Today's supply chains include all activities which are involved in delivering a product, starting with raw material suppliers and going through to the end customer for the final product.

American manufacturing's global competitiveness depends on the performance of companies at all levels of the supply chain. For manufacturers, competitiveness is greatly impacted by its supply base and its strategy for dealing with the supply base and working together. Manufacturers that look only at supplier capability, price, and service are missing an opportunity for competitive advantage through strategic approaches that include collaboration, integrated information systems, and risk management.

The Manufacturing Extension Partnership (MEP) serves a vital and diverse role as a nationwide provider of hands-on technical and business assistance supporting the development and competitiveness of manufacturing supply chains. MEP offers a variety of services to U.S. manufacturers to cover many different aspects of supply chain management and development. From implementing strategies within the walls of a company to engaging with suppliers and customers around the world, MEP has the tools and strategies needed to help manufacturers throughout the supply chain reach their competitiveness and growth goals.

MEP supports supply chains through the following framework elements:

- **Business-to-Business (B2B) Network Pilots** connect small and medium sized manufacturers with business opportunities from buyers and sellers of technologies or products and services. To improve the productivity of domestic supply chains, MEP initiated 10 regional business-to-business network projects in 9 states: Colorado, Northern California, Southern California, Georgia, Massachusetts, New York, North Carolina, Oregon and Pennsylvania.

- **Supply Chain Optimization** provides a systems approach for a step-by-step roadmap to help manufacturers address risk, increase visibility throughout supplier tier levels, and create supply chains that function optimally. Manufacturers deal with supply chain challenges daily. From the identification of new suppliers and materials through distribution to customers; manufacturers must remain strategic in their quest to increase visibility and mitigate risk. MEP's Supply Chain Optimization approaches supply chains from a systems perspective and helps manufacturers build dynamic supply chains through the use of strategy, risk management, total cost of ownership, supplier communication and assessments. (www.mepsupplychain.org)

- **Supplier Chain Sustainability** helps reduce supplier impacts on the environment, and provides manufacturers with sustainability assessments and implementation of energy-saving projects. Supply Chain Sustainability is part of the multi-agency E3 initiative: Economy, Energy and Environment, and the Green Suppliers Network.

- **Supplier Improvement** works with individual suppliers within specific Original Equipment Manufacturer (OEM) supply chains to implement process improvement and quality enhancement initiatives at all tiers.

- **Supplier Scouting** connects U.S. manufacturers with the supply chain needs of various OEMs, Tier 1 manufacturers and government agencies. When OEM’s and government agencies have difficulty finding suppliers that meet specific supply chain needs, MEP, through its national network, consisting of at least one center throughout the United States and Puerto Rico, helps top tier supply chain customers identify and connect with U.S. manufacturers that meet their specifications. As a result, MEP has identified hundreds of domestic manufacturers as potential domestic suppliers for over $40 million in business opportunities that would have otherwise gone overseas.
Supply Chain Technology Acceleration helps small U.S. manufacturers grow and compete within supply chains by focusing on the technological needs and trends of specific supply chain areas. To improve competitiveness and their technology adoption rate, MEP initiated five Manufacturing Technology Acceleration (M-TAC) Pilot Projects in 2014. These Pilots assemble teams of supply chain experts who identify the technology needs and technological trends of specific supply chains. The M-TAC Pilots then offer suppliers an array of services and deep expertise related to technology acceleration, transition, and commercialization to help suppliers more effectively compete within the supply chains. The following five projects are operating as M-TAC pilots:

**Defense Aerospace M-TAC** identifies innovation ecosystem gaps to develop strategies and map differentiated research, advanced technology, and intellectual property resources for Defense/Aerospace and related supply chains in Texas.

**Food Processors M-TAC** works with the Northwest Food Processors Association to identify technical and business challenges faced by manufacturers in the food processing supply chains of the northwest U.S., and then finds new product and process technologies solutions to those challenges.

**Great Lakes M-TAC** targets the specific needs of key Wisconsin industry supply chains (e.g., transportation equipment, electrical equipment, paper, dairy, and foundries) to help manufacturers’ suppliers access advanced manufacturing technology acceleration services that will foster global competitiveness.

**Southeast Automotive M-TAC** works with Automotive Manufacturer Associations and OEMs in the Southeast U.S. to determine technology needs of the automotive supply chain and connects SME auto suppliers with R&D resources and available technologies.

**Transportation M-TAC** addresses the Transportation Equipment Manufacturing supply chain (aerospace, automotive, trucking, shipping and rail) and works with Top-Tier manufacturers to identify their technology needs, and then assists SME suppliers in implementing those technologies.

**NEXT STEPS**

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