National Institute of Standards and Technology
Manufacturing Extension Partnership
Advisory Board
Minutes of the April 27, 2008 Meeting

Background

The Manufacturing Extension Partnership Advisory Board (MEPAB) met in an open session from 1:00 p.m. to 4:45 p.m. on April 27, 2008, during the National Conference in Orlando, FL.

Attendees

Board Members

Jim Bean, President, Preco Electronics Group
Lydia Carson, President and Chief Executive Officer, Balm Innovations, LLC
Cheryl Hill, President, Hill Manufacturing, Inc.
Edward W. "Ned" Hill, Ph.D., Chairman, MEPAB and Vice President for Economic Development, Cleveland State University
James Jacobs, Ph.D., Director, Center for Workforce Development and Policy, Macomb Community College, Michigan
Fred Keller, Chairman and Chief Executive Officer, Cascade Engineering
Merritt R. Marquardt, JD, Office of General Counsel, 3M (Retired)
Capers W. McDonald, Executive in Residence, Carey Business School, Johns Hopkins University
Mark Rice, Vice Chair, MEPAB, and President, Maritime Applied Physics Corporation

NIST

Roger D. Kilmer, Director, MEP
Aimee Dobrzeniecki, Deputy Director, MEP
Karen Lellock, Senior Policy Advisor, MEP
Mike Simpson, Director, System Operations, MEP
David Stieren, Manager, Technology Deployment, MEP
Steve Thompson, Director, Program Development, MEP
Mark Troppe, Manager, Strategic Partnerships, MEP

Presenter

Susan Helper, AT&T Professor of Economics, Case Western University

Observers

David Braunstein, California Manufacturing Technology Consulting
Drew Casani, Texas Manufacturing Assistance Center
Mike Coast, Michigan Manufacturing Technology Center
Jeff Kohler, Virginia's A.L. Philpott Manufacturing Extension Partnership
Tom Palisin, Pennsylvania Department of Community and Economic Dev
Mike Stone, Stone & Associates, Inc.
Jay Tice, Mississippi Technology Alliance
Ruth Wilcox, Iowa Center for Industrial Research and Service
Bob Zider, Vermont Manufacturing Extension Center

Assisted by

Carol May, SciComm, Inc.

Welcome and Introductions

Speaker: Roger D. Kilmer, Director, MEP

Mr. Kilmer opened the meeting by thanking the Advisory Board members for making the trip to Orlando. Holding this meeting as part of the MEP National Conference, which has grown tremendously in the three years since it started up again, was based on a suggestion made during the October meeting. This venue presents a great opportunity for Board members to witness the energy within MEP Centers and to see the depth of the programs as well as the quantity and quality of services MEP offers.

Although some of the Board members served on the previous MEP Board, this is a new Advisory Board. In recognition of his work on the previous Advisory Board and upon approval of the Director of NIST, Ned Hill was designated as Chair of the Board. Mark Rice was asked to be and received the approval of the Director of NIST to assume the position of Vice Chair. Mark will back up and support the Chair's responsibilities; a position that Mr. Rice accepted.

The new Board's charter calls for some members to serve according to staggered terms that range from one to three years. After this start-up phase, all appointments will be a fixed three-year term.

Ned Hill thanked the Board members for taking the time to come to Orlando and to attend the Board meeting and expressed his belief that this is a great time to be on the MEP Advisory Board. Despite chaotic funding process, most Board members understand the benefits provided by MEP and are excited about the continual progress that has been made in bringing services such as Lean and manufacturing efficiency into the marketplace. Many of the program's stakeholders, however, have not become fully cognizant of MEP's many innovations and the standardized products and services that Centers have helped push out to the marketplace.

The one recurring theme that continues to be pervaded is that MEP competes with the private sector. In actuality, MEP vets consultants' skills and qualifications when they participate in

MEP projects and create a profile of their performance and services, which helps create and expand the market for consulting services. MEP also provides tools that are vetted and shaped to ensure they reflect MEP's mission, enabling manufacturing companies to access and benefit from a rich portfolio of resources. Mr. Hill expressed that he expects to learn a lot from MEP's staff and the other Board members during the three-day conference.

MEP Program Update

Speaker: Roger D. Kilmer, Director, MEP

Mr. Kilmer introduced the topic of MEP's FY 2008 Federal budget of $89.64M, which is below the annual budget range of $104-106M that MEP has received during the past decade. This amount allows MEP, from an operations perspective, to fund Centers until September 30, 2008. This funding cycle is familiar for MEP Centers. They know that beginning every October they will operate under a continuing resolution. In February, the President submitted a FY 2009 budget that would cut funding for the program by $87M, providing only $4M to cover shutdown costs at the Federal level.

In planning for a continuing resolution in FY 2009, there is the assumption that with a new administration coming in January there will not be much progress in developing and passing a budget by October 1. It is estimated that the earliest timeframe would be February or March; however, there is the possibility that MEP would have to operate under a year-long continuing resolution using FY 2008 numbers.

Some of the things that help build support for MEP are articles such as *Renewing Made in the USA* by Susan Helper (http://www.sharedprosperity.org/bp212/bp212.pdf). Many stakeholders are satisfied with the program's progress and impacts and continue to provide resources to the Centers that help them stay focused on making strategic decisions and conducting operations.

On April 22, the Brookings Institution, the Information Technology and Innovation Foundation, and the Council on Competitiveness hosted an event that focused on a proposal for the formation of a National Innovation Foundation (NIF). MEP was identified as one of the major federal innovation programs and its role in the NIF came into play. The reasoning behind this proposal for NIF came from the realization that the Federal government needed to be involved in innovation. The proposed organization either would be structured as part of the Department of Commerce/NIST, as a new Federal agency modeled after the National Science Foundation, or as a quasi-public entity such as the Corporation for Public Broadcasting and funded at the $1-2B level. The foundation would pull together all programs focused on outside customers and serve as a one-stop shop for innovation.

Attendees of the event proved to be an interesting collection of policy people and trade associations located in the Washington, DC, area. The National Association of Manufacturers (NAM) was involved and indicated its strong support for the proposal. The goal of the event's participants is to get the proposal for the Foundation on the Presidential candidates' radar screen and have it included in the transition plan.

This collaboration of trade associations, think tanks, and industry groups indicates the widespread recognition of MEP's value. NIST's management concurred with the need for a policy on innovation, and the Brookings Institution thinks that the proposal has interest within more agencies than just NIST and that the policy is of interest to all three Presidential campaigns**.** The Manufacturing Institute also has indicated its broad based support for MEP and the proposed foundation.

Renewing U.S. Manufacturing – External View on the Future of Manufacturing

Speaker: Susan Helper, AT&T Professor of Economics, Case Western University

Dr. Helper began her presentation by addressing how MEP fits in with policies that promote high-road production, good-paying jobs with career ladders, and energy sustainability. The manufacturing sector accounts for 12 percent of the gross domestic product, 14 million jobs, and weekly wages that are 20 percent above the national average.

Because energy sustainability is critical, a skilled workforce is needed to develop innovations that can help combat global warming. Manufacturing plays a key role in this by using its capabilities to make renewable energy sources, such as solar panels, and designing new products that use less energy (i.e., new cars and new car parts) along with finding new energy sources. U.S. manufacturing companies, however, have found that there is a critical shortage of skilled employees who have the capabilities needed to achieve this objective. This shortage may be due to the fast rate that older people are leaving the workforce as well as a lack of interest and training of new people coming into the workforce.

Dr. Helper noted that people are retiring at a rate faster than manufacturing is shrinking. One reason is that the salaries are not high enough to draw or retain people. For example, people with engineering degrees do not make the kind of salary that people with law and business degrees do. In addition, the industry has an image problem; this surfaced during a meeting with Honda where a concern that skilled employees only perform production work was expressed. Many of the issues are due to a lack of training, declining wages, and non-existent marketing of manufacturing's benefits.

Statistics show that:

- 90 percent of manufacturers report moderate to severe shortage of skilled production employees
- 65 percent of manufacturers report moderate to severe shortage of scientists and engineers
- Tooling industry lost one-third of employees between 2000 and 2005.

High-road manufacturing is necessary to achieve the national goals of sustainable energy, infrastructure, and defense. Harnessing everyone's knowledge, not just of executives' knowledge, enables companies to achieve the quality and variety of innovation needed to

compete. Well-paid workers make cost-effective, sustainable products for consumers and profits for owners.

Another example that shows how MEP can facilitate high-road manufacturing includes assisting an inventor of a firefighter's compass. The compass designed for use in burning buildings has a light, is easily twisted and operated with gloves, and is quickly oriented to the north to make it easier to find the entrance of the building. MAGNET (Manufacturing Advocacy and Growth Network), the MEP Center in Cleveland, OH, helped the inventor with the design drawings and then located Colonial Machine, a tooling company in Kent, OH, that was able to provide innovative reusable tool bases, computerized equipment, and just-in-time production.

Distributed-information flow is one of the key reasons why high-road production works. Because production rarely goes exactly according to plan and even the simplest job involves some level of knowledge, tapping into the expertise of all workers helps to quickly resolve, as well as prevent, problems.

It would be worthwhile to invest more in data collection to measure the success of U.S. firms that have adopted high-road production. The Michigan Manufacturing Technology Center (MMTC - the Michigan MEP) collects some data through an annual benchmarking survey. During 2003-2006, productivity numbers consistently indicated an incredible variance between manufacturers in the same industries.

The average value-add per full-time employee is about $75,000. Companies on the upper tier of value-add per worker tend to do well and are not taking the off-shoring route. Data collected in 2006 show that many manufacturers, who are potential MEP clients, are losing customers to companies in Mexico and Asia, with 42.9 percent saying that their customers are off-shoring to Asia alone. The 2006 data also indicated that small suppliers were in the experimental stage and had not yet sent a lot of work to China. The largest percentage of companies to do so were in the tooling build and test sectors, which is a worrisome trend.

The response to the value of off-shoring is mixed. One area of concern is that the U.S. may lose capabilities in some key industries. On the other side, off-shoring does not help with quality or lead time. In a study conducted by an automotive group that looked at composite costs, U.S. companies were competitive with China. But the 2006 data does not reflect currency movement or the hidden cost in off-shoring. During a meeting in Youngstown, OH, discussions focused on the belief that U.S. manufacturers cannot compete with labor costs in low-wage countries. This is a common misconception. The U.S. will have difficulty ensuring manufacturing success if it continues to focus on direct labor, which is a small percentage of total manufacturing costs, instead of meeting the requirements for high-level skills and instituting a collaborative supply chain, where clusters of nearby firms provide fertile ground.

When companies lose proximity, they lose the ability to make adjustments and are unable to focus on innovations. Thinking through all the costs and then measuring them is important for manufacturers, and MEP knows how to advise clients around these issues and keep jobs from going off-shore.

Applying sophisticated risk-management techniques in the management of long supply chains can help prevent companies from going off-shore. High-road production can help firms close the cost gap and, instead of imitating Chinese companies, can compete with China by expanding their skills.

One reason manufacturers do not use high-road production is the lack of spillover to workers and suppliers. Firms do not capture all the gains from high-road production so they invest too little in it.

Investments in high-road production must be made all at one time to achieve a quick turnaround, and sophisticated technology is needed to track where all things in the plan are at all times. For example, Colonial Tool, a company of 40–50 people, needed to invest in information technology, training, process redesign, and marketing, but an investment in one important area would not pay off without investing in all the others. This is a tough thing for a small manufacturer to do.

There is a widespread variation in productivity among firms. Quality, stability, and productivity are outcomes that can offset higher wages for direct labor. Companies with the highest value-add per employees also have higher quality and lower employee turnover. High-road manufacturing is a goal for MEP.

The role of MEP is to teach high-road manufacturing skills, which in a sense it is already doing. A public policy where MEP receives $300M a year for improved problem solving among all workers, new product development, and supplier collaboration would help plants achieve the levels of productivity attained by the best plants, compete on the basis of fast delivery and new products, and understand all their costs.

Lean manufacturing usually yields increased capacity. The challenge is to fill up capacity with additional sales or growth strategies and avoid layoffs, which undermines the successes from Lean. Joint work between multiple groups can help attain full utilization and benchmarking and data-driven production can aid in problem solving.

MEP can help by assisting more firms to compete on fast delivery, not on wages, and educate them on the hidden costs of off-shoring so that they can compete in today's world of high-cost energy. But MEP cannot do it alone. Broader public policies can pave the high road through socially beneficial programs and by increasing education, training, and research and development along with building skills for all workers in problem solving, new product development, and collaboration with suppliers. Providing good jobs for most Americans is not enough without also giving them direct help in implementing high-road strategies that relate production to yield.

The spillover from high-road manufacturing could help pay for the MEP program through taxes generated by higher income workers. One striking fact is that the median income for a college-

educated man has gone up only 0.5 percent per year since 1973, so college by itself is not the answer to increasing income.

It is also necessary to block the low road and stop undercutting socially responsible firms. This can be accomplished by subsidizing only those firms that commit to high-wage, high-productivity, sustainable strategies and to discourage States and municipalities from poaching.

It is important for MEP to find out how to advise clients and instruct them about issues of risk management along the supply chain and the sophisticated techniques that are needed to manage the supply chain. Closing the gap can come through high-road production.

High-road manufacturing helps the country meet national goals for sustainability and higher incomes by following the same principles that promote innovation, problem solving, and training for all businesses. MEP can see itself alleviating market failures that slow adoption of these techniques. The concept that MEP should not facilitate the low road is hard to apply, if, in helping bad companies, it does harm to good companies.

MEP must determine how it stands on off-shoring and the best way to handle products designed in the U.S. but manufactured elsewhere, such as in China. Although the U.S. still has design jobs, it has become more difficult for companies in the U.S. to compete. There needs to be greater understanding of what is considered a successful triage in the sense that it is believed that by off-shoring low-wage jobs the U.S. is taking steps to ensure that high-wage skilled work remains here. The risk is that the U.S. may lose whole industries like it has with laptops if it is not careful and that design jobs, for example, may also move off-shore as well.

Along with the belief that MEP is corporate welfare, many manufacturers think that outsiders cannot understand their business. MEP could challenge these misconceptions by conducting randomized trials, similar to those used in drug testing, which may help overcome suspicions about the validity of MEP evaluations. Randomized trials would involve putting firms into separate groups, where one group receives comprehensive consulting services right away and the other group, which may be the control group, assistance at a later time. Then, the performance of the different groups could be compared to determine what, if any, are the differences. Trials are underway in India and there may be an opportunity to receive a grant to conduct a similar study in the U.S. There is a concern that the study requires the assumption that all firms are alike.

One way of thinking about MEP is that it is a promoter of high-road manufacturing and by adopting its values the benefits can spread to people other than firm owners.

More information can be found on www.sharedprosperity.org/bp212.html.

Board Comments:

When Pennsylvania conducted a match design between firms that sought help from MEP and those that had no contact with MEP, there were inherent political problems accompanied by a mistrust of the accounting data showing the return on investment. A more successful approach

was using the probability of survival as the selection criterion. The main thrust of the study showed that in the screening process there was a real difference in the firms that volunteered to work with MEP because they had already made the decision to change.

Companies such as Boeing, which has recently encountered problems with a fastener manufacturer, feel the impact of low-road behavior. The lead organization can effectively coordinate their supplier chain by adopting high-road manufacturing practices throughout their supplier chain.

Production is just a subset of the high-road manufacturing approach. The process is out there, but it is not adopted. This leads one to conclude that the issue is not skills and techniques, but rather a change in the business model. Consequently, it is important for MEP to assist companies in adopting a set of management practices that are not top down and hierarchical. Changing behavior is difficult, and often those individuals who are best equipped to change are the most unlikely to accept new ways of operating because they have experienced success. This is somewhat shortsighted because the business and competitive environments, along with customers, undergo continuous change. By asking these individuals to change their business model, MEP can facilitate their ability to adapt to future market conditions. Often, it is easier to introduce change at a point where their company's business model is no longer working, but it has some money available that can be used to initiate change. Experience has shown that when companies become desperate, they will grasp at opportunities to change their culture.

Update on MEP Key Initiatives

MEP Growth Services

Speaker: Mike Simpson, Director, System Operations

This year's conference is tightly focused on delivering resources that generat business. In addition to the sessions, there will be plenty of time for everyone to discuss new and traditional opportunities for expanding business as well as to network and build relationships that further fortify the MEP network. MEP's strength and success will continue to come from its technical expertise and its network connections, which will be strengthened and reinforced at this conference.

Lean manufacturing is one of MEP's foundational services; process improvements that lead to growth and sustainability are what MEP is known for. MEP introduced growth into the conversation last year and rolled out its vision of 20/20+. The objective: In a three-year timeframe, MEP will help manufacturers cut costs by 20% using Lean and quality processes that increase plant efficiencies, and it will help increase the top line by 20% using a growth strategy based on definition, discovery, development, and delivery. Through Eureka! Winning Ways

(E!WW)[1], a program launched at last year's conference, MEP encourages manufacturers to grow through new sales, new markets, and new products. New markets can be domestic, other industries, or international, and new products can be line extensions.

Right now, MEP is focused on E!WW's discovery stage. Fundamentally a scientific process, this phase of E!WW is used to gather new ideas for growth and then sort and filter the ideas and determine which ones have the highest probability of success. An MEP-led team can assist a firm with the development of new marketing messages, entry into new markets (i.e., international markets via MEP's new ExporTech Program), and introducing new products based on the findings of the discovery process.

This approach has been well received by MEP Centers and resonates with manufacturers. Manufacturers like the double guarantee that MEP will ensure that two or more of the ideas created and tested will succeed. If necessary, MEP will retest more ideas and work with the client until an idea becomes a winner.

The Pennsylvania Centers are doing quite a bit to realize business growth with their clients. They have conducted E!WW projects. Another example is MMTC, the Michigan MEP, where the Center signed up 11 manufacturers immediately after promoting it.

Since last year, 180 people have been trained in a series of E!WW boot camps, where attendees work with companies and trainers in real time. Doug Hall also has been traveling to Centers to help them develop rollout strategies for launching the program to clients. In Louisiana, during a *Manufacturing Matters* conference attended by approximately 50 companies, 6 signed contracts for E!WW sessions. These training events provide MEP with good stories that generate a lot of positive press, which is evident in the coverage MEP has received in the first quarter.

Mark Troppe, Manager, Strategic Partnerships, MEP, has pulled together elements of E!WW and MEP's growth initiatives and incorporated them into his conversations about layoff aversion. E!WW is a very good topic to bring into discussion when trying to help companies address workforce issues. At a conference where many companies were discussing the difficulty they had hiring people, Subaru Indiana indicated that it did not share the same experience. Anecdotally, the company attributed its zero-waste philosophy and environmental focus to its success in attracting newly graduated engineers from colleges as well as technical-school and high-school graduates who are making conscious decisions about the type of company they want to work for.

At this point, MEP has 140 growth projects that are completed or underway. Recent impacts from the growth service projects include, Richards Industries whose goal was to increase its revenue stream by $150,000 a year. As of now, the company projects a five to seven times greater sales impact.

[1] Eureka! Winning Ways® is the first of a series of MEP product offerings in the area of growth services, focused specifically on helping companies increase sales. EWW! was developed in partnership with Eureka! Ranch and is uniquely designed to support growth in smaller manufacturers.

Fail fast, fail cheap, and get smart has become the new mantra for upgrades to MEP growth services. Growth coaches are meeting with the E!WW team to learn more about incorporating new capabilities into the methodology.

At the October 2007 Program Update Meeting, Tom Murphy from Cardsource talked about his experience with E!WW. He mentioned that he did not think about exporting, sustainability, or new technology because the process did not ask him about these initiatives. The process has now been modified to address sustainability, greening, exporting, and the introduction of new technology. There was some discussion about creating a green version of E!WW or separate versions for sustainability and technology. MEP did not want to do this because it creates stovepipe thinking. Instead, it was decided to embrace all of these issues under one umbrella.

While the content for E!WW is the same, there is one program for small companies and one for suppliers. The program can be scaled to both small and large companies and customized to their growth plans. For the small-company version, the program is attended by approximately 10 people from within the company or who serve the company, such as lawyers and accountants. Because very small companies often do not have 10 employees, creating a group of three companies can make the program more affordable for each. This approach was successfully tested in Montana, but the timing related to pulling 3 companies together can be prohibitive.

MEP used a supplier version with H&L Vantage and Steelcase. The two companies worked together in a workshop format where they exchanged ideas for H&L to create a new product that would be delivered to Steelcase.

Pennsylvania, Minnesota, and many other Centers have moved in the direction of growth and embedded the strategy into their operational plans. Several MEP Centers have seen how the new services provide increased profitability for their clients and generate overall greater economic impacts.

With MEP Centers conducting only one or two E!WW projects, the program has not yet impacted MEP Centers' internal operations. Instead, the Centers still focus on conducting other, more traditional, types of engagements. The skills and techniques learned through E!WW are similar to the more classical MEP functions. In the future, the E!WW framework will encompass the entire Center and have linkages to all the other functions an MEP Center performs.

The Vermont MEP is one Center that has conducted many more E!WW engagements than larger Centers because growth is part of their strategy. As other Centers look at Vermont's success, while they continue to play a balancing act between impact, revenue, and market penetration, they will up the number of engagements. One challenge is that it is difficult to pull people from the revenue-producing functions to focus on growth. An indicator of the shift in emphasis is exhibited here at the Conference with fewer people signing up for Lean courses and more for training on growth.

MEP has partnered with the District Export Council in Baltimore and the U.S. Export Assistance Center, the Maryland MEP, and a number of other organizations in Maryland. Since October, two pilot programs, conducted in Baltimore, have served 10 companies. ExporTech is designed to help companies implement an export plan customized to their specific needs by leveraging many resources, such as the International Traffic in Arms Regulations or financing. This program seems to have gained some traction, and it is complementary to the processes MEP already has in place. Pilot programs will be conducted in Oklahoma and Pennsylvania in 2008, and Montana, North Dakota, South Dakota, and Idaho also have expressed interest.

One company that participated in the program has already found several customers in Turkey. Another company, Raloid Corporation, a Certified Small Disadvantaged Business and contract manufacturer of close-tolerance components and assemblies for the defense industry, closed new international business projects within six months of completing the course.

Technology Deployment Framework

Speakers: David Stieren, Manager, Technology Deployment, MEP, and Steve Thompson, Program Development, MEP

The technology deployment framework is focused on using technology to help manufacturers accelerate their rate of growth using a push-pull approach, with more emphasis on the pull side. Technology deployment integrates well with MEP's overall growth strategy and 20/20+ and is designed to bridge the gap and strengthen the connection between research and commercialization.

Technology is a critical enabler of the three pillars of growth: new sales, new markets, and especially new products. Technology deployment integrates well with overall growth services by adding enabling tools, processes, and capabilities. The MEP Centers can provide commercialization and product-development assistance, connecting manufacturers with solutions and opportunities to bring the product to market. By testing processes for translating technology into ideas and concepts readily understood by manufacturers, it is possible to forecast where there are opportunities. However, it is not only about making all the right connections, it also is about following all the processes needed to bring a product to market from obtaining patent licensing through commercialization.

MEP clients have needs with respect to competitiveness and opportunities to grow. MEP is communicating those needs to the sources of technology located in research and university laboratories and is beginning to work with private sources. Often, technology that comes out of laboratories is not understood by manufacturers, which needs to be corrected.

Since October 2007, there have been 16 pilots conducted, with 15 universities, 2 Federal laboratories, and 2 private sources as well as 8 MEP Centers involved. The pilots were focused on evaluating technologies and converting those that were selected from patent descriptions into business-oriented product concepts that could be marketed by MEP. Results, which have been favorable, include integrating this framework with E!WW and the future development of an

online Innovation Marketplace that will house translated product concepts to facilitate connecting technology innovators with invention buyers, sellers, and distributors. This is a space where technology sellers will be able to operate and those with buying needs can post standards so their needs are apparent and distribution channels can be identified. The keys to the Innovation Marketplace are access, translation, and valuation; access is what MEP is about. The big differentiator of the Innovation Marketplace will be a single repository for manufacturers, original equipment manufacturers (OEMs), and partners to find translated product concepts that have been assessed and judged ready for market, components that play into the determination of fair royalty rates. Because laboratories often find it difficult to assess the value of what they have, the stock exchange can provide some sort of measurement. However, this valuation factor may not match with what the marketplace demands and the goal is to develop an evaluation model for marketability.

Understanding intellectual property (IP) protection is vital in commercializing technology. Assistance with patents, trademarks, copyright enforcement, and international considerations, as well as IP issues related to small- and medium-sized enterprise (SME) business strategy and piracy issues is available.

Supplier Development Management

Speakers: Mike Simpson, Director, System Operations, MEP

MEP has 10 years of real experience in supplier development across multiple chains. One example is the Wisconsin Accelerate supply chain service. As of April 2008, there have been 311 Accelerate supplier projects in 23 states.

OEMs cannot compete without constantly improving the supply chain and SMEs cannot stay in business without sales to OEMs. It is important to understand the needs of both groups to deliver the right services to the small manufacturers who are part of the supplier network. There is a strong need for suppliers that are diverse and agile. MEP's approach is to work both bottom up, working one-on-one with many suppliers, and top down by understanding the needs of the industry and OEMs.

In the last 10 years, MEP has learned that it takes a lot to establish and manage national accounts. It is an ongoing process to maintain the relationship. It is easy to confuse the customers (pricing, brands, etc.).

The issues facing MEP this year include the following: What is MEP's role in improving the competitiveness of U.S. manufacturing? Should MEP continue to grow its efforts incrementally, or embrace a more centralized approach to meeting the demands of the market? What are the priorities: value chain, extended manufacturing enterprise, OEMs, holding companies, multi-plant operations, etc? From a program, Center, and supply-chain perspective, where do the borders stop?

Board Feedback and Discussion on MEP's Future Plans

General Comments:

To close the gaps in several of the programs and to prepare for the future, professional development is needed to begin delivering high-road services. If there is no support to expand, there will be low-level participation. For this reason, multiple partners are needed. Part of the challenge is designing initiatives without setting unrealistic expectations and realistically, in the technology deployment area, this will be a three- to five-year process.

It is important to assess national priorities and determine what is most critical: supply-chain management or technology transfer. Although the supply chain is a structure, it is innovation that differentiates U.S. manufacturing from other countries' manufacturers.
Because different solutions are needed at different times, there must be systematic approaches and products matched to each company's needs.

Comments on MEP's draft strategic plan:

- Continue to support programs that resonate with manufacturers across the country.
- Add high-level points and create a mission statement that strategies support.
- Revise the vision statement to align with the mission statement. Keep in mind that MEP is a Federal program, not a national program. Current description of MEP's guiding values does not appear strategic. A continuum that ties everything together and spans product development and supplier chains to eliminating inter-state competition is needed.
- Help on the legislative side to reconcile differences in the proposed budget and actual funding and promote MEP's vision on Capitol Hill. This may come through the development of a public-relations plan as well as refining the MEP message to get funding equal to that of other programs such as the Defense Advanced Research Projects Agency. The Board can help with an offensive strategy that recognizes that a plan developed for today's business environment may not work in the future.
- Define the relationship between MEP and the National Association of Manufacturers (NAM) as well as determine where there is overlap between selling E!WW and services sold by Booz-Allen, Accenture, and other private businesses and consultants.
- Give MEP's contributions more exposure on Capitol Hill. It is vital to overcome the perception that manufacturing is not needed. This can be accomplished by publicizing to legislators how manufacturing contributes to the workforce and the economy; legislators often do not understand how important manufacturing is to their constituents.
- Create specific goals around the improvements to the supply chain and define how supplier-chain management fits into the strategic plan.

- Define a Federal strategy in the strategic plan. This involves identifying where there is compatibility between State MEP Centers and their partners and how MEP can become a national force and not simply reinforce State strategies. For example, supply-chain management and research innovations are important and go beyond State innovation plans.

- Emphasize that MEP's growth strategy is based on changing the concept that MEP is a content provider to the acceptance of MEP as a concept provider. This may involve MEP creating a methodology around technology transfer and providing assistance with overcoming roadblocks or identifying bad business plans.

- Tone down language that represents MEP as an innovator that helps creates markets.

- Articulate the strategy for helping manufacturers view globalization as an opportunity not as a threat. MEP must first determine if it is going to be an export enabler or if its role is to help create a global culture.

- Help determine what strategies and approaches are working overseas and tone down language when promoting MEP by keeping in mind that MEP does not make all manufacturers more competitive. MEP provides the tools that help make manufacturers more competitive.

- Define accountability and what types of evaluations work in terms of the mission using new terminology. The MEP program has lasted because of evaluations. However, it is important to separate MEP's mission and accomplishments from those of, for example, Department of Labor and NAM.

- Differentiate discussion on employment from the number of jobs retained to the quality of the jobs, career paths, and income to show how manufacturers can win.

- Emphasize that MEP is not a workforce program, but that MEP is the only Federal program that is working on the demand side and knows more about the manufacturing sector than any other part of the government.

- Promote green and export initiatives.

- Keep momentum going for "Made in America", which can help turn around the weak U.S. dollar.

- Build excitement among customers and MEP staff for the innovation program and define strategy for identifying technology needs of manufacturers.

- Focus on competitiveness and show the strategic value of keeping industries from going off-shore without being protectionist. For example, the loss of the machine-tool industry has impacted U.S.'s ability to get adequate supplies to Iraq.

- Help identify MEP champions and the people who can make a difference on Capitol Hill and those who need to understand the program.

Meeting Adjournment

The meeting was adjourned at 4:45 pm.