

**National Institute of Standards and Technology
Manufacturing Extension Partnership
Advisory Board**

Summary of the August 2012 Pre-Meeting

The Department of Commerce (DOC), National Institute of Standards and Technology (NIST), Manufacturing Extension Partnership (MEP), Advisory Board met in an open session from 8:30 a.m. to 4:30 p.m. EST on August 29, 2012 at the National Institute of Standards and Technology Headquarters in Gaithersburg, Maryland. Approximately 35 attendees, composed of Advisory Board members, DOC, NIST, and MEP participants, guest speakers, and observers attended the meeting.

Attendees

Board Members

Denny Dotson, Chairman, NIST MEP Advisory Board, and Chairman, Dotson Iron Castings
Edward "Ned" Hill, Dean, Levin College of Urban Affairs, Cleveland State University
James Jacobs, President, Macomb Community College
Kenneth Priest, President and Chief Executive Officer, Kenway Corporation
Mark Rice, President, Maritime Applied Physics
Eileen Guarino, President and Chief Operating Officer, Greno Industries
Vickie Wessel, Founder and President, Spirit Electronics, Inc.
Edward Wolbert, President, Transco Products, Inc.

DOC Participant

Mark Doms, Chief Economist, U.S. Department of Commerce

NIST Participant

Phil Singerman, Associate Director, Innovation and Industry Services, NIST

MEP Participants

Aimee Dobrzeniecki, Deputy Director, MEP
Roger Kilmer, Director, MEP
Karen Lellock, Senior Policy Advisor, MEP
Mark Troppe, MEP

Guest Speakers

Tom Palisin, Manufacturing Ombudsman, Pennsylvania Department of Commerce
Cynthia Enright, Special Advisor to Secretary of Commerce in Kansas
Anna Mangum, North Carolina MEP
Bonnie Del Conte CONNSTEP
Frank Rio, CONNSTEP
Terry Culp, Nevada Industry Excellence

MEP Observers

Dave Stieren, MEP
Cindy Orellana, MEP
Kelly Dizon, MEP
Gary Yakimov, MEP
Ron Gan, MEP
Diane Henderson, MEP
Kari Reidy, MEP
Mike Simpson, MEP
Brian Lagas, MEP
Samm Bowman, MEP
Courtney Wilson, MEP
Hope Snowden, MEP
Mellissa Ayala, MEP
Sunni Massey, MEP
Heidi Sheppard, MEP
Alex Folk, MEP
Clara Asmail, MEP
Paul Hernandez, MEP
Ben Vickery, MEP
Doug Devereaux, MEP

Other Observers

Beth Kinzer, OSD/DPA Title III (NGC)

Presentations

Current State of Manufacturing

Mark Doms, Chief Economist, U.S. Department of Commerce

Mr. Doms' presentation focused on the state of U.S. manufacturing in two periods: from 2000 to 2007 and since the recession in 2008. Prior to the recession manufacturing had already lost 3 million jobs and was working against an increased trade deficit and a federal budget shifting from surplus to deficit. Because of this, manufacturing was hit especially hard by the recession. On average 800,000 jobs were lost per month, with a total of 9 million lost since 2008. Additionally, with banks wary of issuing credit, many manufacturers became stagnant, unable to fund growth or necessary change. Even though there has been a positive shift in job gains recently, manufacturing output is down 20% overall since 2008.

There have been some positive signs. With vehicle exportation at an all-time high, an increase in the domestic production of oil and natural gas and a rise in technology exportation, manufacturers are taking advantage of the markets and areas where growth is possible. Unfortunately much of this growth is reliant on international markets. The mild recession and debt problems in Europe have created uncertainty. Emerging markets can fill some gaps, but they are still affected by growth headwinds and economic uncertainty from the major markets around them.

Discussion Summary

A question about how changes in STEM may impact the overall economic picture was posed.

There has been a steady increase in participation in STEM education over the past years, and the U.S. continues to be a world leader in innovation and creativity in the STEM disciplines. STEM degrees are still dominated by males, though more college degrees overall are earned by females. Additionally in the U.S., many of those with STEM degrees are native of other countries. This could create stagnation in the labor pool. Another area of concern for the labor pool is age. With increased life expectancy, workers remain employed longer. A skills gap has been created and needs to be remedied by increased education so younger workers are available to fill these positions as they open. Though the U.S. lost 3 million manufacturing jobs since 2007, labor costs are going down and competition is increasing in the U.S., making it attractive for manufacturers to keep jobs here.

NIST Manufacturing Initiatives

Dr. Patrick Gallagher, Director, NIST

Dr. Gallagher discussed NIST's involvement in four programs that encourage growth and best practices among U.S. manufactures: Advanced Manufacturing Partnership (AMP), Malcolm Baldrige Program, Advanced Manufacturing Technology Consortia (AMTech), National Network for Manufacturing Innovation (NNMI). The President has deemed innovation in manufacturing and technology a policy priority, and NIST's cutting edge research and user facilities, as well as the Manufacturing Extension Partnership (MEP), make it a natural participant in the four programs.

The Advanced Manufacturing Partnership (AMP) Report to the President on Capturing Competitive Advantage in Advanced Manufacturing and NSTC National Strategic Plan for Advanced Manufacturing highlighted agencies and areas the federal government should focus resources on. NIST has been asked to co-chair an interagency effort to support innovation within AMP. AMP's purpose is to coordinate the Federal government's manufacturing policy and programmatic efforts, and NIST works with a broad group of agencies and federal programs that each bring an important knowledge base or resource to the table.

The Malcolm Baldrige Award promotes awareness of performance excellence as an increasingly important element in competitiveness. It also promotes the sharing of successful performance strategies and the benefits derived from using these strategies. Though it is housed at NIST, it is no longer federally funded.

The Advanced Manufacturing Technology Consortia (AMTech) initiatives will support R&D in advanced manufacturing and strengthen long-term relationships. AMTech will provide grants to leverage existing consortia or establish critical new industry-led consortia. These consortia will develop road-maps of critical long-term industrial research needs as well as fund facilities, equipment, and research at leading universities and government laboratories directed at meeting these needs.

The National Network for Manufacturing Innovation (NNMI) will be area-specific institutes focused on increasing innovation and spurring growth in U.S. manufacturing. NIST has the research and technology experience to offer advice and assistance to these institutes, and MEP Centers may be members of the consortia.

Discussion Summary

The formation and organization of the NNMI is still being discussed. MEP will have a natural educational role with the institutes, as well as being a conduit to small and medium-sized manufacturers for innovations created at the institutes. Part of the work in creating these institutes is to find where the U.S. competitive edge is.

State Update: NIST MEP, EDA and the National Governor's Association development and implementation of successful strategies—Two State's Experiences

Mr. Mark Troppe, MEP

Mr. Tom Palisin, Manufacturing Ombudsman, Pennsylvania Department of Community and Economic Development

Ms. Cynthia Enright, Special Advisor to Secretary of Commerce, Kansas

Mr. Troppe spoke about the role of state and local governments, and colleges and universities in MEP and manufacturing growth in the states, specifically through the National Governor's Association (NGA). The States involved in this NGA Policy Academy were asked to put together core teams made-up of representatives from economic development, higher education, labor and commerce. These core teams would focus on state specific problems such as talent and workforce development and job attraction and retention. Not only did this experience help focus state resources, it gave MEP the opportunity to show leadership, helping connect business leaders to political leaders.

Mr. Palisin discussed Pennsylvania's experience with the core team. The Governor's Manufacturing Advisory Council focused on growth in employment with an emphasis on the lack of skilled workers to meet the employment demand. They assisted in establishing agendas and milestones and worked with CEOs from various sized companies to identify areas of focus. The best practices and lessons learned from Pennsylvania's experience will be shared at the Governor's level with other states.

Ms. Enright discussed Kansas' experience with the NGA Policy Academy. The goals for Kansas were to leverage strengths in aviation to attract new companies and find new markets, map available resources and services that support industry, and help SMEs diversify, innovate and grow. Kansas has not focused much on manufacturing development in the past due to budget cuts, but the Policy Academy offered a chance to find areas for development and increase communication between universities, businesses, political leaders and the MEP Center. The Governor's Council formed was composed of CEOs, but technical experts were brought in to advise on areas such as workforce development. Through consultation with the experts and the knowledge of those on the council, the workforce was split into three areas— skilled, high end leadership, and engineering technical management— so the needs and issues of each group could

be discussed. Though there will be tough budget issues ahead, both states found that the NGA offered a chance to bring diverse groups together, position their MEP Centers as leaders in economic growth opportunities and focus their work on state strengths, MEP could be a successful partner for SMEs.

Review of Selected MEP Activities and Initiatives

E3: Economy, Energy, Environment

Ms. Anna Mangum, North Carolina MEP

Ms. Mangum provided an overview of E3's focus on sustainability for the future of North Carolina's manufacturing community. E3 is an innovative, community-based effort to establish replicable, self-sustaining initiatives that simultaneously increase the sustainable practices and profitability of manufacturers. The E3 federal effort works across six different agencies and is focused on the goals of increased sustainability and community participation. E3 has been functional for almost three years and has engaged over 210 partners. Participants have experienced \$5.2 million in saving due to E3 assistance.

Monroe, NC was a target city located just outside of Charlotte. Key industry advocate, Ron Male, leveraged E3 services with MEP and the DOC (NC). Over the past year the team has engaged in education of the members by local leadership, leveraging partnership relationships, strategic conversation, and sustaining relationships. Successes include:

- Besam, a company where 108 improvement opportunities were identified, with 88 completed and 15 in progress, projects have shown savings of \$250,000.

More information about E3 is available at: <http://www.nist.gov/mep/e3.cfm>

Buy American Supplier Scouting (BASS)

Ms. Bonnie Del Conte & Mr. Frank Rio, CONNSTEP

CONNSTEP has been the Connecticut MEP since 1994, assisting Connecticut manufacturers and other businesses with strategic leadership and operational methodologies to become more competitive, thus supporting the growth of Connecticut's economy. CONNSTEP has been working on Buy American Supplier Scouting to bring work back to the U.S. since 2010.

The process for supplier scouting involves researching companies that might produce the needed product, communicating with likely producers to discuss technical requirements and gauge interest and capacity. They then communicate this information to NIST MEP for review and transmittal to the original equipment manufacturer (OEM), and if the product offered will meet the technical requirements, CONNSTEP will negotiate an order with the domestic manufacturer.

In one of the initial projects, a client received an order for an air source heat pump with electric backup. The OEM was originally using a General Electric heat pump manufactured in China. A CONNSTEP client, a company with about 30 employees, had just developed a heat pump that had the same operating characteristics as the GE heater, with a longer expected life. With this

information, the OEM determined that the domestic heat pump met the technical requirements of the project, and a contract was awarded to our client.

More information about supplier scouting is available at: <http://www.nist.gov/mep/scouting.cfm>

ExporTech

Mr. Terry Culp, Nevada Industry Excellence

With 95% percent of the world's market outside our borders, exporting offers a significant opportunity for U.S. manufacturers. ExporTech is a partnership program that focuses on merging strategies for improved results. ExporTech provides clients with guides and templates as well as benchmarks and milestones for developing an export plan. Clients usually experience 20-30% increase in sales within six months of implementing an export plan, with one client doubling in size in 18 months. Overall, clients leave the program with an increased connection to export experts and export markets.

In Nevada recent changes to ExporTech include: expanding the brand and collateral, increasing the price in participation fees per company, improving coach and facilitator guides, and working with various partners, such as the Governor's and economic development offices, to increase funding for company participation. Future investments may include a website to reconnect the tech and supplier services oversees and let the MEP centers work with oversees clients to partner with domestic clients.

More information about ExporTech is available at: <http://www.nist.gov/mep/exportech.cfm>

General Board Discussion

Dr. Gallagher provided what the strategy should be and the value MEP has in representing manufacturers for the next 40 years. We would like to see all of the work coming from the bottom up and define goals and best practices that can be used system-wide.

Workforce is one issue affecting U.S. manufacturers, but there's a lot of money being provided o by the Department of Labor. MEP is working to establish a more prominent role in workforce development on the planning side. Is there a role for MEP for their connections with the manufacturers? We're connected to 33,000 manufacturers a year, and have a good grasp on what small and medium firms are looking for from their employees.

It was wonderful to have states involved in the meeting; their feedback is very helpful. They also demonstrated why different MEPs use different programs to fit the needs of their audience.

Feedback

NIST MEP recommends the board review the NNMI Request for Information (which consists of 20 questions) at a high level, to be discussed during the MEP Advisory Board webcast meeting on September 26, 2012. Board members will provide comments.

Next Meeting

September 26, 2012, Web-cast

Adjournment

Meeting adjourned at 4:30 p.m.