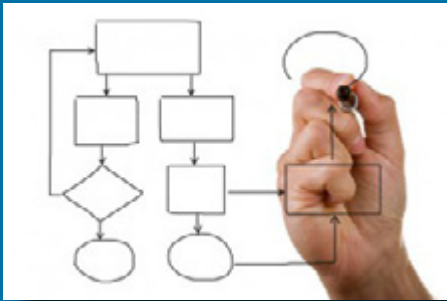


# Hollings Manufacturing Extension Partnership: A Commercialization Collaborator

*Helping companies overcome challenges to successfully commercialize their technologies*



**MEP • MANUFACTURING  
EXTENSION PARTNERSHIP**  
*National Institute of Standards and Technology*



The National Institute of Standards and Technology's Hollings Manufacturing Extension Partnership (MEP) works with small and mid-sized U.S. manufacturers to help them create and retain jobs, increase profits, and save time and money. The nationwide network provides a variety of services, from innovation strategies to process improvements to green manufacturing. MEP also works with partners at the state and federal levels on programs that put manufacturers in position to develop new customers, expand into new markets and create new products.

MEP has over 1,300 technical experts – located in every state – serving as trusted business advisors, focused on solving manufacturers' challenges and identifying opportunities for growth. As a program of the U.S. Department of Commerce, MEP offers its clients a wealth of unique and effective resources centered on five critical strategic growth areas: technology acceleration, supplier development, sustainability, workforce and continuous improvement.

**What is MEP?**

MEP is a nationwide system that helps manufacturers maximize their potential and grow their businesses. Since its inception in 1988, manufacturers have employed the resources of the MEP network to generate significant bottom-line efficiencies through the employment of lean manufacturing techniques and other productivity improvement tools.

MEP leverages over \$100 million of federal investment into a nearly \$300 million program by partnering with state and local governments and the private sector to provide a wealth of expertise and resources to manufacturers. Each year, MEP is hired by manufacturers to solve problems, increase productivity, improve their economic competitiveness, and enhance their technological capabilities. As a result, MEP clients increase their sales, save time and money, invest in physical and human capital, and create and retain thousands of jobs.

**MEP Centers**

MEP centers are a diverse network of state university based and non-profit organizations, partnering with the Federal government to offer products and services to meet the specific needs of the manufacturers.

Each year MEP centers help thousands of manufacturers solve problems, increase productivity, improve their economic competitiveness, upskill their workforces, and enhance their technological performance. MEP Centers provide manufacturing companies with a wide array of fundamental services that are focused in the transfer of new manufacturing technology systems; connecting manufacturers with federal, state, or university R&D labs, as well as where their needs are connected with technology solutions developed at research laboratories.<sup>1</sup>

Services are provided through a combination of direct assistance from center staff and assistance from private-sector consultants. This diversity is a strength of the program and permits local MEP Centers to provide a wide range of mission-related services tailored to the state and regional economies they serve.

MEP centers exist as a result of a partnership among the federal government, state/local governments and industry to help manufacturers. Centers are created through a competitive, merit-based process where funding is contingent upon successful annual reviews of each center. MEP centers are supported by cash contributions from public and private organizations that leverage the federal investment. In addition, center services are fee-based and designed to be flexible and responsive.

<sup>1</sup> NIST MEP Statute, Title 15 - Commerce and Trade, Chapter 7 - National Institute of Standards and Technology, Sec. 278k Regional Centers for the Transfer of Manufacturing Technology

*So you developed a technology using SBIR funding? The federal government has invested in resources that can help you with commercialization as well!*

Innovation is at the core of what MEP does. Manufacturers that accelerate innovation are far more successful and realize greater opportunities to participate in the global economy. By placing technologies developed through research at federal laboratories, educational institutions and corporations directly in the hands of U.S. manufacturers, MEP serves an essential role in sustaining and growing America's manufacturing base.

To accelerate and promote innovation, MEP provides a framework of Technology Acceleration that helps manufacturers rapidly move new product opportunities into production and into the market. MEP serves as the connection between manufactures and the technology opportunities and solutions they require to grow and compete in the global marketplace. By exploiting opportunities to leverage and adopt technology, manufacturers have the advantage to establish a foundation for long-term business growth and productivity.

As manufacturers develop new products, enhance existing products, strive to expand and diversify markets, develop and improve production and engineering systems and processes, and work to strengthen competitive positions within supply chains – MEP has developed a range of products and services to help manufacturers identify opportunities that will accelerate and strengthen their growth and competitiveness in the global marketplace. MEP offers an integrated portfolio of high-value consulting and business solutions that help companies commercialize technologies. Some of these services include:

**Design for Manufacture (DFM)**

Optimizes all of the manufacturing functions in the product design stage- supplier selection and management, procurement, receiving, fabrication, assembly, quality control, operator training, shipping, delivery, service, and repair; and to assure that critical objectives of cost, quality, reliability, regulatory compliance, safety, time-to-market, and customer satisfaction are known, balanced, monitored, and achieved.



**Design for Assembly (DFA)**

Reduces the product cost and time of assembly by simplifying a product design through diagnostic assessments that evaluate a product's functionality, form, manufacturing process and assembly characteristics.

**Machine and Equipment Design**

Improves manufacturing efficiency and effectiveness by assessing a company's current equipment and provides them with redesign and performance solutions. Recommendations to modify existing equipment can help reduce production cost, increase equipment capacity, improve equipment flexibility and improve customer response.



**Lean Process Improvement**

Improves a company's overall operation by using the concepts of lean manufacturing. The core of the lean manufacturing is the idea that any resources not creating value for a customer in the form of a product or service are wasted. Lean establishes a systematic approach to eliminating wastes and creating flow throughout a company. It improves efficiency in the production of goods and services and also helps develop and implement a long-term plan to streamline a company's operation for success.

**Quality Management and Control**

Assists manufacturers to continuously improve all areas of their company's operation through a quality management system. For consistency in the design, development, and delivery of a product or service, MEP Centers analyze quality issues and develop quality management strategies to the company's manufacturing/ business process.



**Product Design and Prototyping**

Helps manufacturers turn their ideas from product design and prototype to manufacturing to market. Up to 80% of a product's costs are committed during its design phase. Smart, strategic choices in materials or simplification of components can result in major cost savings that could mean the difference between market success and failure. MEP Centers bring custom design and prototyping capabilities make new product ideas a cost-effective reality for companies to successfully compete.



**Lean Product Development**

Applies the waste elimination philosophy of lean operations to the product development process. The service help manufacturers reduce time to market, improve resource utilization, and reduce new product development risk, while cutting waste, reducing product costs and product development expense.

# 33,838

## Manufacturers served in FY2010

MEP completed over 460,000 customer engagements since the program's inception including technical assistance projects, training programs, networking events and long-term strategic support. These customers are typically manufacturers with fewer than 500 employees in a broad range of industry sectors – from food processors to machine shops to solid state circuitry assemblers. They are companies that need help solving a specific problem, want to implement new technologies, or hope to grow their businesses through the development or improvement of products.

|  |                                |                      |
|--|--------------------------------|----------------------|
|  | Total Increased/Retained Sales | <b>\$8.2 Billion</b> |
|  | New Sales                      | <b>\$3.6 Billion</b> |
|  | Retained Sales                 | <b>\$4.6 Billion</b> |
|  | Jobs Created                   | <b>19,170</b>        |
|  | Jobs Retained                  | <b>41,327</b>        |
|  | Cost Savings                   | <b>\$1.3 Billion</b> |
|  | New Client Investments         | <b>\$1.9 Billion</b> |

MEP CLIENT IMPACTS

## Strategic Business Development

Provides manufacturers with a strategic business plan to help them prepare for the future, align strategy and goals, identify opportunities for business growth and cost reduction, increase top-line growth, manage talent, and increase market potential.



## Expotech

Helps companies enter or expand in global markets. The program assists participating companies in developing an international growth plan, provides experts who will vet their plans, and connects the companies with organizations like yours that will help them move quickly beyond planning to actual export sales.



## Technology Scouting

Connects technology needs with developed technologies or technical capabilities that – unlike traditional “push-based” technology transfer – is pull-based. Over the past few years, NIST MEP has been researching Technology Scouting tools and services to find solutions for manufacturers unmet technology needs that help them access and pull technologies from government laboratories, universities, and private sector sources outside normal channels.

## Technology Driven Market Intelligence

Provides a systematic and comprehensive approach to technology focused market intelligence. TDMI identifies the benefits and the market impacts related to a company’s technology-based asset (e.g., idea, product, process, capability) and provides customized actionable intelligence they need.



## Supplier Development

Helps manufacturers understand, maintain, and expand their capabilities and positions in supply chains. MEP works closely with suppliers to provide guidance and training on Lean, Quality, and other performance improvement programs that will help them thrive in existing and future global supply chains.



## Supplier Scouting

Connects small U.S. manufacturers with business opportunities by matching their specific capabilities with the supply chain needs of federal agency and original equipment manufacturer (OEM) partners. MEP leverages its vast knowledge of local manufacturer capabilities to identify and pre-qualify supplier capabilities and capacities, and provide assistance to suppliers as needed.

The NIST Manufacturing Extension Partnership is a nationwide system of resources, transforming manufacturers to compete globally, supporting greater supply chain integration and talent management, and providing access to technology for improved productivity. MEP is built around manufacturing extension centers locally positioned throughout the U.S. and Puerto Rico addressing the needs of America’s manufacturers.

For more information contact Clara Asmail at: [asmal@nist.gov](mailto:asmal@nist.gov), (301)975-2339

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October 2012