

We will start momentarily at 2pm ET



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Thursday, September 9, 2010, 2-3 p.m. EDT

How Scientific Skills Are Used in Advising the Movie Industry – Facts and Fiction

Dr. Barry Byrne, Associate Chair and Professor, University of Florida.



Thursday, September 16, 2010, 2-3 p.m. EDT

Diversity: Old Topic – Fresh Conversations

Lolita Chandler, adjunct instructor at Cornell University, and Cathy Bristow, Founder of BRIDGES

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ACS WEBINARS™ August 26, 2010



Programs and Funding Opportunities for Manufacturers and Small Chemical Businesses



Speaker: Douglas Devereaux, M.B.A.
National Institute of Standards and Technology



Moderator: Jamie Pero Parker, Ph.D.
Research Triangle Institute

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Hollings Manufacturing Extension Partnership

National Institute of Standards and Technology

Douglas Devereaux

“Programs and Funding Opportunities for Manufacturers and Small Chemical Businesses”

Moderated by Jamie Pero Parker, RTI

ACS Webinars™:
Small & Medium Business Series August 27, 2010



**MEP • MANUFACTURING
EXTENSION PARTNERSHIP**

VISION

MEP is a catalyst for strengthening American manufacturing – accelerating its ongoing transformation into a more efficient and powerful engine of innovation driving economic growth and job creation.

MISSION

To act as a strategic advisor to promote business growth and connect manufacturers to public and private resources essential for increased competitiveness and profitability.

MANUFACTURING EXTENSION PARTNERSHIP

The MEP Program in Short . . .

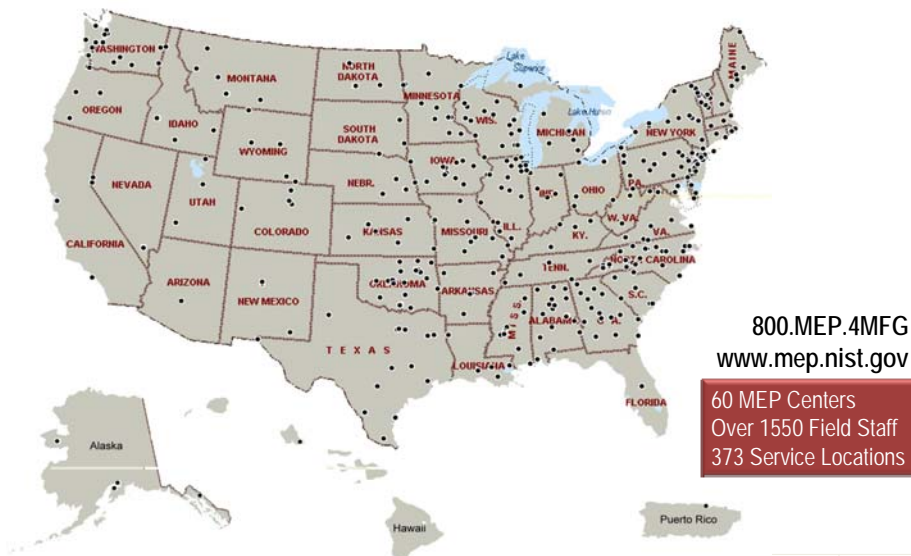
- Program started in 1988, with at least one center in all 50 states by 1996
- 60 centers with over 370 field locations
 - System wide, non-federal staff is over 1,550; staff are employees of the Center and its partners – *not* the Federal Government
 - Contracting with over 2,300 third party service providers
- Partnership Model – Federal/State/Industry - System budget ~ \$300M
 - 1/3 Federal, 2/3 State and Industry (fees for services)
- Emphasis on performance – program and center – measured based upon impact of center services on client firms.

August 2010

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MEP Office Locations



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NIST MEP  8

MANUFACTURING EXTENSION PARTNERSHIP

What MEP Does

- Focus on meeting manufacturer's short term needs, but in context of overall company strategy
- MEP Center areas of common strength
 - Engineering Services for products and processes
 - Growth Services – new or expanded market opportunities
 - Lean Manufacturing
 - Quality Systems
 - Sustainability
 - Workforce Development
- Reach nearly 33,000 manufacturing firms and complete over 10,000 projects per year*

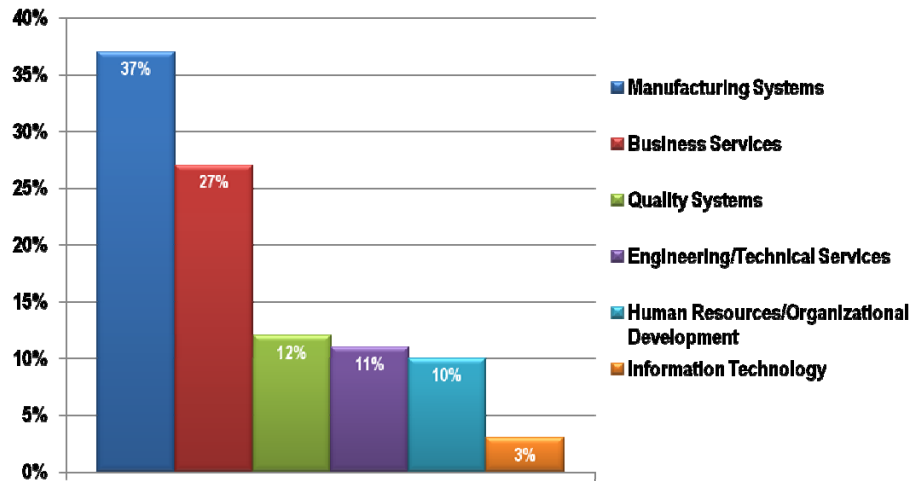
*Based on FY2009 MEP Center reported performance data.

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Service Characteristics *By Type of Assistance (FY 2009)*



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Client Impacts
Resulting from MEP Services
FY2008

- New Sales \$3.6 Billion
- Retained Sales \$5.5 Billion
- Capital Investment \$1.7 Billion
- Cost Savings \$1.4 Billion
- Jobs Created and Retained 52,948



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MANUFACTURING EXTENSION PARTNERSHIP

NEXT
GENERATION
MEP



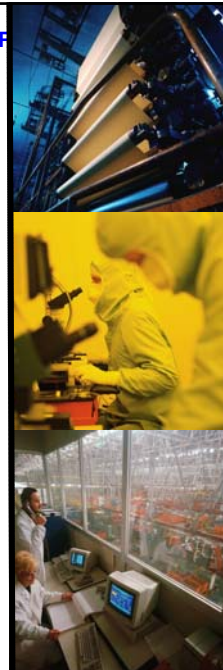
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What we all know...

Manufacturing has and continues to change!

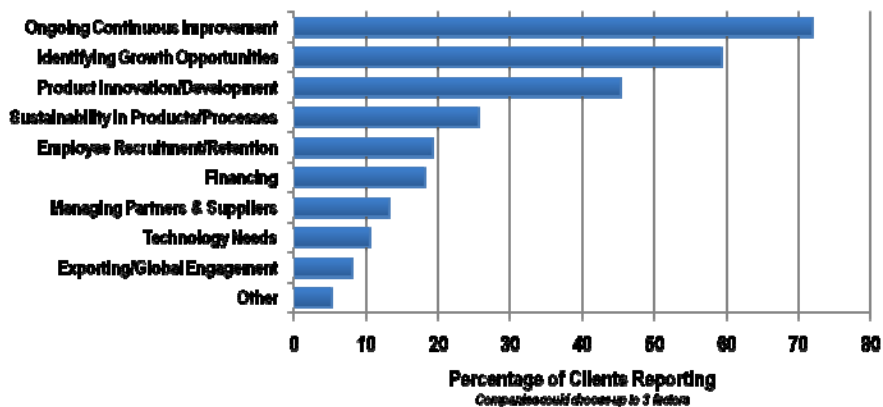
- **Globalization** is here to stay and U.S. manufacturing firms are adapting to increasing competition.
- **Supply Chains** are becoming more global, more exclusive, and more competitive.
- **Innovation** (product, process, service & business model) is critical for survival.
- **Technology** advances will be incremental and disruptive. Unfortunately, technology adoption rates at smaller firms still lag those of larger ones.
- **Sustainability** is an increasingly powerful business driver for industry. The triple bottom-line approach to economic, environmental, and societal balance is defining many corporate strategies.



Current Landscape

Client Challenges

As you look forward over the next 3 years, what do you see as your company's three most important strategic challenges?



Data from MEP Clients responding to a Client Impact Survey conducted in April/May 2009

Next Generation MEP Strategies

- Increasing manufacturers competitiveness and profitability is the overarching strategy for the Next Generation MEP.
- The approach is to provide a framework that capitalizes on cost-reduction strategies – historically MEP’s core services – to enhance productivity and free up capacity for business growth.
- Business growth is focused on the development of new sales, markets, and/or products with manufacturers for the purposes of greater flexibility and agility.
- There are 5 key MEP strategies for increasing manufacturers’ profitability:
 - Continuous Improvement
 - Technology Acceleration
 - Supplier Development
 - Sustainability
 - Workforce

GROWTH SERVICES

Providing a reliable scientific system that guides companies through the creation of new ideas, discovery of market opportunities, and the tools to drive the ideas into development



NEXT GENERATION MEP * Fully deployed

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Eureka! Winning Ways

- Assists small manufacturers to generate, evaluate, and prioritize new ideas to develop and deploy innovative new products, enter new markets and develop more effective market messages.
- Approach includes a 1-day "Idea Engineering" session in which employees are led through a disciplined process for generating ideas on how to grow the company.
- Ideas can be as simple as changing the parameters of a product design, to more complex decisions such as entering new markets. Ideas are then benchmarked against 50 success factors, scientifically tested to evaluate how obvious and self evident they are to potential customers. Evaluation system has an 88% reliability in forecasting probability that idea will be successful.
- MEP Center "Growth Coaches" then advise companies on how to implement their idea(s) and accelerate them to market.

February 2010

NIST MEP  17

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The National Innovation Marketplace – NIM

- MEP makes connections for manufacturers to generate business growth and profitability through an online marketplace – NIM.
- The NIM involves the translation of emerging technologies first into straightforward, non-scientific terms with a customer benefit focus.
- Uses an open innovation strategy, which includes partnering, licensing, and co-developing innovation with partners outside of a company instead of the traditional, internal research and development. The NIM connects innovation sellers, buyers, investors and distributors in all industries.
- Targets significant reduction of transaction costs associated with technology commercialization.



USA NATIONAL
INNOVATION MARKETPLACE

A Service of
NIST National Institute of Standards and Technology
Manufacturing Extension Partnership



A member of the Planet Eureka!
International Innovation Network

www.usainnovation.org

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ExporTech

Helping Companies Enter and Expand into Global Markets

ExporTech is a "how to" service to help companies expand into global markets by developing a proactive international growth plan customized for their business, moving the company into actual, profitable export sales.

Case Study: Wilco Machine & Fabrication
Marlow, Oklahoma

Manufacturer of fabricated and machined equipment, products, and tools for the energy industry.

Results:

- Visited the Middle East to establish relationships
- Negotiations for a joint venture in Brazil
- 2008 exports accounted for less than 8% of total revenue
- Halfway through 2009, exports jumped to 51%
- Predicting that exports will be 60% of total revenue by end of 2009



ExporTech is a collaborative effort between Commerce's NIST MEP, the U.S. Export Assistance Centers, and District Export Councils, the SBA's Small Business Development Centers, and State-based international trade programs.

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Financing Growth Opportunities

Manufacturers planning to take themselves to the next level of growth whether it's by the development of new products, markets, or sales—need to have clear strategies for identifying and securing the necessary capital resources to achieve growth. Every growth strategy decision is also an investment decision.



<http://www.manufacturing.gov/>

- Internal Cash Management Practices
- Debt Financing
- Federal Loan Programs for Small Business
- Federal Loan Programs – International Trade
- State Grant Programs
- Private Sector Operated Loan Programs
- State and Local Financing Programs
- Specialized Private Sector Financing
- Equity Financing
- Federal and State Tax Programs
- Federal Grant Programs

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TECHNOLOGY ACCELERATION

Systematically identifying, and capitalizing on, opportunities to leverage technology into the processes, products, and services of manufacturers

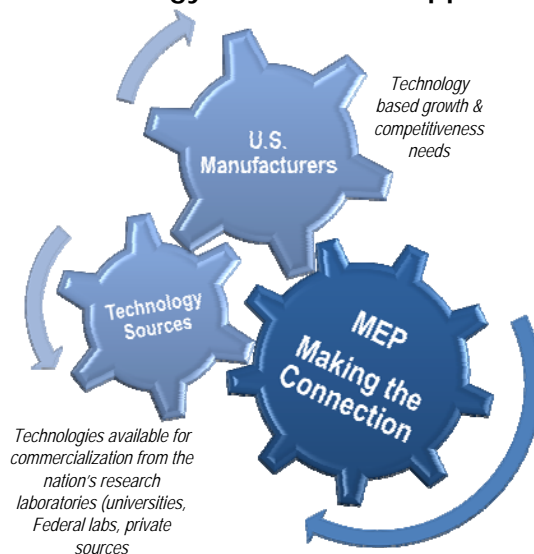
NEXT GENERATION MEP * Fully deployed

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Technology Acceleration Approach



MEP is accelerating technology deployment and utilization by getting the needs of U.S. manufacturers to Technology Sources and getting new technologies translated into real-world product concepts by:

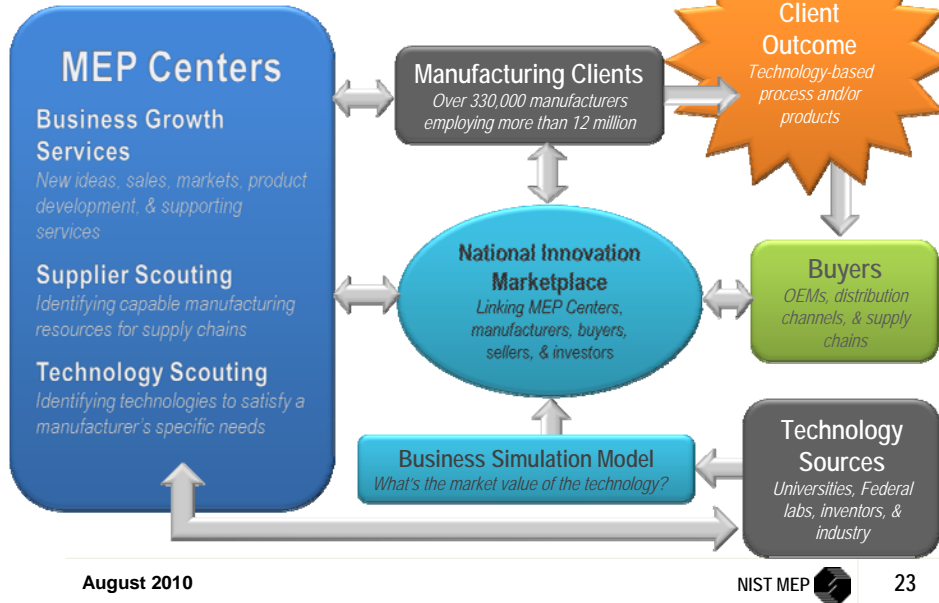
- Connecting manufacturers with solutions and opportunities
- Providing development & commercialization assistance
- Leveraging 3rd party partners

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MEP Technology Acceleration Connections



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What Is Technology Scouting?

*A service to search **outside normal channels** to find solutions for an **unmet technology need***



NIST MEP Client Unmet Technology Need types:

- To enable a new product development
- To solve a current product issue
- To solve a unique process issue
- To get unique expertise/skills or a specialty resource

NIST MEP emphasis is on top-line opportunities

What Technology Scouting Is NOT

NOT Engineering or Lean Manufacturing Support

- Solving engineering problems
- Identifying possible process improvements
- Looking inside the company for solutions/ improvements

NOT Product Ideation or Innovation

- Coming up with new innovation/product/market ideas (not Eureka Winning Ways)

NOT Market Analysis

- Assessing the market for an innovation or new product
- Assessing the impact if the problem is solved

NOT Strategic Advising

- Business or strategic planning



What is Technology-Driven Market Intelligence?

TDMI is a **market research process** that can help your client understand if his/her product, product idea, or product capability will

- 1) work (technical factors influencing success), and
- 2) sell in particular markets

TDMI is a **service** that MEP practitioners perform for clients

TDMI is **actionable intelligence** that MEP practitioners deliver to their clients



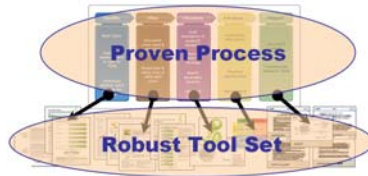
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How does TDMI do this?



- Considers **technical parameters, complexities, or issues** that are likely to impact product acceptance/success

- Incorporates **interviews with Industry Experts** to give client real-world insight into: Does anybody care? If so, how big is the opportunity?



- Uses a **proven process** that integrates **robust tool set**

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SUPPLIER DEVELOPMENT

Helping manufacturers strategically understand, maintain, and expand their positions in supply chains



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Supply Chain Interaction

- Primes / OEMs / All companies cannot compete without constantly improving supply chains
 - Supplier Development
 - Finding new suppliers
 - Finding new technology
 - New Sources
- Small and medium-sized manufacturers cannot stay in business without sales to Primes / OEMs / Customers
 - Most small manufacturers sell b-2-b
 - Delighting Current Customers
 - Finding New Customers



SUSTAINABILITY

Helping manufacturers gain a competitive edge, maintain profitability and job creating growth while increasing energy efficiency and reducing environmental impacts



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MEP Sustainability

Current Efforts

- The Green Suppliers Network (GSN): Waste minimization and energy efficiency are natural extensions of MEP's lean manufacturing services which have been expanded to include more explicit emphasis on waste reduction and energy efficiency in this MEP-EPA collaboration.
- The Economy, Energy, and Environment (E3) Initiative: a collaborative effort among five federal agencies, state and local governments, utilities, and manufacturers to support sustainability, boost competitiveness, and spur local job growth and innovation. Process begins with a comprehensive assessment of a process or facility, focusing on lean manufacturing, energy use and environmental practices to identify opportunities for continuous improvement, the team works with the company to identify resources, available financing options, training and capacity building to support the implementation strategy.
- Use of MEP Growth Services tools: to assist companies identify and pursue new market opportunities in renewable energy and other green products and markets. Market diversification efforts are already being extended and repositioned to incorporate green/sustainability components.
- Green Jobs: Implementing green technologies requires a trained workforce ready to meet manufacturers' new production demands.



Benefits of MEP Partnering to Support Manufacturing through Sustainability

GSN: Green Suppliers Network

E3: Economy, Energy, and Environment



Benefits for Manufacturers & Communities

Cost Savings

- Increased process efficiencies and reduced waste
- Profitable sustainability practices

Increased Competitiveness

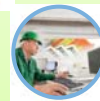
- State-of-the-art sustainable business practices
- Technical support to drive entry into new markets
- Job creation and retention

Access to Technical and Financial Resources

- Additional funding through federal and state programs
- Enhanced skills and capabilities for workers

Economic Growth

- Improved competitiveness of existing manufacturers
- Enhanced ability to attract new business
- Increased manufacturing jobs or job retention
- Trained workforce with skills for a sustainable economy



Progress toward Environmental Goals



GSN and E3 *Project Impacts*



Green Suppliers Network

125 Reviews

Impacts to Date:

- Environmental Impact Savings.....\$ 24,621,055
- Energy Conservation.....861,436,419 kWh
- Cost Savings.....\$ 36,214,040

Source: GSN Program Update, January 2010



E3 – Economy, Energy, Environment

4 Reviews

Columbus, OH Pilot Impacts:

- Environmental Impact Savings.....\$ 1,909,538
- Energy Conservation.....7,911,579 kWh
- Job Creation.....33

Source: TechSolve E3 Program Update, January 2010



WORKFORCE

Helping manufacturers develop a strong, engaged, and skilled workforce that spans all levels of the organization necessary for business growth

NEXT GENERATION MEP

Approach

- Leverage existing Federal and State programs with a focus on rapid response to individual manufacturers needs.
- Develop diagnostic tools and services to assist companies in avoiding layoffs and provide re-training opportunities for employees.
- Develop the tools and services necessary to develop a manufacturing workforce pipeline by working with partners to engage students early in their education to provide opportunities and career paths into manufacturing.

Layoff Aversion

- Utilize early warning networks, including state and local partners, to identify and stabilize “at-risk” companies before they reach critical condition
- Work with companies to reduce operating costs and, once the company is in stable condition, identify business growth opportunities
- Prevent layoffs – start by saving existing jobs and then begin creating new, secure positions within the company.
- Layoff Aversion programs already exist in California, Missouri, Michigan, New York, Pennsylvania, Oklahoma
- Expand Labor Workforce Investment Act - Commerce MEP collaboration



Preventive
vs.
Emergency
Care



Questions?

October 28, 2010: **Programs for Manufactures and Small Chemical Business, Part II: *How the Manufacturing Extension Partnership Program's technology acceleration strategy help's small manufacturers solve challenges in technology transfer and commercialization.***



Q&A SESSION



Programs and Funding Opportunities for Manufacturers and Small Chemical Businesses



Speaker: Douglas Devereaux, M.B.A.
National Institute of Standards and Technology



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Thursday, October 28, 2010, 2-3 p.m. EDT

Programs and Funding Opportunities for Manufacturers and Small Chemical Businesses – Part II

Ben Vickery, Senior Technical Advisor, NIST.

How the Manufacturing Extension Partnership Program's technology acceleration strategy help's small manufacturers solve challenges in technology transfer and commercialization.

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