



MEP • MANUFACTURING
EXTENSION PARTNERSHIP®

MEP Advisory Board **ANNUAL REPORT**



MEP Advisory Board Report for 2016

Letter from the MEP Advisory Board

As we moved into 2016, the MEP Advisory Board was in alignment with NIST MEP leadership on the importance of looking towards the future of manufacturing in the United States. The board was focused on how to best strengthen the MEP network to empower and grow the capabilities of U.S. small and medium sized manufacturers. The subcommittees of the Board, working with NIST MEP staff have moved various initiatives forward, set clear direction for future deliverables, and are ready to help navigate the program into the future.

The Advisory Board met in March, May and September of 2016 and our members spent time working within subcommittees to explore and develop recommendations on important programmatic goals. At the first board meeting of the year, the Advisory board put into action one of the goals of last year, which was to support the national network's board governance efforts. The Advisory Board and members of the local Center Boards convened a joint workshop where the two groups had a chance to discuss how they should best engage to improve the national network. Both groups left with actionable items for implementation and will be continuing discussions in 2017. With a great start to the year, we also ended the year with an exciting and long awaited deliverable, the passing of S.3084, the American Innovation and Competitiveness Act (P.L. 114-329). This important legislation changed the MEP program's non-federal to federal cost share ratio from 2:1 to 1:1. This monumental effort is a direct result of the tireless efforts of the MEP Advisory Board and the entire MEP network.

As we move into 2017, NIST MEP continues to be a relevant voice to the manufacturing industry in the United States. The new Administration and rapidly changing landscape of technology will require significant effort to ensure MEP continues to be recognized as a crucial public-private partnership delivering necessary services and initiatives to advance and transform U.S. manufacturing. We look forward to a productive and exciting year of growth.

The Advisory Board remains committed to working with the MEP program to share our experience and expertise to reinforce this essential program and to help ensure the competitiveness and success of U.S. manufacturers.



Vickie Wessel, Chair
President
Spirit Electronics, Inc.
Phoenix, Arizona



Jeffrey Wilcox, Vice Chair
Vice President for Engineering
Lockheed Martin
Bethesda, Maryland



Mr. Jose Anaya, Dean Community Advancement
El Camino Community College
Hawthorne, California

Dr. Carolyn L. Cason, Professor Emerita
University of Texas – Arlington
Arlington, Texas

Dr. Roy A. Church, President
Lorain County Community College
Elyria, Ohio

Dennis Dotson, Chairman & CEO
Dotson Iron Casting
Mankato, Minnesota

Eileen Guarino, President & CEO
Greno Industries
Scotia, New York

Bernadine Hawes, Research Analyst
Community Marketing Concepts
Philadelphia, Pennsylvania

Thomas M. Lee, President & CEO
Vulcan, Inc.
Foley, Alabama

Ms. Kathay Rennels, Associate Vice
President for Engagement
Colorado State University
Fort Collins, CO

Ed Wolbert, President
Transco Products, Inc.
Chicago, Illinois



About the Manufacturing Extension Partnership Advisory Board

In December 2016, Congress passed the American Innovation and Competitiveness Act (P.L. 114-329) officially authorizing the MEP Advisory Board. The purpose of the Board is to provide advice and recommendations to the NIST Director on:

- The activities, plans and policies of MEP
- The soundness of MEP's plans and strategies
- Current performance in relation to MEP program plans
- Functions solely in an advisory capacity, in accordance with the provisions of the FACA, as amended, 5 U.S.C. App.

The MEP Advisory Board consists of members broadly representing the interests and needs of the manufacturing sector. The Advisory Board is now required by statute to be comprised of ten members, broadly representative of stakeholders, appointed by the Director of NIST. Requirements include that at least 2 members be employed by or sit on an advisory board for an MEP center, and at least 5 other members be from U.S. small businesses representing the manufacturing sector. In the newly passed American Innovation and Competitiveness Act, additional requirements were included to have at least one member representing a community college and a minimum of 10 members. Also, the Board terms consist of three years and are limited to two consecutive full terms. A Board member is ineligible for re-appointment during the one-year period following the expiration of the second term.

The MEP Advisory Board met three times in 2016 and performed its chartered functions. In addition, individual Board members served on subcommittees, worked directly with MEP staff, and attended relevant meetings to collect information on MEP programs and planning activities.

This report highlights the Advisory Board observations, findings and recommendations. Detailed meeting minutes are available on the [MEP website](#).

Board Members in 2016

In 2016, MEP welcomed two new Board members (Jose Anaya and Kathay Rennels), both of whom also sit on local MEP Center boards in California and Colorado. In addition, both Roy Church and Denny Dotson's terms on the Advisory Board ended. Roy and Denny provided relevant advice and guidance over their years of service and we truly thank them for their support. MEP will be filling additional advisory board vacancies in 2017 and have several candidates in mind that would not only provide representation across the United States from various manufacturing sectors but would also provide important perspectives on the MEP program's position in the future.



**VICKIE WESSEL,
Chair**

Second Term expires: May 2017

Vickie Wessel is the founder and President of Spirit Electronics, LLC. She has more than 37 years of business leadership in sales, marketing, procurement, operations, contracts, finance, and quality systems management. Since its founding in 1979, Spirit has grown to support broad line electronic component distribution, supply chain solutions, and component value-added services. Vickie's innovative and business focused leadership and her continuous pursuit of quality and customer satisfaction has resulted in Spirit achieving many supplier excellence awards from Spirit's customers, Distributor of the Year by Arizona's Minority Business Development Agency, Distributor of the Year by the Grand Canyon Minority Supplier Development Council, and Region IX Subcontractor of the Year by the United States Small Business Administration. She was a recipient of AIA's "Amelia Earhart Award," recognizing women who achieve excellence in the aerospace and defense industry. Vickie's passion for improving the contracting environment for the benefit of small businesses throughout the nation is evidenced by her active affiliation with the National Minority Supplier Development Council, the Pacific Southwest Minority Supplier Development Council, and the Women's Business Enterprise National Council. She currently serves as Vice President of the Foundation Board of the Electronic Components Industry Association, the Advisory Board of RevAz, and the Advisory Board of Enterprise Bank.



**JEFFREY WILCOX,
Vice Chair**

Second Term expires: May 2019

Jeffrey J. Wilcox is the Vice President for Engineering at the Lockheed Martin Corporation, responsible for leading the development and execution of engineering strategy for the Lockheed Martin Engineering Enterprise and its 60,000 engineers, scientists, and technologists. Throughout his career, Mr. Wilcox has led several critical initiatives for the Lockheed Martin Corporation, including Engineering for Affordability, the Systems and Software Initiative, the Advanced Manufacturing Initiative, and the Energy Solutions Center launch. Prior to joining Lockheed Martin, Mr. Wilcox served as Senior Vice President at Science Applications International Corporation (SAIC) in McLean, Virginia. Mr. Wilcox graduated from Drexel University with a master's degree in Electrical Engineering and Case Western Reserve University, Cleveland, Ohio with a degree in Biomedical Engineering. He serves on the Drexel University Leadership Council, the Stevens Institute of Technology School of Systems and Enterprises Advisory Board, the Aerospace Industries Association (AIA) Technical Operations Council, the MIT Open CourseWare Next Decade Alliance Advisory Council, and the US Manufacturing Competitiveness Initiative (USMCI) Steering Committee. Mr. Wilcox is an American Institute of Aeronautics and Astronautics (AIAA) Associate Fellow and a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE).



JOSE ANAYA

First Term expires: July 2019

Jose Anaya, Dean, oversees the El Camino Community College District's Community Advancement Division and Business Training Center. Prior to joining the staff at El Camino College, he directed economic development programs at Cerritos College. Under Anaya's guidance, Cerritos College received numerous honors and recognition related to workforce development. These included a Best Practices award for its partnership with Lockheed Martin, and selection by the Corporation for a Skilled Workforce and its partners as one of five national exemplary models for expanding postsecondary education and training opportunities for Hispanic workers. Mr. Anaya's earlier experiences include work in the private sector with corporations such as Honeywell, ITT Industries and DataCard. He has broad experience and expertise in the areas of product design, manufacturing and management, as well as economic and workforce development. Mr. Anaya has a B.S. degree in mechanical engineering from California Polytechnics University, Pomona, and a MBA with an emphasis in entrepreneurship from the University of Southern California.



CAROLYN CASON

First Term expires: May 2017

Carolyn L. Cason, Professor Ermita at The University of Texas at Arlington, has had a distinguished career as scientist, teacher, academic leader and innovator. She began her professional career as a critical care nurse and has held university teaching appointments for over 35 years. She joined the University of Texas at Arlington in 1997 as Professor and Associate Dean for Research in the College of Nursing and served as the university's Vice President for Research from 2010 to June 2015. She envisioned and built the nation's first comprehensive healthcare simulation research and development center, the Smart Hospital, creating the prototype for the nation. She led the efforts that created Smart Care (a living laboratory dedicated to developing non-invasive, pervasive technology to monitor health changes and support independent living) and the Shimadzu Institute for Research Technologies (a \$25m core facility supporting chemistry, biology, nanotechnology, and material science research). In 2014 she was named a Charter Fellow, National Academy of Inventors and in October 2015, she was inducted as Fellow, American Academy of Nursing. She serves on a number of boards including that for Tech Fort Worth, a seed incubator/accelerator supporting entrepreneurs commercializing innovative technologies.



ROY A. CHURCH

**First Term expired: May 2016;
left the board due to retirement**

Dr. Roy A. Church is President of Lorain County Community College (Elyria, Ohio). He has served thirty-six years as a leader in comprehensive community colleges and has led the transformation of Lorain County Community College as its president since 1987. Dr. Church's hallmark initiatives during his tenure include building collaborative private and public partnerships to support education, workforce and economic development. Among these accomplishments include: establishing a renowned University Partnership Program involving 12 universities delivering over 40 bachelor and graduate degrees; the only Edison Technology Incubator on a college campus in Ohio; a \$14 million pre-seed fund for regional technology start-ups; a 46,000 square foot commercialization center for sensors and microsystems; and a 75,000 square foot Advanced Technology Center supporting advanced manufacturing containing the National Science Foundation Weld-Ed Center and rapid prototyping lab. Dr. Church co-chairs the Ohio Board of Regents Articulation and Transfer Advisory Council, Cooperative Education and Internship Advisory Committee and Complete College Ohio Task Force. He also served on the State Advisory Committee on Adult Career-Technical Programs and the Ohio Board of Regents Technology Transfer and Commercialization Task Force. Regionally, Dr. Church serves on the Northeast Ohio Council on Higher Education, NorTech Board of Directors, Manufacturing Advocacy and Growth Network (MAGNET) and Fund for Our Economic Future.



DENNIS DOTSON

Second Term expired: May 2016

Dennis Dotson is a third generation foundryman serving as Chairman of Dotson Iron Castings in Mankato, Minnesota. The company is in the top tier of foundry suppliers and has been acknowledged by the industry's society as the "Metalcaster of the Year" out of 2,000 North American facilities. Denny has been very active in the industry serving on various Boards, past president of the Ductile Iron Society and is the current president of the American Foundry Society. He is also chairman of People Driven Performance, a startup company focused on internal communications. Dennis has a strong commitment to education and is a trustee emeritus of the Minnesota State Colleges and Universities, the governing Board for the 35 post-secondary state institutions. He is a U.S. Navy veteran and a graduate of the University of Notre Dame (1967 BBA) and the University of Chicago (1968 MBA). He currently serves on the Board of Enterprise Minnesota (a NIST MEP affiliate). The constant in his career has been the involvement in many new community, educational, and business startups.



EILEEN GUARINO

Second Term expires: May 2017

Eileen Guarino is currently President and COO of Greno Industries located in Scotia, New York. Ms. Guarino attended the University of South Carolina. Early in her career, Ms. Guarino was a buyer for a clothing company which represented apparel in various resort locations throughout SC, Florida and Georgia. There she developed a women's clothing line that retailed in nine locations. Her responsibilities ranged from coordination of the annual buys to importing fabrics to be manufactured in the US. In 1988, Ms. Guarino relocated to upstate New York, where she lent her talents to her new career in the manufacturing parts business as what she calls "part of the Greno team." Greno Industries is a family owned business, and is a recognized minority women owned business in New York State. Ms. Guarino has worked to expand the company's clients to now include successful relationships in new markets throughout Europe and Asia, as well as leading the company's strategic planning growth efforts of its 60,000 sq. ft. manufacturing facility. As a result of her "Greno team" approach, she works to enhance the personal and professional growth of employees to be trained in Six Sigma and Lean Principles. One of her successes in her business career, of which she is most proud, was creating and implementing an in house high school MFG internship training program with local high school students. Ms. Guarino was the past President of the Tech Valley Global Business Network, and current Vice President of the Center of Executives Network of Manufacturing. She is also an active civic member in her chambers of commerce and the Women's Business Enterprise Network Council.



BERNADINE HAWES

First Term expires: May 2017

Bernadine Hawes is an executive level nonprofit professional and economic development specialist working in the areas of project management, strategy development, compliance, and evaluation. Her most recent achievement has been the authorship of a best practices manual for small business and economic development which was funded in part through a grant from the U.S. Small Business Administration to American Cities Foundation. Ms. Hawes began her career at the University City Science Center (Philadelphia) starting as a senior-level project administrator and later Vice President. Currently she is a senior research analyst for Community Marketing Concepts. Ms. Hawes is Chairwoman of the Delaware Valley Industrial Resource Center. She also serves as on the Board of the PEC Community Development Corporation which focuses on community development initiatives in Philadelphia, is Chair of the PEC Foundation, and serves on the Advisory Board of the Philadelphia Urban League Entrepreneurship Center. Born and raised in Washington, DC, Ms. Hawes has an MS Degree from the University of Pennsylvania. She is summa cum laud graduate of Lincoln University (Pa). She has been the national co-chair of Penn's Black Alumni Society and former member of Penn's Brister Society for Diversity Inclusion.



THOMAS M. LEE

First Term expires: May 2017

Thomas M. (Tommy) Lee has been employed by Vulcan, Inc., an aluminum manufacturing company in Foley, Alabama, since 1985. He currently is President and CEO, and also Secretary/Treasurer of Vulcan Scholarships, Inc. Prior to joining Vulcan, Mr. Lee was employed by Alabama Power Company for eight years as a Commercial Sales Engineer.

Mr. Lee moved with his family from Birmingham to Foley in 1968 and has called South Alabama home for 45 years. He graduated from Foley High School in 1974 and received his B.S. degree in Industrial Engineering from Auburn University in 1978. He and his wife, Sandra, live in Gulf Shores and together they have 3 children: David 30, Anna 27 and Marcus 22. Mr. Lee has been active in the community since graduating from college. He is a former Chairman of the South Baldwin Chamber of Commerce and a past winner of the Walton M. Vines Free Enterprise Person of the Year. He was a member of Class XVIII of Leadership Alabama and has been president of several civic, local school and professional organizations. Currently he serves as the 2nd Vice Chair of the Business Council of Alabama.



KATHAY RENNELS

First Term expires: March 2019

Kathay Rennels is the Associate Vice President for Engagement at Colorado State University and works to advance collaborative networks across the state and create economic development opportunities. She has significant experience fostering public and private partnerships in regional and rural workforce development, with particular attention to Larimer and Weld Counties. Ms. Rennels previously served three terms as a Larimer County Commissioner and is now leading the Food and Agriculture Key Industry Network for the State of Colorado.

Ms. Rennels helped initiate the "Value Chain of Colorado Agriculture" study, released in February 2013, and co-authored the November 2014 follow-up study, "The Emergence of an Innovation Cluster in the Agricultural Value Chain along Colorado's Front Range." She also initiated the "Advancing the Agricultural Economy through Innovation" summit, held at CSU in March 2015. Ms. Rennels was the President of Colorado Counties Inc. and named Commissioner of the year. She currently serves on the Community Foundation of Northern Colorado, El Pomar Foundation and (Manufacturer's Edge) as a board member.



ED WOLBERT

Second Term expires: May 2017

Ed Wolbert is the President of Transco Products Inc., a leading U.S. medium-sized manufacturer and contractor dedicated to nuclear power. Mr. Wolbert has been in the nuclear power industry for over 35 years, has been with Transco for the last 32 years, and has served as its president for the last 20 years. Mr. Wolbert oversees the daily strategic direction and tactical operations of the company, including direct guidance of its foreign activities. Mr. Wolbert is a member of the American Nuclear Society, and is also a member of ASTM (serving on the C16 committee). Mr. Wolbert continues to serve on the Department of Commerce's Civil Nuclear Trade Advisory Committee (CINTAC), after previously being both the committee's vice-chairman and chairman, and has been a vocal advocate and champion for small/medium size enterprises in the nuclear power market.

Advisory Board Activities in 2016

The Advisory Board conducted three meetings in 2016:

- March 1, 2016
- May 19, 2016
- September 15, 2016

The March 2016 meeting was held in Washington, DC at the Ronald Reagan Building and International Trade Center. The MEP Advisory Board met jointly with the MEP Center Board chairs to discuss governance and overarching themes for strengthening the system. The second meeting was held in May 2016 in Charleston, South Carolina in conjunction with an MEP System Update Meeting. The final meeting of 2016 was held in September in Detroit, Michigan this time after both a Foundation for Manufacturing Excellence “Best Practice Conference” and an MEP System Update Meeting. These meetings provided important opportunities for the MEP Board members to interact with the local MEP Center Directors, their staff and center board members. Many Center Directors attended the Advisory Board meetings as well to learn more about the priorities and strategies of the Board.

At the March 2016 Board meeting, Dr. Phillip Singerman presented the NIST Director’s charge to the board members. The Board was asked to specifically focus on:

1. Reengaging senior management to provide guidance and advice to create the 2017 – 2022 Strategic Plan.
2. 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.
3. Recommendations on the establishment of an MEP Learning Organization.

In addition to the above direct charges, the Board provided final report-outs from the previous year’s activities including: Technology Acceleration and Board Governance.

Technology Acceleration

In 2015, the Advisory Board made several recommendations to MEP regarding Technology Acceleration. This subcommittee provided a final report-out on the steps forward that had been made against each recommendation at the March 2016 meeting. The progress included the development of criteria to be used when evaluating future Technology Acceleration opportunities and the priority in which opportunities should be pursued.

The most critical activity that has been undertaken within this area is the partnership with the Manufacturing USA institutes. MEP signed MOUs with both DOD and DOE focused on MEP Center collaboration and engagement with their respective institutes. In April 2016, MEP announced the first round of funding available to MEP centers to embed staff into the existing Manufacturing USA Institutes.



Specifically, these pilot projects were designed to:

- Develop innovative approaches for transferring technology from the institutes to small U.S. manufacturers
- Create approaches for engaging small manufacturers in the work of the institutes through hands-on assistance and services
- Develop and test business models by which MEP centers and institutes may effectively serve the needs of small U.S. manufacturers in the technology areas of the institutes, and facilitate knowledge and best practice sharing between the institutes and MEP centers
- Cultivate an enhanced nationwide network of partnerships among the institutes and MEP centers

The following Centers were awarded approximately \$1 million to conduct two year projects to demonstrate ways to fully leverage the assets and resources of the national MEP program to help small U.S. manufacturers in technology areas that are the focus of the Manufacturing USA 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 Center for Industrial Services

Partnering with: The Institute for Advanced Composites Manufacturing Innovation (IACMI)

In late 2016, a second federal funding opportunity was announced to embed additional centers into the remaining Manufacturing USA institutes. This pilot program will be ongoing into 2017 and the Board will continue to seek updates on these activities and the progress each is making.

Strengthening Center Board Governance

The Board was charged by the NIST Director in 2015 to look at how best to strengthen Board governance and increase connectivity between the Center boards and the MEP Advisory Board. At the March 2016 Board meeting, a final report-out was provided to share activities that had occurred per the Board's recommendations. Recommendations by the Advisory Board subcommittee focused on:

1. Expanding communication between the Advisory Board and NIST MEP with Center boards through Board member orientations, regional board calls and a semi-annual newsletter.
2. Expanding and sharing best practices by holding quarterly distinctive practice webinars, developing an MEP Connect site and regular regional manager and Board chair sharing.

3. Developing and utilizing Board self-assessments which helps to emphasize the critical role the Board plays in the success of an MEP center.

At the March 2016 meeting, a portion of the meeting was devoted to a joint session between the national Board members and the local Center Board chairs. During this session, Board members were separated into smaller groups and asked questions about the topics they would like to regularly hear from NIST MEP and the Advisory Board about, how the national Board could best support the local boards, and the best vehicle and frequency to be used for communication. This was an effective way to have both groups share and hear each other's perspectives. This same format will be used in 2017 to continue engaging with MEP Center Boards.

Strategic Planning: 2017 – 2022

The Advisory Board's Strategic Planning subcommittee engaged at a very high level to review accomplishments under the previous strategic plan and work with staff to develop the next strategic plan positioning MEP for 2017-2022.

The Advisory Board approved using the previous four strategic pillars outlined in the 2012 MEP strategic plan as an organizing framework.

The development of the final strategic plan will include both an implementation plan and measurable outcomes under each of the strategic goals for the next five-year plan. While the group looks to finalize the new plan in 2017, actions throughout 2016 continued to support the existing strategic goals.

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

- **Strategic Objective:** Deliver services that create value for all manufacturers, particularly focusing on small and mid-sized enterprises (SMEs)
- **Strategic Objective:** Enable Centers to make new manufacturing technology, techniques and practices usable by U.S. based SMEs

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

- **Strategic Objective:** Champion the importance of SMEs and ensure their inclusion in the economic competitiveness policies and programs of the U.S. government
- **Strategic Objective:** Increase the role of National and Center Boards

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

- **Strategic Objective:** Provide Centers with local flexibility and adaptability to operate based on regional priorities and client needs
- **Strategic Objective:** Support national policy goals



Strategic Goal: Develop MEP’s Capabilities as a Learning Organization and High Performance System (Develop Capabilities)

- Strategic Objective: Promote system learning
- Strategic Objective: Continue administrative reform

While the Board agreed to carry over the basic pillars there was unanimous agreement that the strategic plan needs to be revisited on a regular basis, particularly around evaluating the activities related to each pillar and addressing the needs of the network for small and medium manufacturers.

The Board agreed to a timeline for the strategic plan in 2017:

January – Draft Implementation Plan

- Review by Center Workgroup
- Review/Discussion of Implementation with Advisory Board

February/March – Revise Implementation Plan

- March /April – Finalize Implementation Plan pending board approval
- Review/discussion with Centers at System Meeting

May – Implement Plan

- Endorsement by Advisory Board at 2017 MEP National Summit

Promoting, Managing and Tracking Connections between SMMs and NIST Labs

The Board was charged by the NIST Director to provide 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 (SMMs). The Board is requested to provide input regarding the methods to connect NIST resources with the MEP Network for the benefit of U.S. manufacturers. This initiative will help to make connections regardless of where they come from – i.e., SMMs, MEP Centers, NIST MEP or NIST Labs. NIST MEP will be the conduit to make these connections, track them in a database and share examples across the system. As activities build, MEP will continuously track the various projects to monitor outcomes and identify opportunities for new program development.



NIST MEP will continue to lead the MEP System to seek opportunities that can leverage the technology assets the NIST labs and other federal laboratories provide to serve the growth and competitiveness needs of U.S. manufacturers. The Board agrees that focus on this program will help to provide the chance for SMMs to have discussions with experts around a particular technology and assist in solving their challenges.

MEP Learning Organization

The Advisory Board was charged to make recommendations on the establishment of an MEP Learning Organization. The Learning Organization's defined audience and purpose is centered around Center Staff and the development of skills and competencies to support their business models. In the past, MEP programs were developed to support Center delivery of services and materials including instructor guides, participant materials, kits and "train the trainer" programs were shared with the system. The goal of this effort is to revisit the importance of sharing best practices and training the MEP Center staff. In addition to sharing content and materials, MEP will reinstate topical working groups, Communities of Practice and the MEP National Summit.

A Learning Organization survey was conducted to gather information from the MEP system with a total of 42 responses. The survey provided information about the type of content that Centers would find useful, how staff want to participate in training, online vs. in-person content, and how Centers currently receive training.

The Board discussed the importance of establishing a plan that will allow MEP to start making investments in programs. Also stressed was the importance of ensuring there is a process for determining when to remove outdated programs from the Learning Organization while building a continual process for predicting and meeting the needs of future trends. Other items that will be addressed in the plan include:

What the content will be	Evaluation of outcomes and metrics
How to make it available	Continuous Learning – ie.
How to sustain it	Working groups and Communities of Practice
Resources – staff, contractors, partners, technology	Guidelines for startup and maintenance of the groups
Ongoing evaluation for new content	Evaluation of outcomes
Networking resources	

The next step is to develop a draft plan for consideration in early 2017.



MEP System Competition

In 2014, NIST MEP began a system-wide recompetition of the existing MEP Centers. Many of the current Centers had not been competed since they were initially funded 20 years ago. By conducting these competitions, this allowed NIST MEP to revisit the amount of federal funding each Center received and ensured that the allocation was in line with the distribution of manufacturing establishments in each state. From 2014 – December 2016, NIST MEP conducted four separate state competitions to optimize the impact of the Federal investment on U.S. manufacturing. Throughout the course of this three-year competition, the Advisory Board provided input on the process and received regular updates on the status. Round 1 and 2 of the competition were completed in 2014 and 2015 respectively.



To complete the system-wide competition by the end of 2016, MEP conducted two additional rounds of the state competition in 2016. MEP announced the Round 3 competition in January 2016 and made awards to the following 13 organizations in the fall of 2016.

- Alabama Technology Network - \$1,780,800
- Arkansas Economic Development Commission - \$971,218
- California Manufacturing Technology Consulting - \$14,046,449
- Georgia Tech Research Corporation - \$2,693,482
- Louisiana Community and Technical College System - \$1,197,546
- Massachusetts Manufacturing Extension Partnership - \$2,467,879
- Missouri IncuTech Foundation - \$2,207,873
- Montana State University - \$512,000
- State of Ohio, Development Services Agency - \$5,246,822
- Pennsylvania IRC Network Foundation - \$5,280,576
- Puerto Rico Manufacturing Extension, Inc. - \$643,133
- University of Utah - \$1,147,573
- Vermont State Colleges - \$500,000



In June 2016, the fourth and final round of the recompetition was announced for 11 additional states. In early 2017, the following awards were announced.

- Delaware Technical Community College - \$500,000
- High Technology Development Corporation - \$500,000

- Iowa State University of Science & Technology - \$1,859,206
- Mid-America Manufacturing Technology Center - \$1,864,950
- Maine Manufacturing Extension Partnership - \$863,522
- Mississippi Manufacturers Association - \$1,003,782
- Board of Regents, Nevada System of Higher Education, - \$756,001
University of Nevada-Reno
- New Mexico Manufacturing Extension Partnership - \$1,360,802
- The Dakota Manufacturing Extension Partnership Inc. - \$500,000
- South Carolina Manufacturing Extension Partnership - \$2,268,003
- University of Wyoming - \$500,000

At the completion of the state competitions, there are now 51 MEP Centers across the system – one per state and Puerto Rico. The MEP program saw in nearly all proposals an increase in new partnerships and new initiatives. Most of the new cooperative agreement recipients demonstrated:

- Increased focus on small and rural manufacturers
- New resources aimed at workforce development – connecting with additional partners
- Increased focus on a growth framework
- New technology acceleration / partnering with the Manufacturing USA Institutes

NIST MEP Budget

The FY2016 appropriations received were \$130M, which was the same as the program's FY2015 funding. The President's FY2017 budget request for MEP released on February 10, 2016 was for \$142M in funding. As of the writing of this report, an FY17 budget has not yet been passed.

FY2015-FY2017

	FY2015 Enacted	FY2016 Enacted	FY2017 Requested
Hollings Manufacturing Extension Partnership	\$130M	\$130M	\$142M

Approximately \$110M of MEP's funding goes directly to the MEP Centers. Additional funds are provided in direct support of the MEP system's work with manufacturing firms, such as federal funding opportunities for Centers or contracts to train MEP Center staff.



Readjusting the Program's Cost Share

In June 2013, the MEP Advisory Board was charged with initiating a review of the MEP cost share structure and provide recommendations to the Director of NIST. On October 18, 2013, the Advisory Board submitted their recommendations to the NIST Director. Over the past few years, the MEP program's cost share has been analyzed and reported on by various organizations, including the GAO, the National Academies of Science, and the MEP Advisory Board. The Board submitted an "Analysis and Findings of the Cost Share Requirements of the Hollings Manufacturing Extension Partnership Program" to the NIST Director, which included recommendations that optimize the federal investment and provide for the long-term sustainability of the program. These studies found that the cost share structure of 2:1 was limiting the ability of Centers to fulfill their public mission and made it difficult for them to serve hard to reach rural and very small manufacturers, participate in regional economic activities, and support important national priorities such as workforce development and manufacturing scale-up. The studies recommended that the cost share structure be adjusted to a 1:1 model, in line with other public private partnerships.

Over the years, there have been attempts at passing legislation that would permanently adjust the cost share. In July 2014, the House passed H.R. 5035, the "NIST Reauthorization Act of 2014" which would, among other reforms, have required mandatory recompetition of centers after 10 years of continuous operation, permanently adjust the

cost share to 1:1, require the local Center advisory boards to strengthen accountability and compliance mechanisms, and provided for increased private sector representation on the MEP Advisory Board. In May 2015, the House passed H.R. 1806, the "America COMPETES Reauthorization Act of 2015" which contained the same provisions as in H.R. 5035.

After years of work by the Advisory Board and many other strong supporters of the program, S.3084, the American Innovation and Competitiveness Act (AICA), passed the House and Senate in December of 2016 and was signed into Public Law (P.L. 114-329) on January 6, 2017 putting into law the same provisions as both reform bills from 2014 and 2015. This has been a significant achievement for the MEP program as the passage of this bill represents one of the most important legislative changes in the program's history, third only to the program's creation in 1988 and sunset clause removal in 1998. The AICA permanently adjusts the cost share structure to 1:1, formalizes a recompetition for centers have 10 consecutive years of funding, modifies the panel review / evaluation process and strengthens Center board governance. In addition, there are a few key changes to the MEP Advisory Board including the requirement of a community college member and sets a minimum number of 10 board members.

The Board is thrilled to see this important legislation pass and is proud to have worked tirelessly over the last few years on this successful effort.



**MEP • MANUFACTURING
EXTENSION PARTNERSHIP®**

2016

Making an Impact on U.S. Manufacturing

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

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