

# ***The U.S. Manufacturing Extension Partnership - MEP***

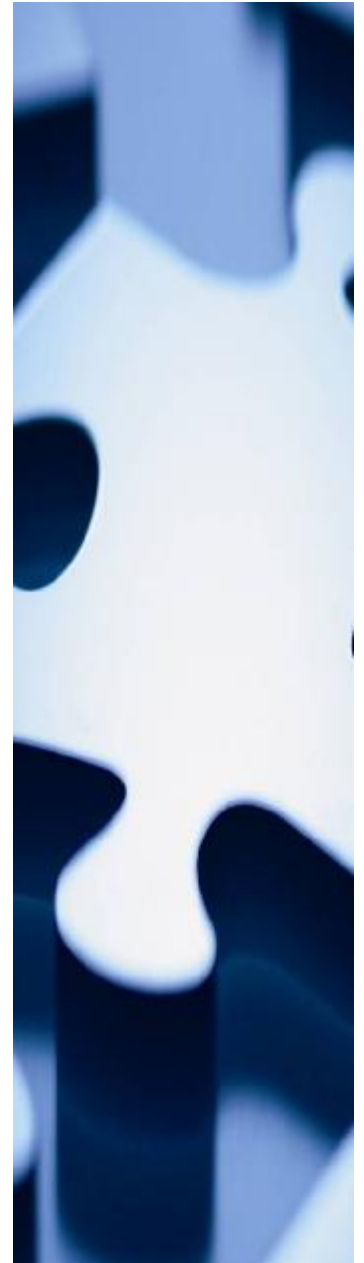
---

Roger D. Kilmer  
Director, MEP  
National Institute of Standards and Technology (NIST)  
U.S. Department of Commerce

[roger.kilmer@nist.gov](mailto:roger.kilmer@nist.gov)

301-975-5020

<http://www.nist.gov/mep/>



## Topics

§ Obama Administration Innovation Strategy

§ MEP Policy Dimensions

- Structure & Operations
- Next Generation MEP
- Innovation & Technology Acceleration
- Partnerships
- Performance Evaluation

## The Importance of Innovation

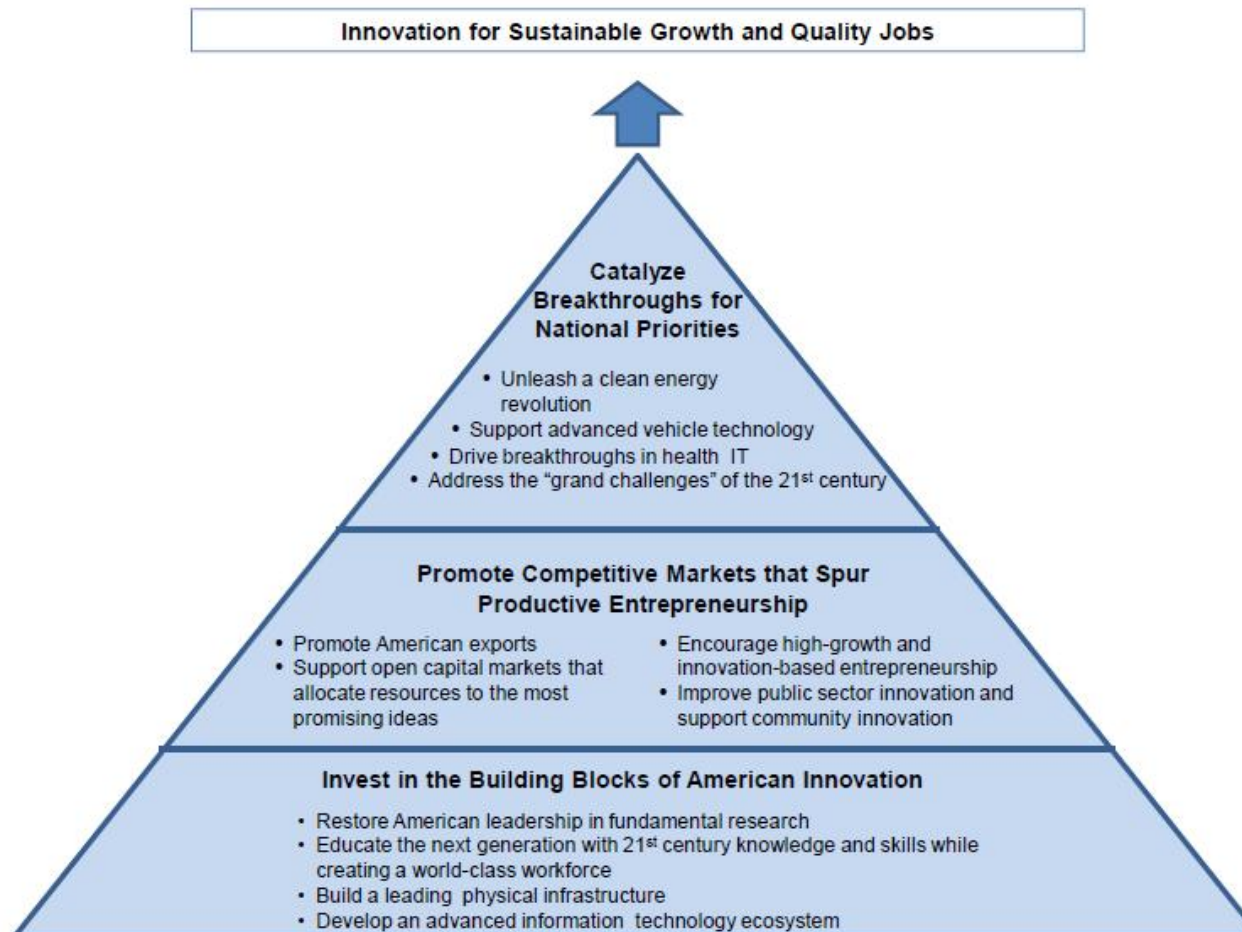


*“History should be our guide. The United States led the world’s economies in the 20<sup>th</sup> century because we led the world in innovation. Today, the competition is keener; the challenge is tougher; and that is why innovation is more important than ever. It is the key to good, new jobs for the 21<sup>st</sup> century. That’s how we will ensure a high quality of life for this generation and future generations. With these investments, we’re planting the seeds of progress for our country, and good-paying, private-sector jobs for the American people.”*

- President Barack Obama, August 5, 2009

# MANUFACTURING EXTENSION PARTNERSHIP

## Strategy for American Innovation



Source: Executive Office of the President, National Economic Council, Office of Science and Technology Policy. A Strategy for American Innovation: Driving Towards Sustainable Growth and Quality Jobs. [September 2009]  
[http://www.whitehouse.gov/assets/documents/SEPT\\_20\\_Innovation\\_Whitepaper\\_FINAL.pdf](http://www.whitehouse.gov/assets/documents/SEPT_20_Innovation_Whitepaper_FINAL.pdf)

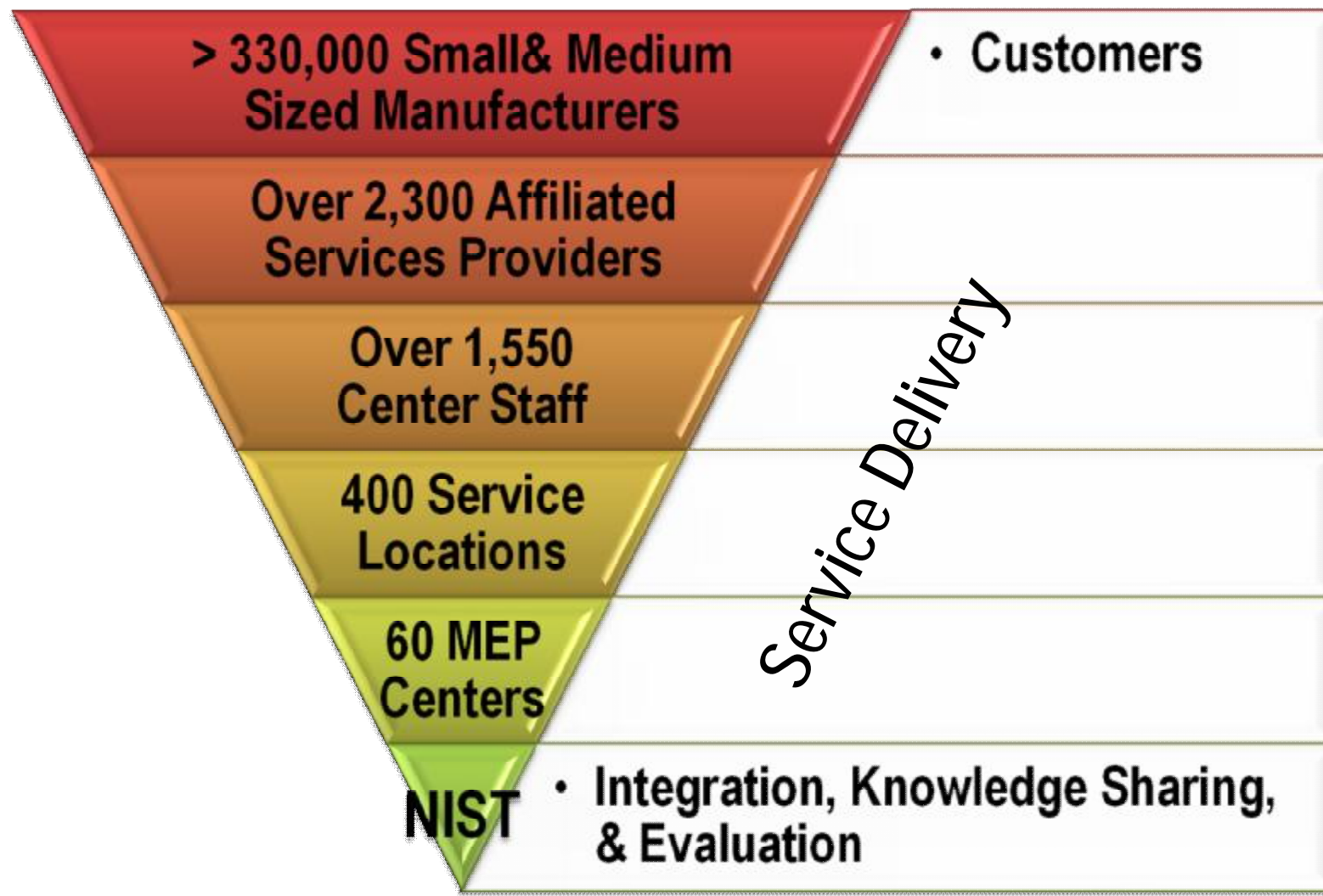
## MANUFACTURING EXTENSION PARTNERSHIP

### The Manufacturing Extension Partnership – MEP

- § Objective is to improve the productivity and competitiveness of U.S. manufacturers, with a focus on small and medium sized firms
- § Program started in 1988, with at least one center in all 50 states by 1996
- § 60 centers with over 400 field locations
  - System wide, non-Federal staff of over 1,550
  - Contracting with over 2,300 affiliated service providers
- § Partnership Model – Federal/State/Industry
- § MEP System ~ \$300M [*Proposed doubling of Federal budget by 2015*]
  - 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

## MANUFACTURING EXTENSION PARTNERSHIP

### Partnering to Drive a National Program



## MANUFACTURING EXTENSION PARTNERSHIP

### The Balancing Act



# 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 – products and processes
- Growth Services – new or expanded market opportunities
- Lean Manufacturing
- Quality Systems
- Environmental Services
- Workforce Development

§ Reach nearly 33,000 manufacturing firms and complete over 10,000 projects per year\*

\*Based on FY2009 MEP Center reported performance data.



What we all know...

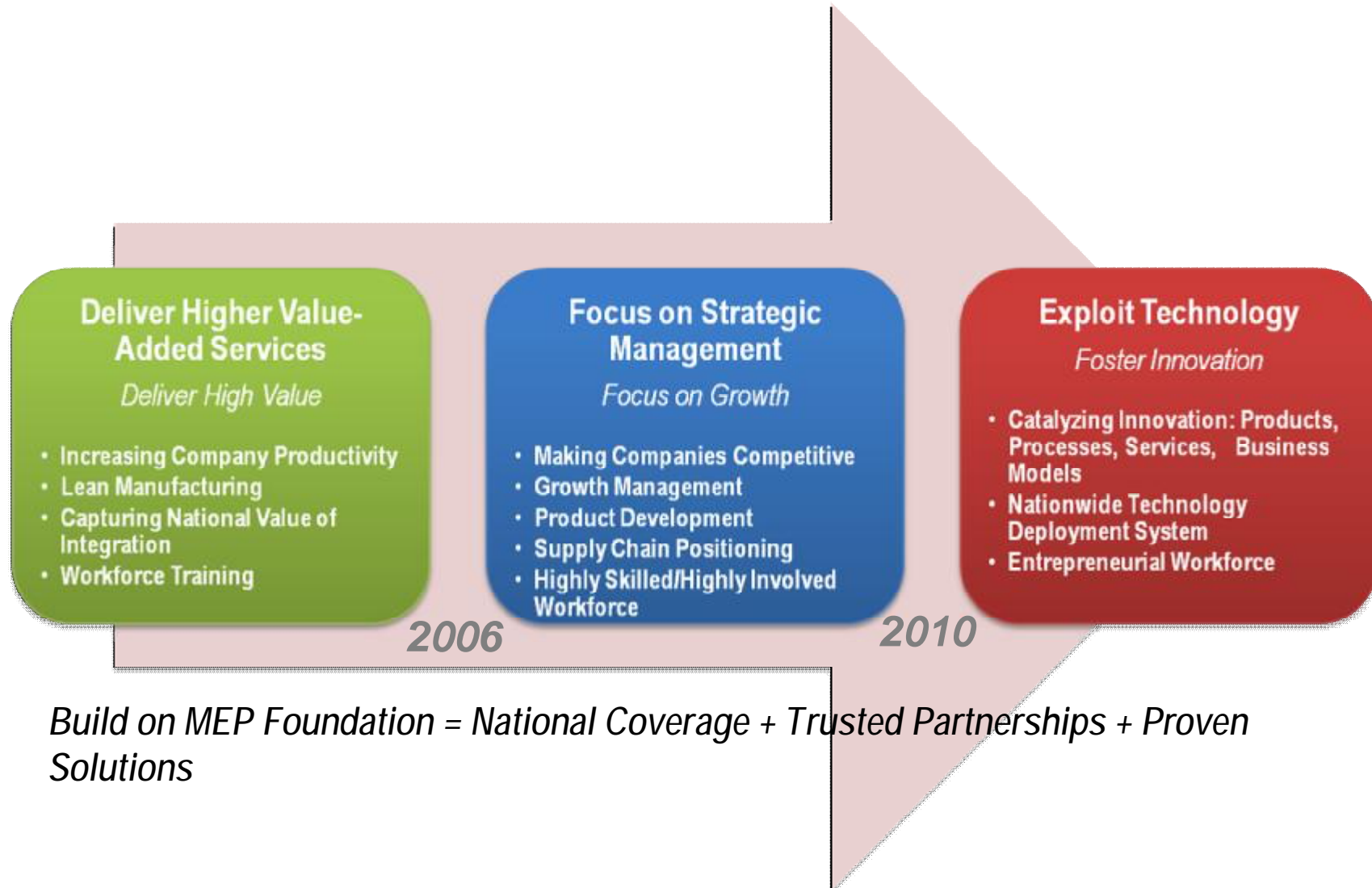
*Manufacturing has and continues to change!*

- § 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.



# MANUFACTURING EXTENSION PARTNERSHIP

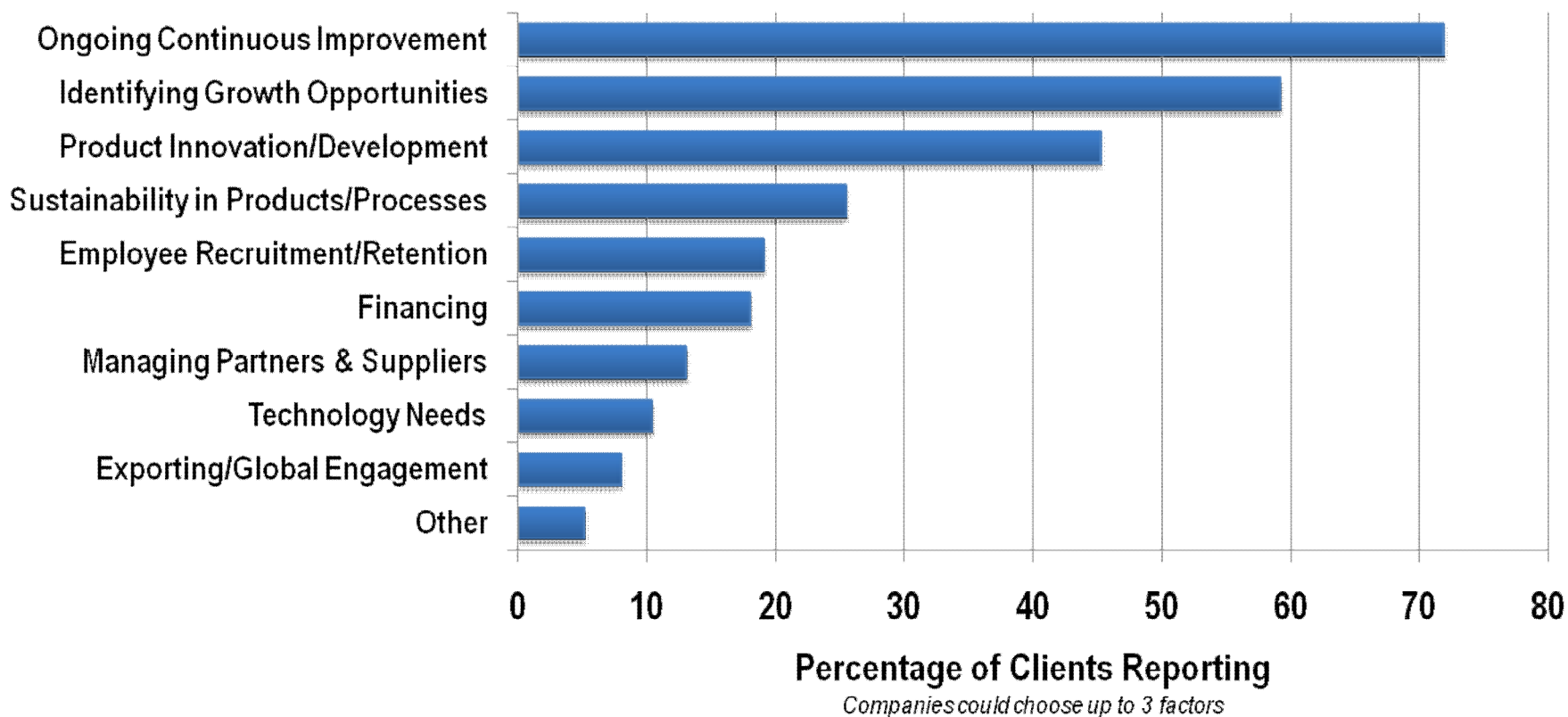
## MEP Program Evolution – The Next Generation



## Current Landscape for U.S. Manufacturers

### *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*

# MANUFACTURING EXTENSION PARTNERSHIP

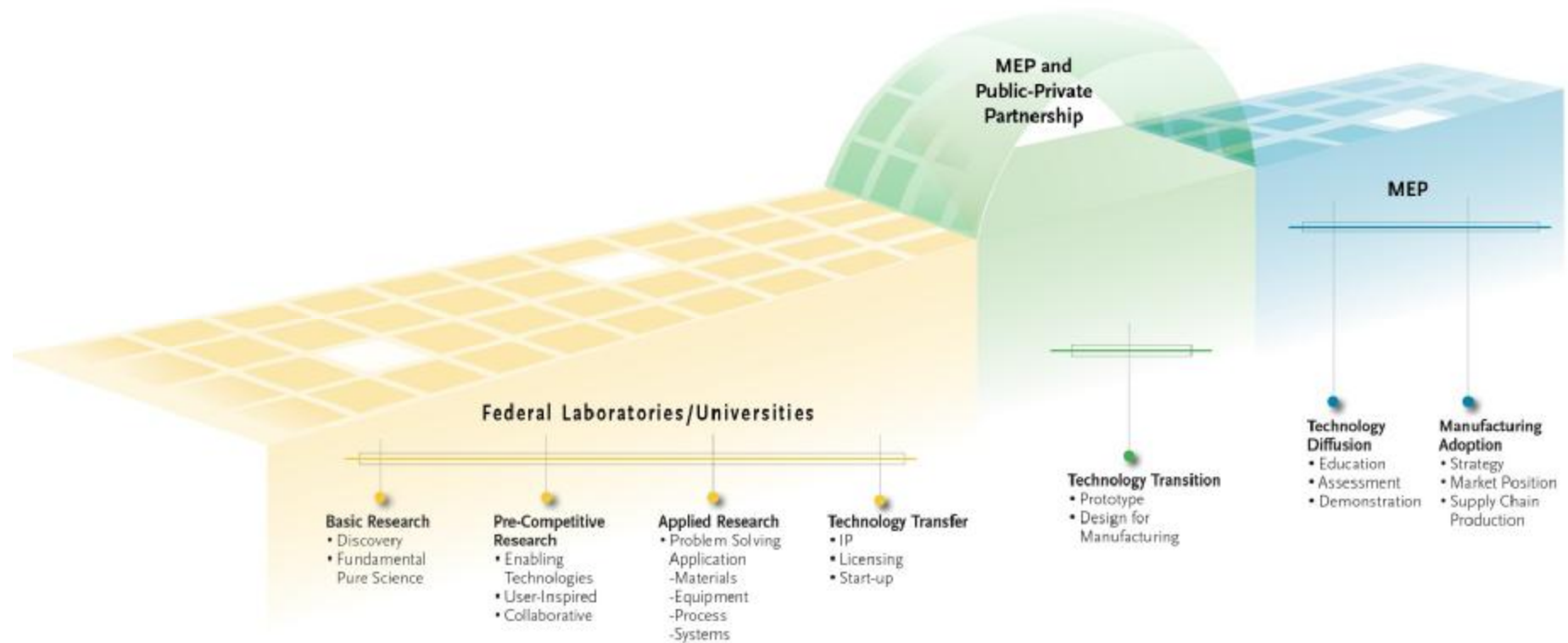
## MEP Strategy

- § Increasing manufacturers' profitable growth is the overarching strategy for the MEP.
- § The approach is to provide a framework for manufacturers that:
  - Reduces bottom line expenses through lean, quality, & other programs targeting plant efficiencies – which frees up capacity for business growth.
  - Adds to top line sales through business growth services focused on the development of new sales, new markets, and new products.
- § There are 5 key areas of the strategy:
  - Continuous Improvement
  - Technology Acceleration
  - Supplier Development
  - Sustainability
  - Workforce



# MANUFACTURING EXTENSION PARTNERSHIP

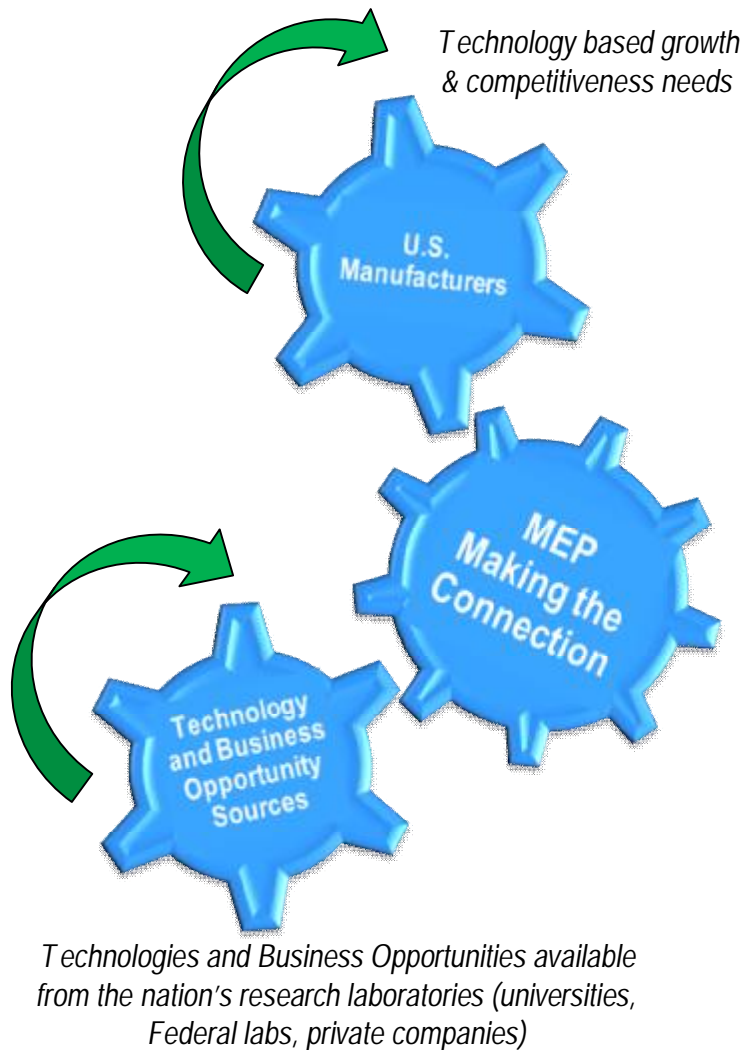
## Technology Acceleration Framework





# MANUFACTURING EXTENSION PARTNERSHIP

## MEP Approach to Technology Acceleration



- Accelerate technology deployment by connecting needs of US manufacturers to technology sources
- Translate new technologies into real-world applications by:
  - § Connecting manufacturers with solutions
  - § Providing commercialization assistance to manufacturers –
    - manufacturing strategy, product development, IP management, financing, manufacturing scale-up
  - § Leveraging 3<sup>rd</sup> party partners
- Test and develop new tools and approaches:
  - § National Innovation Marketplace
  - § Technology Scouting, Supplier Scouting, SBIR

## MANUFACTURING EXTENSION PARTNERSHIP

### The National Innovation Marketplace – NIM

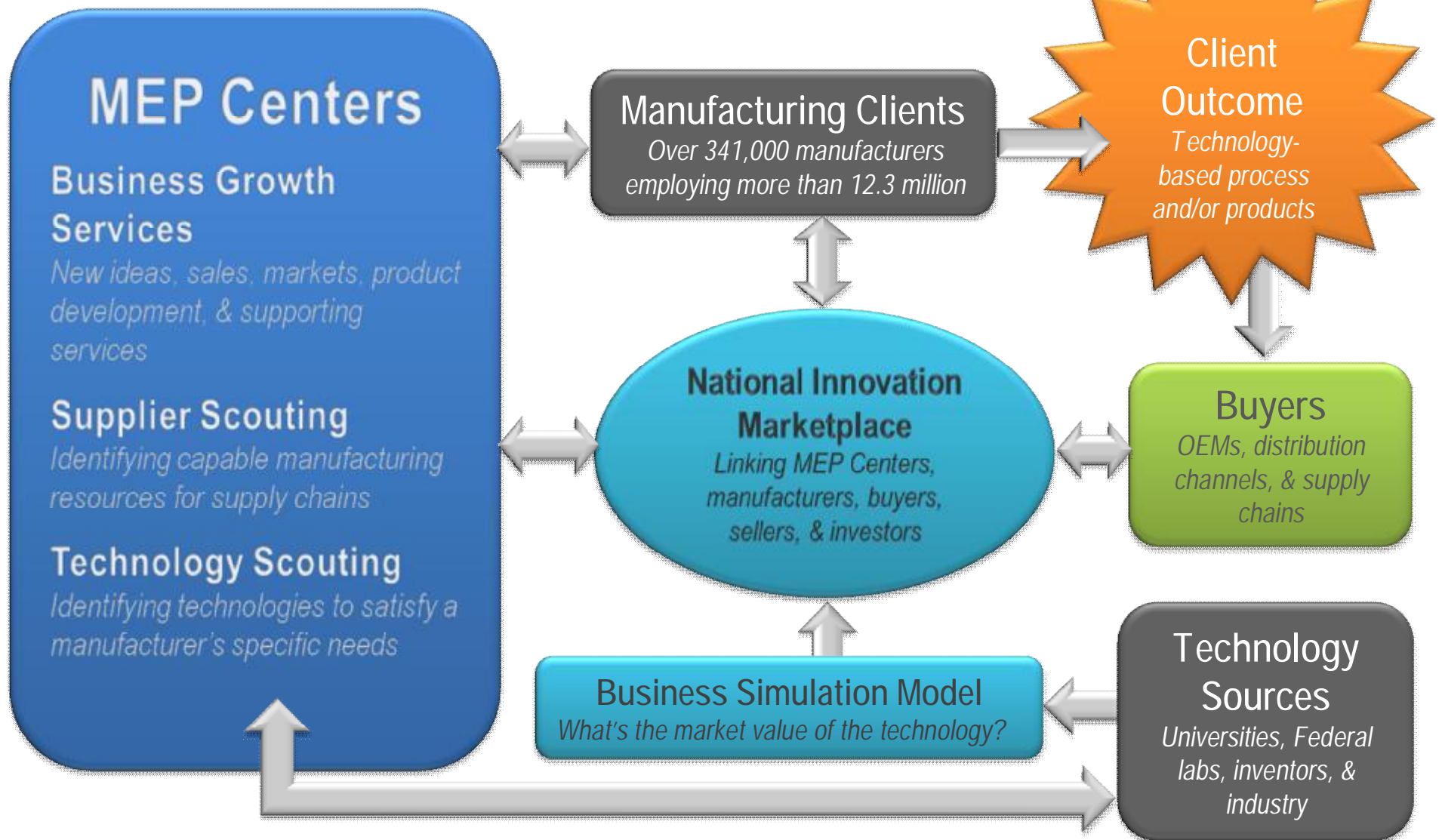
- § MEP is pilot testing the tools and resources to connect manufacturers to technology and business opportunities resulting in new markets and new products through an online marketplace – NIM.
- § The NIM involves the translation of emerging technologies first into business applications, second into market opportunities, and third into the adoption of new products.
- § 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.



[www.usainnovation.org](http://www.usainnovation.org)

## MANUFACTURING EXTENSION PARTNERSHIP

### MEP Technology Acceleration Connections





## MANUFACTURING EXTENSION PARTNERSHIP

### MEP Federal Agency Collaborative Partnerships

- § EPA – Green Suppliers Network, E3, Pollution Prevention Assistance Program, Environmental Innovation, SBIR
- § USDA – Food Security Workforce Training, Technology Transfer, Disaster Preparedness and Response
- § HHS – NIH SBIR, FDA
- § DOL – Business Relations Group- National Lean Certificate Program, Advanced Manufacturing grant solicitation, Occupational Safety and Health Administration Small Business Assistance
- § SBA – Small Business Development Center, Small Business Technology Development Center, SBIR
- § DOE – Hydrogen Workforce Training opportunity, Industrial Technologies Program, SBIR, Tech Transfer, Buy American Supplier Scouting
- § DOD – OSD (AT&L), Defense Logistics Agency, Office of Technology Transition, Procurement Technical Assistance Centers
- § Treasury – Small Business and Community Development
- § DOC – ITA, EDA, NIST, USPTO
- § Interagency Network of Enterprise Assistance Providers – Multi Agency

# MANUFACTURING EXTENSION PARTNERSHIP

## Current Federal INEAP Members

### Department of Energy

- Industrial Technologies Program

### Department of Commerce

- International Trade Administration
- Export Assistance Centers
- Economic Development Administration
- Manufacturing Extension Partnership
- Minority Business Development Agency
- Office of Intellectual Property Rights
- Minority Serving Institutions Programs
- US Commercial Service
- Trade Development Agency
- National Institute of Standards and Technology

### Department of Veterans Affairs

- Center for Veterans Enterprise

### Small Business Administration

- Small Business Development Centers
- Office of Technology
- SCORE
- Women's Business Centers
- SBIR
- Entrepreneurial Development
- Veterans Business Development
- Office of Disaster Assistance

### White House

- Council on Environmental Quality

### Environmental Protection Agency

- Green Supplier Network
- Pollution Prevention Control
- National Center for Environmental Innovation

### Export Import Bank of the United States

- Environmental Exports Program
- City/State Partnership Program

### Department of Defense

- Office of Technology Transition

### Department of Agriculture

- Cooperative Extension, Education and Research

### Department of Labor

- Employment and Training Administration- WIRED
- OSHA

### Department of Treasury

- Small Business and Community Development

### Dept. of Transportation

- Educational & Government Partnerships

### US Agency for International Development

- Educational & Government Partnerships

### Veterans Administration

- Center for Veterans Enterprise

### Housing & Urban Development

- Community Planning & Development

### Security and Exchange Commission

- Investor Education and Advocacy

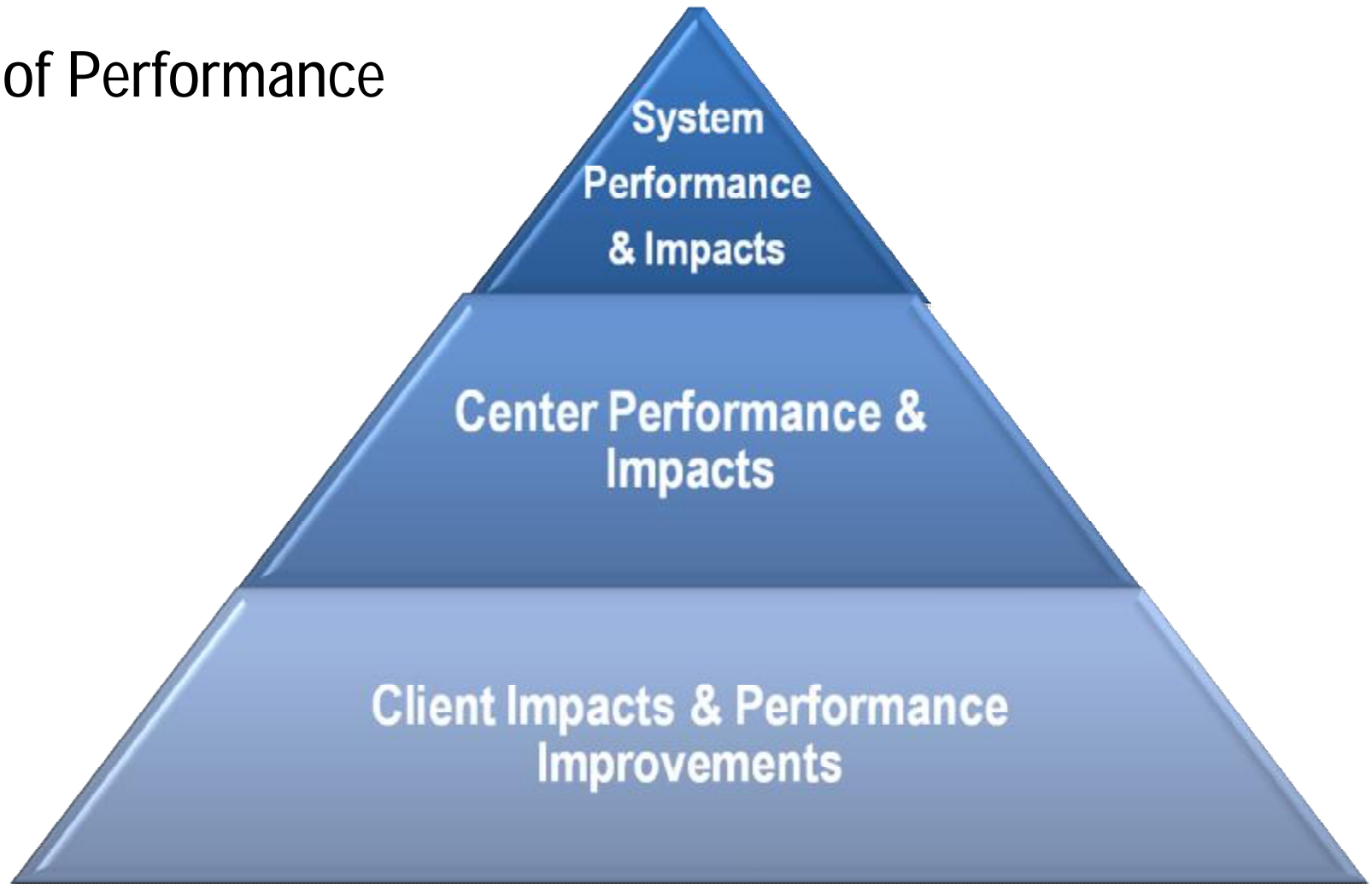
## MANUFACTURING EXTENSION PARTNERSHIP

### Additional INEAP members

- § The National Academies
- § Association for Procurement Technical Assistance Centers
- § Association of Small Business Development Centers
- § US Chamber of Commerce
- § US Women's Chamber of Commerce
- § American Small Manufacturing Coalition
- § American Association of Community Colleges
- § Iowa State University Center for Industrial Research Service
- § Brookings Institution
- § International Economic Development Council
- § National Association of Counties
- § National Association of Manufacturers
- § Society of Manufacturing Engineers

# MANUFACTURING EXTENSION PARTNERSHIP

## Levels of Performance



## Evaluation System – Center Performance

- § Operating Plan: Annual plan (linked to the center's strategic plan) that outlines the anticipated activities and results for the coming year.
- § Quarterly Data Reporting: Center reports progress and client project data quarterly.
- § Annual Review: Each year prior to annual renewal of federal funding, the performance of the center is reviewed comprehensively by NIST-MEP or an external panel.
- § External Peer Panel Review: At least every two years, the center is reviewed by a peer panel that assesses the center performance and alignment with NIST-MEP programmatic strategic goals.
- § Third Party Client Survey: NIST sponsors a national survey conducted by an independent third party that quarterly collects data from center clients on the business impacts of the services provided by their local center. NIST-MEP uses this performance data as a core component in reviewing center performance. The results also provide the centers with a tool to measure their effectiveness and benchmark their performance against other centers.

## Evaluation System – Program Performance

- § Impact Data from Third Party Client Impact Survey: new sales, cost-savings, investments, and job impacts attributed to MEP services [GPRA metrics].
- § Longitudinal Studies: focuses on comparing the competitive performance of MEP clients relative to similar firms that did not receive MEP services.
- § REMI: regional economic analysis of the impact of MEP.
- § Case Studies: focus on successful MEP projects to gain insight into variables at both the firm and industry-level that impact technology adoption and business transformation.

## MANUFACTURING EXTENSION PARTNERSHIP

### 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

