

MAKING AN IMPACT ON U.S. MANUFACTURING

**NIST**  
National Institute of  
Standards and Technology  
U.S. Department of Commerce

# Hollings Manufacturing Extension Partnership Presentation to the NIST Visiting Committee on Advanced Technology June 11, 2014 – Gaithersburg, MD

A background image showing two hands in business suits holding two large, interlocking black gears. The scene is set against a light blue gradient background. A dark blue rectangular box with the word 'MISSION' in white capital letters is centered over the top of the gears.

# MISSION

“

To enhance the productivity and technological performance of U.S. Manufacturing.

”

## ROLE

MEP's state and regional centers facilitate and accelerate the transfer of manufacturing technology in partnership with industry, universities and educational institutions, state governments, and NIST and other federal and research laboratories and agencies.



# Legislative Mandate

TITLE 15 - COMMERCE AND TRADE

CHAPTER 7 - NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

Sec. 278k. Regional Centers for the Transfer of Manufacturing Technology

The objective of the Centers is to enhance productivity and technological performance in U.S. manufacturing. This will be accomplished through:

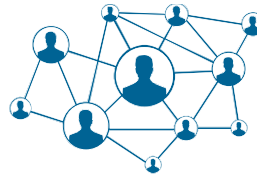
1. The transfer of manufacturing technology and techniques developed at NIST to Centers, and, through them, to manufacturing companies in the United States;
2. The participation of individuals from industry, universities, State governments, other Federal agencies, and when appropriate, NIST in cooperative technology transfer activities;
3. Efforts to make new manufacturing technology and processes usable by U.S.-based small and medium sized companies;
4. The active dissemination of scientific, engineering, technical, and management information about manufacturing to industrial firms, including small and medium-sized manufacturing companies;
5. The utilization, when appropriate, of the expertise and capabilities that exists in Federal laboratories other than NIST;
6. Providing to community colleges information about the job skills needed in small and medium-sized manufacturing businesses in the regions they serve.



# MEP Program in Short



**Program Started in 1988**  
At least one center in all 50 states by 1996



**National Network**  
System of Centers serving Manufacturers in each State.



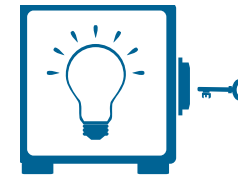
**Partnership Model**  
Federal, State and Industry



**MEP System Budget**  
\$128 Million Federal Budget with Cost Share Requirements for Centers



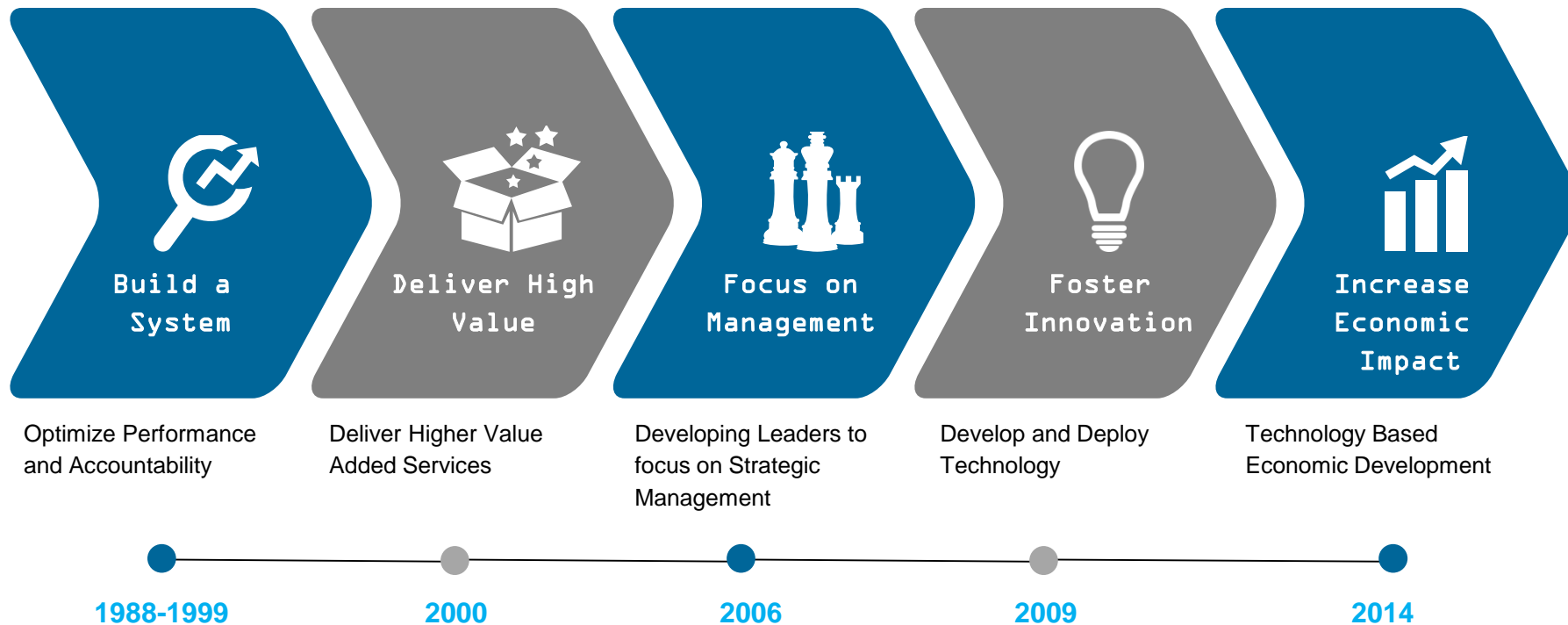
**Global Competitiveness**  
Program was created by the 1988 Omnibus Trade And Competitive Act



**Evolving Role**  
Program continues to evolve in order to support manufacturers during changing economic situations.



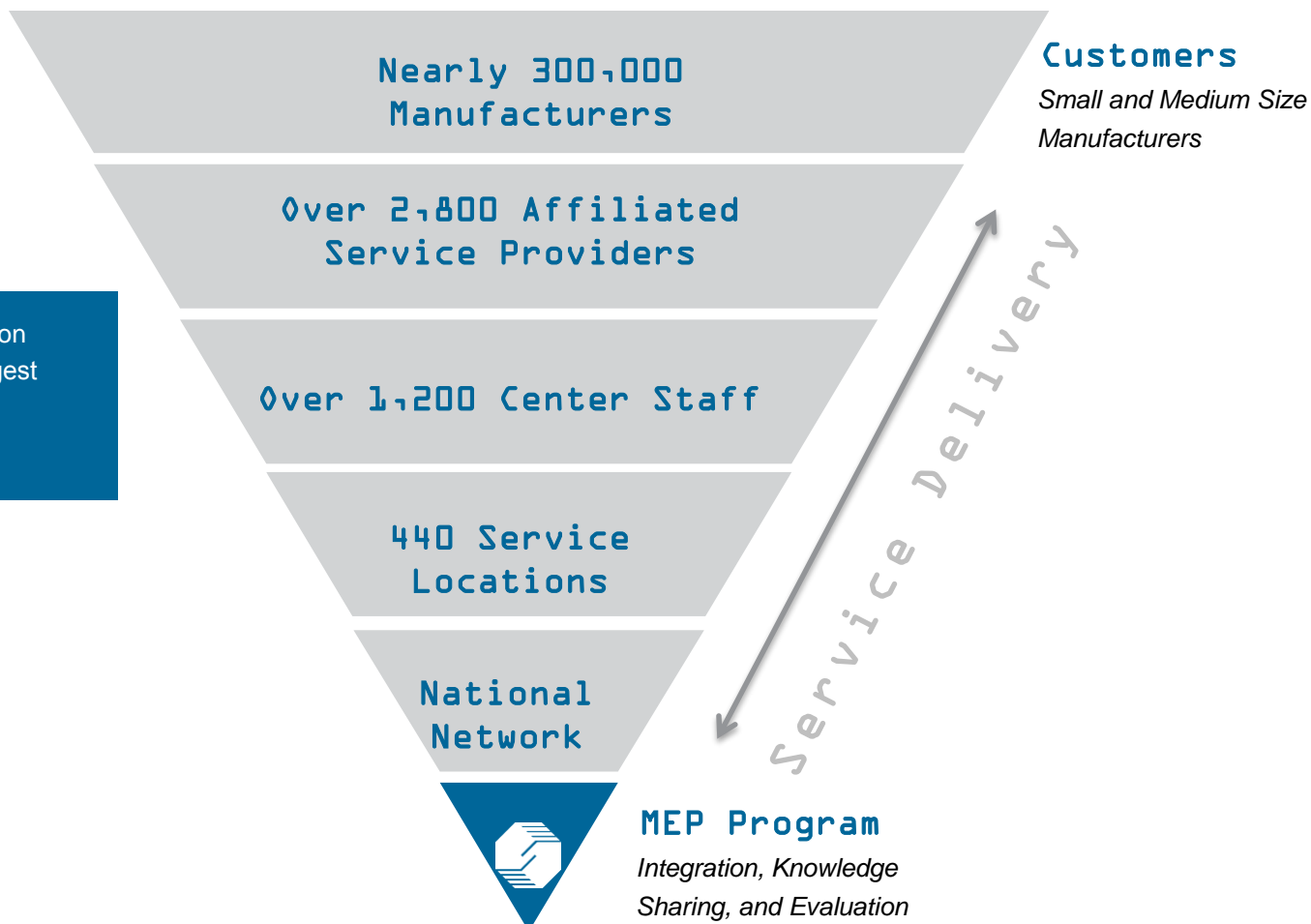
# Program Evolution



# Partnering to Drive a National Program



The MEP network focuses on solving manufacturers' biggest challenges and identifying opportunities for growth.



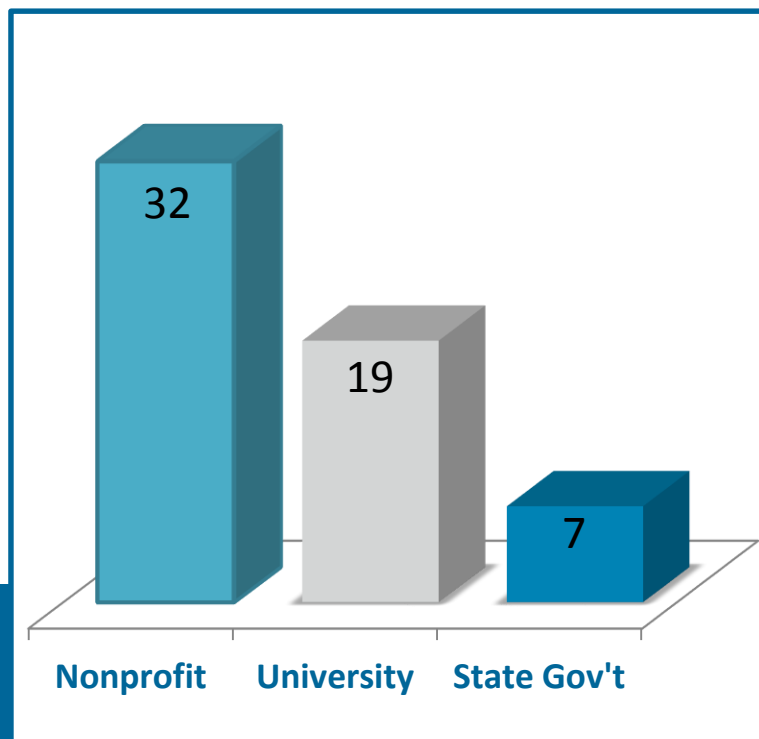
# National Network



MANUFACTURING  
EXTENSION PARTNERSHIP  
National Network



# Center Structure Diversity



## Partnerships

Utilizes existing local resources to provide manufacturing extension services **relies heavily on partnerships**

## Geography

Urban and Rural Areas.  
Centers are never more than 2 hours away of a manufacturer.

## Public & Private Sector

Staff are employees of the Center and its partners – **not** the Federal Government

## Organization Type

Nonprofit  
University  
State Government

## Organizational Structure

- Single location
- Principal organization with independent partner organizations
- Central office with regional offices
- Headquarters operation with multiple field offices





# How Centers work with Manufacturers



1

## Initial Contact

Group sessions, referral



2

## Assessment

Informal walk-through,  
detailed company  
analysis



3

## Identify

Find potential issues,  
define proposed  
project and approach  
for solving it



4

## Negotiate

Consult with company  
and sign project  
contract with fee paid  
to center



5

## Project Execution

Center staff, partner  
organization, and/or third  
party consultants



After completion, project follow-up by center to assure customer satisfaction and explore further project opportunities



Project impact data collected by contractor for NIST approximately 6 months after project completion

# What MEP Does



- ✓ Work with small and medium size manufacturers to help them create and retain jobs, increase profits and save time and money
- ✓ Focus on meeting manufacturer's short term needs, but in context of overall company strategy.
- ✓ Reach over **30,000 manufacturing firms** and complete over **10,000 projects** per year.
- ✓ Provides companies with a consistent set of services including:



Supply  
Chain  
Development



Quality  
Systems



Workforce  
Development



Lean  
Process



Innovation  
and Growth



Sustainability



# Client Impacts

30,131  
Manufacturers  
served in FY2013



JOBS SAVED

43,914



JOBS CREATED

18,789



RETAINED SALES

\$6.2  
Billion



NEW SALES

\$2.2  
Billion



COST SAVINGS

\$1.2  
Billion

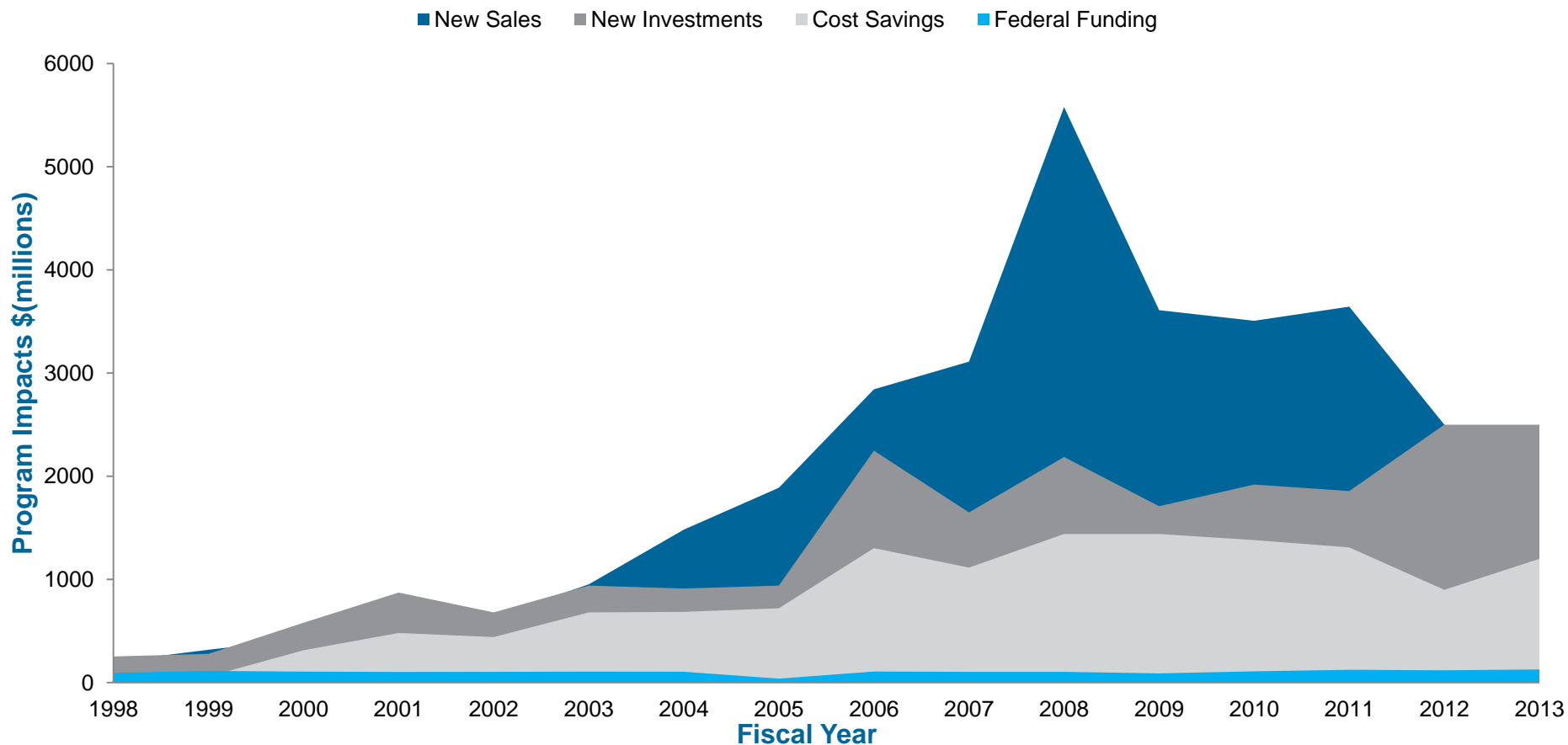


CLIENT  
INVESTMENTS

\$2.5  
Billion

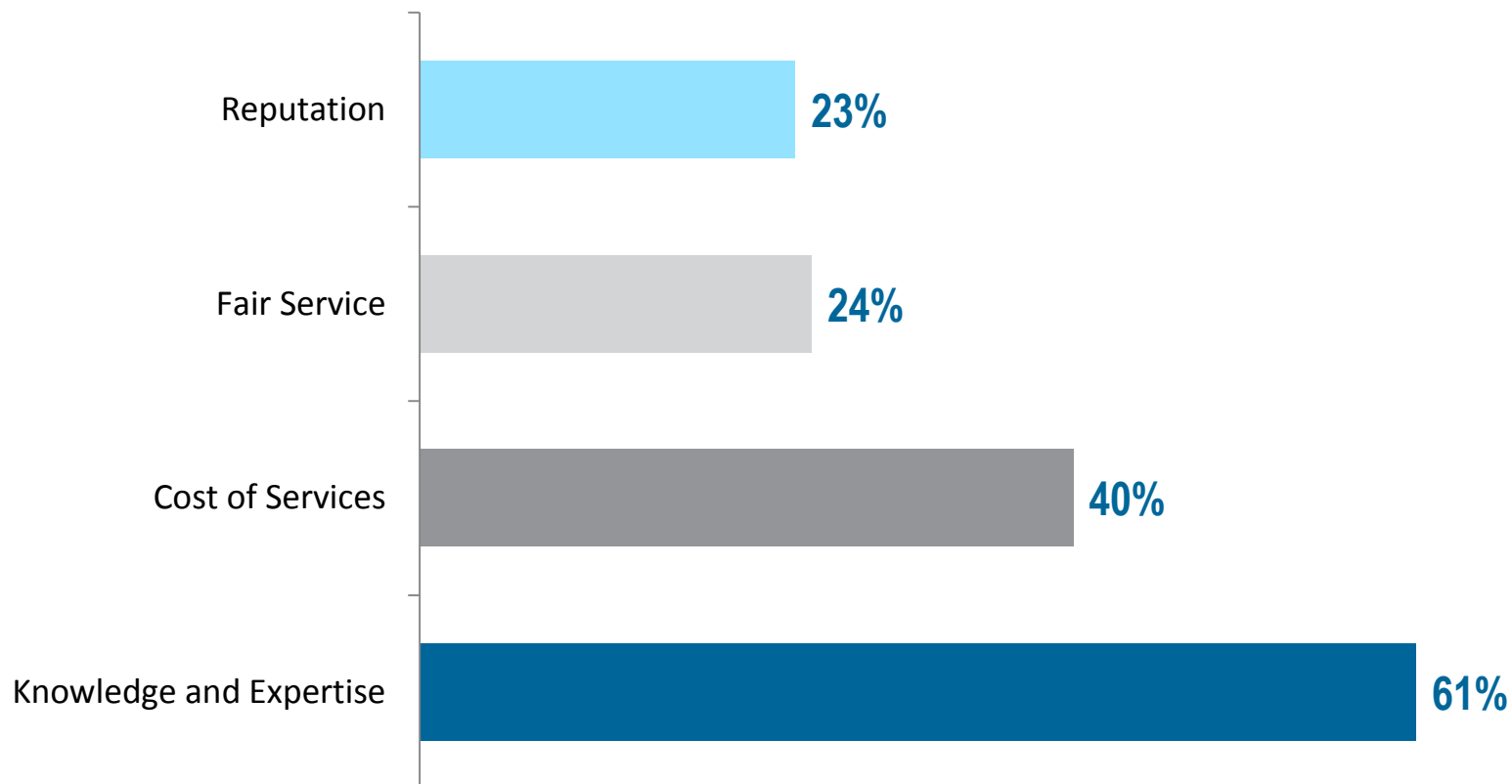


# MEP Impacts over Time

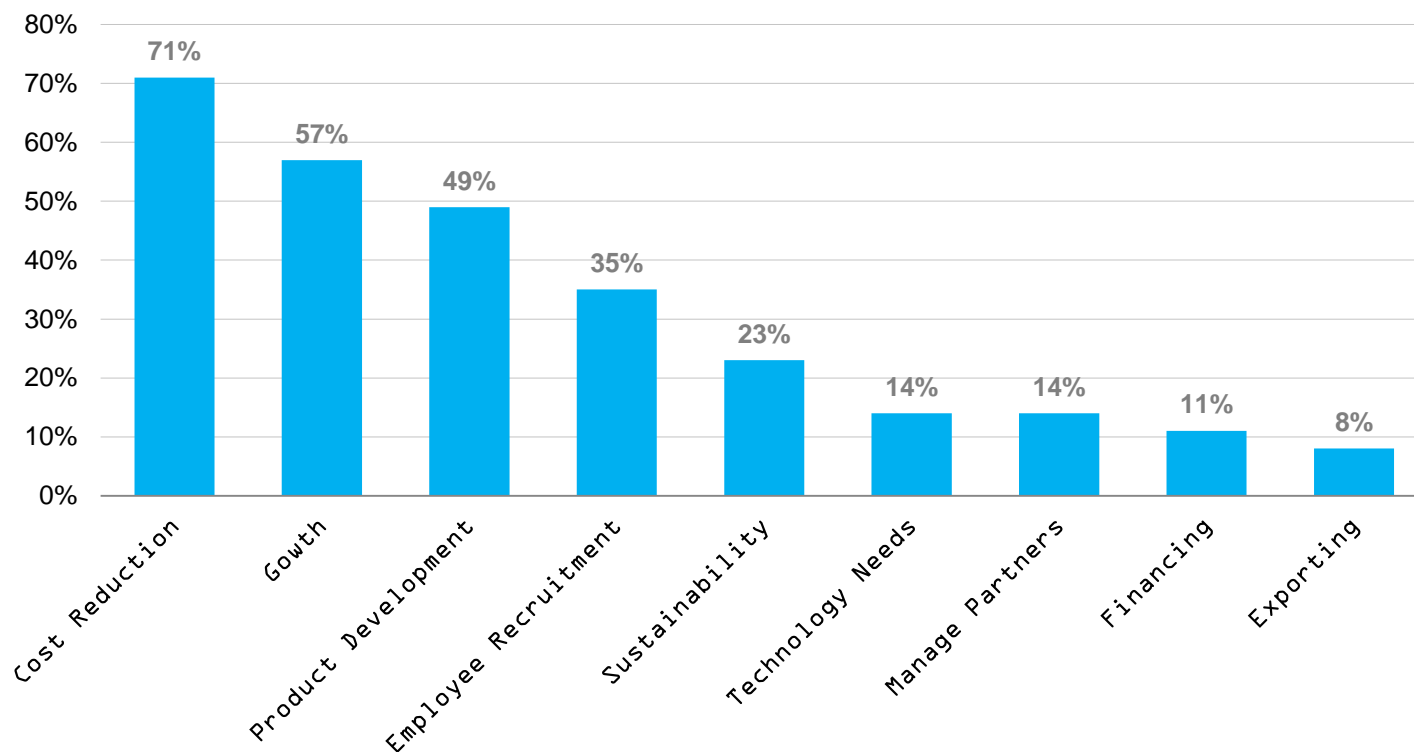


# Why MEP?

## Top Reasons Manufacturers choose MEP



# Client Challenges



# MEP Program Initiatives



## MEP's Program Initiatives

are aimed to help manufacturers identify opportunities that will accelerate and strengthen their growth and competitiveness in the global marketplace



# Supply Chain



The MEP Supply Chain initiative is based on helping manufacturers strategically understand, maintain and expand their positions in domestic and global supply chains. The MEP network proactively engages with U.S. manufacturing supply chains to systemically address the needs of:

- top-down overall supply chain
- individual manufacturers operating at every level of the supply chain
- company-to-company interfaces within the supply chain



**Supplier Scouting**



**Supply Chain Optimization**



**M-TACs**



# Supplier Scouting



12

Participating Government  
Agencies



180

Items Scouted



**64 MATCHES**

of products that previously  
were awarded waivers, to be  
manufactured in the U.S.

- Connects the capabilities, capacities, and business interests of U.S. manufacturers with the needs and business opportunities of various manufacturing supply chains.
- Connects government agencies that have Buy American provision requirements to U.S. manufacturers.
- Supplier Scouting has identified and connected domestic manufacturers with business opportunities for supply chains in the following industry sectors:
  - energy products
  - passenger rail cars
  - rail locomotives
  - And railroad track and physical infrastructure
  - highway systems
  - waterborne transportation systems
  - laboratory instruments



# Supply Chain Optimization

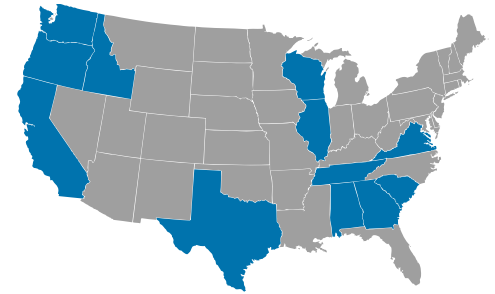


- **Supply Chain Optimization** is a program that equips manufacturers of all sizes with tools to integrate strategy into collaboration across the multiple tiers of their supply chains.
- MEP helps manufacturers use a strategic approach to develop a synchronized plan optimized across the value and supply chains. This optimized plan reduces risk and volatility, increases collaboration with suppliers, reveals the true total cost of the supply chain, and increases capability to develop and distribute products.

<http://www.mepsupplychain.org/>



# Manufacturing Technology Acceleration Centers (M-TAC's)



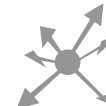
- MEP initiated five M-TAC pilot projects in 2014.
- The M-TAC pilot project teams are working closely with specific supply chains to ensure that the small manufacturers being served are well positioned to address the technological needs and trends associated with those supply chain markets.
- The following five projects are operating as M-TAC pilots during 2014:



**Transportation**  
CA, IL, VA



**Food Processors**  
OR, WA, ID



**Great Lakes**  
Targets driver Industries.  
WI



**Southeast Automotive**  
GA, AL, MS, SC, TN



**Defense / Aerospace**  
TX

# Technology Acceleration



Accelerating opportunities to leverage and adopt technology is the key to long-term business growth and productivity.

MEP will serve as the connection between manufacturers and the technology opportunities and solutions they require to grow and compete in the global marketplace.

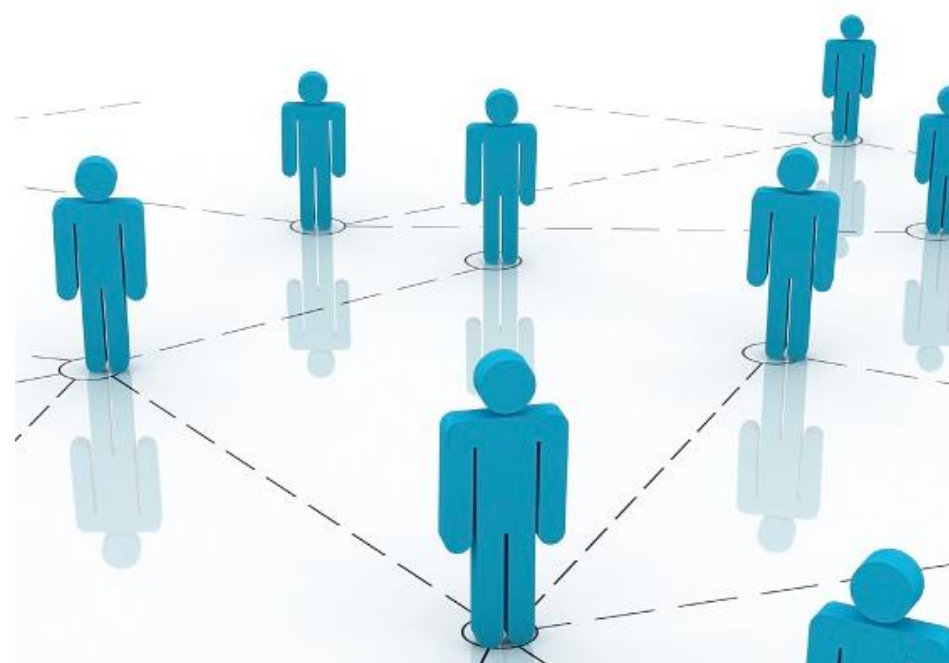


**Technology  
Scouting**



**Technology Driven  
Marketplace**

## TECHNOLOGY SCOUTING



Technology Scouting is a service that uses a systematic approach to help manufacturing clients find existing technology solutions for their unmet company needs.

## TECHNOLOGY DRIVEN MARKET INTELLIGENCE



TDMI provides a systematic and comprehensive approach to technology-focused market intelligence.

# Workforce



MEP works with partners to leverage resources and offers a wide range of resources and information to help U.S. Manufacturers in areas of workforce

- Strategic Management Acquisition and Retention of Talent (SMARTalent)
- Strategic Consulting
- Training and Education Partnerships
- Workforce Readiness
- Business Stabilization



**SMARTalent**



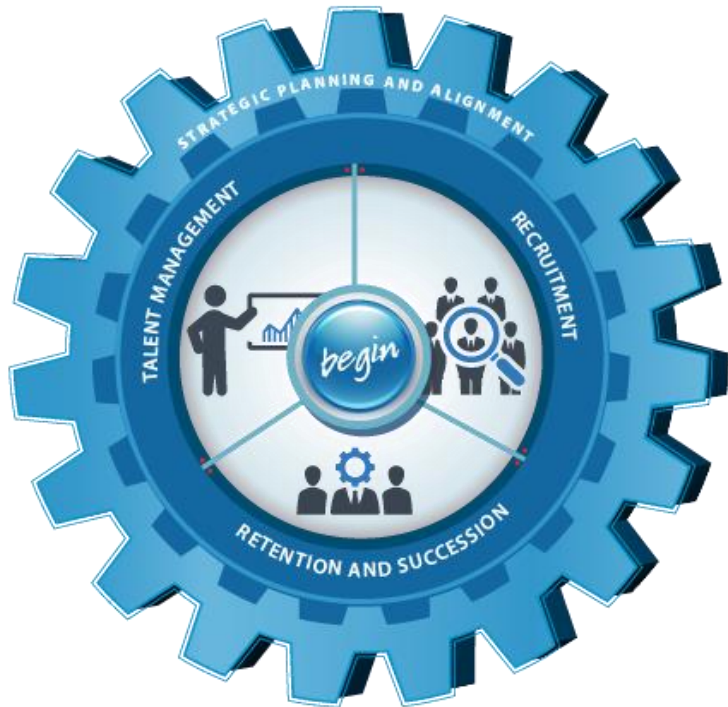
**Layoff Aversion**



**Manufacturing Skills  
Certification System**



# SMARTalent



- Manufacturers who analyze their workforce will find that their use of diagnostics for workforce will provide them with:
  - Greater Productivity
  - Reduced Turnover
  - Cost Offsets
  - Trained Employees
  - Better Pool of Applicants

## **SMARTalent is a knowledgebase Management and Process Implementation Tool.**

- This cloud base software will provide national and state-level benchmarks and comparisons, stimulate thinking, and provide data about their hiring, retention, training, talent management and succession initiatives as they align to business goals

# MEP ADVISORY BOARD PANEL

- Vickie Wessel, President/Founder of Spirit Electronics, Inc, Phoenix, AZ
- Jeff Wilcox, MEP Advisory Board Member and Vice President for Engineering, Lockheed Martin Corporation, Rockville, MD
- Ed Wolbert, MEP Advisory Board Member and President, Transco Products, Inc, Chicago, IL

