as a learning organization and as a high performance system.

















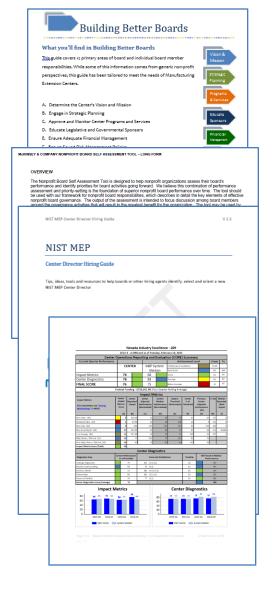






# Resulting Board Resources















# 2017 MEP Summit

Dr. Dave Cranmer, Senior Researcher
Hollings Manufacturing Extension Partnership
National Institute of Standards and Technology

Zara Brunner, Acting Director, Communications Office Hollings Manufacturing Extension Partnership National Institute of Standards and Technology









# Why a National Summit?

Brings together the leadership and the practitioners to share formally and informally what works and

what doesn't.

Networking to introduce us to one another and build trust among the various organizations and people.

Identify gaps in the System that need to be filled.

This is a major way for the SYSTEM to learn and grow.









# Background

- 2012 MEP National Conference
  - Manufacturing Innovation
  - Orlando, FL
  - May 2012
  - Three primary tracks
    - Embracing transformative manufacturing trends
    - Leading innovative organizations
    - Implementing growth strategies
  - Around 600 attendees













# Center and Board Sessions in 2012

- New board member orientation
- Board member networking
- National Advisory Board meeting
- Board member workshop with various topics
  - Strategic planning
  - Measuring board effectiveness
  - MEP impacts
  - Strategic partnerships

# ORGANIZATIONS EADING INNOVATIVE

This track includes interactive discussions, training and effective tools for developing leadership and talent in high performing organizations.

> The overall goal of this track is to help organizations improve their strategies and business models for success.

#### NEW BOARD MEMBER ORIENTATION WORKSHOP

SATURDAY MAY 5, 2012 2:00 PM - 5:00 PM

SPEAKERS: TBD

Calling all new and existing Center Board Members! This interactive and informative workshop covers the basics of what all motivated board members need to know about being an effective member of a NIST MEP Center Board. This workshop has been specifically designed to answer the most common questions posed by new AND experienced Board

Topics to be covered:

- Roles and Responsibilities of Board Members
- NIST/MEP expectations and integration with national
- New Board Member Orientation Materials and Sample
- Board Member effectiveness what makes a successful Board and an effective Board member?
- Open discussion with MEP Regional Managers and experienced Board members.

Target Audience: MEP Center Staff











# **Next Steps**

- 2016 Update Meeting
- Revisit the 2012 schedule and content as a starting point
- Get input from Centers, Working Groups, and other stakeholders
- National Advisory Board "ask"
  - Input on the agenda, specifically Board Training





















# Advisory Board Review of Board Report Draft



MEP Advisory Board 2015 ANNUAL REPORT









# Thank You

# 5:00Pm ASMC Reception at Russell Senate Building

# **Stay Connected**

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