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

MEP Advisory Board Meeting

September 15, 2016

Detroit, Michigan

Agenda

Time	Topic	Lead
8:00 – 8:05am	Meeting Logistics	Cheryl Gendron, NIST MEP
8:05 – 8:20 am	Welcome, Introductions: Opening Remarks, Board and Audience Introductions, Introduce New Board Member	Vickie Wessel, Chair, MEP Advisory Board Carroll Thomas, NIST MEP Director
8:20 – 9:00 am	MEP Director's Update	Carroll Thomas, NIST MEP Director
9:00 – 10:00 am	Trends in Economic Development Impacting the MEP System	Dan Berglund, SSTI
10:00 – 10:15 am	Break	
10:15 – 11:00 am	MEP Strategic Plan 2017-2022; *Update from board working committee*	Vickie Wessel, Chair, MEP Advisory Board Dave Cranmer, Deputy Director, NIST MEP
11:00 – 12:15 pm	Connecting User Facilities and Labs with SMMs; *Update from board working committee*	Jeff Wilcox, Vice Chair, MEP Advisory Board Clara Asmail, NIST MEP
12:15 - 1:45 pm	Lunch Break	
1:45 – 2:45 pm	MEP Learning Organization; *Update from board working committee*	Mary Ann Pacelli, NIST MEP Staff (Carolyn Cason Absent)
2:45 – 3:30 pm	Discussion: Board Governance, succession planning and Quorum Wrap-up/Public Comments	Vickie Wessel, Chair, MEP Advisory Board Carroll Thomas, Director, NIST MEP
3:30 – 4:00 pm	Optional for Board Members: Demo of Lockheed Martin's Engage Platform	Jeff Wilcox, Vice Chair, MEP Advisory Board Clara Asmail, NIST MEP

Welcome and Introductions

MEP Advisory Board – New Member

Mr. José Anaya is the newest member of the MEP National Advisory Board.

José is the Dean of Community Advancement at El Camino College. He oversees the Centers for Applied Competitive Technologies as the Statewide Initiative Director, hosted at El Camino College.

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NIST MEP Director's Update

Carroll Thomas, NIST MEP Director

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Program Administrative Update

Legislative Outlook

Budget Appropriations

- **FY 17 Approps not signed yet**
- **Most likely will have one or two Continuing Resolutions (CR)**
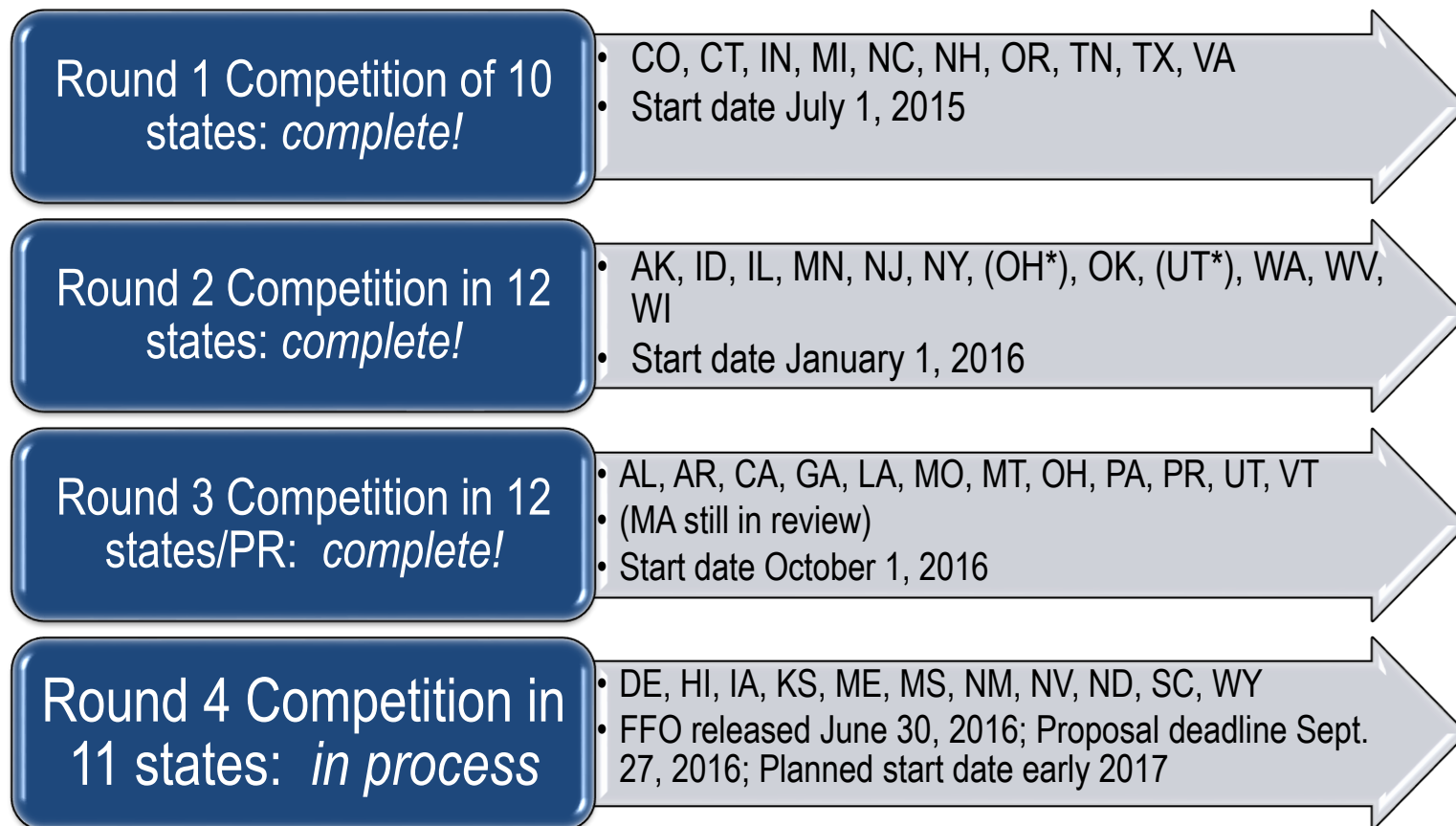
1:1 Cost Share Legislation

- **H.R. 5639 – National Institute of Standards and Technology Improvement Act of 2016**
- **S. 3084 – American Innovation and Competitiveness Act**
- **S. 2779 – Manufacturing Extension Partnership Improvement Act of 2016**

NIST MEP FY 2017 Projected Spend Plan

($ million)

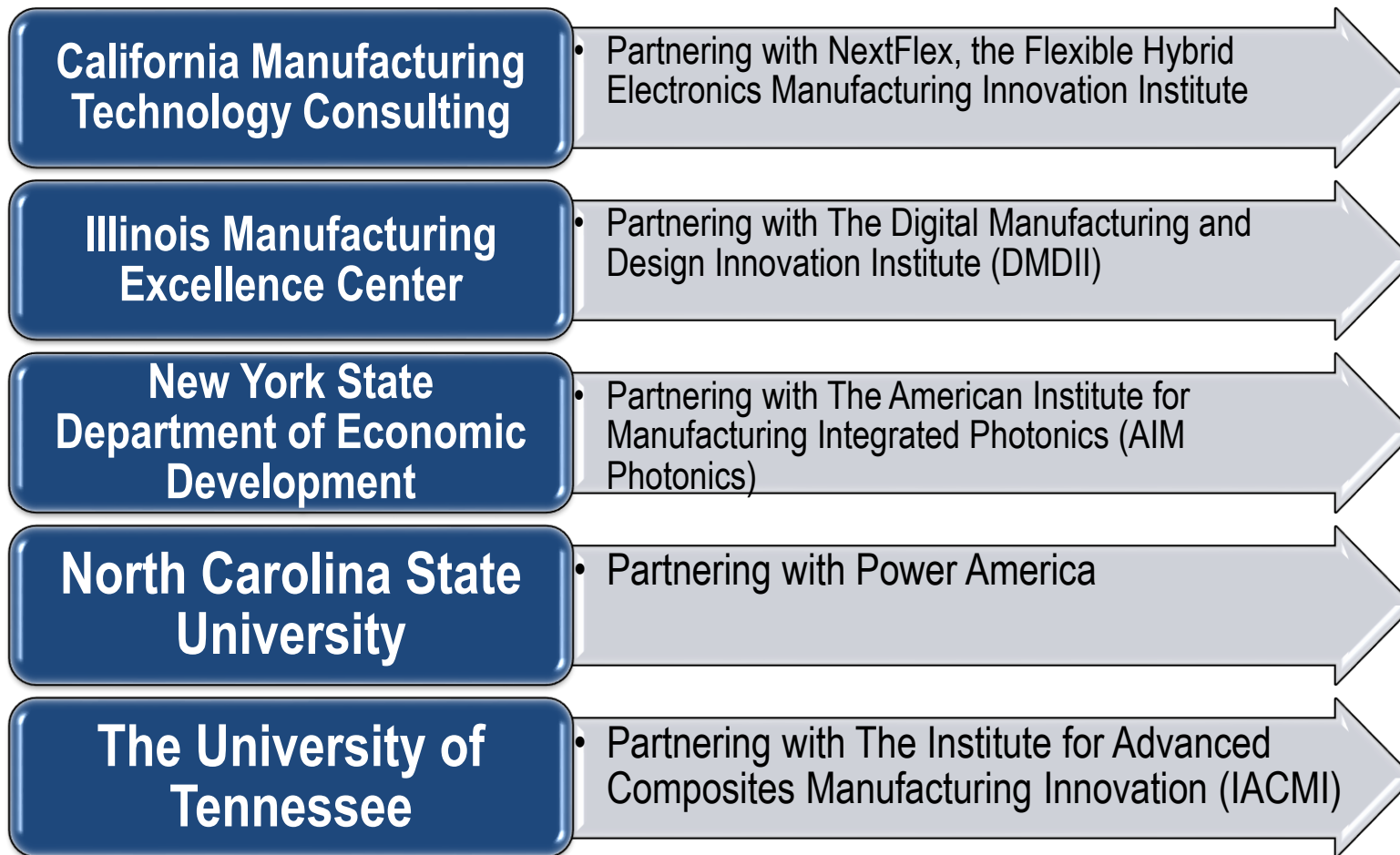|	
President's Request	$142.0
Prediction	$130.0
Funds in a Continuing Resolution	$130.0
Centers Renewals and Additional Competition Funds	$110.0
Rolling FFO (Supplemental Funds)- Embedding FFO Part II ($ 2.0M from FY16)	**$ 2.0**
MEP System Support/Staff/Overhead	$ 18.0
Total Planned Expenditures	$130.0

Status of Competition Rounds as of September 14, 2016

Round 1 Competition of 10 states: *complete!*
- CO, CT, IN, MI, NC, NH, OR, TN, TX, VA
- Start date July 1, 2015

Round 2 Competition in 12 states: *complete!*
- AK, ID, IL, MN, NJ, NY, (OH*), OK, (UT*), WA, WV, WI
- Start date January 1, 2016

Round 3 Competition in 12 states/PR: *complete!*
- AL, AR, CA, GA, LA, MO, MT, OH, PA, PR, UT, VT
- (MA still in review)
- Start date October 1, 2016

Round 4 Competition in 11 states: *in process*
- DE, HI, IA, KS, ME, MS, NM, NV, ND, SC, WY
- FFO released June 30, 2016; Proposal deadline Sept. 27, 2016; Planned start date early 2017

MEP/Institute Embedding Pilot awards announced yesterday

Demonstrating ways to leverage MEP assistance to small U.S. manufacturers in technology focus areas of the NNMI Institutes

California Manufacturing Technology Consulting	• Partnering with NextFlex, the Flexible Hybrid Electronics Manufacturing Innovation Institute
Illinois Manufacturing Excellence Center	• Partnering with The Digital Manufacturing and Design Innovation Institute (DMDII)
New York State Department of Economic Development	• Partnering with The American Institute for Manufacturing Integrated Photonics (AIM Photonics)
North Carolina State University	• Partnering with Power America
The University of Tennessee	• Partnering with The Institute for Advanced Composites Manufacturing Innovation (IACMI)

MEP • MANUFACTURING EXTENSION PARTNERSHIP

www.nist.gov/mep   mfg@nist.gov   (301) 975-5020

MEP Center Leadership Changes Since May

- Susan Foltz – Center Director, Ohio MEP
- Keith Phillips – Acting Center Director, ATN (AL)
- Jennifer Sinsabaugh – Center Director, New Mexico MEP
- Robert Zaruta – Center Director, NWIRC (PA)

NIST MEP Organizational News – Detail Assignments

- Mark Troppe — American Society of Mechanical Engineers Congressional Fellow chosen to do a detail assignment in Senator Coons (DE)

- Margy Phillips — joined NIST Advanced Manufacturing Program Office; on detail to MEP until we find a replacement

Coming to MEP from NIST!

- Marlon Walker — Research chemist in the Materials Measurement Science Division, Material Measurement Laboratory

- Pat Toth — Supervisory Computer Scientist in the Applied Computer Security Division

Partnerships Through Detail Assignments

- **Mike Simpson**—NIST/Advanced Manufacturing Program Office
  - Competition Manager for NIST Institutes
- **Kari Reidy**—NIST Legislative Affairs Off
  - Legislative Liaison
- **Sunni Massey**—OMB
  - Returned to NIST MEP in August
- **Heidi Sheppard**—National Endowment Arts
  - Project Manager

NIST MEP Organizational Change

- A structure designed to better support the goals and strategic objectives of the program

- A new reporting structure to optimize the flow of information for efficient decision making

- Staff requested new management and leadership opportunities

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MEP Org Chart

Carroll Thomas
MEP Director

David Cranmer
Deputy Director

Finance Management & Center Operations Division –
Vacant, Chief
(Margy Phillips, Acting)

Finance/Budget
Autumn Hernandez
Tony Gomez
Vacant

Center Operations & Financial Management Group
Group Manager (TBD)
Hope Snowden
Diane Henderson
Nadine DeJesus
Gloria Solomon
Sunni Massey
Mellissa Ayala

Programs & Partnerships Division – **Mark Troppe, Chief**
(Dave Stieren, Acting)

Team Applied Development (Team Lead TBD)
Clara Asmail
Dave Stieren
Ben Vickery
Samm Bowman
Vacant

Team Partnership (Team Lead TBD)
Heidi Sheppard
Mary Ann Pacelli
Mark Schmit

Team System Deployment (Team Lead TBD)
Doug Devereaux
Brian Lagas
Dileep Thatte

Staff Resource Management
Missy Davis

System Learning & Management Division --
Mike Simpson Chief (Dave Cranmer**, Acting)**

Regional Management Group
Group Manager (TBD)
Adelwiza Lequin
Tab Wilkins
Beth Colbert
Phill Wadsworth
Gary Thompson
Jeff Lucas
Jose Colucci

System Learning
Vacant

External Affairs, Performance, & Support Division
Chancy Lyford, Chief

Team Admin (Team Lead TBD)
Monica Claussen
Michele Montgomery
Jennifer Leon
Carol Shibley

Marketing & Communications Group -
Kari Reidy -Group Manager
(Zahraha Brunner, Acting**)**
Cindy Orellana
Nicole Ausherman
Cheryl Gendron

Manufacturing Research & Program Evaluation Group–
Ken Voytek--Group Manager
Nico Thomas
Kim Coffman
Dede McMahon
Megean Blum
Holly Jackson
Vacant
Vacant
Panel Reviews
Panel Review Manager, Vacant
Megan Spangler
Team IT Security & Support (Team Lead TBD)
Kathy Martin
Bryan Wade
Justin Mocca

Building National Outreach and System Knowledge

State Relations Support Award- SSTI and the Center for Regional Economic Competitiveness (CREC)
Advancing MEP's network of relationships with state stakeholders to include those at the county, community and city levels

Workforce Research Support Award- WorkCred (ANSI)
Examining the Quality, Market Value, and Effectiveness of Manufacturing Credentials

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Board Update

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MEP Advisory Board
2015 ANNUAL REPORT
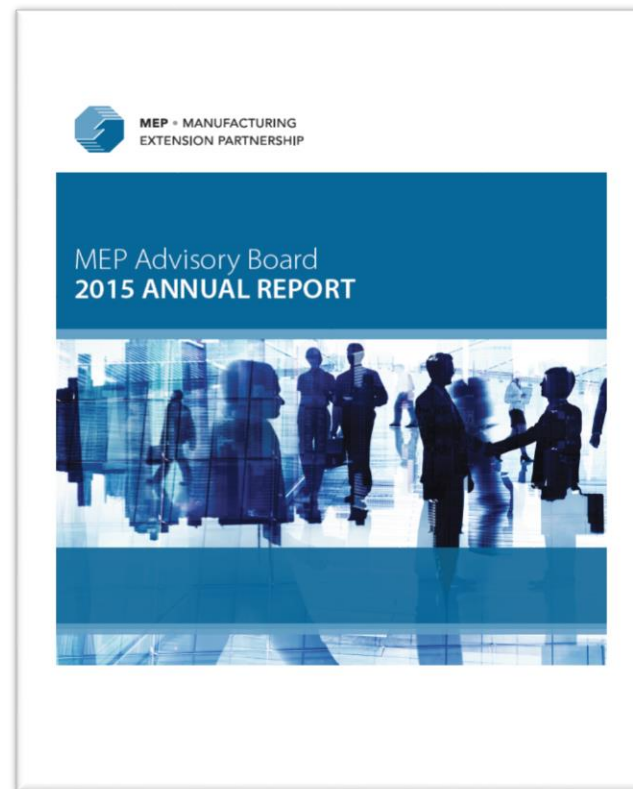
Advisory Board Newsletter

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NIST MEP Board Development Support Services Initiative

MEP Network access to BoardSource online content includes:

- **Board Self-Assessment (BSA) utilizing BoardSource BSA tool**
  - Gathers feedback from individual board members and measures the collective performance of the board
  - Comprehensively and confidentially assesses the board's performance in key areas to strengthen the full board's governance performance and practices.
- **Board Self-Assessment with Action Planning**
  - Pairs you with a select resource to facilitate a conversation in your boardroom about the results of your self-assessment and next steps for board development
- **Training workshops**
  - Prepares local boards to fully embrace their roles, enhance understanding of the requirements, implications and associated best practices in Board Governance

MEP Summit 2017

M: **manufacturing technology and trends**

Themes: Manufacturing Technology/Current and Future Trends

E: **extension services and knowledge sharing**

Themes: Service Delivery for Clients and Operational Excellence for Centers

P: **partnerships and ecosystems**

Themes: Partner Relationships/Value to Ecosystem/Leveraging and Convening Role

Updated Perspective on Strategic Goals

Supporting our Vision and Footprint as We Update Our Strategic Plan for 2017-2022

Balance

- Penetration

- Impact

- Center Viability

How information will be used

- To use as guiding information similar to a GPS rather than a report card rating

- Aligned with MEP Strengthen Capabilities and Enhance Competitiveness Strategic Goals

- To compare Center's performance over time and not used as single determination for base funding

- Performance-based supplemental funding for Centers applying as lead starting April 2017

- To identify opportunities for practice sharing Center match ups

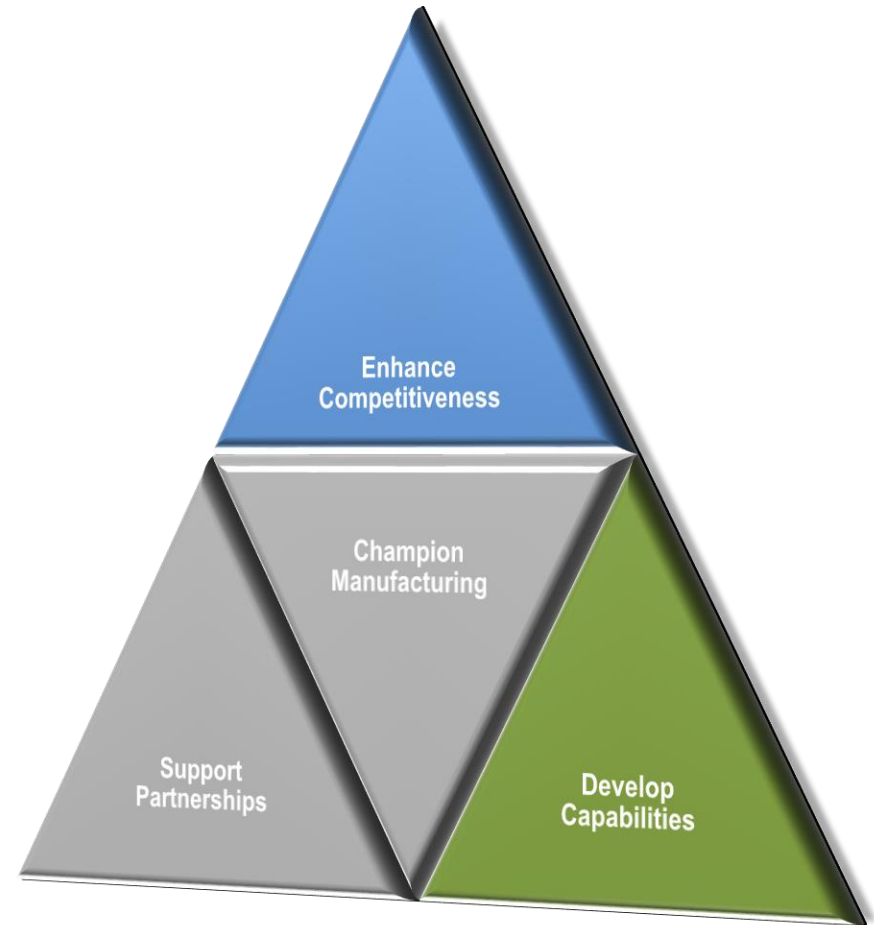# Utilized to Compare Past/Present Performance

Strategic Goals

Ten Metric Indicators:

1) Client Counts
2) New Clients
3) Net Promoter Score®
4) Survey Response Rate

Survey Impact Metrics

5) New Sales
6) Retained Sales
7) New Investment
8) Cost Savings
9) Jobs (new & retained)
10) "Share of clients improving competitiveness": Yes to an impact question

Performance Levels

Performing with Distinction 100

Performing 70-90

Conditionally Performing below 70

Comparative

- Information compared to previous year's quarter

- Assists with annual review to capture trending position of Center

- Comparative to planned operating outcomes

Supplemental Funding

- Metrics count starting April 2017

- Centers above threshold must partner with complementary center below threshold

- Used as "carrot" for performance-based directed funding

MEP Center Generating Impact Investment

Averaged sized center- $2M

- Cost $1.75M to get a center to the point of generating impact ($3.75M with matching funding)

- Estimated loss of impact- $145M in sales loss, $290M cost savings loss, $58M in investment losses and 1,245 jobs lost created and retained on annual basis

Vision

"Changing the way the world defines manufacturing"

Vision

Changing the way the world defines manufacturing

By define we mean…
describing the nature, the state of
things as they are and determining
the boundaries to make clear…

Vision   Changing the way the world defines manufacturing

Why MEP?

And why now?

Why Now: The Future is Upon Us

"<u>A full convergence of digital and physical manufacturing is underway…</u>

The stakes for companies to successfully navigate this transition are high!"

Highlights from Deloitte/Council on Competitiveness 2016 Global Manufacturing Competitiveness Index (GMCI)

Study found top major determinants of global manufacturing competitiveness:

1. **Talent**
2. **Cost competitiveness**
3. **Workforce productivity**
4. **Supplier network**
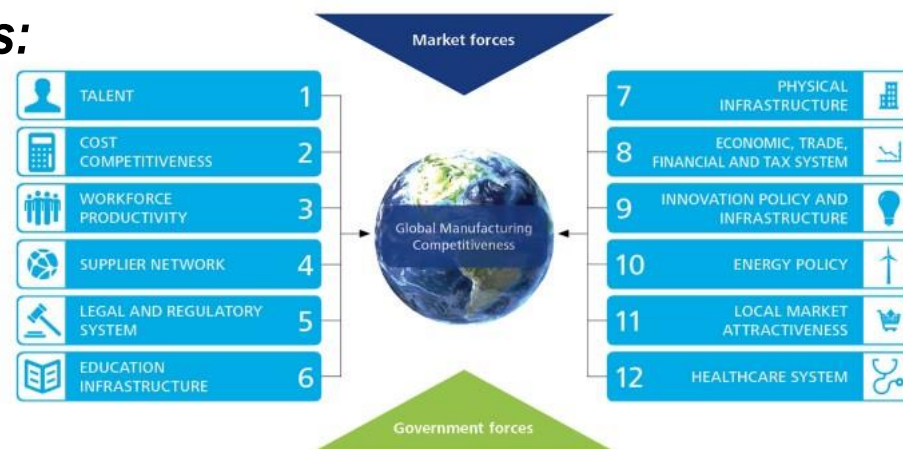
Source: Deloitte Touche Tohmatsu Limited and US Council on Competitiveness, 2016 Global manufacturing competitiveness index

It's Moving Faster Than We Can Imagine

John Brandt and John McElligott are right on target

The U.S. hearing aid industry converted to 100% additive manufacturing in less than 500 days, according to one industry CEO, and not one company that stuck to traditional manufacturing methods survived.
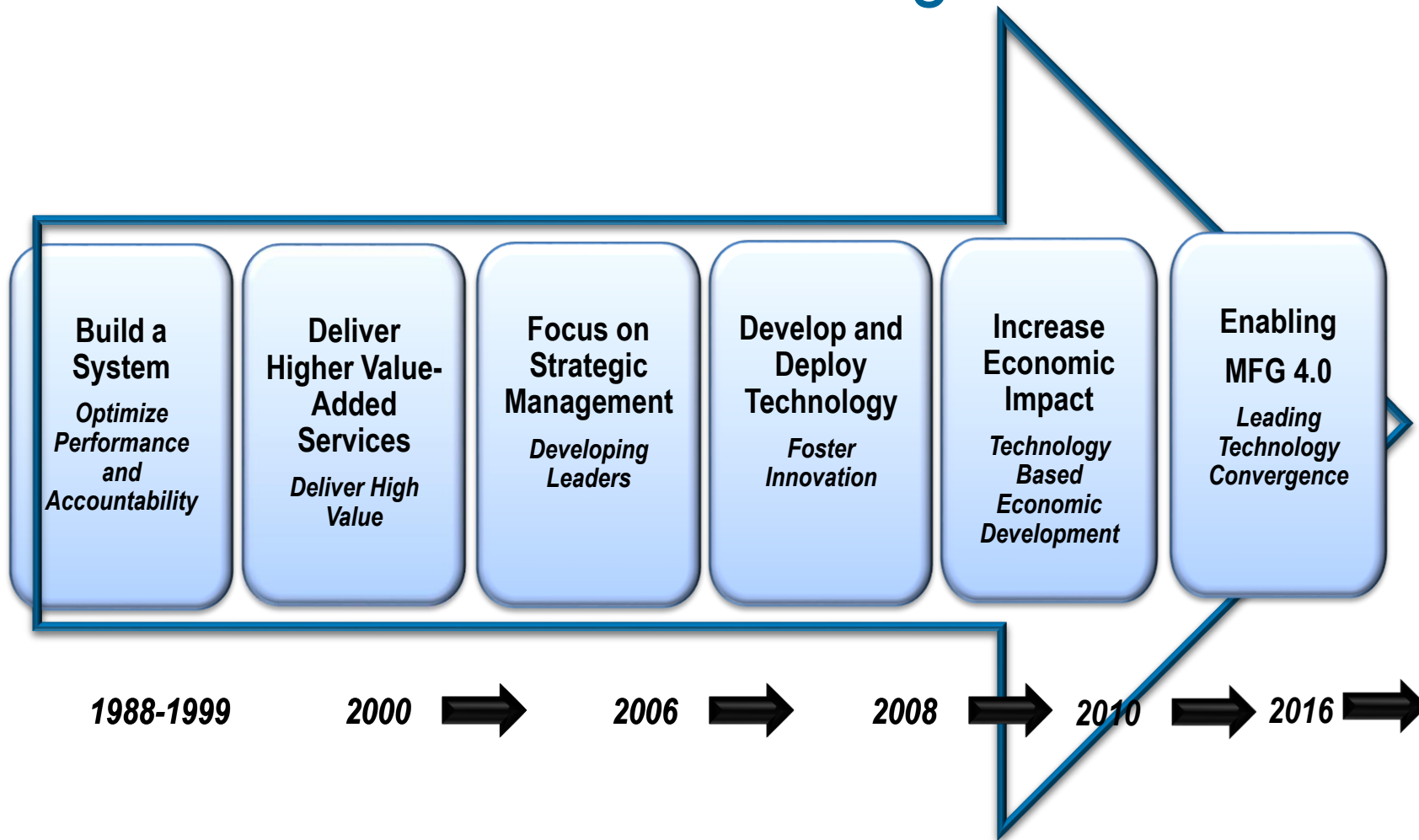
Richard D'Aveni, Harvard Business Review
May 2015

HBR.ORG
MAY 2015
REPRINT R1505B

Harvard Business Review

THE BIG IDEA

The 3-D Printing Revolution

It's happening, and it will transform your operations and strategy *by Richard D'Aveni*

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Evolution of NIST MEP's Original Mandate

Build a System

Optimize Performance and Accountability

Deliver Higher Value-Added Services

Deliver High Value

Focus on Strategic Management

Developing Leaders

Develop and Deploy Technology

Foster Innovation

Increase Economic Impact

Technology Based Economic Development

Enabling MFG 4.0

Leading Technology Convergence

1988-1999   *2000*   *2006*   *2008*   *2010*   *2016*

What Became Clear to Me

we are a
National Network dedicated
to serving **U.S. Manufacturers**

Oregon- Metrics conversation
Tennessee- State Economic
Development Meeting
Minnesota- State of Manufacturing
Alabama- Manufacturer of the Year
North Carolina- Manufacturing Summit
New Jersey- 2015 MFG Day

Next Generation of Manufacturers

NJ MEP MFG Day 2015

"I hope that like you, my example can also be used in the future to attract individuals to the manufacturing world. I hope that my presence on the panel was beneficial . . ."
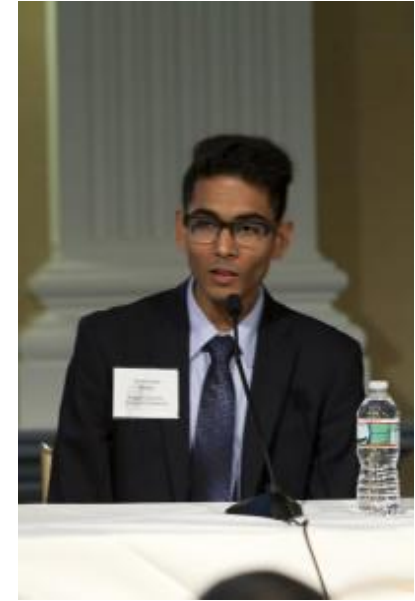
Tarakshaya Bhatia
Rutgers University School of Engineering
B.S. Industrial Engineering

What is the Board's role in the transformation of manufacturing?

What do we have to do differently?
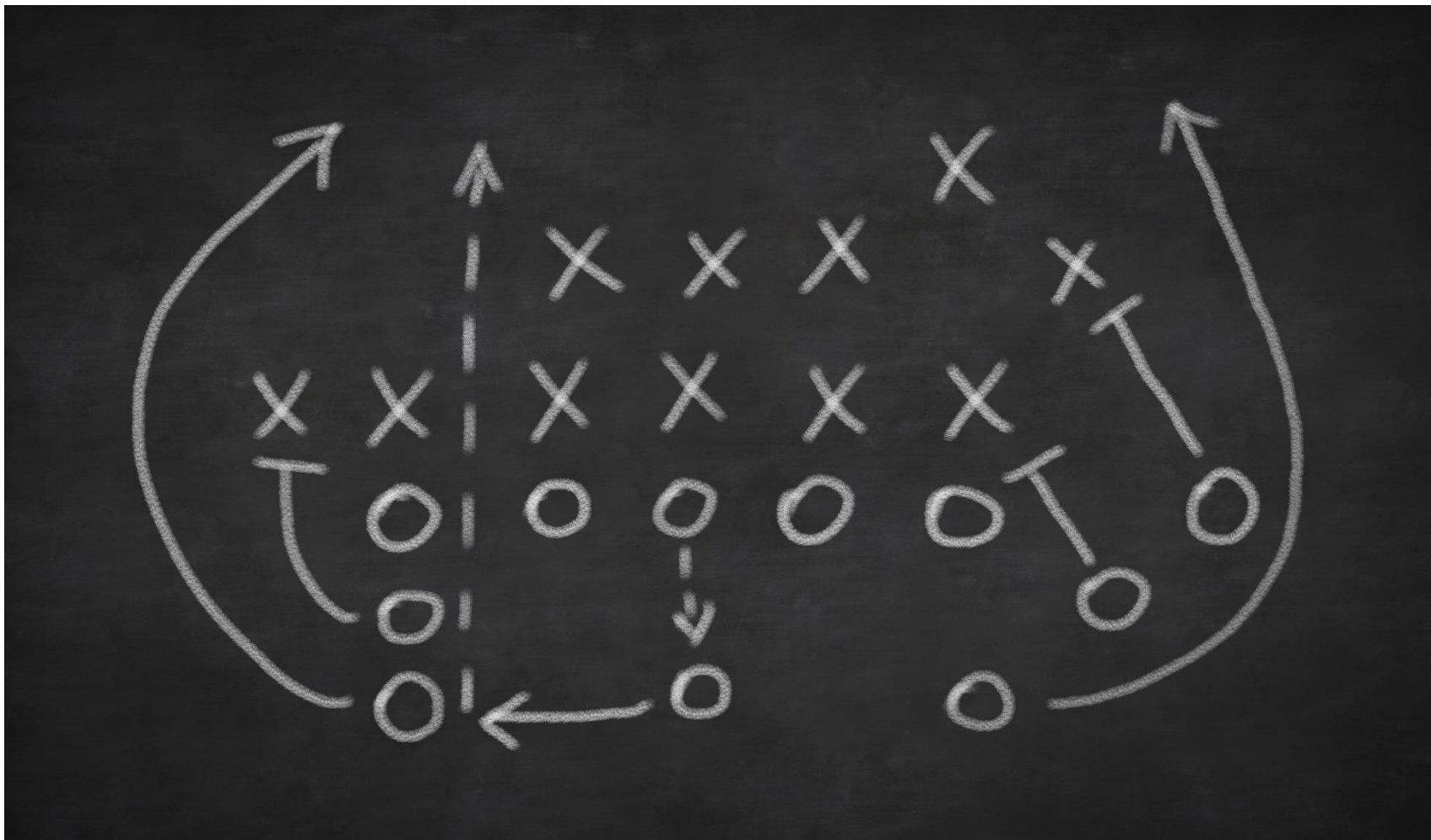
We are…

"Trusted Advisor"

- ○ Production- efficiency and excellence
- ○ Business strategy- new products/find new markets
- ○ Manufacturing infrastructure connections- workforce, banking, accounting and legal
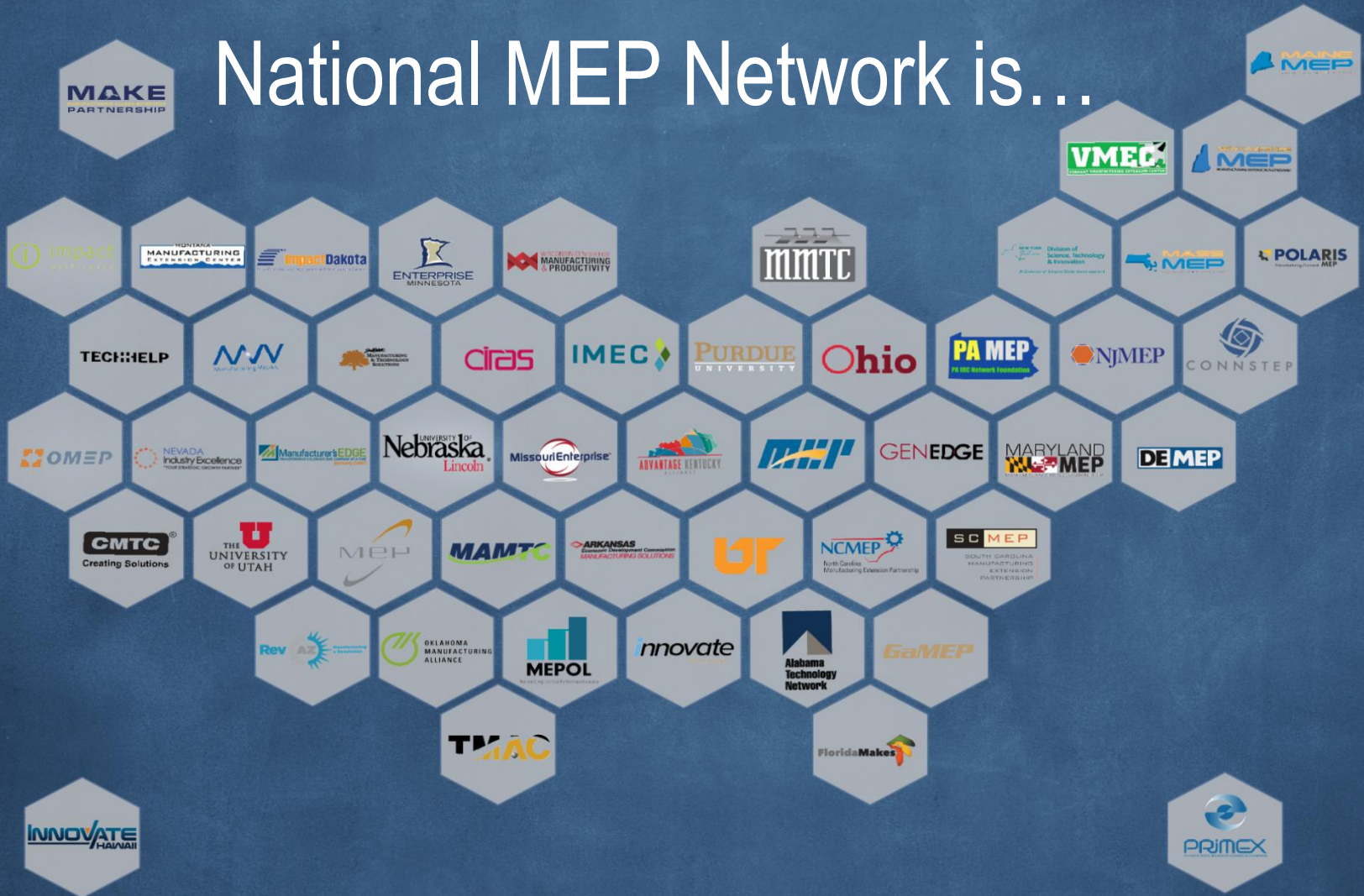
We become…

"Trusted Advisor"

…infusing technology, interconnectedness and disrupted perspectives into

Production,
Business Strategy and
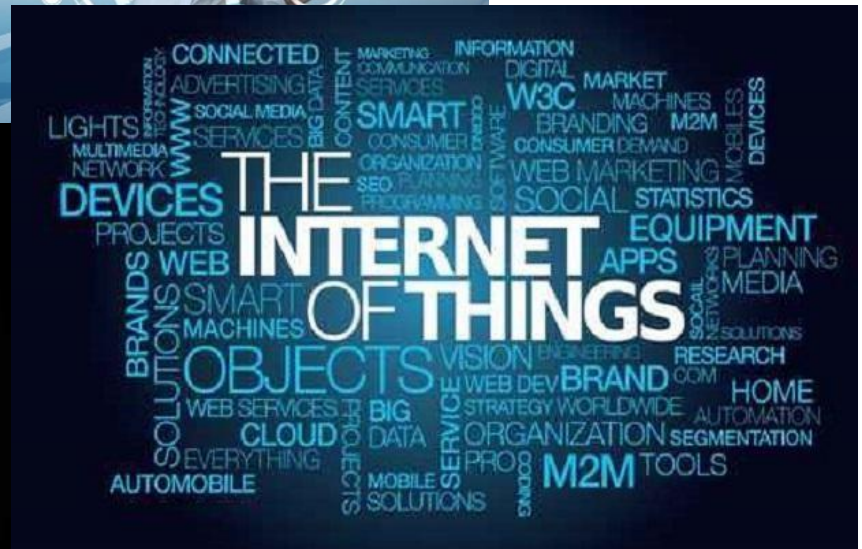Manufacturing Infrastructure Connections

National MEP Network is…

Change the way we communicate

Become a critical ingredient

Change the way we feel about pushing the envelope

" "

WE ARE ALL TIRED OF BEING
THE BEST KEPT SECRET.

WHAT WE'RE DOING

Building a cohesive **National Network brand** identity and value proposition.

WHY WE'RE DOING IT

There is a lot of noise about manufacturing, and **MEP gets lost in it.** A unified National Network brand is **critical for long-term survival.**

OUR COMMITMENT

We will collectively **build it together** and choose to go in a direction that **encompasses the diversity** of the national network.

This is our catalyst moment for profound re-invention

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Trends in Economic Development Impacting the MEP System

Dan Berglund, SSTI

Trends in Economic Development:
Their Impact on the MEP System

Presentation by:

Dan Berglund

September 14, 2016

Overview

- Economic Environment

  - Unstagnating wages?

  - Income inequality

  - Economic anxiety

  - Manufacturing's importance in the economy

- Manufacturing's hot– for now

- State environment

- What state leaders are saying

- Opportunities/challenges for manufacturing

- MEP position

Unstagnating wages?

- The median household income was $56,500 in 2015, up from $53,700 in 2014, but still down from $57,724 in 2000.

  - Marks the first increase in median income since 2007, the year before the Great Recession started

- 30-year-olds today make around the same as 30-year-olds in 1984, according to Center for American Progress report

  - Even though they are 50 percent more likely to have finished college and economy is 70 percent more productive.

Income inequality

Middle-income Americans are no longer in the majority ...

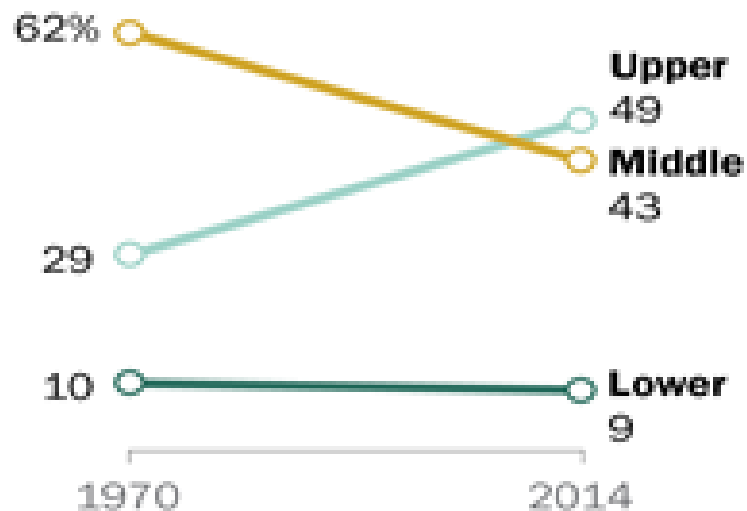Adult population by income tier (millions)
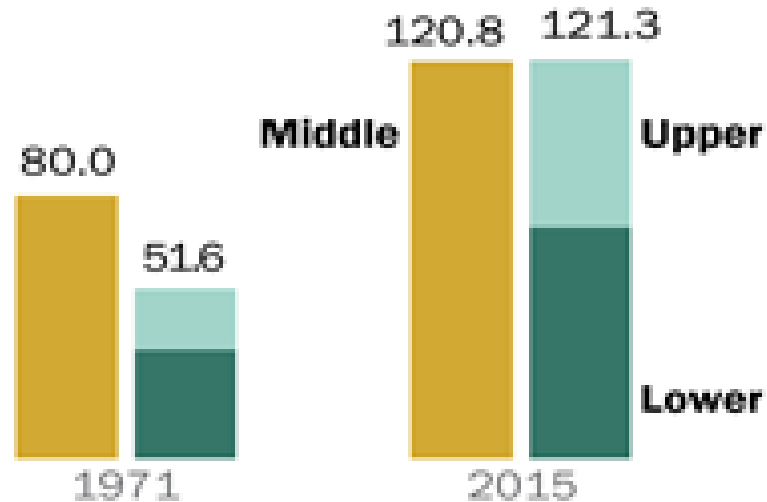
Income inequality

... and share of aggregate income held by middle-income households has plunged

% of U.S. aggregate household income

62% — Upper 49
29 — Middle 43
10 — Lower 9

1970   2014

US Econ Confidence Index

U.S. Economic Confidence Index -- Weekly Averages Since January 2015

Latest results for week ending Sept. 11, 2016

Gallup U.S. Daily tracking

GALLUP

Anxiety

- Percentage of Americans losing sleep over their financial situation

    - 32% in May 2016

    - 28% in Sept 2015

Manufacturing's importance

- Employs approximately 12.3 million people

- Helped lead the economic recovery and out of the Great Recession

- Average wages of nearly $65,000

  - 21% higher than the average for all industries

- 33% of manufacturing jobs held by minority workers

- Accounts for 18% of employment in rural areas vs. 8% of metro employment

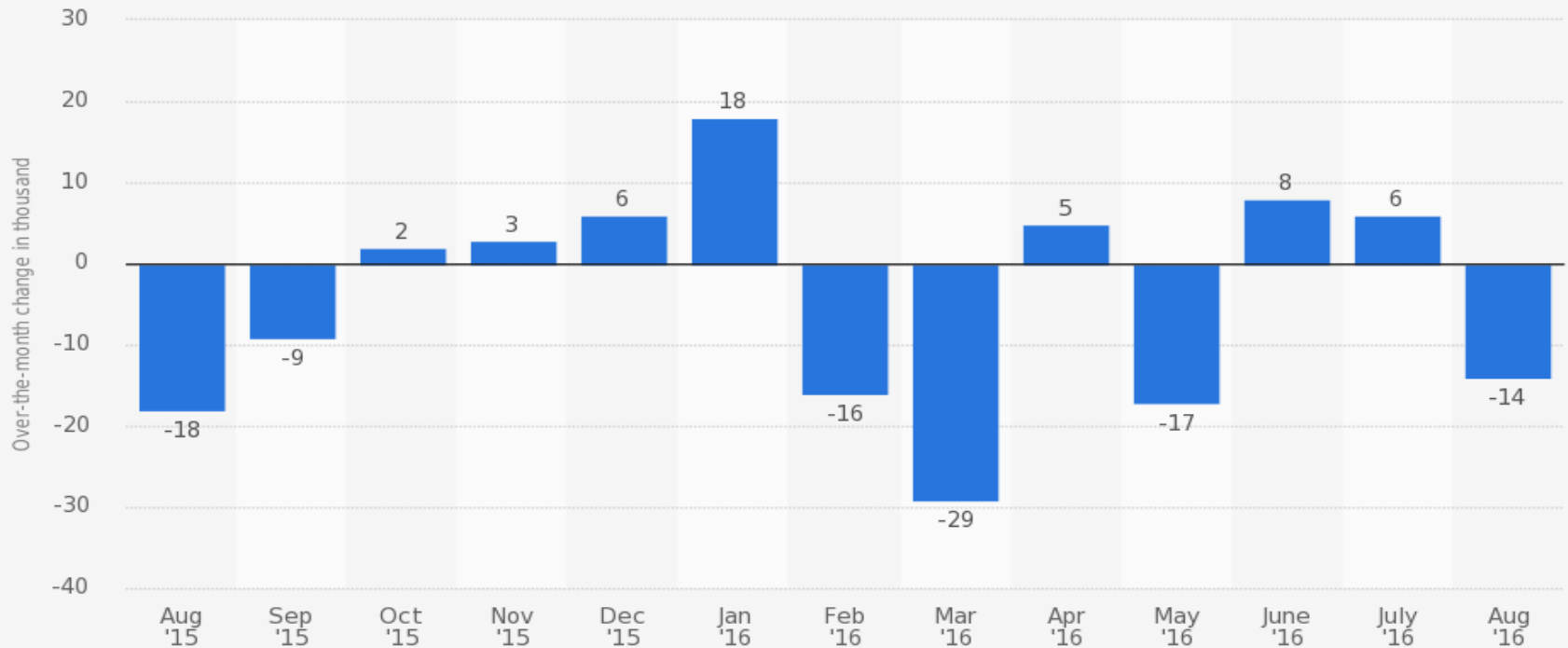- More than 75% of private sector R&D performed by manufacturers

US Manufacturing Employment, Indexed to 2001

Percent of 2001 manufacturing employment
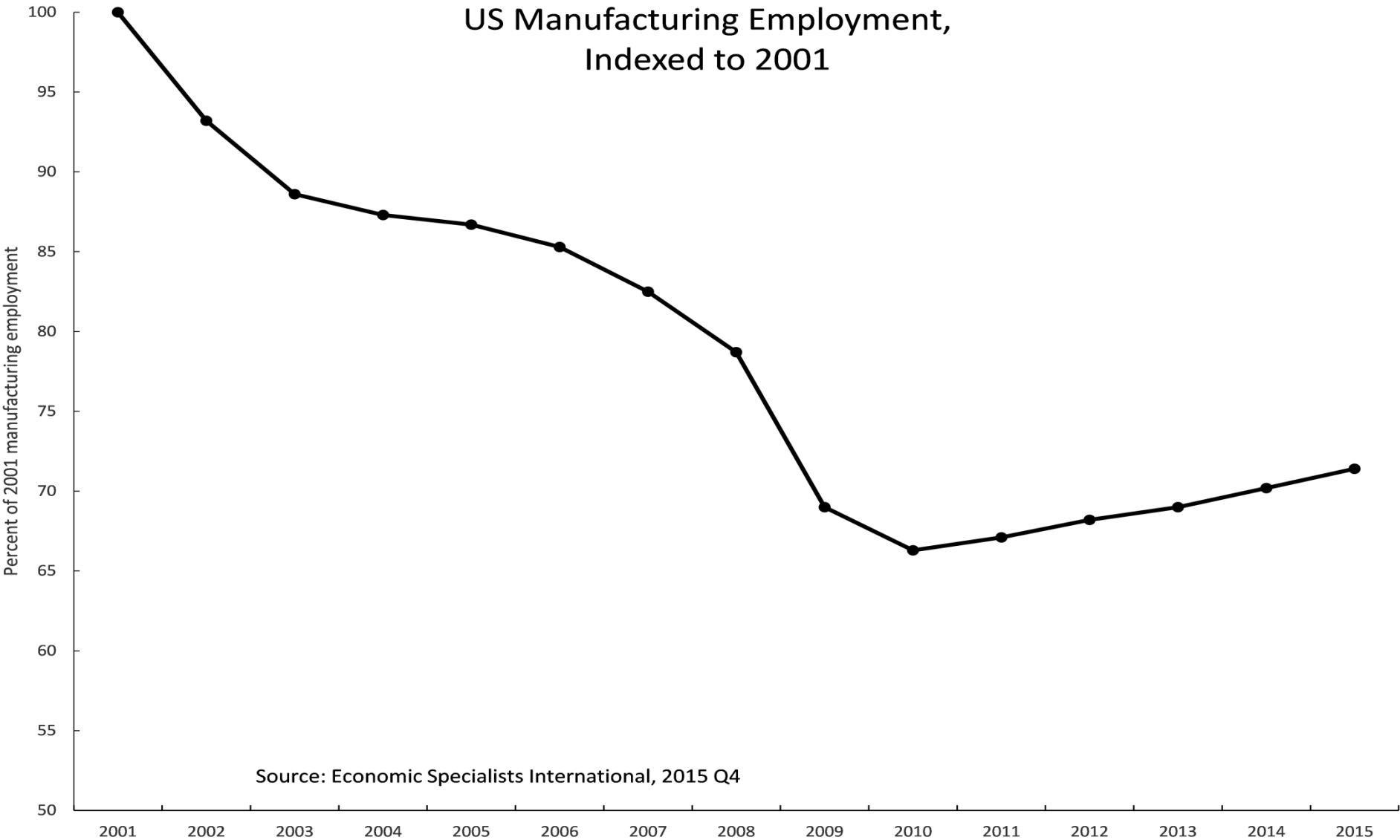
Source: Economic Specialists International, 2015 Q4

Manufacturing employment slows

Monthly change in the manufacturing sector employment in the United States from August 2015 to August 2016 (in 1,000)

Over-the-month change in thousand

Month	Value
Aug '15	-18
Sep '15	-9
Oct '15	2
Nov '15	3
Dec '15	6
Jan '16	18
Feb '16	-16
Mar '16	-29
Apr '16	5
May '16	-17
June '16	8
July '16	6
Aug '16	-14

statista

Mfg a popular policy prescription

- Above average wages that help support middle class

- Can be an economic pathway for those not going to college

- It's creating jobs

- However…

  - State economic development policy goes in cycles

  - Down cycle for manufacturing likely to occur when/if:

    - Next big thing presents itself

    - Something else solves the first three bullet points

    - Major job losses occur in manufacturing

Focus group

- Innovation– 65% positive; 3% negative

  Necessary

  Creative

  Technology

  Research

  Creativity

  Progress

  New

  Advancement

  Growth

Focus group

- Entrepreneurship– 49% positive; 20% negative

  Money

  Own boss

  Risk takers

  Brave

  Owning own company

  Freedom

  Risky

  New companies

Focus group

- Technology– 40% positive; 15% negative

    Electronics

    Internet

    Computers

    New ideas

    Money

    Software

    Improving life

    Progress

Focus group

- Manufacturing– 23% positive; 33% negative

  China

  Waning

  Hard work

  Lay-offs

  Foreign

  Overseas

  Pollution

  Blue collar

Perception problems

- Only 37% of parents would "encourage my child to pursue a career in manufacturing," according to Deloitte and The Mfg Institute

- 66% cited worries about job security and stability as concerns about mfg as career path

- For 19-33 year olds, manufacturing came in seventh of seven industries they would prefer to enter if they were beginning their career today

Gubernatorial Transitions

New governors 2016-2019

Term limited or not running

Created with mapchart.net ©
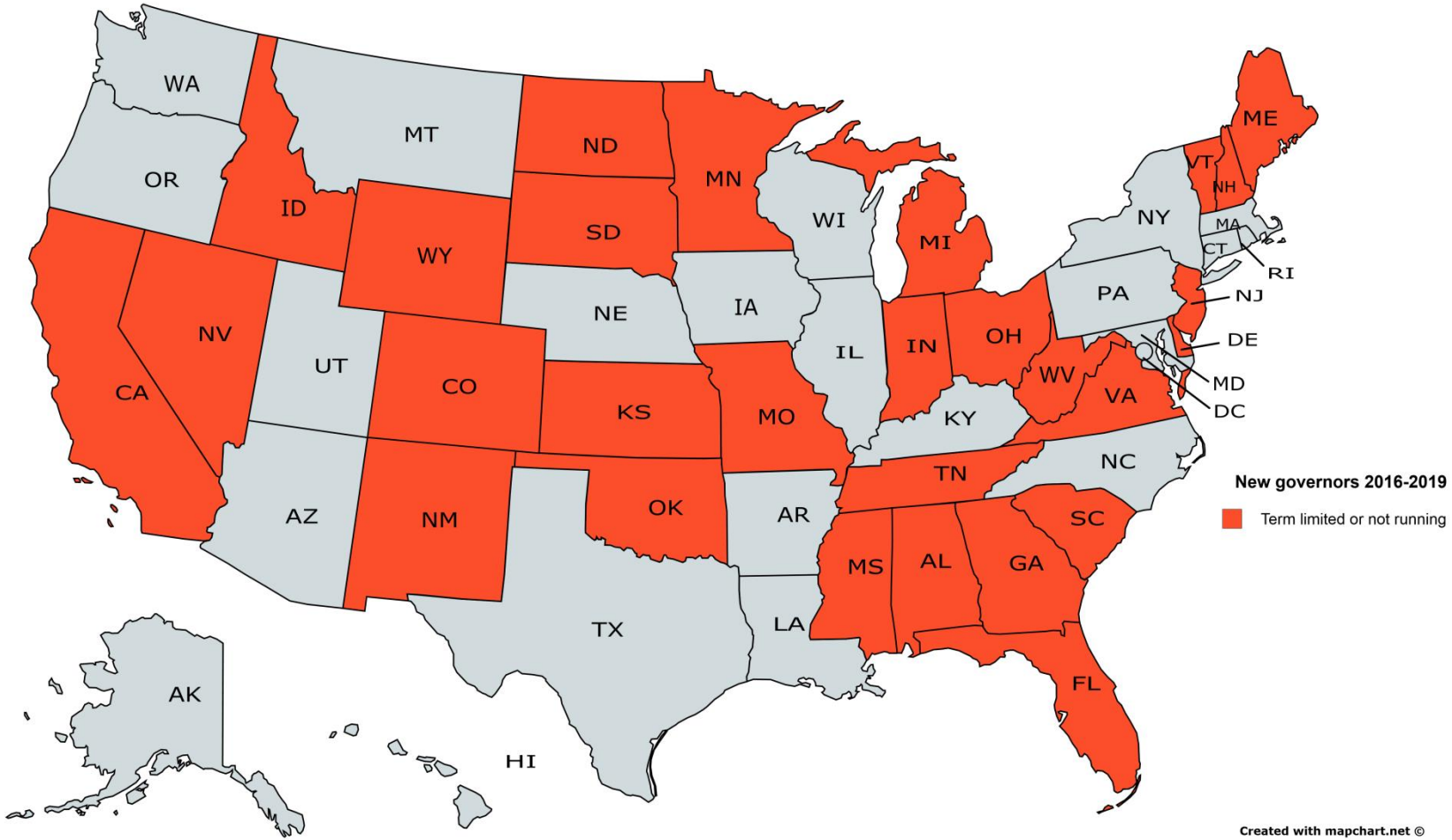
Preparing for transition/campaign

- Listen to what candidates are saying
  - What are their priorities?
  - How does your work fit those priorities?
- Clear articulation of work and the impact it is having (both data and anecdotally)
- Meet with candidates, policy advisors & their friends
- Allies meet with candidates, policy advisors & friends
- Recommendations for change/improvement
- Suggestions for people on transition teams & Admin

Preparing for transition/post-elect

- You or allies meet with policy advisors or transition teams set up for individual agencies

- Expect there will be new strategic plans/visions developed for economic development
  - Participate in the process
  - Provide information throughout the process

- Different people throughout the process
  - Campaign staff
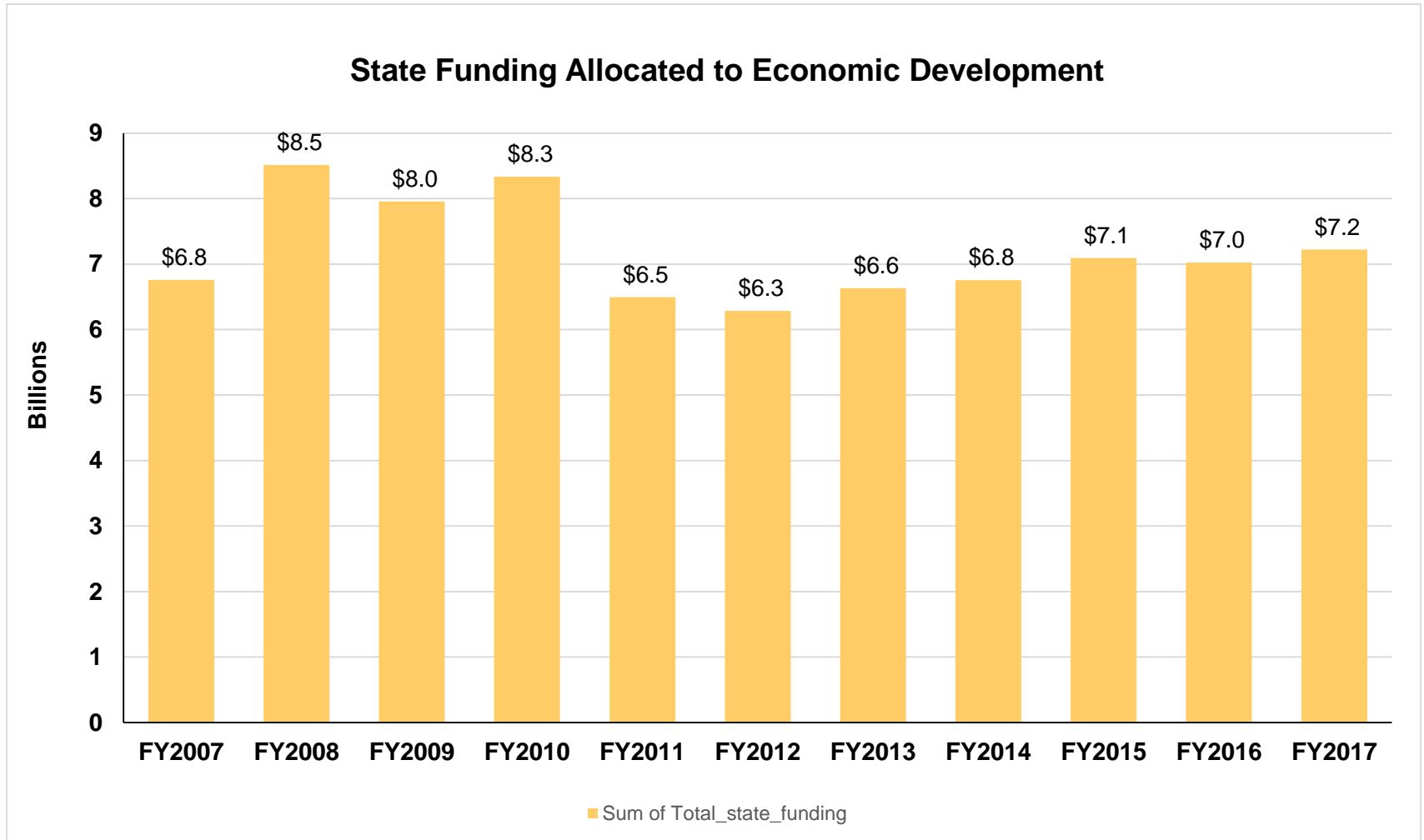 - Transition team
  - First year appointments

State budget problems

- State general revenue funds finally surpassed FY2008 levels, but…

- 29 states are still below the 2008 levels

- Could indicate that NASBO projection of 2.5% increase in spending for FY2017 overly optimistic

- States cutting spending midyear per NASBO:

  - 2014– 8
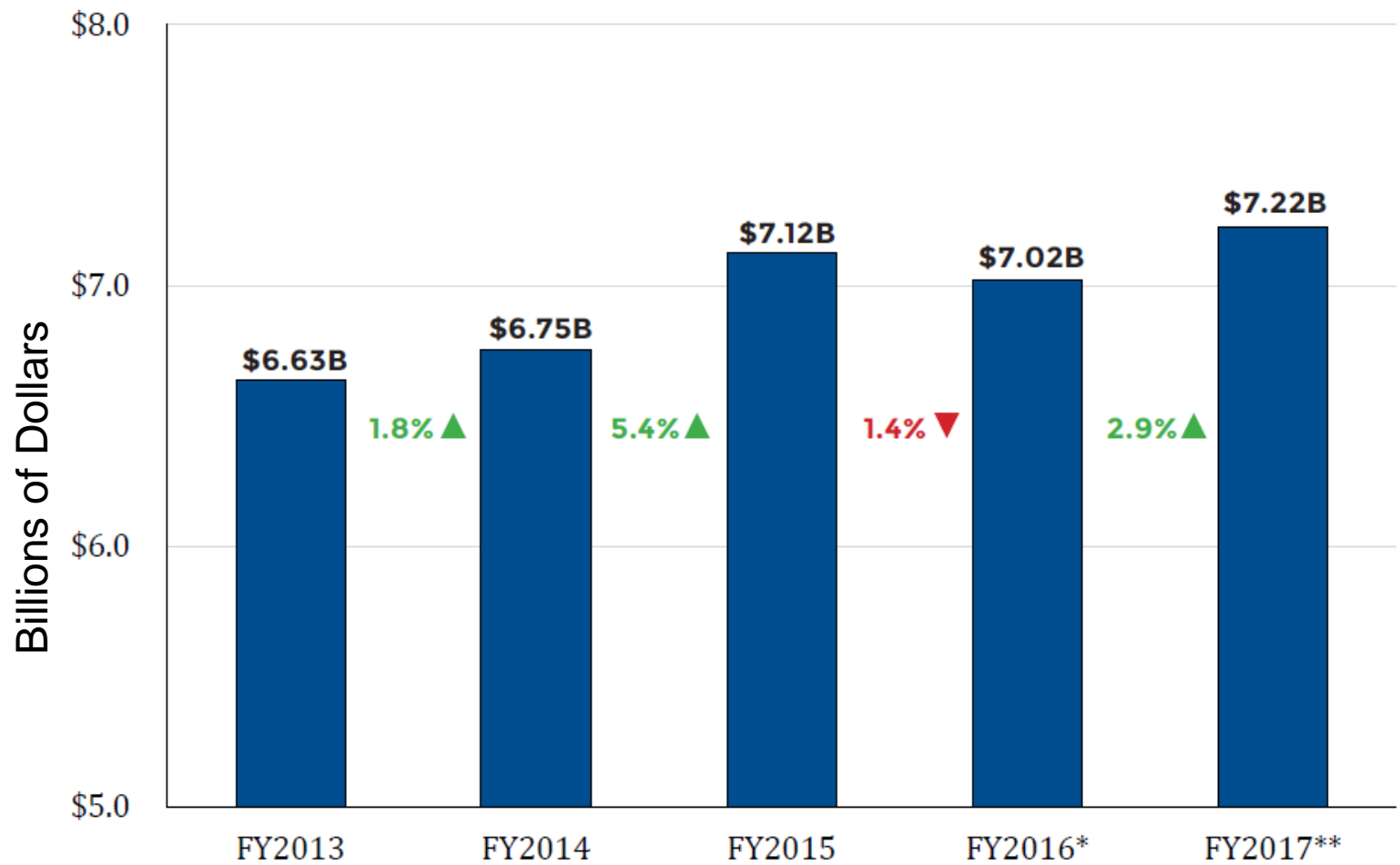
  - 2015– 14

  - 2016-- 18

State Funding for Econ Dev

State Funding Allocated to Economic Development

Total State Expenditures by Fiscal Year (2013-2017)

Billions of Dollars

$8.0

$7.0

$6.0

$5.0

$6.63B $6.75B $7.12B $7.02B $7.22B

1.8% ▲   5.4% ▲   1.4% ▼   2.9% ▲

FY2013   FY2014   FY2015   FY2016*   FY2017**

* Appropriated ** Proposed

Transparency

- Top commercialization exec of Texas cancer institute indicted for unethical grant to pharma company– ABC News

- Conflicts of interest pervasive on California stem cell board—LA Times

- Texas Governor's Startup Fund is Not All It Seems—Associated Press

Transparency

- Examination of tax incentives

  - ME– legislature considering a regular six year evaluation program proposed for all tax-oriented economic development policies

  - MA– Legislation to allow state auditor access to business tax returns for the purpose of auditing tax expenditures

  - NJ– legislation introduced to require a regular review of corporate tax incentives' effectiveness

  - OK– Speaker of the House,"It's time to being making those decisions [tax credits, incentives and exemptions] based on reliable evidence and which incentives have the greatest immediate and long-term results."
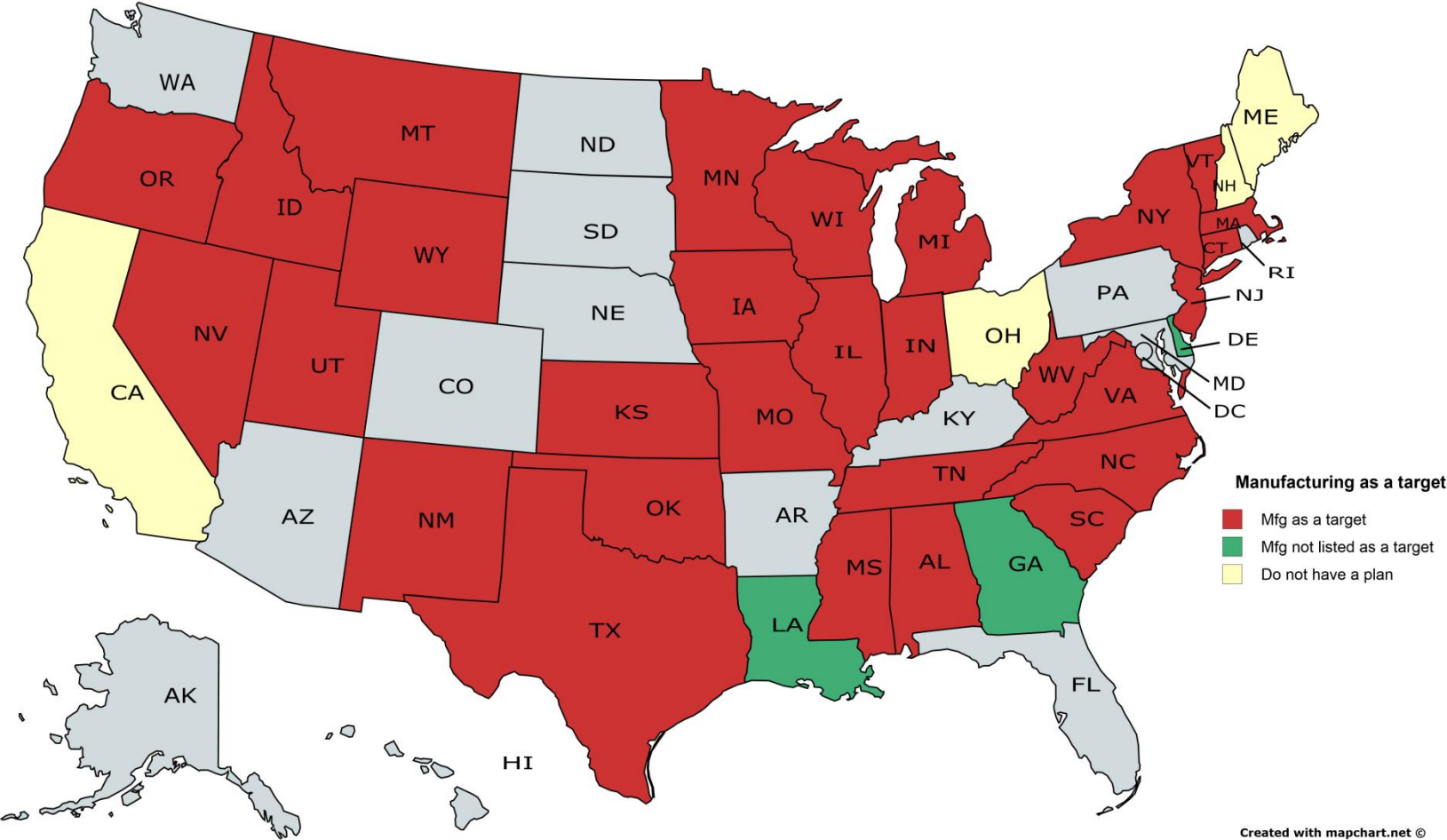
State line items for MEP centers

- Direct line items in:
  - AL, AR, CT, FL, ID, IL, MA, MT, NY, SC, VT, VA
  - Line items added in recent years in:
    - FL and IL
  - Line items eliminated in recent years in:
    - KS, PA and WV
  - Line item threatened this year but retained:
    - CT

Mfg as a target for states

Manufacturing as a target
- Mfg as a target
- Mfg not listed as a target
- Do not have a plan

Created with mapchart.net ©

State Econ Dev Leaders

- June 2016 – Nashville, TN

- Economic Development Leaders Roundtable from 18 states

Challenges	Strategies
• Rapid changes in the manufacturing sector • Limited resource to provide financial assistance to existing manufacturers • Rising workforce challenge as manufacturers use outsourced workers (through staffing agencies) and utilize temp-to-hire practices	• Partnering with MEP staff to conduct business visits and serve as an early warning system • Tapping into funds available for proactive training through the WIOA • Advocating for adoption of more flexible definitions of "employee" and "new jobs" • Providing capital expenditure grants to existing companies • Educating legislatures on the multiplier effect of manufacturing

Challenges SSTI members cite

- Defining our narrative

- Measuring impacts

- Rural/urban divide

- Inclusion issues

Uncertainty on federal level

- Presidential race

- Movement on 1:1 matching

Opportunities/challengs for mfg

- Democratization of mfg w maker spaces

- Manufacturing USA

- Ongoing workforce challenges

- New technologies and translating their relevance to SMEs

Preparing for tech changes

- 14.3 percent of MEP clients in the MEP survey list technology needs as one of the top three challenges they face

- *2014 Georgia Manufacturer Survey*

  - 5.8 percent indicated they were using additive manufacturing

  - 3.8 percent reported that they planned to use it

Concerns about tech and jobs

- About 1 in 8 workers in April 2015 survey concerned that in the next five years their job could be replaced by technology

- Among workers making less than $30,000 per year, 25 percent concerned their job could be replaced by technology in the next five years

- One fifth of those with a high school degree or less are afraid of losing their job to a robot

State reactions to MEP

- Manufacturing a way to address income inequality and education pay differentials

- Policymakers better understanding of manufacturing but influenced by voters

- Desire for MEP to play a broader role in addressing manufacturing issues

- Match issues identified as an obstacle for MEP centers playing a bigger role

- Recompetition has provided a means of opening new dialogues and encouraging alignment w' state

MEP Position

- Opportunities to build on the foundation of MEP's success: doing good work for individual companies

  - Leveraging outreach to state/local stakeholders that was made as part of the recompetition

  - Remaking MEP's image as more than lean

  - Trusted credible results

  - Contact with small manufacturers

Contact Information

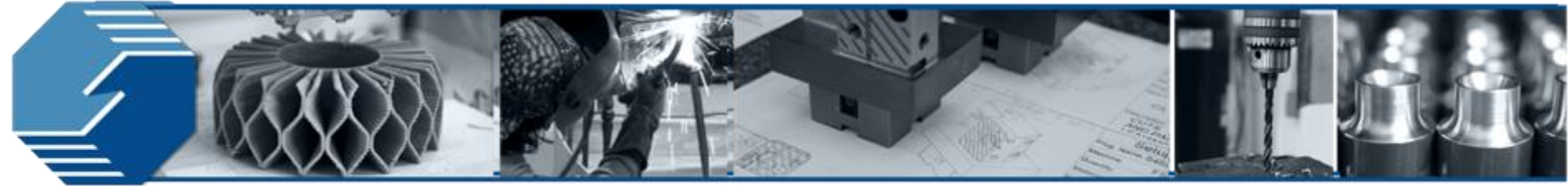**For more information, contact:**

Dan Berglund

614.901.1690

berglund@ssti.org

To sign up for *SSTI Weekly Digest* go to:

http://www.ssti.org

Morning Break

MAKING AN IMPACT ON U.S. MANUFACTURING

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

MEP Strategic Plan 2017-2022

Vickie Wessel, NIST MEP Advisory Board Chair

Dave Cranmer, NIST MEP

Agenda

- Review of Current Strategic Objectives

- Environmental Changes and Major Challenges

- Review of Accomplishments from 2012-16

- Review of progress since May

- Identify critical questions and process going forward

ENHANCE COMPETITIVENESS

Enhance the Economic Competitiveness of U.S. Manufacturers

STRATEGIC OBJECTIVES

– Deliver services that create value for all manufacturers, particularly focusing on small and mid-sized (SMMs)

– Enable Centers to make new manufacturing technology usable by U.S.-based SMMs

– Develop "Data as a Service" for competitive advantage

CHAMPION MANUFACTURING

Serve as a Voice to and a Voice for Manufacturers

STRATEGIC OBJECTIVES

– Champion the importance of SMMs and ensure their inclusion in the economic competitiveness policies and programs of the U.S. government

– Increase role of National and Center Boards

SUPPORT PARTNERSHIPS

Support National, State and Regional Manufacturing Eco-systems

STRATEGIC OBJECTIVES

– Provide Centers with local flexibility and adaptability to operate based on regional priorities and client needs

– Support national policy goals

DEVELOP CAPABILITIES

Develop MEP's Capabilities as a Learning Organization and High Performance System

STRATEGIC OBJECTIVES

– Promote System Learning

– Evolve MEP Performance System

– Continue administrative reforms

Environmental Changes

- New MEP senior management team
  - Director: Carroll Thomas (April 2015)
  - Deputy Director: Dave Cranmer (March 2016)
  - Executive Officer: Chancy Lyford (November 2016)
  - Center Operations Director: Margy Phillips
  - Chief Economist: Ken Voytek
- MEP senior management elsewhere
  - Systems Operations: Mike Simpson to AMNPO (Dave Cranmer, Acting)
  - Partnership and Program Development: Mark Troppe to Senator Coons' office (Dave Stieren, Acting)
  - Communications: Kari Reidy to NIST OCLA (Zara Brunner, Acting)

Environmental Changes (2)

- Completion of re-competition
  - Three of four rounds complete
  - Fourth round under way
- Reallocation of funds to the centers with temporary cost share relief
  - Center funding formula
  - All Centers raised to a minimum level
  - Cost share re-set at 1:1 for the 1st 3 years of new awards

Environmental Changes (3)

- Very high level of engagement by this Board
  - Tech Acceleration
  - Board Governance
  - Learning Organization

Major Challenges Ahead

- Not in our control
    - New Administration
    - Legislation on cost share
    - Funding to provide consistent resizing of the Centers
    - Board turnover
- In our control
    - Branding – messaging about the network for manufacturers and funders
    - Implementation of new performance metrics system

Questions from the Board

- Review of strategic accomplishments

- What has been communicated to the Centers about the strategy?

- Is the strategy reflected in the re-competition proposals?

- What are common sense revisions to the strategy?

Responses to the Board's Questions

- Strategic accomplishments
  - Review today

- Communication to Centers
  - Engage with the Foundation for Manufacturing Excellence to communicate status

- Strategy reflected in re-compete proposals
  - Have MEP staff re-examine strategic plans in the re-competition proposals

- Common sense revisions
  - Addressed later today

Other Questions that Have Arisen

- Engagement with Rural firms
- Engagement with Very Small firms
- Engagement with the States

Other Questions that Have Arisen

- Engagement with Rural firms

- Engagement with Very Small firms

- Engagement with the States

Responses to Other Questions

- ## Start-ups, Rural and Very Small
  - SURVS work group in place
  - Mining of survey data on rural and very small to look at history and trends
- ## State Engagement
  - Engage SSTI to look at the status of current engagement and recommend best practices

Selected NIST MEP Activities and Accomplishments 2012-16

Enhance Competitiveness

STRATEGIC OBJECTIVES	2012-16 ACTIVITIES
Deliver services that create value for all manufacturers, particularly focusing on SMEs	Small, rural, emergent, underserved clients are emphasized in the re-competition FFOs. System-wide deployment of ExporTech, Technology Scouting and Technology-driven Market Intelligence
Enable centers to make new manufacturing technology, techniques and processes usable by SMEs	Developed and are deploying seminar series/training that educates both manufacturers and MEP centers on various emerging technologies and industries • Additive (with CMTC/UC-Irvine) • Digital (with DMDII) Embedding MEP Centers in NNMI Institutes
Develop "Data as a Service" for competitive advantage	Cohort analysis Manufacturing App

Champion Manufacturing

STRATEGIC OBJECTIVES	2012-16 ACTIVITIES
Advocate for Importance and inclusion of SMEs into economic competitiveness policies and programs of the U.S. government	Manufacturing Day success!! Branding project begun May 2016 with goal to launch co-created brand for network in conjunction with National Summit Supply chain (e.g., M-TAC)
Increase role of national and center boards	With guidance and support from the Board • Initiated quarterly communication from the Advisory Board to local Boards • At least one Advisory Board meeting/year includes local boards • NIST MEP developed and is implementing uniform processes and controls for ensuring composition, engagement and accountability of Centers' Boards of Directors Local Board sign-off on applications in re-compete

Support Partnerships

STRATEGIC OBJECTIVES	2012-16 ACTIVITIES
Provide centers with local flexibility and adaptability to operate based on regional priorities and client needs	Re-competition allowed awardees to increase the quality and number of partners participating in their regions Multiple interagency activities and programs – i6, AMJIAC, MIIA, IMCP – encouraged the development of new and improved partnerships at the local and regional level
Support national policy goals	Participation in multiple White House initiatives re: Makers, Manufacturing Day, etc. DOD and DOE see value via NNMI Institutes • MOUs set the framework for collaborations • Embedding MEP Center personnel in the Institutes will define the specifics of each Institute's collaborations • DMDII pilot demonstrating how Centers and an Institute can work together across regions CNMI and similar eco-system building efforts leading to broad regional partnerships around technologies or industries

Develop Capabilities

STRATEGIC OBJECTIVES	2012-16 ACTIVITIES
Promote system learning	First National Summit since 2012 planned for 2017 Regular update meetings Regular Board communications
Evolve MEP performance system	New performance management policy articulated in May 2016. New system-wide performance metrics defined. Being deployed Apr 2017
Continue administrative reforms	New senior management team in place with internal reorganization to better support Centers to take effect 2 Oct Three of four rounds of re-competition are complete. Fourth round underway with expected start dates of 1 Apr 2017. Many administrative processes reviewed and simplified, e.g., five-year cooperative agreements, reduced reporting requirements Completed financial risk management pilot for Centers and NIST in 2016. Plan for rest of Centers in place for 2017-18.

NIST MEP Objectives
Going Forward 2017-22

ENHANCE COMPETITIVENESS

Enhance the Economic Competitiveness of U.S. Manufacturers

STRATEGIC OBJECTIVES

– Deliver services that create value for all manufacturers, particularly focusing on small and mid-sized (SMMs)

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Serve as a Voice to and a Voice for Manufacturers

STRATEGIC OBJECTIVES

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

SUPPORT PARTNERSHIPS

Support National, State and Regional Manufacturing Eco-systems

STRATEGIC OBJECTIVES

– Provide Centers with local flexibility and adaptability to operate based on regional priorities and client needs

– Support national policy goals

DEVELOP CAPABILITIES

Develop MEP's Capabilities as a Learning Organization and High Performance System

STRATEGIC OBJECTIVES

– Promote System Learning

– Evolve MEP Performance System

– Continue administrative reforms

Strategic Plan – Next Steps

Strategic Plan Activities through January

- Re-engagement with Centers

- Review and compare re-compete proposals for Center strategies with current strategic objectives

- Regional calls with local boards

- Re-engage with Center workgroup

- Re-engage with MEP Staff

January

Draft Implementation Plan

February-March

Revise Implementation Plan

March-April

Final Implementation Plan

2017-2022

Execute Plan

January

Review by Center Workgroup

Review/Discussion of Implementation Plan with Advisory Board

April-May

Review/Discussion with Centers at System Meeting

May

Endorsement by Advisory Board

Implementation Plan - Structure

GOAL

Strategic Objective

Desired Future State

Strategic Activities

Indicators of Success

Action Plans
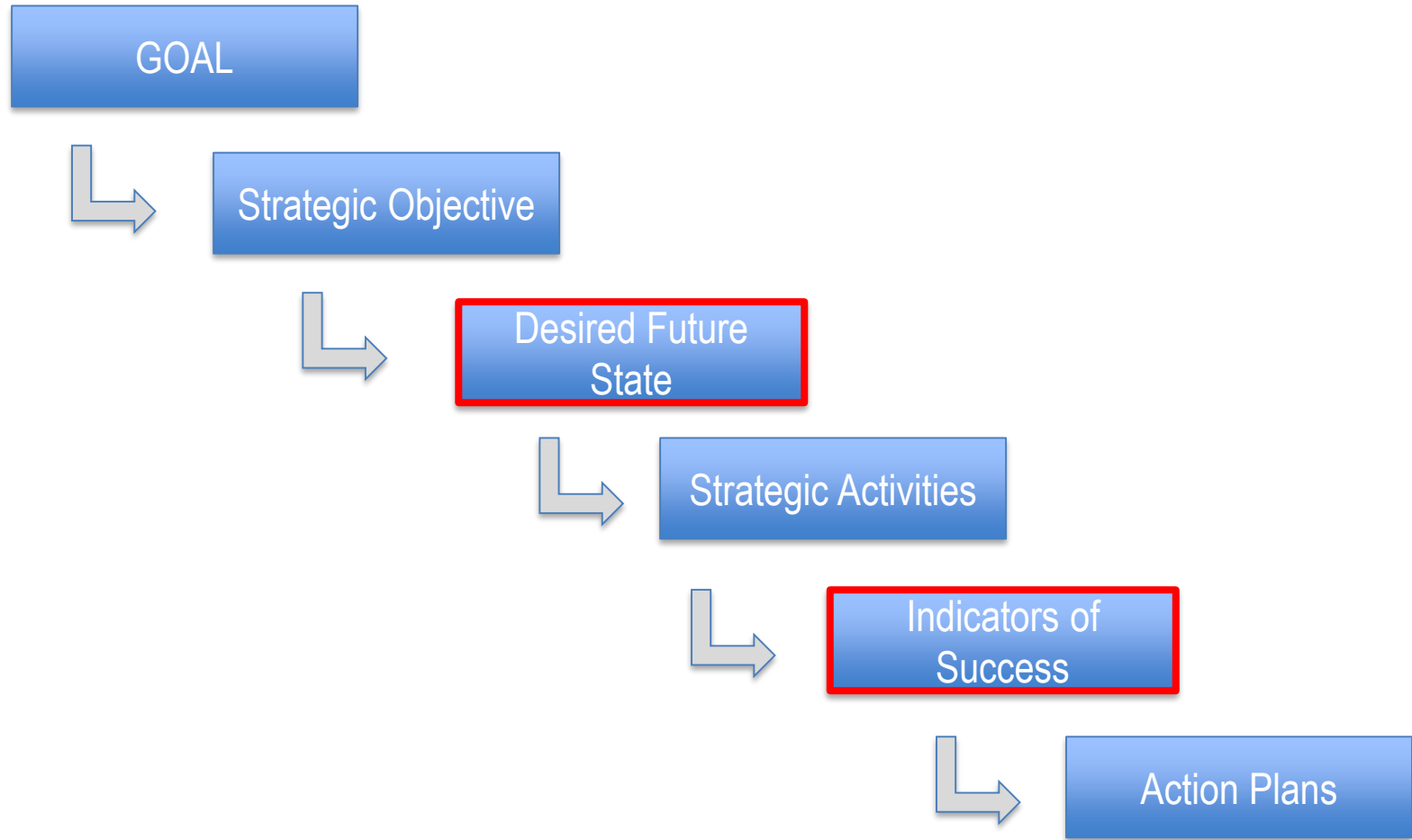
Strategic Objectives Questions

- Are these the right objectives, given the environment and challenges?
  - Have we included objectives that shouldn't be here?
  - Have we missed anything that should be here?
- Is this process adequate?
  - For collecting the needed input?
  - For developing the implementation plan?
- What are common sense revisions, given the environment and challenges?

Board Discussion

MAKING AN IMPACT ON U.S. MANUFACTURING

Promoting, Managing and Tracking Connections between SMMs and NIST Labs through MEP Centers

Jeff Wilcox, NIST MEP Advisory Board Vice Chair

Clara Asmail, NIST MEP

MEP Advisory Board on Technology Acceleration Implementation Plan

Recommendation on Setting Priorities:

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.

Connections are underway with NNMI Institutes and DOE Labs

- NIST MEP is funding the embedding of MEP Center staff at 5 NNMI Institutes to facilitate the transition of their technological innovations and workforce tools to SMMs

- Already collaborating with DOE Labs to raise awareness among MEP Centers in CO, OH, VA, GA and MI of their expertise, capabilities and importantly: "how" to work with them

- Collaborating with National Security Campus to develop database of engineer retirees for matchmaking with MEP-SMM projects

- Partnering with DOE Small Business Voucher Program to provide MEP assistance to SMMs during proposal preparation, and to voucher winners with commercialization support

Manufacturing Extension Partnership (MEP)
Strategic Pillars, 2014-2017

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 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.

ENHANCE COMPETITIVENESS

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

Connect NIST Laboratory support
in measurement science, standards and technology
to SMMs when and where appropriate
→ in order to enhance their competitiveness
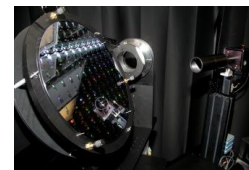
SUPPORT PARTNERSHIPS

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

Connect MEP Centers with NIST Laboratories
to bring their expertise to SMMs and the voice
of SMMs to the NIST R&D programs
→ in order to build enduring partnerships

CNMI
California Network
for Manufacturing Innovation

CHiMaD

The Center for Hierarchical Materials and Design (CHiMaD) is NIST's Advanced Materials Center of Excellence

nSoft
A consortium for the advancement of neutron-based measurements for manufacturing of soft materials.

CREME
Concrete **R**heology: **E**nabling **ME**trology

Polymer Surface/Interface (PSI) Consortium

DEVELOP CAPABILITIES

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

Connect MEP Centers with NIST's
world-class measurement science, standards and
technology solutions
→ in order to build a learning, high-performing organization

Responsive Connections
SMM or Center originates connection to NIST Lab

Inquiries from Centers on behalf of SMM clients for NIST Lab support/consultation

MEP identifies an SMM's measurement support need

NIST

Inquiries from SMMs direct to NIST/NIST MEP

In responding to an SMM's need, NIST Lab taps MEP complementary resources

NIST

NIST MEP staff will:

1. identify right NIST Lab resource(s),

2. follow-up on project,

3. involve Center staff for learning and complementary support.
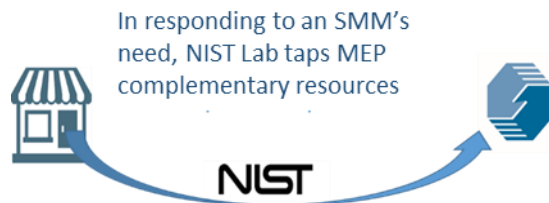
Proactive Connections
NIST Lab or NIST MEP originates connection to SMM or Center

Outreach from NIST Labs through Centers to SMMs

NIST Lab leverages MEP network to communicate its R&D to SMMs

NIST

Outreach from NIST Labs with SMMs to Centers

NIST Lab collaboration with an SMM extends to include the local MEP Center

NIST

NIST MEP staff will:

1. identify NIST Lab research "right and ready" for transfer to SMMs or in need of SMM input/testing,

or

2. identify NIST Lab collaborations with SMMs that may benefit from MEP support,

and then work with willing Centers

NIST Lab – MEP Connector Protocol

SMM

NIST
Laboratory Programs,
Offices, Centers and
User Facilities

Lab Liaison

MEP Center staff
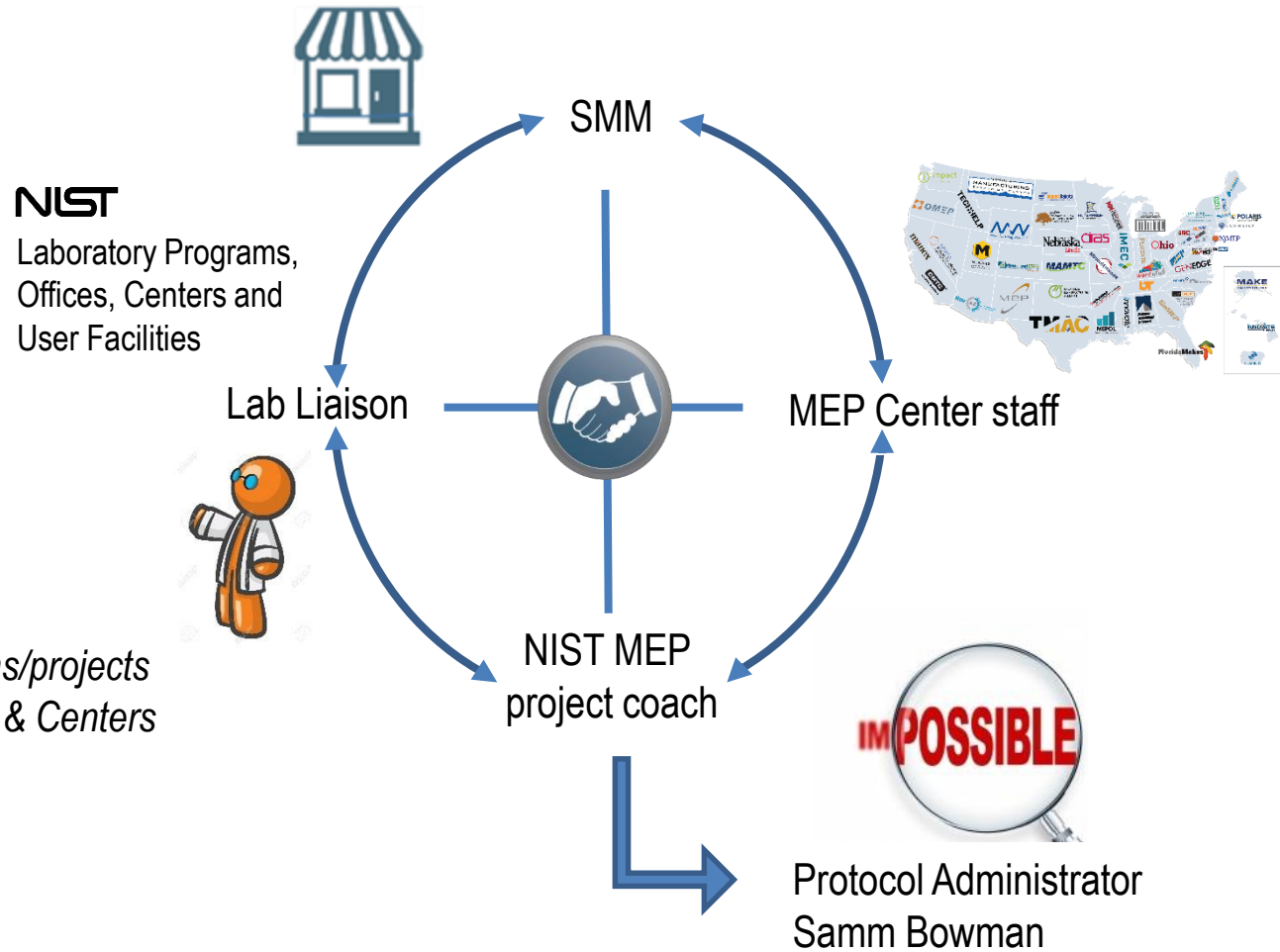
Tracking:
Number of connections
Outcomes from connections/projects
Breadth across NIST Labs & Centers
Process effectiveness

NIST MEP
project coach

Protocol Administrator
Samm Bowman

NIST Lab – MEP Connector Protocol

Promotion

NIST MEP in-reach to Labs through Liaisons at each OU

NIST MEP communications to: Centers, partners, public

Project Management

Responsive: Identify & actively track inquiries from public, through Centers for NIST Lab support in metrology, etc. until completed and track outcomes

Proactive: Identify Lab programs, "*MEP-ready NIST technologies*" ~right/ready for SMM adoption,

manage appropriate outreach through Centers to SMMs;

track resulting projects for outcomes

Connections Tracking Database

Capture projects from all scenarios in one system that will allow:

- Project management from initiation to satisfactory completion

- Analysis of outcomes from outreach "campaigns" to allow:

  - Redesign of outreach and project management

Challenges

- Connector program evaluation may not be sourced from impacts from MEP projects because difficult to attribute to connection to Lab vs other MEP services

- PR for some successful projects may be impeded by Center-client confidentiality

- Collectively learn to identify opportunities with SMMs that could be addressed with NIST Lab resources, i.e., what is a "project?"

SMM Connector

Sampling of pre-existing Connections made between NIST Labs and MEP, through Centers to SMMs

"vignettes"

SMM – NIST Lab & MEP - 3rd Party - Center

Topic: Cyber-physical security: 3D Printing anti-counterfeiting
Company: Sharon Flank, InfraTrac
NIST Contact: Celia Paulsen, ITL Computer Security Division

Project Background: Company and NIST Lab corresponded regarding vision for embedding chemical "fingerprint" layers for anti-counterfeiting additively manufactured parts. Company came to NIST Vendor Day and learned about MEP.
Follow-up work: NIST MEP introduced company to funding/technical support opportunity with Penn State and America Makes which resulted in award to further their concept. MEP Center is currently exploring ways to assist company in commercialization of outcomes from the research project.

Center - SMM – NIST MEP – NIST Lab

Topic: Colorado Metal Additive Manufacturing project
Company: Heidi Hostetter, Faustson Tool
NIST Contact: Alkan Donmez, EL Intelligent Systems Division

The Colorado 3D Metal Additive Center, including the CO MEP Center and several other Colorado industry partners, will be focused on understanding the characteristics and performance of 3D-printed advanced metal alloys used in advanced manufacturing industries. The group will build specified test parts at Lockheed Martin and Faustson Tool, analyze the characteristics of those parts at a microscopic level at the Colorado School of Mines, and analyze the impact of the various manufacturing processes and conditions used to create the parts. They are collaborating with NIST ISD to harmonize on data structures and build parameter characterization.

NIST Lab - NIST MEP – Center - SMMs

Topic: Collaborative Robotics and Flexible Automation Workshop
Company: Various from the mid-atlantic region
NIST Lab Contact: Elena Messina, EL Intelligent Systems Division

Project Background: EL and NIST MEP partnered on October 7, 2015 to conduct the *Collaborative Robotics Workshop 2015: Advantages and Challenges for Small Manufacturers.* This workshop was attended by 12 representatives from 9 MEP Centers and 28 representatives of manufacturing companies and systems integrators located in seven states, including MD, NY, OH, PA, TX, VA, and WV. A final public report with key findings and recommendations is being finalized.

SMM – Center -NIST MEP - Lab

Topic: Calibration of UVC Sensors
Company: Jay Silverman, Solar Light Company, Inc.
NIST Lab Contact: Tom Lucatorto, PML Sensor Science Division

Project Background: MEP Center, DVIRC, identified a client's need for calibration service and requested a referral from NIST MEP for an appropriate contact within the NIST Labs.

Connector Protocol Rollout Plan (1/4)

✓ Develop **draft** Connector Protocol processes

✓ Develop draft Connector Protocol Projects Database

• Communicate vision and strategy internally within NIST MEP and refine as necessary (Roundtable, QIM) and among Lab Management

• Stressing that success of this protocol depends on each NIST MEP "coach" of projects to actively check-in on connections for viability, reinforcements needed, outcomes, etc.

• Samm Bowman to be Administrator of Connector Database

Connector Protocol Rollout Plan (2/4)
Infrastructure Building (near to mid-term)

- Communicate strategy to key stakeholders

    - NIST OU Directors

    - Center Directors

- Identify OU Liaisons and obtain commitments

- Collaborate with Comm Team to build out an MEP webpage, and place a link to this webpage from "How to Work with NIST" pages

- Develop 'vignettes' of pre-existing Connections for in-reach to OUs and out-reach to Centers

- Provide OU Liaisons with project vignettes and begin steps toward identifying early inventory of Lab projects that are right/ready: *"MEP-ready NIST technologies"*

Connector Protocol Rollout Plan (3/4)
Ongoing:

- Work with NIST Labs to:

  - identify legacy/current Lab-SMM collaboration projects that could benefit from MEP Center support, and

  - identify potential technical program areas within NIST as: *MEP-ready NIST technologies*

- Develop and disseminate through Centers *MEP-ready NIST technologies* in appropriate format(s), i.e. Technology Sheets, workshops, web collaboration portals, or other outreach efforts

- Maintain ongoing effort to reach out to Centers to promote Connections and encourage field staff to identify client projects that might benefit from NIST Lab partnering

  - Develop mechanism(s) to inform/update Centers on *MEP-ready NIST technologies* in ongoing, as-needed fashion

  - Regularly update MEP network on outcomes of Connections (to spark additional Center activity)

Connector Protocol Rollout Plan (4/4)
Continuous Improvement:

- Assess Center:

    – Engagement with SMMs that are NIST Lab partners

    – Facilitating SMM engagement with NIST Labs (tech transfer through collaboration, consumption of NIST advice, data, products, etc.) and complementary MEP services

    – Awareness building within their client base of NIST Lab

- As activities build, continuously track the various projects to monitor outcomes as well as to identify opportunities for new program development

- As Connection projects are identified and managed, NIST MEP staff will refine data types required for collection and analysis beyond the current draft database to make available as new activities result from promotion.
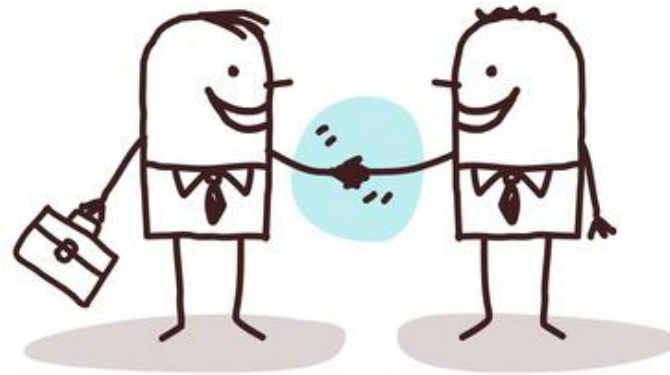
Qs re Connector?

Lunch Break

MAKING AN IMPACT ON U.S. MANUFACTURING

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

MEP Learning Organization

Carolyn Cason, NIST MEP Advisory Board *(Absent)*

Mary Paceli, NIST MEP

Agenda

- Activity plan and progress to date:

  – Survey

  – Analysis

- Survey review

  – Questions asked, who responded

  – Summary of data

  – Comments?

- What's next

  – Webinar-based Focus groups with Center Directors

  – Timeline

Charter: Advisory Board Committee on MEP Learning Organization

Purpose:

To provide Board guidance to shape the development of an integrated MEP Learning Organization.

Objectives: The Advisory Board Committee on Learning Organization will:

- Define the target audience
- Identify needs – needs analysis
- Develop the key components of a long term strategy to include:
  - MEPU-type system
  - Network Summits and Updates
  - Working Groups and Communities of Practice
  - Define Metrics
- Prioritize key activities
- Identify resource needs

Schedule:

• Launch Committee initiate first meeting	May 5, 2016
• Confirm Charter and present draft to Advisory board	May 19, 2016
• Survey	July-Aug 2016
• Survey Analysis	August 2016
• Focus group sessions	Oct. 2016

About Learning Organization

Establish a mind set in the network to contribute to the expansion of shared knowledge for the continuous improvement of centers in their service to clients

Learning Organization: Culture, system, Sharing of knowledge across the network

MEP Team Contacts:
- Mary Ann Pacelli   NIST MEP
- Jeff Lucas   NIST MEP
- Dileep Thatte   NIST MEP
- Megan Spangler   NIST MEP

Board Committee Members:
- Carolyn Cason, Chair
- Kathay Rennals
- Tommy Lee

Opportunities for Center Input:
- Survey
- Focus groups (via webinars)
- Center Leadership Team
- Action planning team -- TBD

Critical Issues:
- Center input to shape update meetings and National summit is critical
- To re-launch MEPU type system– will require outside resources. Need to consider timeline for inviting consultants

Learning Organization

- Who is it for?
  - Center Staff to develop skills and competencies to support their business models
    - Internal operations
    - Business Services – new services, refreshing current services
    - Center Staff development: recruitment, retention, succession planning

Advisory Board Committee MEP Learning Organization
Proposed Activity Timeline
Updated August 26, 2016

Plan
Actual

Task/Activity	July	Aug	Sept	Oct	Nov	Dec	Jan 2017
Survey out	July 5-15 **July 18-Aug 8**						
Survey Analysis	July 18-22	**August 10-19**					
Committee mtg to review analysis	July 25 week	**August 26**					
Focus group meetings RMs and Working Groups RMs to ask for CD rep from each region to center leadership team (CLT)		Aug. 1-19	Sept. 26-Oct 7				
Focus group analysis		Aug 22-26		Oct. 11-18			
Committee meeting		Aug 29 week		Oct. 21			
Draft Plan start			Sept 6-9	Oct. 25			
Present update to Advisory board			Sept 15				
Draft plan to Board Committee			Sept 19 week		Nov 7 week		
Plan input from CLT					Mid Nov		
Continue plan development				Oct	Nov	Early Dec	
Committee meeting—review plan draft				Mid Oct	Late Nov		
CLT meeting for review						Early Dec	
Final plan with prioritization						Dec	Early Jan
Present final plan to full Advisory Board							Jan board meeting

MEP Learning Organization Survey

Survey Methodology:

- Survey was distributed by FME via their email distribution
   1335 individuals on the list
   emailed 3 times: July 15, 22, 27
   also included in MEP weekly email July 25

- Email distribution is to Center Directors and other Center Staff that are FME members

- Total number of respondents was 42

- Cannot determine number of discrete center responses

MEP Learning Organization Survey

Respondents by Position

- Center Director   **33% response!**
- Growth Advisory/Sales
- Delivery Staff
- Combination; Sales/Delivery
- Center Operations

MEP • MANUFACTURING EXTENSION PARTNERSHIP
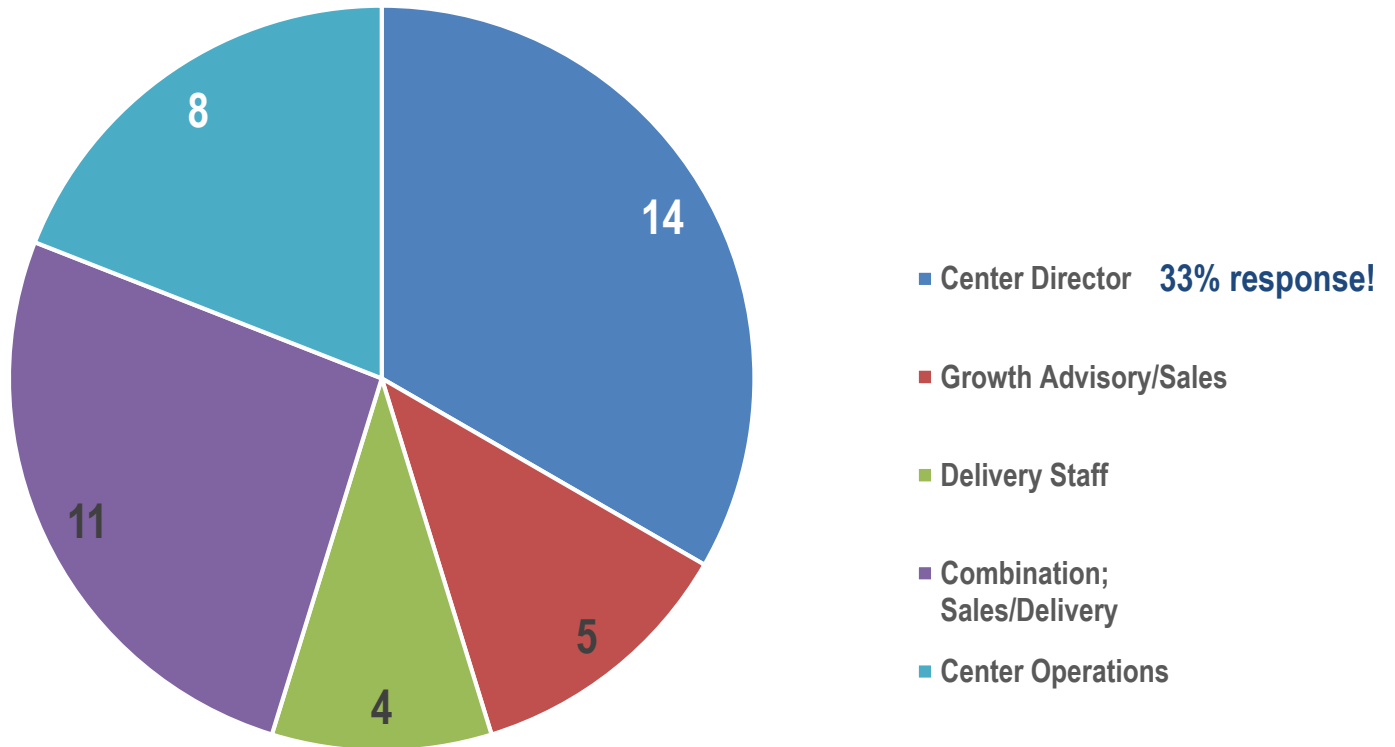
MEP Learning Organization Survey

Question 2: What development content would be most helpful to you? Select all that apply.
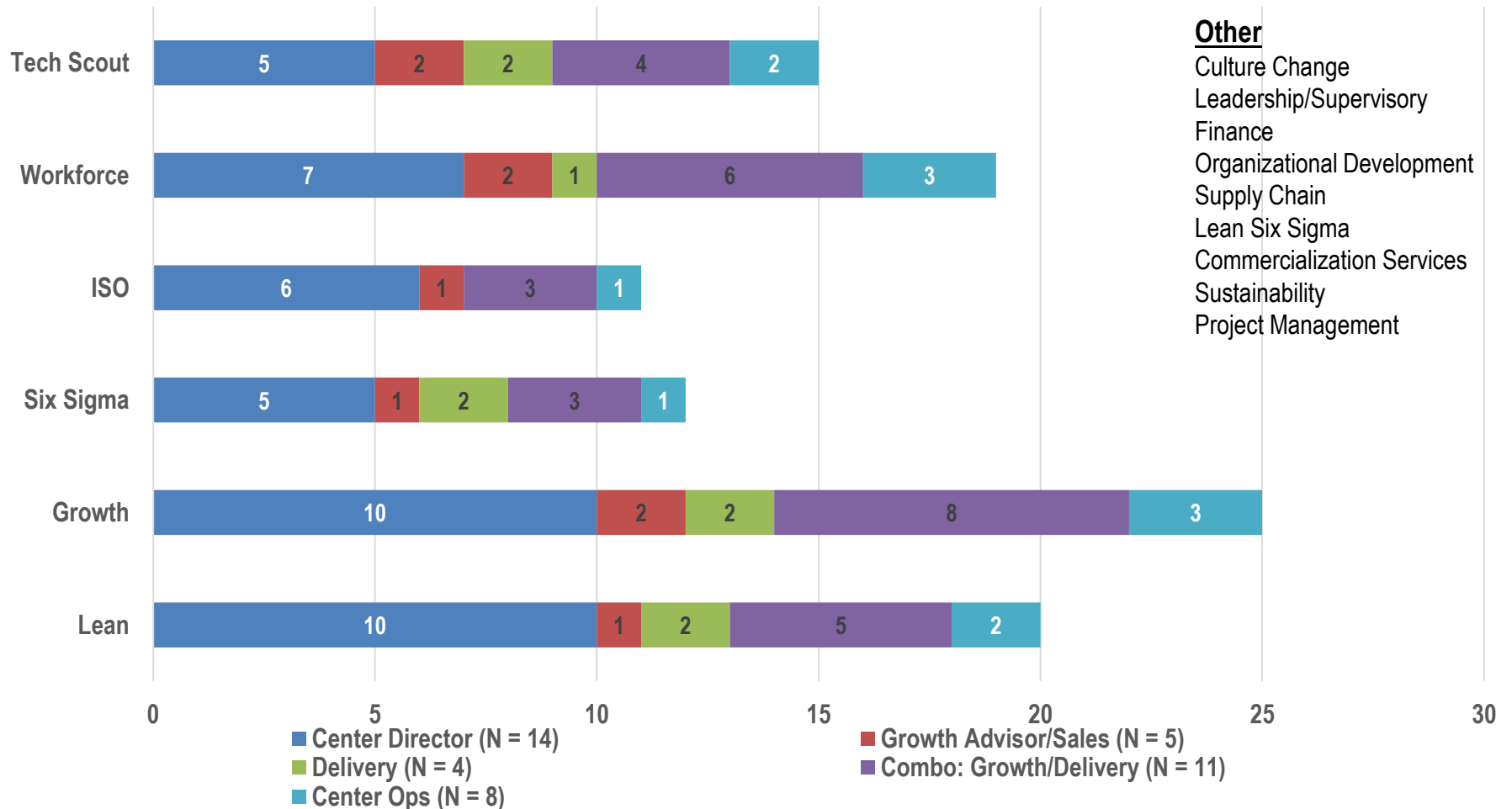
MEP Learning Organization Survey

Development Needs: Client Operational Excellence

Other
Culture Change
Leadership/Supervisory
Finance
Organizational Development
Supply Chain
Lean Six Sigma
Commercialization Services
Sustainability
Project Management

Legend:
- Center Director (N = 14)
- Growth Advisor/Sales (N = 5)
- Delivery (N = 4)
- Combo: Growth/Delivery (N = 11)
- Center Ops (N = 8)

Data values:
- Tech Scout: 5, 2, 2, 4, 2
- Workforce: 7, 2, 1, 6, 3
- ISO: 6, 1, 3, 1
- Six Sigma: 5, 1, 2, 3, 1
- Growth: 10, 2, 2, 8, 3
- Lean: 10, 1, 2, 5, 2

MEP Learning Organization Survey

Development Needs: Client Top Line Growth

Other
New Product Development
Product Design
Prototyping
Strategic Planning
Capital Markets
CoreValue
Evolving Mfg. Trends
Strategy
Innovation
Leadership Development

Chart data (horizontal stacked bars), categories by legend: Center Director (N = 14), Growth Advisor/Sales (N = 5), Delivery (N = 4), Combo: Growth/Delivery (N = 11), Center Ops (N = 8)

- Supply Chain: 4, 1, 1, 9, 1
- TDMI: 5, 2, 1, 4, 1
- Sales/Marketing: 6, 1, 2, 5, 3
- CEO Consulting: 8, 2, 1, 4, 1
- Export: 6, 1, 4, 1
- Market Diversification: 6, 2, 3, 7, 3

MEP Learning Organization Survey

Development Needs: Center Operations

Other
CRM
Content Mgmt Software
Project Mgt. Software
Financial systems
Inbound Marketing
Interaction with gov.t partners
Impact maximization
Contract management
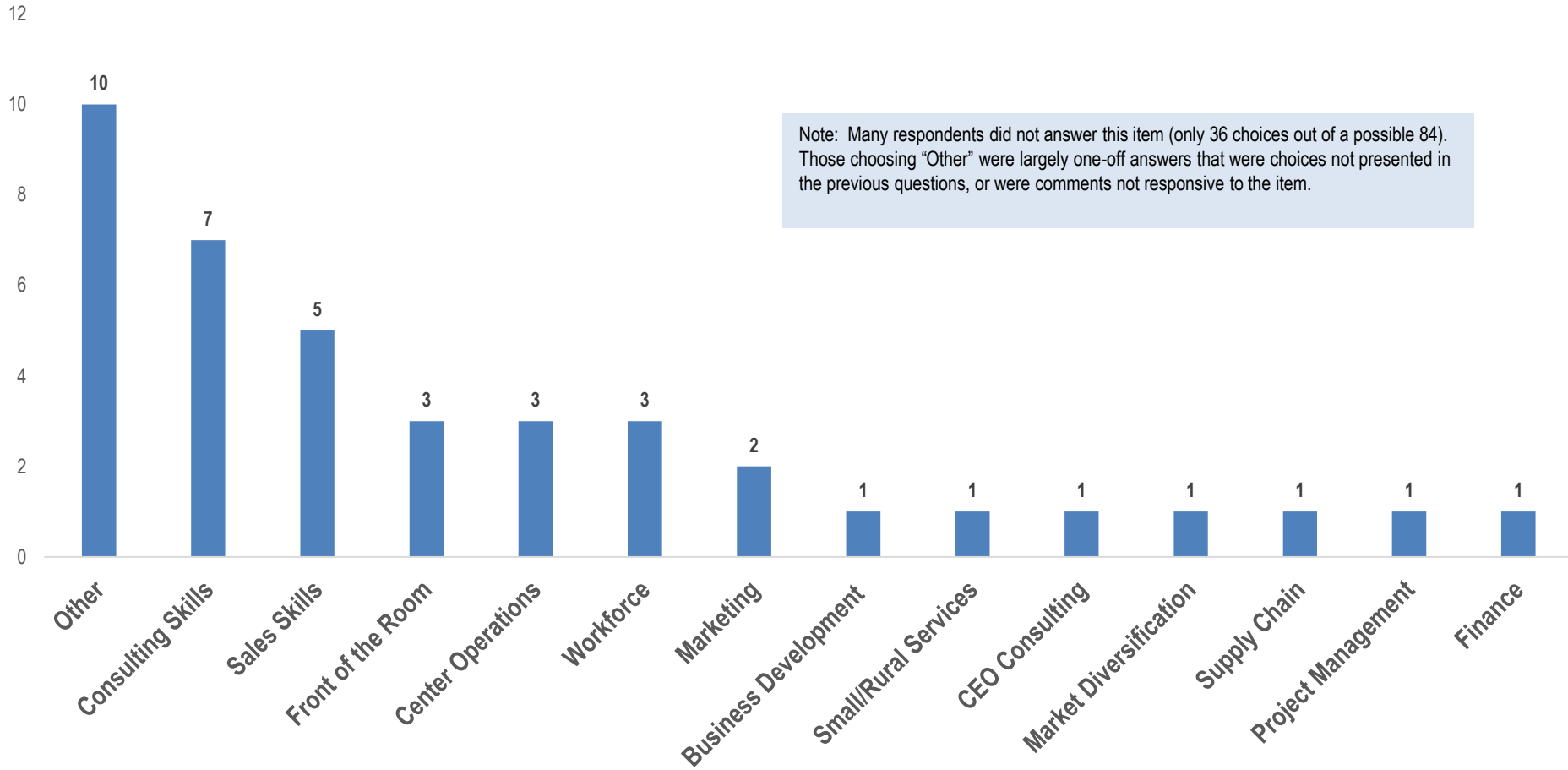Financial management and budgeting
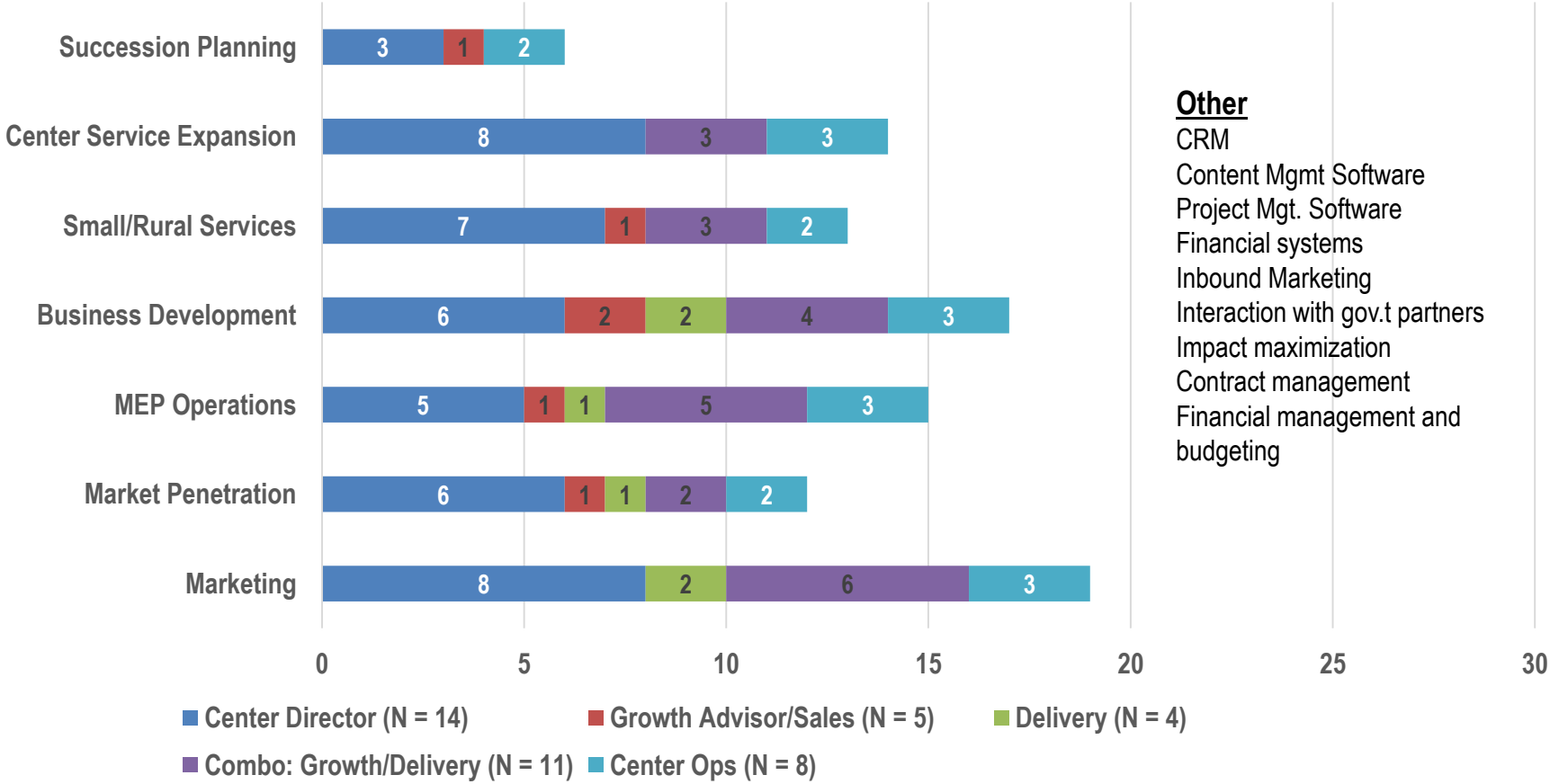
MEP Learning Organization Survey

Development Needs: Personal/Professional Development
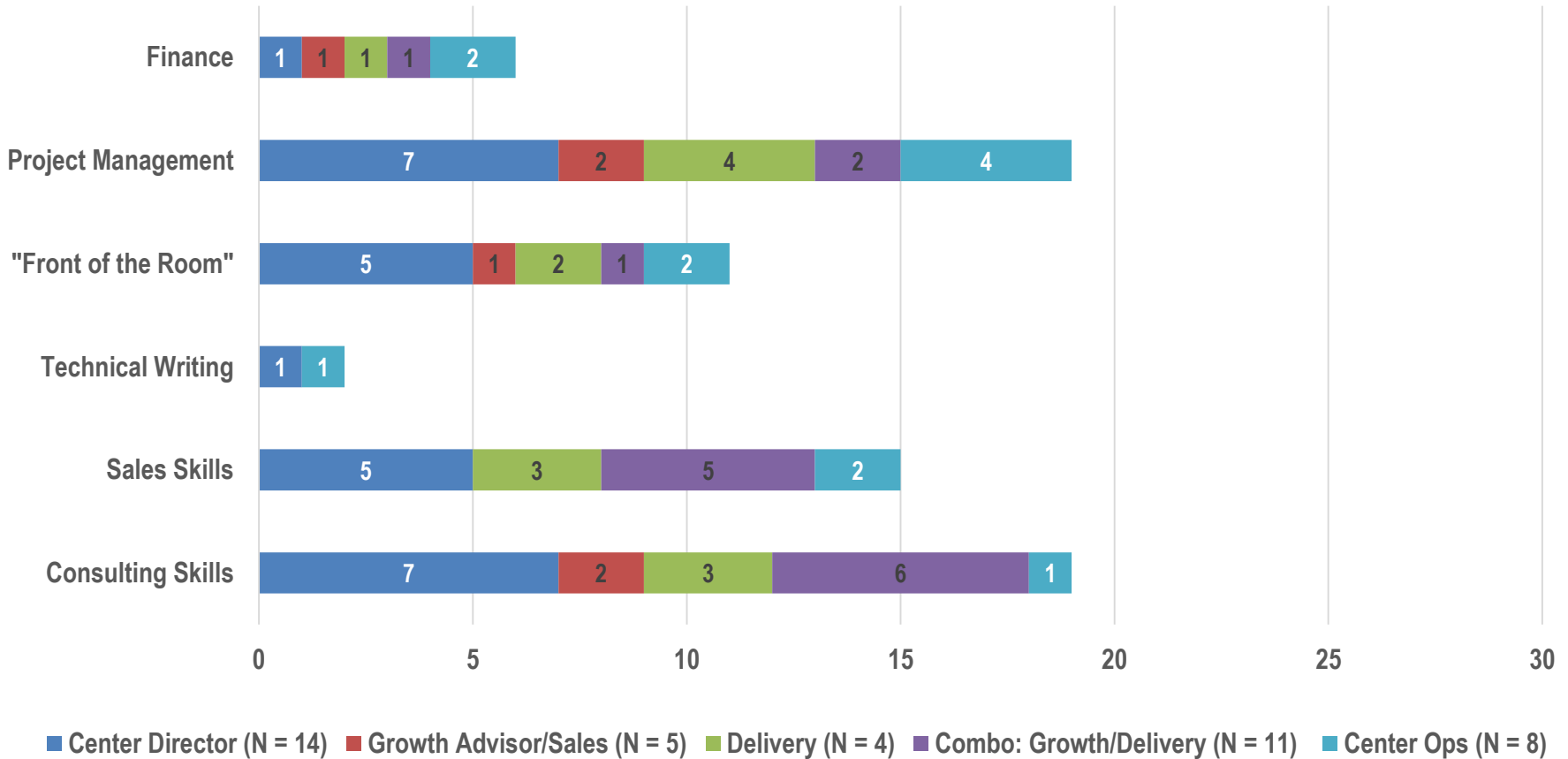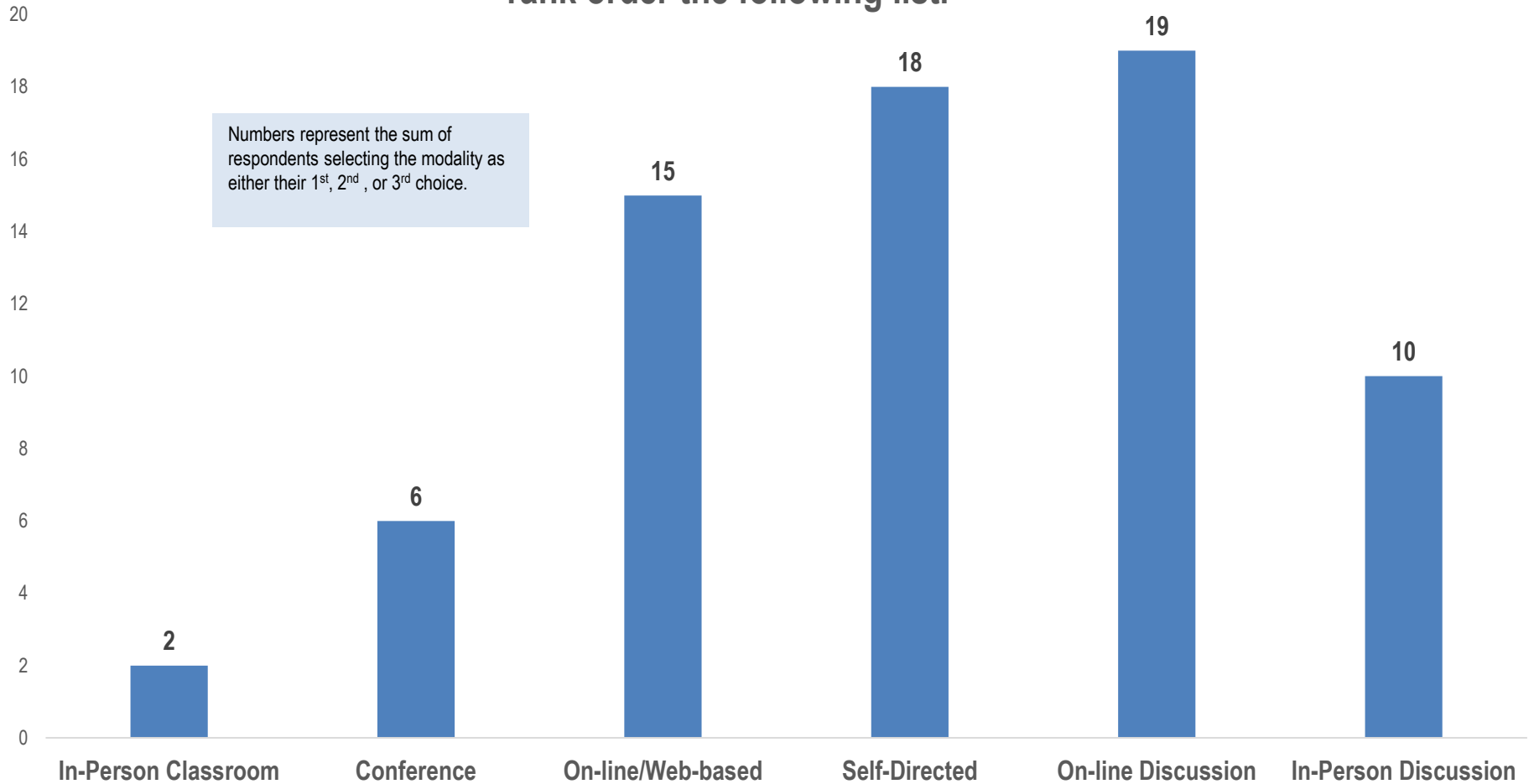
MEP Learning Organization Survey

Question 3: If you could improve your performance in two of the above areas, what would those be?

Note: Many respondents did not answer this item (only 36 choices out of a possible 84). Those choosing "Other" were largely one-off answers that were choices not presented in the previous questions, or were comments not responsive to the item.
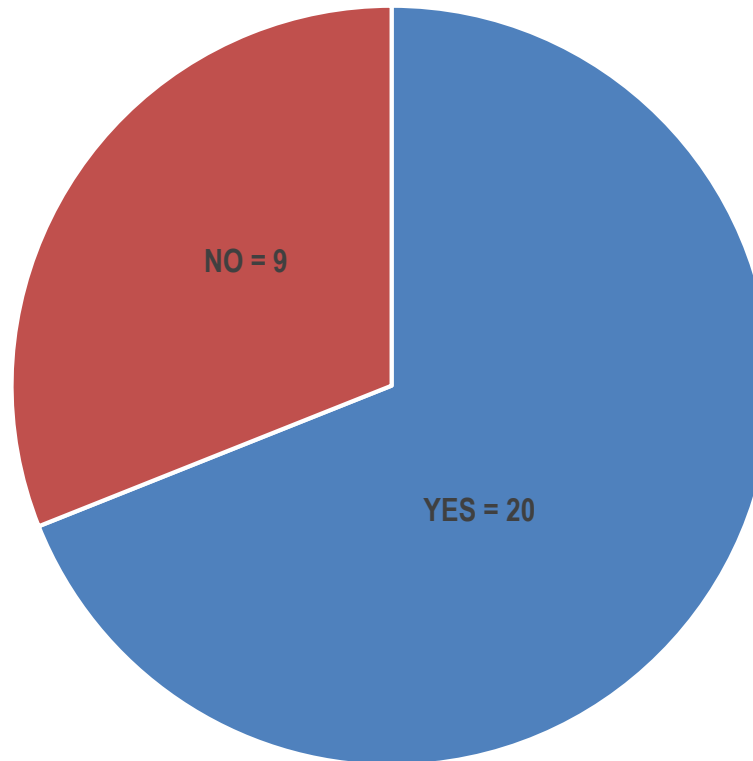
MEP Learning Organization Survey

Question 4: How do you prefer to participate in training/learning? Please rank order the following list.

Numbers represent the sum of respondents selecting the modality as either their 1st, 2nd , or 3rd choice.

Bar chart values:
- In-Person Classroom: 2
- Conference: 6
- On-line/Web-based: 15
- Self-Directed: 18
- On-line Discussion: 19
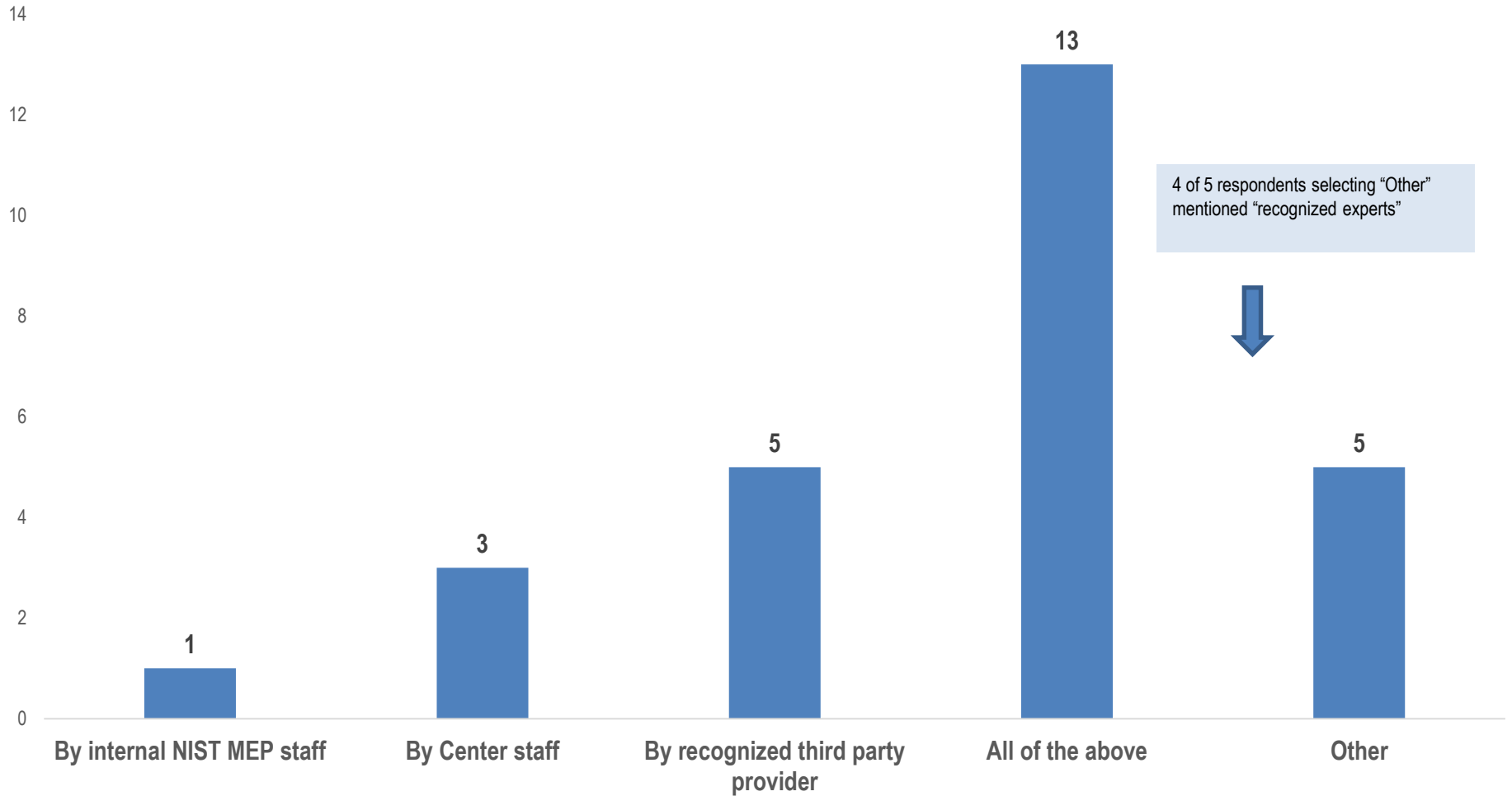- In-Person Discussion: 10

MEP Learning Organization Survey

Question 5: Do you believe that course/content final exams add to the credibility of training provided by Learning Organizations?

NO = 9

YES = 20

MEP Learning Organization Survey

Question 6: How do you prefer course content/training be provided?

4 of 5 respondents selecting "Other" mentioned "recognized experts"

Chart values:
- By internal NIST MEP staff: 1
- By Center staff: 3
- By recognized third party provider: 5
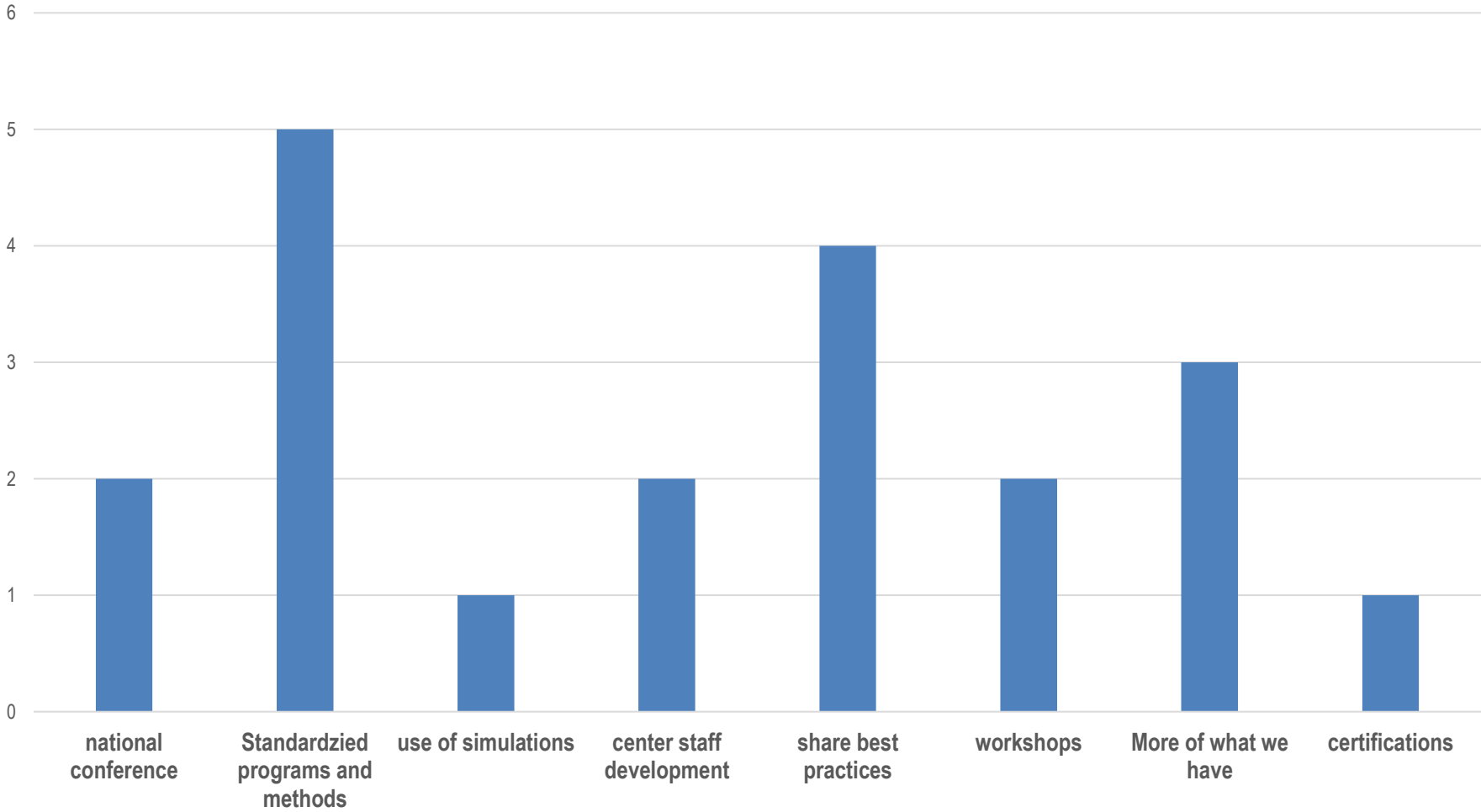- All of the above: 13
- Other: 5

MEP Learning Organization Survey

Question 7: What resources do you currently use to improve your personal performance?
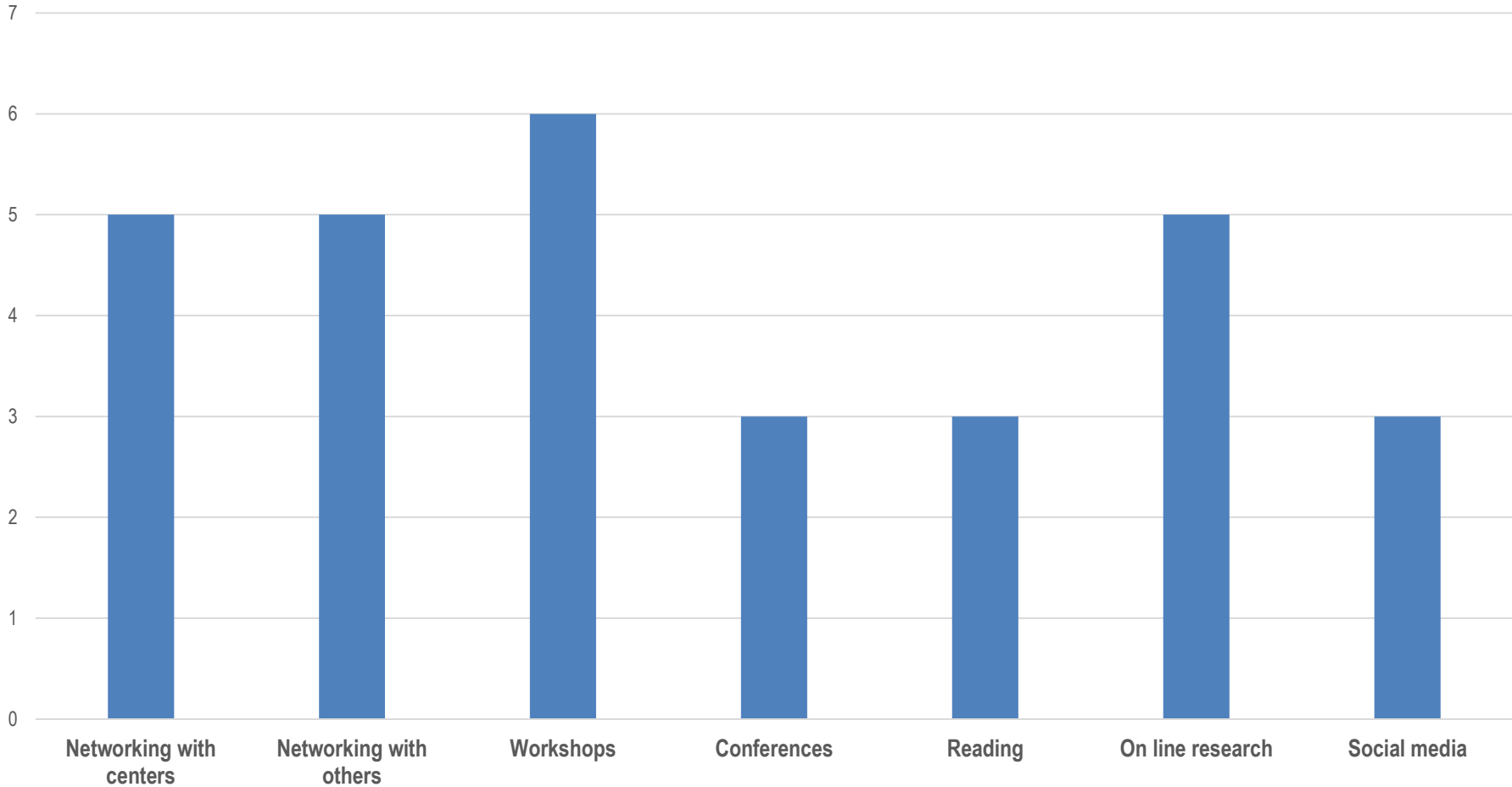
MEP Learning Organization Survey

Question 8: What would make MEP a better Learning Organization?

Initial inventory of assets – internal at MEP

Support Client Operation Excellence	What is Available from NIST MEP	Support Client Top Line Growth	What is Available from NIST MEP
Lean	Lean Suite, Toyota Kata	Market Diversification	TDMI
Growth	TDMI	Export	ExporTech
Six Sigma	Six Sigma/Lean	CEO Consulting	None
ISO	ISO and other Certifications of various types of industries such as aerospace, food, etc.	Sales & Marketing	A few centers have home-growth programs. Example: DVIRC, CMTC
Workforce	No specific workforce program available at MEP at this time.	TDMI	TDMI
Tech Scouting	Tech Scouting (TS)	SCO	SCO- Supply Chain Optimization

Initial inventory of assets – internal at MEP

Center Operations	What is Available from NIST MEP		Professional/Personal Development	What is Available from NIST MEP
Marketing	None. A few centers have home-grown programs.		Consulting Skills	None
Market Penetration	None.		Sales Skills	Centers use commercially available program
MEP Operations	None		Technical Writing	
Business Development	There is an informal program Dileep has developed and delivers.		"Front of the Room"	Program by Lise Stewart
Small/Rural Services	None		Project Management	Commercially Available programs and NIST has a program
Center Service Expansion	None		Finance	No formal program. As per, Maine MEP's request, Dileep has developed one which was delivered to them last year.
Succession Planning	Family Business advisor Program - Lise Stewart			

Discussion

Our first 'thoughts'

- Some respondents identified needs for program that exist (lean…)
  - MEP may not be 'promoting' these to centers especially if there are new staff
  - Not sure if the request/need is to be sure it is still available (use it, want to continue)
- Interesting:
  - Q4—How do you prefer to participate in Training/Learning
    - High preference in Self-directed, On-line
  - Q7 – What resources do you currently use to improve your personal performance?
    - High preference in networking, workshops, with on line research
  - Need to get clarification on what is preferred. Need to get input on content aligned with various delivery options.

Next Steps

- Focus group discussions
  - With Center Directors
  - With Center Staff
- Goal
  - Gain clarification on responses
  - Begin to gather 'inventory' of what programs are at centers

Center Director Focus Groups

- Will schedule 3 or 4 1-hour webinars, Center Directors will be asked to join 1 (all will be the same)

- Suggested questions:
  - Clarification of needs for client services:
    - Operation excellence
    - Top Line Growth
  - Clarification of needs for Center Operations
  - Prioritization
    - What will give you biggest return in next 12 months
  - Are you interested in participating on an advisory team?

Looking ahead

What our planning will include (objectives from the Charter)

- MEP-U type System
  - What should the content be
  - How to make it available
  - How to sustain it
    - Resources – staff, contractors, partners (FME?), technology
    - Ongoing for new content
- Networking
  - Summits/conferences
    - Resources, content, follow-up
    - Evaluation of outcomes
- Continuous Learning: Communities of Practice, Working Groups
  - Guidelines for startup and maintenance
  - Resources
  - Evaluation of outcomes

- **Discussion**

- **Questions**

Wrap-up/Public Comments

- Reappointment of Board Officers
  - *Chair*
  - *Vice Chair*
- Discussion: Board Governance, Succession planning & Quorum

Thank You!

- Date of next board meeting:
  - *February 2017 (proposed)*

Stay Tuned: Optional for Board Members - Demo of Lockheed Martin's Engage Platform