



MAKING AN IMPACT ON U.S. MANUFACTURING

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

MEP Advisory Board Meeting

April 30, 2017

Denver, CO

Agenda - Morning

Time	Topic	Lead
9:00 – 9:05am	Meeting Logistics	Cheryl Gendron, NIST MEP
9:05 – 9:30am	Welcome & Introductions: Opening Remarks, Board and Audience Introductions, Introduce New Board Members	Vickie Wessel, Chair, MEP Advisory Board Phil Singerman, NIST Associate Director for Innovation and Industry Services Carroll Thomas, NIST MEP Director
9:30 – 10:10am	Board Assessments	Lisè Stewart, EisnerAmper LLP
10:10 – 11:10am	MEP Advisory Board / Center Advisory Board Discussions <i>Topical Discussions:</i> - <i>Learning Organization</i> - <i>Technology</i> - <i>Workforce</i>	MEP Advisory Board Members
11:10 – 11:30 am	Break	
11:30 – 12:00pm	Debrief out from Activity	MEP Advisory Board Members
12:00 - 1:00 pm	Lunch Break	Altitude Restaurant – in Hotel

Agenda - Afternoon

Time	Topic	Lead
1:00 – 2:00pm	MEP Strategic Plan 2017 - 2022	Vickie Wessel, Chair, MEP Advisory Board
2:00 – 2:30pm	Connecting User Facilities and Labs with SMMs	Bernadine Hawes, MEP Advisory Board
2:30 – 3:00pm	MEP Learning Organization	Carolyn Cason, MEP Advisory Board
3:00 – 3:15pm	Break	
3:15 – 3:45pm	MEP Advisory Board Governance <ul style="list-style-type: none"> • Advisory Board Annual Report • Charter • By-laws 	Vickie Wessel, Chair, MEP Advisory Board
3:45 – 4:15pm	Open Items / Future Topics & Subcommittees	Vickie Wessel, Chair, MEP Advisory Board
4:15 – 4:30pm	Wrap-up/Public Comments	Vickie Wessel, Chair, MEP Advisory Board Carroll Thomas, NIST MEP Director



MAKING AN IMPACT ON U.S. MANUFACTURING

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

Welcome and Introductions

Vickie Wessel, MEP Advisory Board Chair

Phil Singerman, NIST Associate Director for
Innovation and Industry Services

Carroll Thomas, NIST MEP Director

WELCOME NEW ADVISORY BOARD MEMBERS!





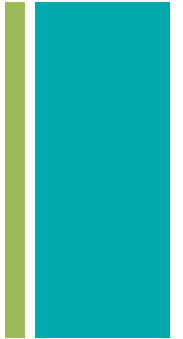
Board Training and Survey Discussion



**Lisë Stewart – Facilitator
EisnerÄmper LLP**



+ Today's Purpose



- Review results of the Board Source Surveys
- Identify key trends for discussion
- Discuss recommendations



BoardSource Survey Results



- Participation statistics for 10 centers: 158 surveys distributed / 137 surveys completed / 89.7% response rate
- The scores are based on this answer scale: 0 = Poor; 1 = Fair; 2 = OK; 3 = Good; 4 = Excellent





High Level Results – 4 Areas of Board Responsibility



This is an example of what each center board saw when they received their results. These are not actual or aggregated numbers.



Average Scores in Each Area Across the Country



	Board Responsibilities	Average
A	Set Direction	2.97
1	Mission	3.04
2	Strategy	2.92
B	Ensure Resources	2.78
3	Funding and Public Image	2.80
4	Board Composition	2.78
C	Provide Oversight	3.02
5	Program Oversight	2.86
6	Financial Oversight	3.12
7	Chief Executive Oversight	3.12
D	Board Structure and Operations	3.06
8	Board Structure	2.90
9	Meetings	3.25



What is working well

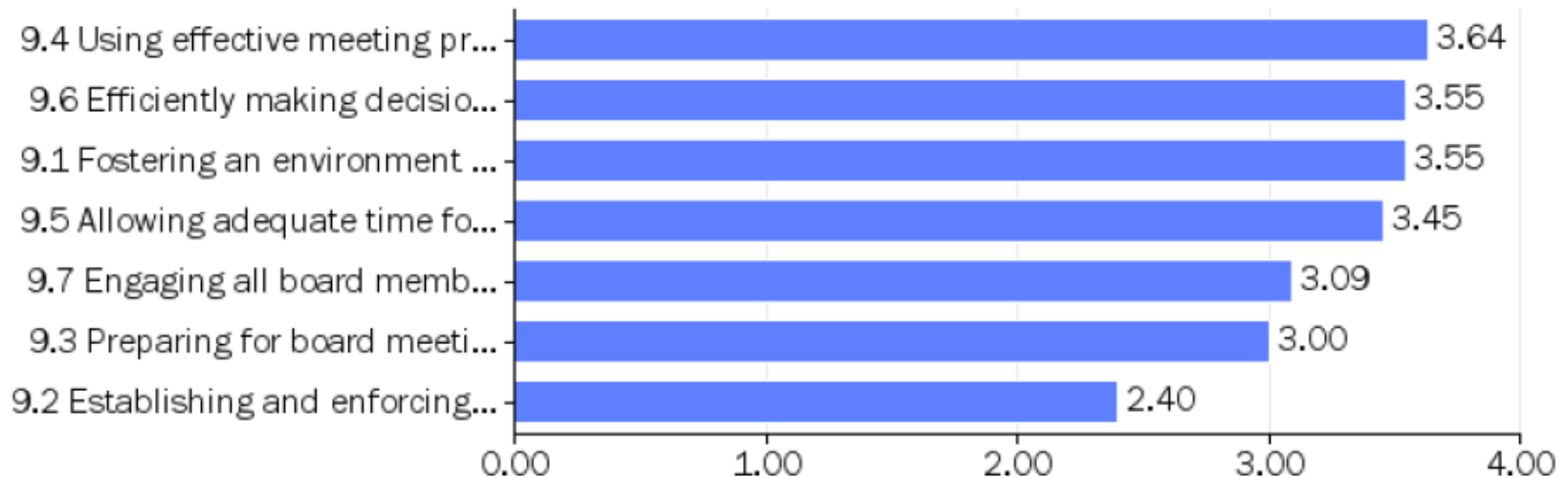
The 3 areas with highest average and median scores



+ What is working? – Board Meetings 3.25



Conduct Productive Board Meetings: Boards carry out much of their work in meetings. Meetings that are carefully structured and efficiently conducted will help board members feel that their time is well spent and that the board adds value to the organization. Effective boards have meeting agendas that focus on important issues, allow for discussion, and lead to action. To ensure efficiency, board members receive and review agendas and background materials prior to the meetings. To tap into the collective wisdom of the board, boards pay careful attention to boardroom culture, group dynamics, and decision-making processes.

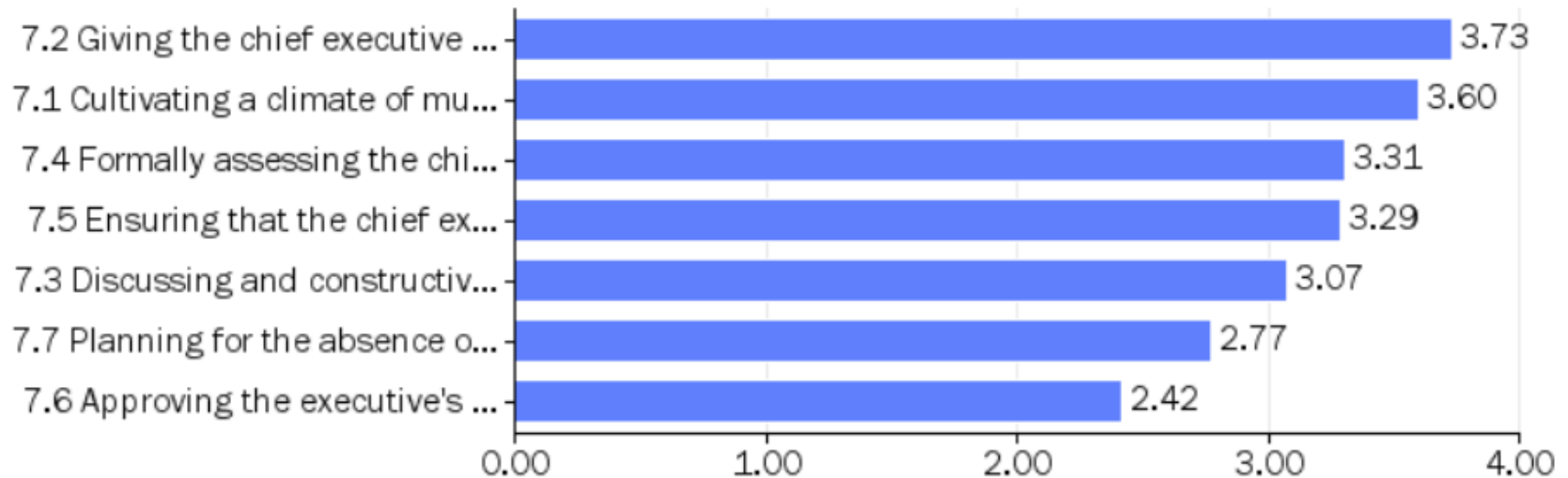




What is working? – Chief Executive Oversight 3.12



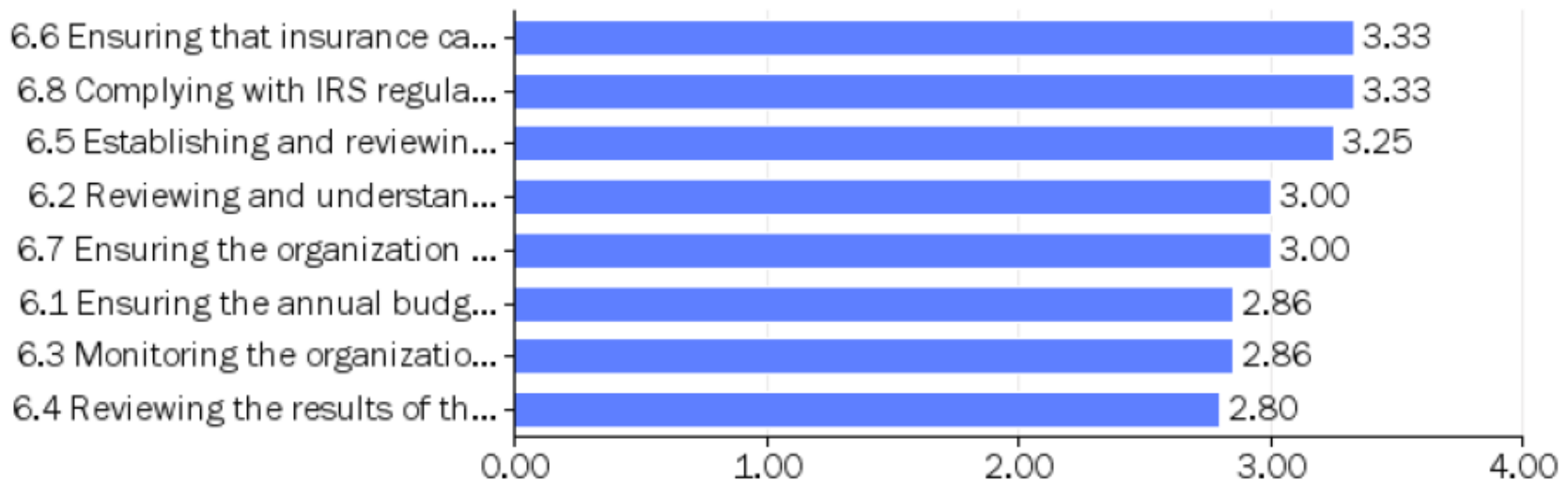
Support and Evaluate the Chief Executive: The primary board--staff relationship is between the board and the chief executive, and the quality of this relationship is of the utmost importance. To be effective, the board and chief executive need a close working relationship based on mutual trust and an appreciation of their respective roles in leading the organization. As part of its responsibility for supervising the chief executive, the board ensures that a job description outlines his or her duties, then evaluates the chief executive annually and determines appropriate executive compensation.



+ What is working? – Financial Oversight 3.12



Protect Assets and Provide Financial Oversight: Boards are responsible for preserving an organization's resources, protecting its assets, and maintaining its legal and ethical integrity. Ensuring that income is managed wisely is especially important for a nonprofit because it operates in the public trust. The board approves the annual budget and then monitors performance against the budget throughout the year. The board also oversees the annual audit to verify for itself and the public that the organization is accurately reporting the sources and uses of its funds. To safeguard the organization's future, the board establishes appropriate investment and risk management policies.





Key Areas for Improvement

The 3 areas with lowest average and median scores

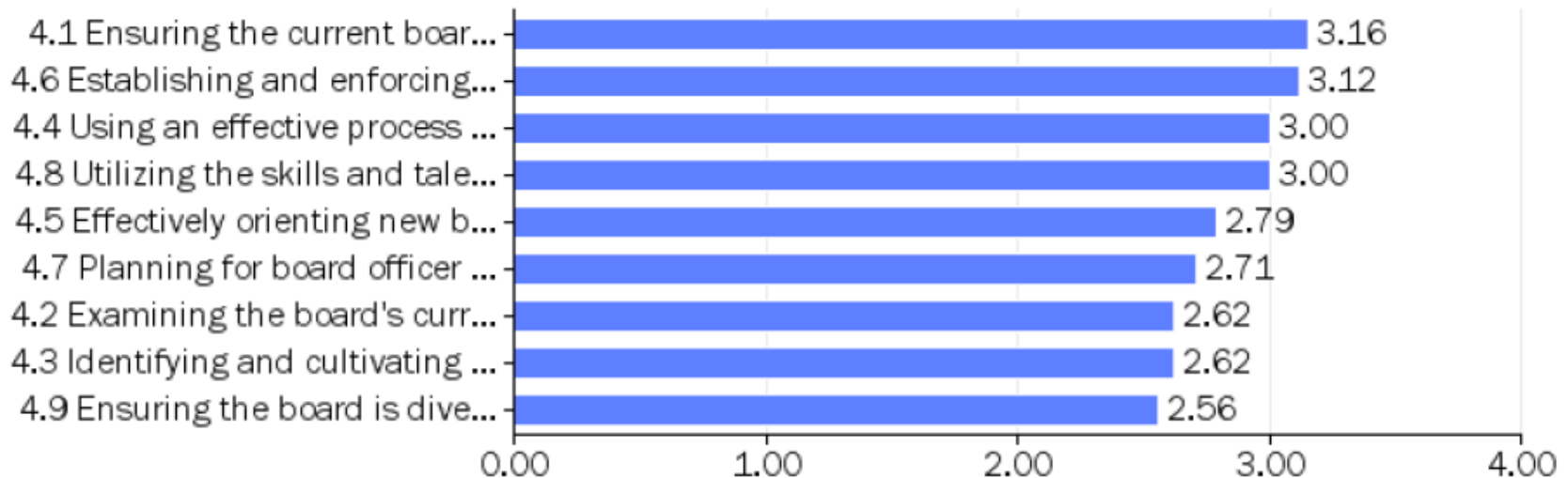




What needs improvement? – Board Composition 2.78



Build a Competent Board: An organization's board is a critical resource, and the board is responsible for its own composition and leadership. A good board is composed of individuals who contribute critically needed skills, experience, perspective, wisdom, contacts, time, and other resources to the organization. A well-conceived board-building plan helps the board to identify and recruit members and cultivate officers. New members are oriented to the board's responsibilities and the organization's activities. Board member rotation ensures that the board is infused with new ideas yet remains a manageable size.

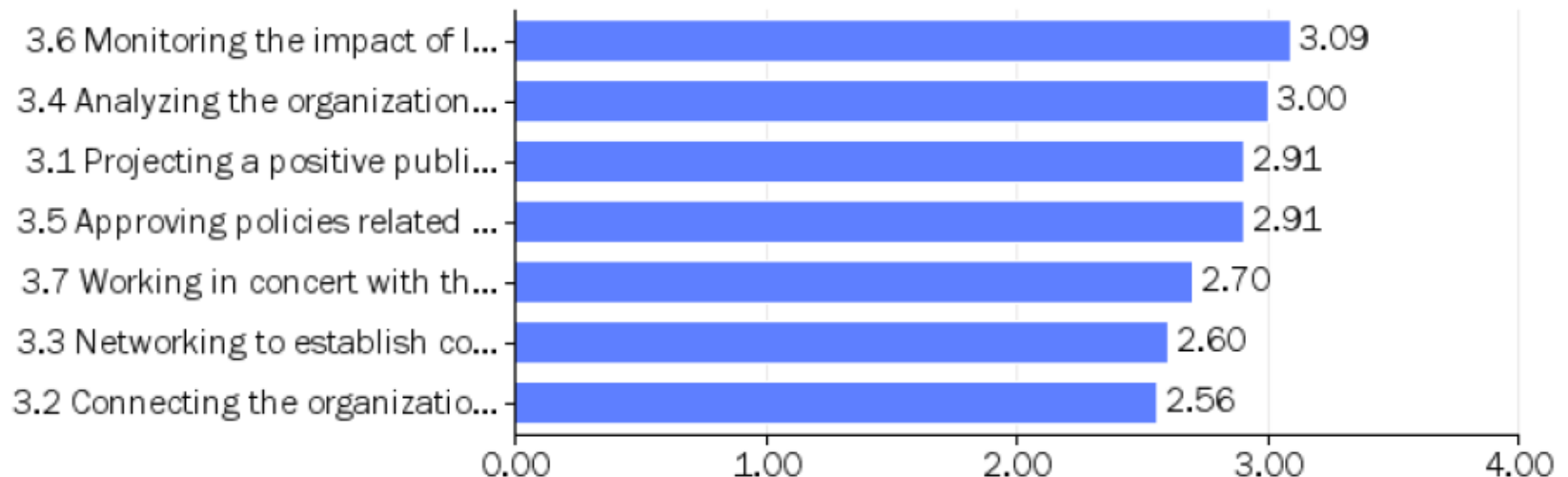




What needs improvement? – Funding and Public Image 2.80



Enhance the Organization's Public Standing and Ensure Adequate Financial Resources: An organization's resources include a strong reputation and adequate funding to carry out its mission. The board is responsible for building, protecting, and promoting the organization's public standing. Board members serve as ambassadors to the community and are an essential element of an organization's marketing, communications, and outreach efforts. The board is also responsible for the organization's financial sustainability. The board makes sure that the organization has an appropriate mix of income. While the fundraising strategy is developed and executed by the chief executive and other staff in partnership with the board, board members should be active in fundraising in a number of ways, including making personal contributions, connecting staff to potential donors (individuals, foundations, and corporations), and soliciting friends and colleagues.

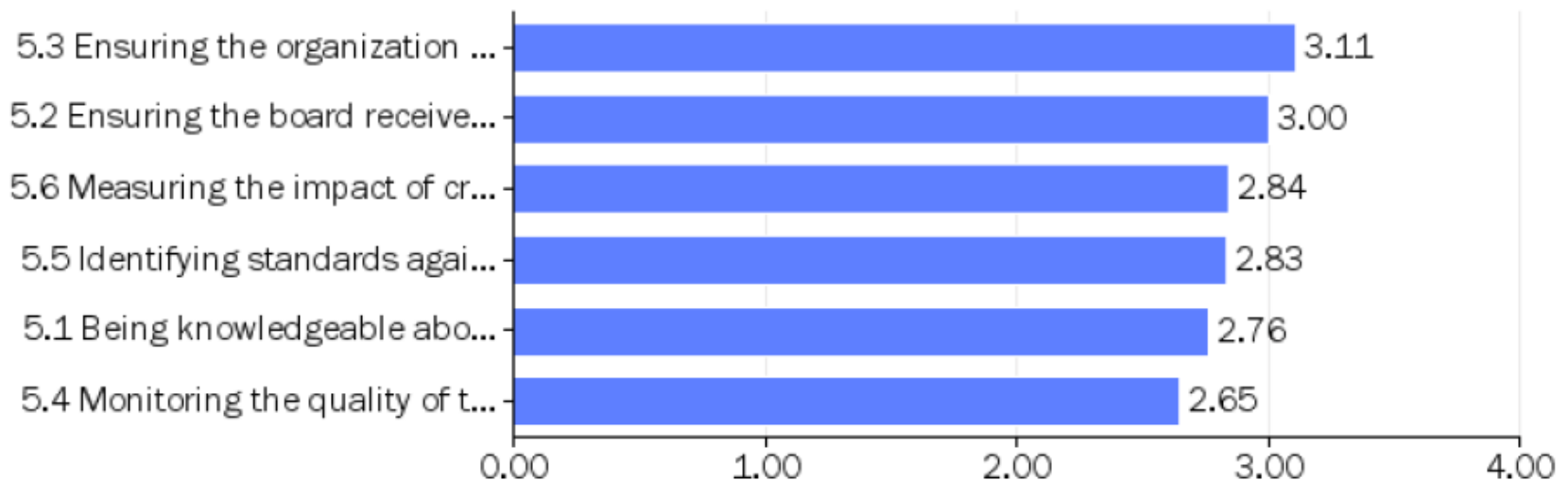




What needs improvement? – Program Oversight 2.86



Monitor and Strengthen Programs and Services: As part of providing oversight, the board is responsible for deciding which programs best support the mission and for evaluating their effectiveness. The board works in collaboration with staff to understand the scope of the organization's programs and services, establish appropriate goals for quality and results, and monitor performance data. The board may wish to retain a consultant to conduct a formal evaluation of the organization's work. The questions below relate to your organization's own work, not to the programs and services of other organizations that may be funded or otherwise supported by your organization.





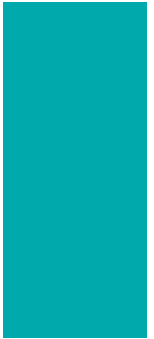
Observations

These are trends observed in both the survey results and during training and action planning with the various Center Boards.



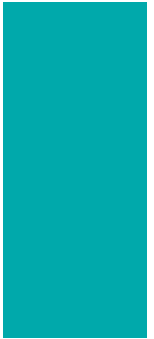
+ Doing a better job...

- How can board members be better external advocates?
What does this mean and what does it entail?
- Need to better understand the programs and services and what projects both entail and achieve.
- Want to understand the needs of manufacturers – trends, global changes, technology and specific challenges.
- Need to understand expectations in regard to securing funding.



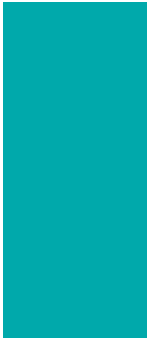
+ Being a better board...

- Need more attention paid to orientation and on-going development.
- Need to improve the level of engagement of ALL board members, including managing expectations.
- Would like to be more knowledgeable and involved in Strategic Planning.
- Need to undertake more self-evaluation and review.





Being a better resource



- Need to understand role in regard to providing performance feedback to the Center Director/CEO.
- Need to play an active role in raising the profile, brand image of the Center.
- Need more diversity on the board, to bring a wider perspective and experience.
- Need to ensure that boards are paying attention to BOTH the financial management of the program AND the strategic needs, while avoiding operational issues.



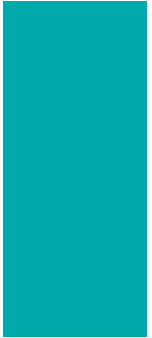
Recommendations

What are the most powerful leverage points?





Recommendations



- Continue to support the orientation process, provide opportunities for new board members to learn about the program and about other centers.
- Provide examples of effective materials for orientation, self-evaluation, meeting management and other best practices.
- Encourage Centers to provide more opportunities for staff (internal and field staff) to engage with the boards.
- Explore ways to provide board members with research, access to subject matter experts and shared institutional knowledge to inform strategy development and support the Learning Organization concept.

+ Thank you!

■ Lisë Stewart

Director, Center for Family Business Excellence

EisnerAmper LLP

www.eisneramper.com

208.867.6251

Lise.Stewart@eisneramper.com



MEP ADVISORY BOARD AND CENTER BOARD DISCUSSION



Morning Break



DEBRIEF FROM DISCUSSION



Lunch Break



STRATEGIC PLAN

Vickie Wessel



Structure of the Proposed Plans



MEP National Network Strategic Plan

... To Be Discussed by the Advisory Board Today



MEP National Network Strategic Implementation Plan



Reminder ... 2014-2017 Strategy Content

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.

PROGRAM 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 investment 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 AND STRATEGIC OBJECTIVES:

Goal 1. ENHANCE COMPETITIVENESS - Enhance the Economic Competitiveness of U.S. Manufacturers, with focus on small and medium-sized companies.

- Objective 1. Deliver services that create value for all manufacturers, particularly focusing on small and mid-sized manufacturers ("SMEs").
- Objective 2. Enable centers to make new manufacturing technology, techniques, and processes usable by U.S. based small and medium-sized companies.
- Objective 3. Develop "Data as a Service" for Competitive Advantage.

Goal 2. CHAMPION MANUFACTURING - Serve as a Voice to and a Voice for Manufacturing and manufacturers in engaging policy makers, stakeholders, and clients.

- Objective 1. Champion the importance of SMEs and ensure their inclusion in the economic competitiveness policies and programs of the U.S. government.
- Objective 2. Increase Role of National and Center Boards.

Goal 3. SUPPORT PARTNERSHIPS - Support National, State and Regional Manufacturing Ecosystems and Partnerships.

- Objective 1. Provide Centers with local flexibility and adaptability to operate based on regional priorities and client needs.
- Objective 2. Support national policy goals.

Goal 4. DEVELOP CAPABILITIES - Develop MEP's Capabilities as a Learning Organization and High Performance System.

- Objective 1. Promote System Learning.
- Objective 2. Evolve MEP Performance System.
- Objective 3. Continue administrative reforms.

Then the last page of the Plan has economic Impact Data and a MAP of the network.

THE COMMITTEES ASK OF THE FULL BOARD?

- DISCUSS THE FOLLOWING:
 - WHAT GOALS, OBJECTIVES, OR STRATEGIES APPEAR TO BE MISSING FROM THE PROPOSED STRATEGIC PLAN?
 - FOR EACH GOAL, HOW WOULD YOU MEASURE SUCCESS?

What Goals, Objectives, or Strategies Appear to be Missing from the Proposed Strategic Plan? & FOR EACH GOAL, HOW WOULD YOU MEASURE SUCCESS?

Goal 1 - Enhance Competitiveness

- Objective 1. Deliver services that create value for all manufacturers, particularly focusing on small and mid-sized manufacturers ("SMEs").
- Strategies 1. Define Enhanced Client Delivery Programs.
 - Strategies 2. Continue/Establish Primary Service Delivery Practices (Lean, Growth, Sustainability, etc. ...)
 - Strategies 3. Continue/Establish Industry Focused Practices (Aerospace & Automotive)
 - Strategies 4. Enhance an MEP National Network Supply Chain Approach
 - Strategies 5. Establish an MEP National Network Export Approach
- Objective 2. Enable centers to make new manufacturing technology, techniques, and processes usable by U.S. based small and medium-sized companies.
- Strategies 1. Enhance the MEP National Networks capability in Technology Innovation and Advanced Manufacturing Adoption

Goal 3 - Leverage Partnerships

- Objective 1. Provide Centers with local flexibility and adaptability to operate based on regional priorities and client needs.
- Objective 2. Support State, Agency and National Policy goals.

Because there are so many Strategies See next Slide.

Goal 2 - Champion Manufacturing

- Objective 1. Champion the importance of SMEs and improve the image of Manufacturing ensure MEP National Network inclusion in the workforce arena, economic competitiveness policies and programs of the U.S. government.
- Strategies 1. Improve the Image of Manufacturing with Stakeholders, Policy Makers, and Future Workforce
 - Strategies 2. Increase the Visibility of the MEP National Network with Stakeholders and Policy Makers
 - Strategies 3. Insure MEP National Network is Integrated into the National Policy Discussion
- Objective 2. Increase Efforts to Insure Greater Awareness of the MEP National Network, and Support Outreach and Market Penetration
- Strategies 1. Improve the Awareness of the MEP National Network with SMMs, and the Manufacturing Eco-System Partners.
 - Strategies 2. Develop an Approach to engage more Very Small, Rural, and Startup Companies.
 - Strategies 3. Leverage the MEP Advisory Board and the MEP Center Boards to Support Greater Outreach and Awareness

Goal 4 – Enhance MEP National Network Operations

- Objective 1. Expand, Evaluate and Develop New System Learning Approaches.
- Objective 2. Evolve MEP Performance System.
- Objective 3. Continue to insure MEP Network Excellence.
- Objective 4. Enhance "Data as a Service for Competitive Advantage.

Because there are so many Strategies See next Slide.



What Goals, Objectives, or Strategies Appear to be Missing from the Proposed Strategic Plan? & FOR EACH GOAL, HOW WOULD YOU MEASURE SUCCESS?

Goal 3 - Leverage Partnerships

Objective 1. Provide Centers with local flexibility and adaptability to operate based on regional priorities and client needs.

Strategies 1. Leveraging the MEP National Network and existing partners, need to develop an Approach to engage more Service Delivery Partners to increase market penetrations.

Strategies 2. Leveraging the MEP National Network and existing partners, need to develop an Approach to engage more Federal Agency Partners to increase awareness & market penetrations

Strategies 3. Leveraging the MEP National Network and existing partners, need to develop an Approach to engage Supply Chain Partners.

Strategies 4. Leveraging NIST, and the other centers, Develop an Approach to engage Technology Partners

Strategies 5. Working with Existing Partners (i.e. WTC, SIDO, ITA, USEACs, etc ... need to Develop an approach to engage with more Export Partners

Strategies 6. Expanding off existing Partnerships, Develop an Approach to engage with workforce Partners

Objective 2. Support State, Agency and National Policy goals.

Strategies 1. Utilizing on-going relationships with SSTI we intend to Develop an Approach to engage State Partners

Strategies 2. Enhance on-going relationships with DOC and develop an Approach to engage more holistically the entire mg DOC.

Strategies 3. Utilizing on-going relationships with DOE, DOC, DOD, etc ... develop an Approach to engage more Federal Agency Partners.

Strategies 4. Develop an Approach to engage Federal Policy.



What Goals, Objectives, or Strategies Appear to be Missing from the Proposed Strategic Plan? & FOR EACH GOAL, HOW WOULD YOU MEASURE SUCCESS?

Goal 4 – Enhance MEP National Network Operations

Objective 1. Expand, Evaluate and Develop New System Learning Approaches.

- Strategies 1. Continue to develop support Infrastructure with Existing Working Groups and Determine the future needs of both Industry and Service Delivery Groups**
- Strategies 2. Enhance the support Infrastructure with Existing Working Groups and Determine how to best capture Evidence Based Practices, to support Service Delivery and Stakeholder Communications**
- Strategies 3. Evaluate the Need for a common training platform for the MEP National Network.**

Objective 2. Evolve MEP Performance System.

- Strategies 1. Continue to develop a performance based methodology for competitive grants and related efforts**
- Strategies 2. Continue to Enhance the NIST MEP Evaluation System**

Objective 3. Continue to insure MEP Network Excellence.

- Strategies 1. Deploy the Strategic MEP National Network Implementation Plan in collaboration with the MEP Center Leadership**
- Strategies 2. Enhance MEP Center Board involvement in Strategy Development and Operational Excellence**
- Strategies 3. Ensure Strong NIST MEP Support Services committed to operational excellence**
- Strategies 4. Establish an MEP National Network Operational Working Group to develop the framework for a High-Performance MEP National Network**

Objective 4. Enhance “Data as a Service for Competitive Advantage.

- Strategies 1. Provide Market Analysis to support Service Delivery**
- Strategies 2. Provide Industry Trends and Analysis to Support Industry and Working Groups**
- Strategies 3. Provide Technology Trends and Analysis to Support Service Delivery and Working Groups**
- Strategies 4. Identify MEP National Network Practices, and Important Data Trends**



THANK YOU!

MEP Advisory Board Strategic Planning Committee



CONNECTING USER FACILITIES AND LABS WITH SMMS

Bernadine Hawes

Discussion Topics for The Board

MATTR

- NIST MEP is seeking connections with small manufacturers through MEP Centers that don't always immediately result in revenue generation opportunities for MEP Centers
 - ✓ This provides additional resources from MEP Centers to serve as Trusted Advisors to manufacturers
 - ✓ Initial MEP Center interest seems high, but early assistance requests are low
- MATTR assistance models have not yet been formalized with NIST Labs – in terms of thresholds of “free” service
 - ✓ NIST MEP has examined other models including “DOE Small Business Vouchers” and “NASA 8 Hours Free Small Business Consultation with Center Experts”

Guidance from the Board on addressing these important challenges is invited

Discussion Topics for The Board

Embedding MEP into Manufacturing USA Institutes

- Transitioning individual project learnings and results into National-level capacity and service offerings for the MEP National Network will prove challenging
- Developing a high-functioning network on a National scale among the MEP National Network and the Institutes will also prove to be challenging (due in part to MEP Center tendencies to mainly think and act locally?)

Guidance from the Board on addressing these important challenges is invited



MEP LEARNING ORGANIZATION

Carolyn Cason



Agenda

- Background
- High-level 'vision'
 - Key components
 - Recommended priorities
 - Current Action: MEP Knowledge Base
- Questions/Discussion



MEP Learning Organization

Learning Organization is embedded in one of the MEP Strategic Goals:

Strategic Goal 4:

- Develop MEP's capabilities as a learning organization and high performance system (Develop Capabilities)
 - Strategic Objective: Promote system learning
 - Strategic Objective: Continue administrative reform

The 2016 Charge to the MEP Advisory Board from Dr. Willie May:

Recommendations on the establishment of an MEP Learning Organization which would be a continuance and further development that came out of the Board Governance charge

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

MEP Learning Organization – Why?

To create a national framework to enable Center's to focus on and gain access to:

- best practices
- knowledge and education designed to enhance Center performance
- expanded market penetration
- technology transfer
- increased client top and bottom line performance



MEP Learning Organization



Center focused Learning

- MEP processes
- Staff Development
 - Strategic Planning
 - Coaching
- HR Support – succession planning, recruit/retain

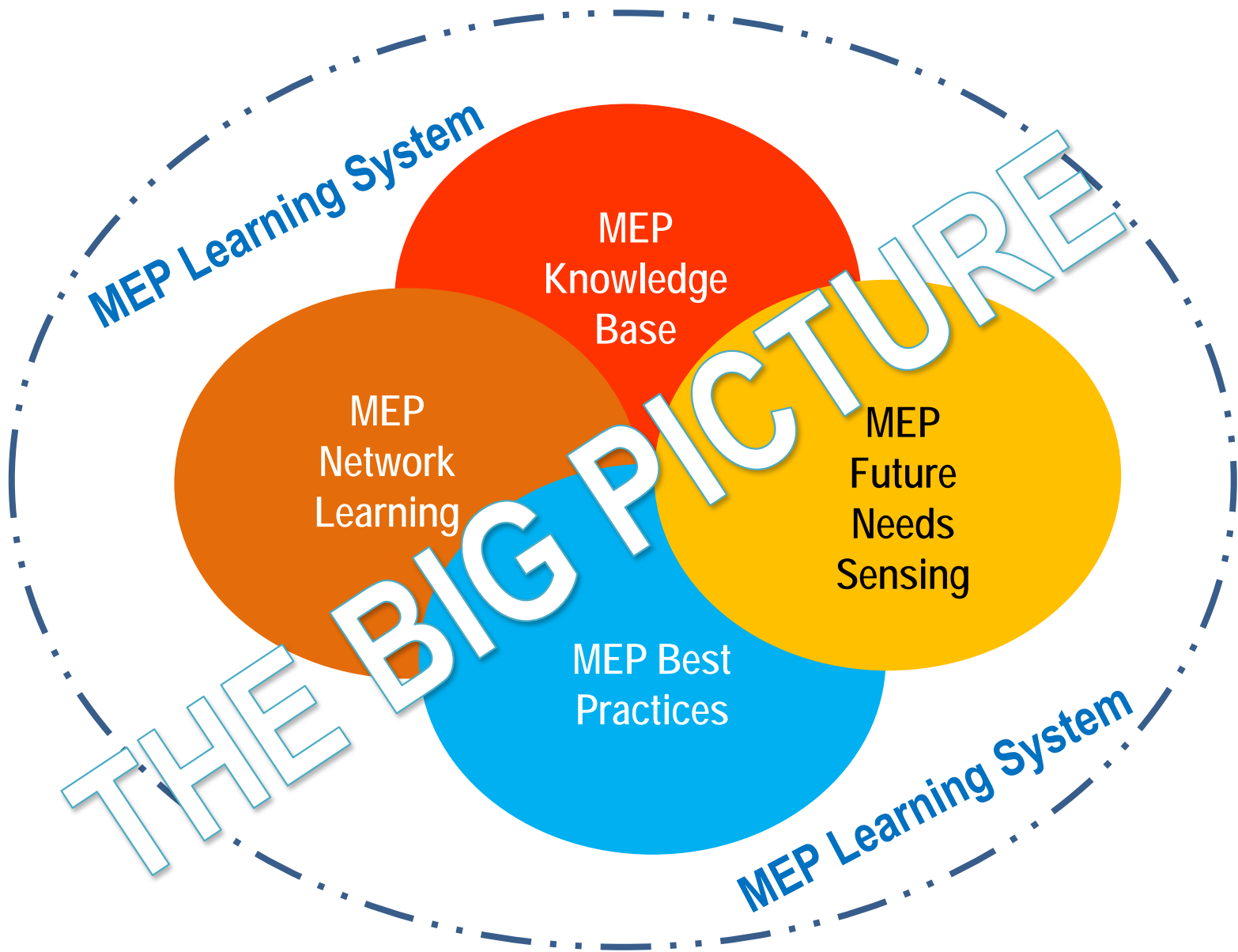
Client focused Learning

- New Technology—Additive, Digital
- Client Services – TDMI, Lean, Export....
- C-level consulting
- New Program development

Future Tech focused Learning

- Sharing Best Practices – Summits/conferences
- Working Groups
- Networking platforms (MEP Connect or other)





MEP LEARNING SYSTEM

MEP Knowledge Base

Programs to meet the needs of Client needs and Center operations.

- Define what
- Descriptions of content
- Does Course Exist?
- Make or Buy-Internal or external
- Team Vetting
- Keyword Searchable
- Make affordable
- Schedules
- Payments
- Materials
- Trainers
- Evaluation process – measure success

MEP Network Learning

Process to allow centers to connect to systems expertise

- Engage Community
- Capture Systems' Expertise
- Provide Guidance
- Process to Share Expertise
- Keyword Searchable
- Cross Center Mentoring (ex. Emerging Leaders)
- Community of Practice (s) – need to define and structure
- 2 Way Communications

MEP Best Practices

Clearing house

- Catalog of past summits, meetings
- Targeted Working Groups
- Tools/Resources (i.e. articles, blogs, recordings, etc.)
- *Static*
- 1 Way Communication
- Searchable, rated

MEP Future Needs Sensing

Process/system to gather and disseminate information to inform for trends, future development

- Trends/Informational
- Manufacturing USA
- National Labs
- External Sources

Processes needed: for startup, for sustaining, for evaluating success

Platform needed: access, info storage, info sharing, registration, tracking

Resources needed: staff to develop and implement, funding for platform, Staff for on-going content and upkeep

Recommended Priorities

- Learning Management System
 - Need a Technology Platform
 - Process to determine what should the content be
 - How to make it available
 - How to sustain it
 - Resources – staff, contractors, partners, technology
 - Ongoing for new content
- Network Learning
 - Communities of Practice, Working Groups
 - Guidelines for startup and maintenance
 - Resources
 - Evaluation of outcomes
 - Networking
 - Summits/conferences
 - Resources, content, follow-up
 - Evaluation of outcomes



PRIORITY

Current Actions

Learning Management System:

- Developed details of needs for a Technology Platform for MEP Knowledge Base (MEPKB) – Planning team with PPD Team Lead for Systems Deployment
 - Critical components
 - Expectations
 - Statement of Work drafted for competitive bid to be released late spring
- Draft MEPKB content start up
 - Assemble an implementation team (MEP staff and center reps)
 - Develop Decision Matrix
 - Pilot the decision matrix with Tech Platform start up

Draft SOW highlights

- Task 1: Identify, acquire and manage Learning Management System (LMS)
- Task 2: Program Management
- Task 3: Creation and maintenance of course materials
- Task 4: Course Delivery

Concurrent Actions Needed

Systems Learning and Management Group

- Network Learning – Systems Learning and Management Group
 - Define Communities of Practice and Working Groups
 - Start/re-start current Groups





Discussion

- The team is recommending that the LMS and management of the development and delivery of programming be contracted. After review of the Draft SOW, are there any key tasks we need to consider?
- What initial Key Performance Metrics might we consider to measure the impact/outcome of the learning management system?
- This committee has gathered good information, and focused on defining the Learning Management system needs. Do we need to identify a new committee to support the other component of the Learning Systems identified: Network Learning -- Communities of Practice and Networking?

Afternoon Break



MEP Advisory Board Governance

- Annual Advisory Board Report
 - Any feedback / additional items that need to be included
- Charter
- By-laws

OPEN ITEMS / FUTURE TOPICS

Vickie Wessel



WRAP UP/PUBLIC COMMENTS

Vickie Wessel, NIST MEP Advisory Board Chair
Carroll Thomas, NIST MEP Director

