



SUPPLY CHAIN OPTIMIZATION

For MEP Centers [Internal Use Only]

The MEP Supply Chain Optimization (SCO) program is a set of offerings designed to meet the needs of manufacturers and to help increase their competitive edge. Manufacturers, regardless of size, or degree of supply chain maturity, can benefit from the concepts and strategies deployed in a 'show and do' model.



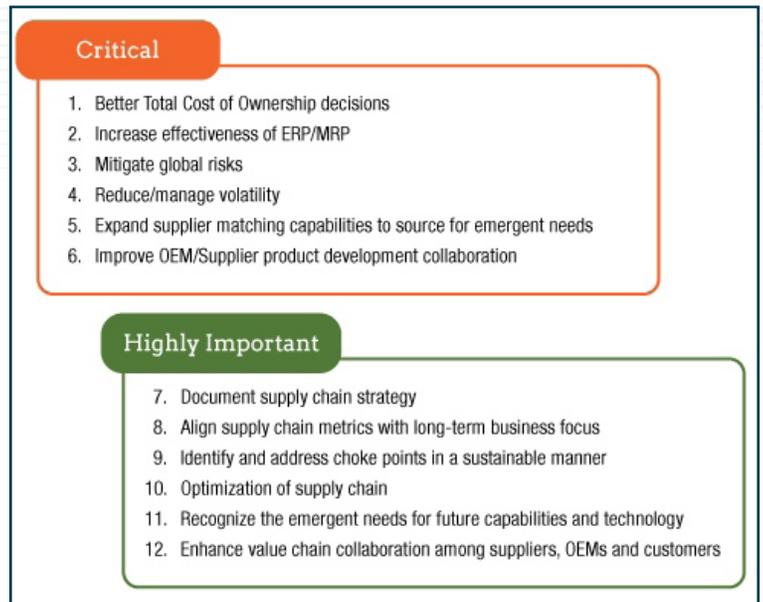
MEP • MANUFACTURING
EXTENSION PARTNERSHIP

THE DATA

Gaps in Supply Chain

Voice of the Customer surveys concluded that supply chains typically show weakness in twelve areas. Three primary themes serve as a baseline towards building the roadmap towards optimization:

- ✓ Volatility, risk, and agility
- ✓ Collaboration and supplier sourcing
- ✓ Strategic deployment



THE RESULT

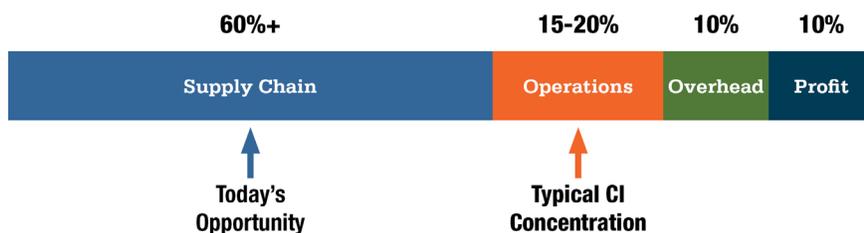
U.S. manufacturers now have access to a strategic approach using a roadmap with Bold Steps© and actionable Game Plans© to increase alignment, visibility, and collaboration that result in supply chain optimization.

THE AUDIENCE

Supply Chain Optimization – A Collective Win

Successful companies know that to create shareholder value they need to be innovative, to understand their markets, and to build competitive supply chains. Competitive supply chains increase shareholder value whether it's companies with complex networks or companies that operate within more of a single-source mindset. The benefits of MEP's Supply Chain Optimization program provide an opportunity to reduce risk, increase visibility, and enhance collaboration with suppliers.

Historically, continuous improvement and cost-reducing tactics are found in the operations side of the equation. However, progressive companies know that the real opportunity for lower costs, better delivery, and increased quality exists beyond their four walls within their supply chains. Optimizing the supply chain through MEP's proven, customizable tools and guidance helps companies achieve a competitive edge.



MEP Centers can leverage opportunities to work with existing companies that have benefited from lean and quality management gains within manufacturing operations. MEP SCO tools allow Centers to expand beyond manufacturing into distribution, logistics, suppliers and sourcing, providing a more comprehensive approach and a win for manufacturers all along the value chain - a collective win for U.S. manufacturers.

COMPETITIVE EDGE

Competition is no longer between companies, it's between supply chains. The volatile economy means that manufacturers have to be much more **agile**, **flexible**, and **responsive** to external pressures.

Those with optimized supply chains experience benefits like:

- Lower costs
- Better delivery
- Increased quality
- Competitive edge

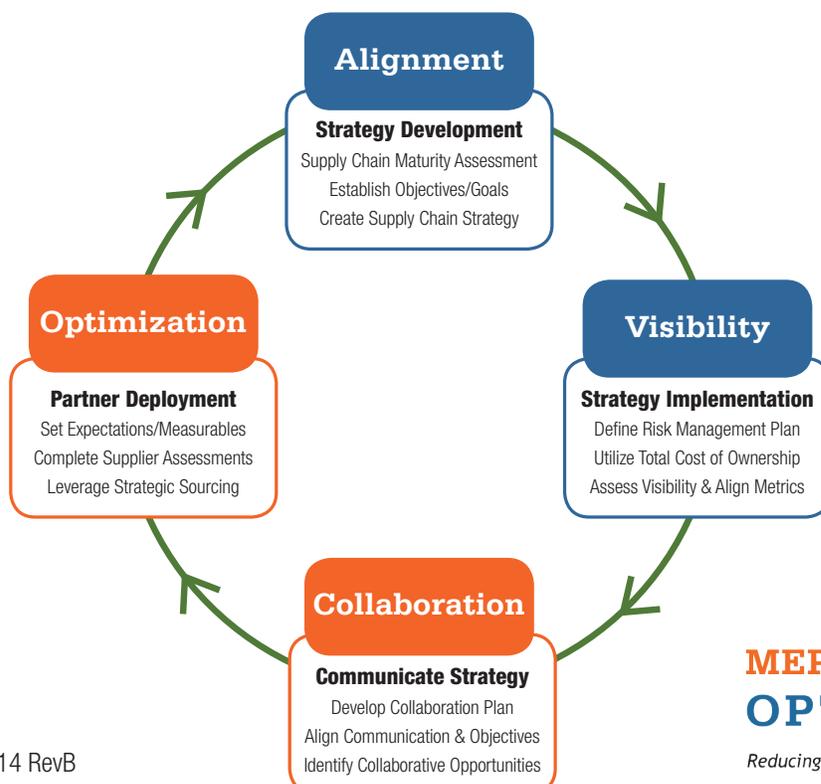
Those with optimized supply chains have the **visibility** and foresight to keep supplier relationships **collaborative** which reduces risk. They also **align** their corporate strategy to their supply chain strategy to create synergy among the systems and goals.

PROGRAM TOOLS TO GAUGE INTEREST

Supply Chain Optimization Program Summary – This one-hour overview of the benefits to both manufacturers and their communities of partners that may be considering a supply chain improvement plan. It is also appropriate for economic development representatives or other community leaders interested in learning more about Supply Chain Optimization projects. Building stronger manufacturers benefits local and regional economies and equips regions with the know-how to recruit new business, or expand current industry.

Leadership Overview – This half-day event solidifies the importance of assessing the landscape for Supply Chain Optimization participation. Intended for leaders of manufacturing organizations, it is a brief summary of the benefits and the approach that this program offers.

MEP'S ROADMAP TO SUPPLY CHAIN OPTIMIZATION



STRATEGY DEVELOPMENT = ALIGNMENT

Start at the Beginning – Knowing and understanding the client's current supply chain maturity is the very first step on the journey to supply chain optimization. Companies will participate in an online assessment, a set of 18 key questions that help determine the organization's supply chain objectives as compared to the strategic fit and the current ability to execute them. The output is a gauge of the client's unique supply chain maturity level.

Remove Limitations – The MEP team helps identify unique supply chain challenges and applies Theory of Constraints concepts to identify the most important limiting factors that stand in the way of achieving goals and systematically improves them.

Develop a Plan – The client will establish supply chain strategic objectives based on their particular goals and business model. Once the objectives are mapped, the MEP team can create a supply chain strategy and help the client deploy it successfully.

Outcome – The alignment of supply chain strategies with organizational objectives establishes a means for improvement and growth. The client will leave with five Bold Steps© and a Game Plan© for action.

OFFERINGS

- ✓ **Executive Engagement** - This two-day event is intended to help manufacturers chart the voyage and strategize their supply chain optimization journey. Partners or suppliers are highlighted in the second phase or Partner Engagement session.
- ✓ **Follow-on Projects** may include supply chain strategy development, development of an internal communication plan, constraint analysis.

Alignment

Strategy Development
Supply Chain Maturity Assessment
Establish Objectives/Goals
Create Supply Chain Strategy

STRATEGY IMPLEMENTATION = VISIBILITY

Steps Forward – Clients that take advantage of the strategy component, now have the opportunity to implement it.

Customized Solution – Defining the strategy is an opportunity to account for the different attributes of a client's industry. This includes defining plans for managing risk and gaining perspective through total cost of ownership methods.

Knowledge is Power – The MEP team will ensure the client has the details needed to make informed decisions at every level of the supply chain. Companies will zero-in on constraints that may be preventing them from being the supplier they aim to be.

Outcome – Assess supply chain visibility and align supplier and partner metrics simultaneously. From here the client will develop a supply chain communication and collaboration plan that supports the strategy. Visibility within their supply chain is key to seeing the big picture.

OFFERINGS

- ✓ **Partner Engagement** - Partners are preparing to navigate the course or carry out the strategy and planning as mapped by the tier above. Partners/suppliers help the top tier meet their overall goals strategically and effectively. This session is also available to small- to medium-sized manufacturers that may want to create a differentiator amongst their peers, or prepare them to go after new markets.
- ✓ **Risk Management** - Avoiding the obstacles within the manufacturing environment takes skill and strategy. This engagement provides an opportunity to devise an overall risk mitigation plan to address these concerns.

Visibility

Strategy Implementation
Define Risk Management Plan
Utilize Total Cost of Ownership
Assess Visibility & Align Metrics

- ✓ **Total Cost of Ownership** - The importance of calculating total cost for every activity in the supply stream cannot be overlooked. This session helps you sharpen the focus utilizing a comprehensive software tool for determining the true total cost of ownership.
- ✓ **Follow-on Projects** may include developing a supply chain risk management plan, assessing supply chain visibility and developing a supply chain communication/collaboration plan.

PARTNER ENGAGEMENT = COLLABORATION

Communication is Key – This phase of the program is all about sharing and communicating the strategic objectives and how they align with performance metrics.

Using the Tools – Theory of Constraints concepts are securely established and opportunities for new collaborations are identified.

Outcome – Now that your motives are clear and communicated effectively, you are now ready to create a supply chain optimization plan where improvements are mapped and strategically tackled.

OFFERINGS –

- ✓ **Partner Engagement, Risk Management, Total Cost of Ownership**
- ✓ **Follow-on Projects** may include aligning organizational objectives with supply chain performance metrics, establish constraints theory concepts and create supply chain optimization plan.

Collaboration

Communicate Strategy

- Develop Collaboration Plan
- Align Communication & Objectives
- Identify Collaborative Opportunities

PARTNER DEPLOYMENT = OPTIMIZATION

Ready, Set, Action – The real fun begins in deployment. Supplier assessments occur and are integrated, as well as the performance measurements. Quality systems and lead time, among other client-specific measures are incorporated to improve overall system visibility and enhance collaboration.

Application – Deploying what we've learned including risk management practices and TCO methods to help apply strategic decisions or incorporate initiatives in sustainability or strategic sourcing are among the action items. The next tier of suppliers is now evaluated, becoming an iterative process to increase visibility through yet another level.

Outcome – We extend the network diagram and optimize the flow of all processes, so that clients realize their goals of supply chain optimization and ultimately an increased competitive edge.

OFFERINGS –

- ✓ **Risk Management, Total Cost of Ownership**
- ✓ **Follow-on Projects** may include assessing supplier alignment, improve system visibility and evaluating the next tier suppliers.

Optimization

Partner Deployment

- Set Expectations/Measurables
- Complete Supplier Assessments
- Leverage Strategic Sourcing

SUPPORT RESOURCES AND MARKETING are available for all MEP Centers. A suite of marketing collateral, including graphics and supplemental handouts, have been created for distribution internally within the centers for education and externally to client engagement.

Please contact Mark Schmit at mark.schmit@nist.gov for more information.