

# National Institute of Standards and Technology

## Manufacturing Extension Partnership

### Advisory Board

### Minutes of the April 19, 2009 Meeting

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#### **Background**

The 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. on April 19, 2009, at the World Center Marriott Conference Center in Orlando, Florida. Approximately 40 attendees, composed of Board members, MEP staff, guest panelists, and observers, attended the meeting.

#### **Attendees**

##### **Board Members**

Edward W. "Ned" Hill, Ph.D, Chair, MEP Advisory Board, and Vice President for Economic Development, Cleveland State University  
Mark Rice, Vice Chair, MEP Advisory Board, and President, Maritime Applied Physics Corporation  
James Bean, President and Chief Executive Officer, Preco Electronics, Inc., and member, Advisory Board, TechHelp  
Lydia Carson, President and Chief Executive Officer, Balm Innovations, LLC  
Cheryl Hill, Owner and Chief Executive Officer, Hill Manufacturing, Inc.  
Fred Keller, Chairman and Chief Executive Officer, Cascade Engineering  
Merritt Marquardt, J.D., Office of General Counsel, 3M (retired), and Chairman, Board of Directors, Enterprise Minnesota  
Keith Mayeaux, President, A+ Corporation, and member, Industrial Advisory Board, Manufacturing Extension Partnership of Louisiana  
Capers McDonald, Executive in Residence, Carey Business School, Johns Hopkins University  
Kristin Stehouwer, Ph. D., Executive Director, Research and Planning, Macomb Community College. (Dr. Stehouwer was substituting for James Jacobs.)

##### **MEP Participants**

Roger Kilmer, Director, NIST MEP  
Aimee Dobrzeniecki, Deputy Director, NIST MEP  
Alex Folk, Manager, Center Operations, NIST MEP  
Karen Lellock, Senior Policy Advisor, NIST MEP  
Mark Schmit, Director, National Accounts, NIST MEP  
Mike Simpson, Director, System Operations, NIST MEP  
Steve Thompson, Director, Program Development, NIST MEP  
Mark Troppe, Manager, Strategic Partnerships, NIST MEP  
Ken Voytek, Chief Economist, NIST MEP

## **Guest Panelists**

Bob Baugh, Executive Director, Industrial Union Council, AFL-CIO  
Andre de Fontaine, Markets and Business Strategy Fellow, Pew Center on Global Climate Change  
Jim Jones, Acting Assistant Administrator, Office of Prevention, Pesticides and Toxic Substances, U.S. Environmental Protection Agency  
Douglas Kaempf, Program Manager, Industrial Technologies Program, U.S. Department of Energy  
Fred Keller, Chairman and Chief Executive Officer, Cascade Engineering  
Jeff Metts, President, Dowding Machining  
Doreen Monteleone, Director, Environmental Affairs and Membership, Flexographic Technical Association  
Tom Olson, Consulting Attorney, Climate and Air Campaign, Environmental Defense Fund  
Doyle Sumrall, Director, Strategic Opportunities, National Truck Equipment Association

## **Observers**

John Connelly, Director, Product Management, Enterprise Minnesota  
Bob Kill, President and Chief Executive Officer, Enterprise Minnesota  
Montana Mallett, Business Specialist, NIST MEP  
Tanya Hodge Mottley, Acting Director, Pollution Prevention Division, Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency  
Tom Murray, Chief, Prevention Analysis Branch, Pollution Prevention Division, Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency  
Roy Peters, Director, Oklahoma Manufacturing Alliance  
Kristin Pierre, Manager, Green Suppliers Network, Pollution Prevention Division, Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency  
Jack Russell, Ph.D., President and Chief Executive Officer, Jack Russell and Associates, Inc.  
Carroll Thomas, Partnership Catalyst, NIST MEP  
Gary Thompson, Account Manager, NIST MEP  
George Wyeth, Director, Policy and Program Change Division, Office of Policy, Economics and Innovation, U.S. Environmental Protection Agency  
Gary Yakimov, Director, Business and Industry Strategies, Corporation for a Skilled Workforce

## **Assisted by**

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## **Welcome, Introductions, and Opening Remarks**

*Speaker: Ned Hill, Ph.D., Chair, MEP Advisory Board, and Vice President for Economic Development, Cleveland State University*

Dr. Hill convened the MEP Advisory Board Meeting and asked Board members and MEP participants to introduce themselves. Dr. Hill noted that the MEP Strategic Plan was complete and that the purpose of this meeting was to discuss “Deploying Sustainability into the U.S. Manufacturing Economy: The Role for MEP Centers.”

Manufacturers play a key role in the U.S. economy. The Board feels that the National MEP System should be an important thought leader and central player for U.S. manufacturing. NIST

MEP should be seen as the primary source for manufacturing information in understanding the role of manufacturing in the evolving economy.

To this end, the Board is involved in an activity to lay the groundwork to develop fact-based informational paper to describe the state of manufacturing and opportunities for manufacturing, focusing on the strength versus the need of manufacturing. Part of this effort will be to collect information from the field to understand what is important to manufacturers and to understand the disruptive shocks that will affect U.S. manufacturing. Disruptive shocks include the need to develop new products or technologies and to educate the manager of a manufacturing firm.

The Board feels that this will help make the National MEP System the heart beat and thought leader of manufacturing. NIST MEP's competitive advantage is the power of the National MEP System.

***Speaker: Roger Kilmer, Director, NIST MEP***

Mr. Kilmer thanked Board members and guest panelists for participating in the MEP Advisory Board Meeting. Panel input and discussions from today's meeting will help NIST MEP plan and develop new products and services, approaches, and partners in the area of sustainability, one of the new components in MEP's Strategic Plan.

Mr. Kilmer noted that Merritt Marquardt would be retiring from the Board. Mr. Kilmer and the Board members presented a medallion to Mr. Marquardt as a token of their appreciation for his contributions to the National MEP System.

## **Panel Discussions**

### **Background: NIST MEP White Paper on Sustainability**

***Speaker: Alex Folk, Manager, Center Operations, NIST MEP***

Mr. Folk reflected upon MEP's accomplishments on sustainability. By providing small and medium-sized manufacturers Lean, clean, and energy assessments through MEP's collaboration with the U.S. Environmental Protection Agency (EPA) and Department of Energy (DOE), MEP and its Centers have played an active role in environmental and energy sustainability in the U.S. Furthermore, many of the services that the Centers of the National MEP System have developed to help their client manufacturers are also the services that can help meet State and local needs in response to the Recovery Act.

Mr. Folk noted that today's agenda feature three panel discussions:

- Manufacturing-sustainability policy,
- Federal-agency partnerships, and
- Manufacturers' perspectives.

***Speaker: Mark Troppe, Manager, Strategic Partnerships, NIST MEP***

With its nationwide network, MEP is in a strong position to assist manufacturers and Federal, State, and local agencies to meet the many challenges that the U.S. manufacturing community face today. Synergism exists between NIST MEP and key national advocate organizations to help push forward a national policy agenda on environmental and energy sustainability. NIST

MEP can help these national organizations by providing data on U.S. manufacturing trends, and by helping SMEs to reduce their carbon footprints, and national organizations such as the Center for American Progress, Apollo Alliance, Pew Center on Climate Change, AFL-CIO, and Environmental Defense Fund can help increase MEP visibility and help stakeholders understand the role NIST MEP can play.

NIST MEP's role is twofold: MEP can provide support for energy-efficient production and for increased production of renewable energy, which are consistent with MEP's strategic plan and growth-services focus.

## **Panel One: Manufacturing-Sustainability Policy**

**Moderator:** *Mark Troppe, Manager, Strategic Partnerships, NIST MEP*

Panelists:

- Andre de Fontaine, Markets and Business Strategy Fellow, Pew Center on Climate Change
- Bob Baugh, Executive Director, Industrial Union Council, AFL-CIO
- Tom Olson, Consulting Attorney, Climate and Air Campaign, Environmental Defense Fund

**Panelist:** *Andre de Fontaine, Markets and Business Strategy Fellow, Pew Center on Climate Change*

Mr. de Fontaine provided an overview of current Federal activities on global climate change. Mr. de Fontaine noted that President Obama is committed to addressing global climate change. Specifically, the President has 1) appointed a strong climate-change team, 2) created a new climate and energy czar, 3) created a special envoy for international climate negotiations, 4) directed EPA to review California's tailpipe standards, 5) directed the Department of Transportation, National Highway Traffic and Safety Administration, to finalize the Corporate Average Fuel Economy (CAFE) rules, and 6) has clearly and repetitively stated that improvements in the environment should be a part of the Nation's economic recovery.

EPA is working on the American Clean Energy and Security Act of 2009. The four major Titles of the Act include:

- *Title I – Clean Energy.* Title I promotes renewable energy by requiring retail electricity suppliers to meet a certain percentage of their load with electricity generated from renewable resources, such as wind, biomass, solar, and geothermal.
- *Title II – Energy Efficiency.* Title II promotes energy efficiency in new buildings by providing Federal training and funding assistance to States that adopt advanced building-efficiency codes. Title II also authorizes funding for retrofitting existing commercial and residential buildings to improve their energy efficiency.
- *Title III – Reducing Global-Warming Pollution.* Title III promotes the reduction in global-warming pollution by 1) establishing a market-based program to reduce pollution from electricity, oil, large industrial sources, and other covered entities, 2) entering into agreements to prevent international deforestation, 3) establishing pollution 'offsets,' 4) permitting banking of allowances, and 5) directing EPA to create a 'strategic reserve.'
- *Title IV – Transitioning to a Clean-Energy Economy.* Title IV promotes the transition to clean energy by 1) ensuring domestic competitiveness, 2) developing curriculum and training programs, and 3) deploying clean-energy technology to developing countries.

There is strong industry support for the American Clean Energy and Security Act. Nancy Pelosi (D-CA), House Majority Leader, and Henry Waxman (D-CA), House Energy and Commerce Committee Chairman, strongly support the American Clean Energy and Security Act. There is less support for the Act in the Senate. However, with the strong support from the President and the House, Mr. de Fontaine predicts that the Act will pass either this year or early next year.

***Panelist: Bob Baugh, Executive Director, Industrial Union Council, AFL-CIO***

Mr. Baugh expressed concerns that the U.S. does not have a strong enough strategy for U.S. manufacturers. Without a strategy, the U.S. undermines its manufacturing capacity. To revitalize manufacturing, the U.S. needs to develop a comprehensive, national manufacturing strategy. As a part of the strategic plan, the U.S. needs to consider how it will invest its resources in such areas as health care, energy, supply chains, and trade opportunities.

The U.S. also needs to better understand what constitutes a green job and to make green jobs a social, cultural, and economic way of thinking. Any job that lowers the carbon footprint can be considered a green job.

The National MEP System is in a great position to assist manufacturers and Federal, State, and local agencies with these issues and MEP should be a major contributor to future economic growth. Mr. Baugh concluded that MEP is an excellent Federal investment and needs to make itself more visible in the Obama Administration.

***Panelist: Tom Olson, Consulting Attorney, Climate and Air Campaign, Environmental Defense Fund***

Mr. Olson feels that MEP can play a critical role in achieving U.S. environmental goals. The market economy is the most powerful tool in achieving environmental objectives. Two major questions include:

- How does the U.S. produce energy that does not produce pollution?
- How does the U.S. improve energy efficiency?

To reduce greenhouse gas, a process similar to the process used to reduce pollution that causes acid rain should be advocated. In that process, a national standard was developed for acid-rain and over time the standard levels became more stringent to further reduce acid-rain pollution.

Identifying green companies would be beneficial. It is clear that some companies, like producers of solar panels, are green companies. Other companies, like Cardinal Fasteners produce components like bolts that can be manufactured with a smaller footprint, or can be sold to renewable energy products like wind turbine manufacturers. In either case the company can be said to support the growth in the green economy. MEP should focus on the supply chain and the Green Suppliers Network, which is a collaboration among industry and government (NIST MEP and EPA) that focuses on offering small and medium-sized manufacturers the best available technical assistance on Lean and clean manufacturing techniques.

Reducing pollution can be achieved from individual households to businesses:

- Insulate attic: Insulation saves energy and is made and sold in the U.S.
- Replace windows: Modern windows save energy and are made in the U.S.

- Replace AC units: Modern heating, ventilating, and air conditioning (HVAC) units save energy and are manufactured in the U.S.
- Use LED technology: LED is more efficient and is made in the U.S.
- Replace water heaters: Modern units save energy.
- Use microprocessor boiler controls: These controls are energy efficient and are made in the U.S.
- Convert heat waste: Convert factory heat waste into energy source.
- Carbon storage: Carbon capture and storage (CCS) captures and stores carbon dioxide away from the atmosphere. CCS mitigates the contribution of fossil fuel emissions to global warming and represents a good opportunity for manufacturers.

Attendees are encouraged to visit the “less carbon, more jobs” web site at <http://www.lesscarbonmorejobs.com/>.

### **Advisory Board Questions/Panelist Responses**

Q: Can you please discuss the international competitiveness issue and how the U.S. can press the issue of carbon footprint?

R: Anything can be made anywhere and shipped to the U.S. The U.S. needs to work on the supply chain and to develop international climate agreements with respect to the carbon footprint. Each country, whether developed or developing, should have its own goals. Developing countries will have to pay a surcharge to import high-carbon products into the U.S.

R: Congress should not thwart international cooperation.

Q: Are you looking at the supply-chain point-of-view?

R: The U.S. should take a leadership role and then bring China and other countries along with it. The U.S. is currently working on the upcoming Copenhagen Agreement, an international framework for climate change.

Q: Has anyone done an economic-impact study?

R: A cost-impact study financed by the National Commission on Energy Policy should be out in May 2009.

R: Additional economic-impact studies will be conducted as issues become more focused.

Q: Does legislation consider the needs of small manufacturers?

R: The AFL-CIO would like to see increased small-business issues included in the legislation.

R: Cap and Trade will have an impact on the cost of electricity. This will adversely affect small utilities. Small utilities should be offered reduced-cost permits and the benefits should then be passed on to the consumer.

### **Panel Two: Federal-Agency Partnerships**

*Moderator: Alex Folk, Manager, Center Operations, NIST MEP*

MEP's goal in establishing partnerships is to recognize potential synergies, overlaps, and independent perspectives with other Federal agencies.

Panelists:

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- Jim Jones, Acting Assistant Administrator, Office of Prevention, Pesticides and Toxic Substances, U.S. Environmental Protection Agency
- Douglas Kaempf, Program Manager, Industrial Technologies Program, Department of Energy

***Panelist: Jim Jones, Acting Assistant Administrator, Office of Prevention, Pesticides and Toxic Substances, U.S. Environmental Protection Agency***

Mr. Jones applauded MEP for its collaboration efforts with EPA. MEP can and should play a key role in delivering the manufacturing vision as it relates to the environment. Collectively, MEP and EPA share a vision of green jobs and green economy.

The Green Suppliers Network works with large manufacturers to engage their suppliers in low-cost reviews to identify strategies for improving process lines and using materials more efficiently. The Lean and clean assessment targets and eliminates the root causes of waste; the result – a stronger bottom-line.

Multi-agency collaborative projects are in progress across the country. In Columbus, OH, the municipal government, an MEP Center, EPA, DOE, and several manufacturers are collaborating to address their environmental issues. American Electrical Power (AEP), a large utility company, in conjunction with TechSolve, the local MEP Center, and the local DOE Industrial Assessment Center (IAC) from the University of Dayton, will work with local businesses to conduct comprehensive energy assessments. These assessments will include a Green Suppliers Network review, Lean and green evaluation, an energy audit, and a climate assessment. If the program is successful, AEP hopes to assess additional companies in Columbus.

In a Northeast-region project, MEP Centers in Maine, Massachusetts, and Vermont are working with EPA, DOE IAC, and six manufacturers to develop an integrated approach to manufacturing by address manufacturing, environmental, and energy issues.

In a Northwest-region project, MEP Center Washington Manufacturing Services, DOE IAC, Washington State Department of Ecology, and local manufacturers are collaborating to develop an integrated plan to favorably affect their financial bottom-line.

Through these collaborations, MEP, EPA, and DOE share their networks, skills, and tools to create an effective relationship. MEP has an established infrastructure of MEP Centers that provide services to small and medium-sized manufacturers throughout the country while EPA and DOE have the specialized environmental and energy-related technical knowledge and skills. MEP, EPA, and DOE have shown a willingness to collaborate, ignoring traditional turf issues and embracing potential collaboration.

MEP's challenge is to raise the awareness of the National MEP system to the Administration, Congress, and other Federal agencies.

***Panelist: Douglas Kaempf, Program Manager, Industrial Technologies Program, U.S. Department of Energy***

DOE's Industrial Technologies Program has three goals:

- To reduce industrial energy intensity by 25% over 10 years,

- To reduce carbon by 70% by 2030, and
- To make the U.S. a leader in energy management.

The U.S. has developed the American National Standards Institute (ANSI) Energy-Management Standard. In this standard, firms certify their plant energy-management program. The first plant should be certified by 2010. The international community is developing ISO 15001, Energy Management Standard. U.S., Brazil, China, and the European Union are leading this effort. In addition, 31 other countries are involved with ISO 15001. With standards, original equipment manufacturers (OEMs) can level the international playing field when they work with their suppliers. In addition, international standards reduce the potential disadvantage to U.S. manufacturers.

To reach its goals, DOE is active in two areas: research and development (R&D) and energy assessments. For example, in the area of R&D, DOE is helping design a system for a factory to make its own energy on-site. In the area of assessments, DOE IACs perform about 600 assessments per year. DOE does not have the workforce needed to perform all of the assessments; by collaborating with NIST, MEP Centers can help provide the necessary support.

DOE and NIST MEP are working to update and extend their current Memorandum of Understanding (MOU) to document results so far and future goals.

### **Advisory Board Questions/Panelist Responses**

Q: What is DOE's capacity to train field agents?

R: DOE's capacity is deep. DOE has about 10 software systems and related training programs. DOE needs to provide qualified teams to support small manufacturers.

Q: Does DOE have multi-tier certifications?

R: The National Association of Manufacturers (NAM) is evaluating a certification process. DOE needs to develop a database of certified technicians.

Q: Please discuss InDEED

R: The Industry's (Online) Energy-Efficiency Directory (InDEED) web-site concept is being designed as a publicly accessible resource to provide energy-efficient technology and process options to industry. The principal objective of the InDEED web site is to provide useful tools and resources for plant managers to assess their energy-efficiency technology needs and match these needs to available, cost-effective options. InDEED will include four key functional areas: a blog forum, a case-study directory, an equipment directory, and software-tool links. By providing this functionality in one central location, DOE Industrial Technologies Program will accelerate the deployment of commercially available technologies and energy-management best practices within industry and reduce industrial-energy intensity.

Q: Can one audit the auditors?

R: This goes back to certification, which streamlines the process for manufacturers. EPA, MEP, and DOE need to work together.

R: MEP engagements are surveyed after the process. This helps certify the auditors.

Q: Green Suppliers Network is a great program. However, are companies being “green washed”?

R: There may be conflicts between government and private organizations.

R: "No cash cost" to implement energy efficiency is a good idea. Energy efficiency is a big issue.

R: Congress wants the Federal government to pull it all together (Senate Bill 661; increase assessments and regional centers; SBA loans). MEP can coordinate the whole assessment. Assessments make big differences.

Q: How do DOE, MEP, and EPA provide a single, comprehensive assessment?

R: The goal is to provide a single face to users. The goal is to bring all service providers together. Agencies need to collaborate with one another. Any new paradigm that is developed will change the cost equation.

Q: What are MEP impediments (i.e., legal, contractual, and ethical) to further move the MEP program? Where will MEP be in three years? Should the role of MEP Centers be better defined from the beginning?

R: Turf is always an issue. When fighting for appropriations, there are conflicts. Funding and duplication can be an impediment.

R: MEP is good with Lean. Assessments should offer all aspects, including green and energy issues. MEP offers infrastructure while EPA and DOE IACs offer technical knowledge. The assessment should appear seamless to the client.

Q: Please address nuclear energy and the carbon footprint?

R: The Obama Administration has a different view of nuclear energy; every option of energy needs to be examined.

R: Distributed energy is finally getting some traction; if there is a temperature inversion in Arizona, there is no wind.

Q: What about Energy Star?

R: Energy Star is a good program, but results need to be better quantified. There should be plant certifications and standards.

### **Panel Three: Manufacturers' Perspectives**

**Moderator:** *Mark Schmit, Director, National Accounts, NIST MEP*

Panelists:

- Jeff Metts, President, Dowding Machining
- Fred Keller, Chairman and Chief Executive Officer, Cascade Engineering
- Doyle Sumrall, Director, Strategic Opportunities, National Truck Equipment Association
- Doreen Monteleone, Director, Environmental Affairs and Membership, Flexographic Technical Association

**Panelist:** *Jeff Metts, President, Dowding Machining*

The U.S. needs to take bold and decisive action to regain the leadership role in technology. To be the world leader, the nation needs to change the way it thinks about R&D. One of the major deterrents in R&D is the lack of funding. Currently, it is very difficult to obtain loans for R&D.

Dowding Machining produces wind turbines, among other things. Dowding Machining is trying to convert automobile-manufacturing technology to wind-turbine-manufacturing technology. To be successful, Dowding needs to produce turbines effectively and efficiently. A typical problem centers on the turbine blades. One of Dowding's partners produces the carbon blade. This process is only cost effective if the partner can produce many blades. Carbon represents a new technology. With this technology, the U.S. can jump ahead of its competition.

The U.S. needs to change its national mindset and decide if the U.S. is going to take a worldwide leadership role in energy. The scope of the energy issue is gigantic. The U.S. and the manufacturing community need R&D, entrepreneurs, scientists, and engineers to lead the way.

***Panelist: Fred Keller, Chairman and Chief Executive Officer, Cascade Engineering***

The U.S. must change its approach to manufacturing. The rules have changed and resources, such as fossil energy and dollars, are scarce. The U.S. is in collective denial about the changing rules. The issue needs to be focused on energy and fuel availability.

The question is – How does the nation respond to the new constraints and new rules? The nation needs to recognize that the current business model is flawed. To leave the world for our children, the manufacturing community needs to make its business model more sustainable.

Cascade Renewable Energy Solutions (CRES), a subsidiary of Cascade Engineering, designs, develops, manufactures, and sells innovative, distributed renewable-energy systems. CRES is interested in distributed energy. The future of home and business energy systems will be composed of small, distributed wind turbine and solar panels. Energy storage, however, is an issue. Cascade is also working on recycling, cradle-to-cradle certifications, and water-filter systems for developing countries.

Attendees are encouraged to visit <http://www.chooserenewables.com/>.

***Panelist: Doyle Sumrall, Director, Strategic Opportunities, National Truck Equipment Association***

The National Truck Equipment Association (NTEA) represents about 1,300 manufacturers that are involved with multi-stage truck-equipment manufacturing. From 1970 to 2006, these manufacturers have seen solid growth that peaked in 2006. Production began dropping in 2007. The current question is how will manufacturers prepare for the expected economic turnaround? If U.S. manufacturers are not ready, foreign manufacturers will take the market lead. NTEA predicts that the U.S. economy will return to 2006's level in 2014 or 2015.

When considering future demands, it is difficult to make an economic decision to develop new green truck technology when fuel costs \$2.25 per gallon. It only makes economic sense to redesign truck technology when fuel costs more than \$3.75 per gallon. Compressed Natural Gas (CNG) vehicles and electric vehicles are possible answers for the future, especially since the U.S. has a high CNG capacity. The truck-equipment manufacturing community needs to plan for the future.

NTEA members face four major issues:

- Consolidation – Consolidation is rampant. MEP can help NTEA members work 'on' their business, not work 'in' their business.
- Globalization – MEP can help NTEA members understand the importance of globalization and the process of globalization.
- Customers – MEP can help NTEA members understand the new internet-based customers.
- Government – NTEA believes that the government will become the center of commerce. MEP can help NTEA members understand the new role of government.

The potential for collaboration between NTEA and the National MEP System is very promising.

**Panelist: *Doreen Monteleone, Director, Environmental Affairs and Membership, Flexographic Technical Association***

Ms. Monteleone discussed sustainable green printing (SGP). With SGP, all processes along the printing supply chain are sustainable. Organizations that are certified as sustainable green printers will have a competitive advantage when negotiating with Walmart, Toyota, and other large customers. SGP certifies and recognizes the printing supply chain for their accomplishments.

Stakeholders in SGP include printers, suppliers, non-government organizations (NGO), Government agencies, and associations.

To become SGP members, applicants must 1) comply with Federal and State regulations, 2) develop a sustainability policy, and 3) commit to SGP guiding principles. To assure compliance, SGP audits members for compliance.

Attendees are encouraged to visit SGP's web site at <http://www.sgppartnership.org/>.

### **Advisory Board Questions/Panelist Responses**

Q: Has there been cultural changes in your manufacturing organizations?

R: Situation is definitely changing. Staff is looking for clear leadership.

R: The journey has evolved over the 10 years. Staff survey suggests that the staff understands the move towards sustainability.

Q: How has the trucking industry been affected by the green movement?

R: All transportation will have to change.

R: Electric trucks now have electronic 'centers' to manage their energy. All electrical components 'talk' to each other. Energy management is built in. At a recent green summit, the effects of sustainability on the entire industry were discussed.

Q: Engine manufacturers have been spending their R&D funds and then comes the recession. Who has shovel-ready trucks?

R: Smith Electric is the only shovel-ready truck in the U.S. Others are not going to get recovery related grants because they are not shovel ready.

Q: Please describe the general response to the sustainable green printing certification program.

R: It has been positive. In fact, Toyota announced that it would endorse SGP-certified printers.

Q: How do sustainable green printing standards compare to ISO environmental standards?

R: They are very similar; however, SGP includes health and safety.

Q: Jobs will solve all problems. What creates more sustainable jobs?

R: People do not buy jobs; they buy products. The focus should be on products.

R: We need to help U.S. manufacturers to be as good as they can be today. The market will recover in 2010. It is hard to focus on new products when there are no sales.

## **Panel-Discussion Summary**

*Speaker: Aimee Dobrzeniecki, Deputy Director, NIST MEP*

In summary:

- Panel One discussed policy-level activities and legislative opportunities for manufacturing sustainability. The new Obama Administration and Federal legislation will affect manufacturers and the national MEP System. MEP should assist manufacturers with their current challenges by providing opportunities to be part of the solution for the future.
- Panel Two discussed MEP's Federal partnerships and how to better integrate Federal resources. Federal partnerships have provided an opportunity for MEP to expand its outreach to manufacturers. MEP needs to examine how to further leverage its partnership strategy.
- Panel Three discussed manufacturers' perspectives in today's environment. The panel addressed issues and challenges faced by U.S. manufacturers today. It is imperative for NIST MEP to consider these changes as opportunities in the new world of manufacturing.

The Board was asked to consider three questions:

- What does the future hold for U.S. manufacturing?
- What barriers do today's manufacturers face?
- What are the policy, regulatory, and technology drivers for manufacturing?

MEP's role in the future of manufacturing:

- The National MEP network will need to make internal changes to reflect changes U.S. manufacturers are facing.
- MEP will need to evaluate its approach to manufacturing in light of the new Obama Administration.
- MEP will need to evaluate business opportunities in the area of energy efficiencies – from new technologies to the control systems to implementation of product ideas.
- MEP needs to consider new opportunities from an infrastructure point of view in such areas as energy efficiencies, smart-grid technology, and broadband access. MEP needs to help develop the support structure to allow U.S. manufacturers to embrace and adopt these new opportunities.

MEP's role in helping manufacturers face today's challenges:

- MEP will need to make manufacturers and Federal, state, local organizations more aware of the National MEP System.
- MEP will have opportunities to support the Cap and Trade program, particularly in the areas of compliance, remediation, and new technologies.

- MEP can leverage the intersecting local, State, and Federal networks and encompass the whole manufacturing enterprise, including the supply chain and each supplier's customers.

## **Board Feedback/Drivers for Manufacturing**

### ***Ned Hill***

- The biggest challenge for manufacturers is to survive during the next 12 months.
- Manufacturers face two major long-term constraints, finance and carbon constraints.
- Other challenges include manufacturing managerial and technical-skills development, implementing energy efficiencies, and understanding the Cap and Trade program.
- Based on our current economic and financial shock waves, opportunities exist for creating new products and services.
- The National MEP System and the U.S. manufacturing community must continue to leverage and network.

### ***Fred Keller***

- The U.S. needs a comprehensive and consistent energy policy.

### ***Cheryl Hill***

- The most burning issue is how will manufacturers make it through the next 12 months?
- How will the U.S. develop the technical managers of tomorrow? MEP needs to work closely with universities.

### ***Jim Bean***

- MEP needs to stay connected with small manufacturers.
- There are expanding financial challenges that face manufacturers.
- The U.S. needs a clear energy policy.

### ***Mark Rice***

- Manufacturing issues have never been more challenging.
- Kudos to EPA and DOE for their collaboration efforts with MEP.
- As MEP analyzes current issues around sustainability, MEP should define policies for MEP Center Directors. Center policies should be manageable.
- MEP should consider potential inter-agency conflicts of interest as part of their partnership strategy in the future.
- As MEP deploys additional business growth services, they should consider the impact/effect upon sustainability practices.
- MEP should reach out to the Small Business Administration (SBA) because finance will be critical.
  - It was noted that SBA is an MEP partner. SBA (Antonio Doss) and NIST MEP (Carroll Thomas) are working together through the Interagency Network of Enterprise Assistance Program, a collaborative effort between Federal agencies to find opportunities to work together to provide a government-wide forum of business and technical-assistance programs to promote small and medium-sized businesses.

### ***Lydia Carson***

- The Obama Administration is creating new opportunities for manufacturers, especially in light of the House Waxman Bill on American Clean Energy and Security Act and Senate Bill 661 on Restoring America's Manufacturing Leadership through Energy Efficiency.
- MEP efforts should be on small manufacturers.
- Sustainability must be better defined so that manufacturers, stakeholders, and policymakers are working from the same page.

### ***Capers McDonald***

- Because of the sudden national financial collapse, there is a lot of manufacturing capacity on the sideline. The recovery may take more than 12 months. How long does a manufacturer's capacity shelf-life last? There are investors that are looking for local and regional investments in entrepreneurs and opportunities. Smaller, local, and regional banks may play a key role.
- Sustainability is reminiscent of the perceived Y2K crisis. Our society had to change/expand products to meet customers' demands. Do our current customers have a sustainability demand? When it is critical to the customer to be green because of regulations, the customer will then demand that manufacturers develop sustainable products. MEP is positioning itself to be ahead of the game in the area of sustainability.

### ***Merritt Marquardt***

- Change is the only constant. MEP needs to recognize the opportunities involved with change. MEP should help manufacturers manage this change.
- MEP should not determine the winners and the losers when MEP participates in audits. The regulatory nature of a policy must be taken into account as the Board/MEP develop its white papers, which must be incorporated in any guidelines that MEP develops for its Centers.
- The difference between innovation (i.e., developing a solution to a production problem) and R&D (which is long-term and has a broad impact) must be distinguished.

### ***Kristin Stehouwer***

- How will we prepare the future workforce? In Detroit, there are thousands of unfilled jobs. There is a mismatch between required skills and personnel.
- How do we leverage our networks to better match skills with current jobs?

### ***Keith Mayeaux***

- MEP is in a unique position to take a leadership role in manufacturing. MEP needs to define itself as the leader in manufacturing.
- MEP needs to define sustainability and to communicate MEP's position with the Executive Branch, the Legislative Branch, MEP Centers, and manufacturers.

### **Adjournment**

Dr. Hill thanked the Board members and guest panelists. He concluded by saying that MEP is the one place where all aspects of manufacturing should come together. He announced that the next Board Meeting would be held in Dallas, TX, on September 24, 2009.