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Become a More **Demand-Driven** Organization

3 Best Practices to Improve Planning and Collaboration Across Your Supply Network

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Companies operating supply chains today are squeezed between a demand side that is increasingly volatile and a supply side that is increasingly complex and difficult to change quickly. On the demand side, customer expectations are growing steadily, and upside revenue opportunity is there for companies that can respond to it. Yet, today's supply chains are often spread across global networks in which lack of visibility and long decision-making time make it difficult to plan and execute with speed and precision. In this reality, it's no surprise that the "need for responsiveness" often appears as a top pain point in numerous surveys of supply chain executives.[1]

Not addressing these issues can negatively impact customer service, inflate lead times, and increase inventory carrying costs and product obsolescence. The answer is to establish a highly collaborative, demand-driven planning process, with visibility into partners' critical inventory levels, the capability to replan quickly to understand how real or hypothetical changes in demand or supply affect the ability to fulfill orders, and the ability to quickly execute changes to the plan, often through collaboration with partners across a distributed network.

To address these issues, companies are evolving to become more demand-driven by focusing on three critical success factors:

- Improved collaboration to boost visibility into the supply chain
- Optimized inventory levels across a network to plan and execute predictably
- Responsive planning processes and what-if analysis to flexibly react to changing needs

In this article, I will discuss how companies can address these three factors. I'll also touch on the SAP solutions available to support these critical elements of demand-driven supply networks, including the new SAP Supply Chain Response Management application by ICON-SCM that enables companies to better manage order fulfillment and forecasts to improve their responsive planning processes. (**Figure 1** on page 14 provides a summary of these factors and solutions.)

1. Improve Visibility Through Collaboration

In a challenging economic environment, you must reduce cost and risk while increasing innovation, customer service, and responsiveness. To achieve this balance, you can, for example, conduct business in areas where costs are lower, develop stronger relationships with global suppliers, and outsource nonstrategic activities. But when doing so, you still have to maintain visibility and responsiveness in planning and execution.

This requires collaborative relationships with customers, suppliers, and contract manufacturers. Developing collaborative relationships is not always easy. For example, connecting with a supplier that has limited technical capabilities can be costly, complicated, and time-consuming. Telephone, fax, and email are the most common methods of communication. Electronic data interchange (EDI) is a reliable communication channel, but it is cost-effective only in high-volume situations. How, then, can you get your

[1] IDC Manufacturing Insights, "Change in the Chain: Supply Chain Transformation in the High-Tech Industry" (November 2010).

partners to connect to your internal processes automatically, efficiently, and cost-effectively?

Best-practice collaboration models have emerged across three different dimensions:

- **Visibility collaboration** to provide accurate status of inventory and inventory movements, as well as production status and product quality
- **Planning collaboration** to provide timely information about forecasts and plans, receive commitments that can be taken into account in planning cycles, and support inbound-managed and outbound-managed vendor inventory processes
- **Execution collaboration** to share orders, receive commitments, track material shipments, and process receipts and payments quickly and accurately

By streamlining collaboration between your company and your partners, you can decrease the cost of procurement, sales, and inventory processes, while reducing lead times. The resulting enhanced supply chain visibility increases your network's speed, accuracy, and adaptability, leading to reductions in inventory, better product quality, and improved delivery performance.[2]

The benefits of transforming your planning and collaboration process will apply regardless of where your company is positioned in the supply chain — whether you're a distributor, contract manufacturer, or brand owner.

How SAP Can Help

Organizations searching for a way to develop better supply chain relationships can turn to **SAP Supply Network Collaboration (SAP SNC)**, an application that enables cooperation and knowledge sharing across the supply chain to maximize visibility, control, and efficiency of supplier and customer interactions.[3] Your company can realize several benefits by implementing collaborative processes enabled by SAP Supply Network Collaboration. Through these processes, you can:

- Optimize visibility by providing a clear, accurate view of supply and demand information to all supply chain participants. Trading partners can exchange information about inventories, forecasts, and commitments, enabling accurate and fast multi-tier planning.
- Increase the speed, accuracy, and adaptability of your supply network by streamlining and automating transactional processes between your company and your suppliers, contract manufacturers, and customers. Orders can be transmitted to trading partners and confirmed, and material notifications can be sent. Alternatively, inbound and outbound vendor-managed inventory processes can be enabled.
- Decrease the cost of your procurement, sales, and inventory processes by improving communication and efficiency. Trading partners can communicate via one of three mechanisms, depending on their size and the volumes required: EDI, file upload/download from the portal, or direct user entry through a web browser.

2. Optimize Inventory Across Your Network

Carrying appropriate inventory levels is essential for any demand-driven company. To plan and execute predictably across extended, complex supply chains in the face of volatile demand, companies must have sufficient inventory at critical stages of the supply chain as a hedge against supply, production, and demand variability. Of course, carrying inventory costs money, but too little inventory can result in expensive stockouts and customer service issues. At the same time, too much inventory can result in expensive "excess and obsolete" write-offs, especially in today's world of fierce competition and short product life cycles.

To manage inventories effectively, organizations need optimization techniques and tools that can analyze existing data to synchronize supply chain operational targets and obtain the insight needed to make rapid, informed inventory decisions. Best-in-class techniques include establishing inventory levels as a function of

[2] For a customer success story, see "Window to a New World: How Lockheed Martin Aeronautics Bolstered Supplier Collaboration and Revolutionized Its Supply Chain" by David Hannon in the April-June 2011 issue of *insiderPROFILES* (insiderPROFILES.wispubs.com).

[3] For more information about SAP Supply Network Collaboration, see "3 Questions to Ensure You're Collaborating Effectively Across Your Supply Chain" by Sarika Garg and Aviraj Bedi in the July-September 2010 issue of *SAPinsider* (sapinsider.wispubs.com).

demand variability, understanding inventory costs and lead times, knowing customer service policies, and taking supply variability into account.

How SAP Can Help

The **SAP Enterprise Inventory Optimization application by SmartOps** works with SAP Business Suite software to help you dynamically and reliably determine optimal demand-driven, time-phased inventory targets for every item at every location throughout your supply chain. This insight enables you to keep inventory levels low while maintaining target delivery service levels. More specifically, the application allows you to:

- Make better decisions and more effectively optimize operational targets as a result of better insight into the supply chain. SAP Enterprise Inventory Optimization uses advanced algorithms to automatically set inventory levels as a function of your demand patterns and customer service objectives.
- Increase your supply chain's productivity and effectiveness with improved visibility into inventory cost drivers and automated, reliable processes for focusing on the highest-value products and customers. Service levels can be set to follow specific company policies regarding customer segmentation and products.
- Improve customer service, customer satisfaction, and customer loyalty by ensuring better order fill rates and on-time deliveries. Adjusting inventory levels automatically enables more frequent adjustment to adapt to changing market conditions, pricing, and promotions.
- Strengthen your competitive position by freeing your working capital for more strategic pursuits. There is often significant capital tied up in inventory that does not turn and thus may end up becoming obsolete.

Ensuring appropriate inventory levels is no longer a once-a-year task. It's an essential activity to be revised as new products are introduced, promotions are launched, competition intensifies, and other volatile activities occur.

3. Shrink Your Time-to-Action with Responsive Planning

Also integral to achieving a demand-driven supply chain is the ability to do high-speed replanning and what-if analysis so that you can rebalance supply and demand based on the latest information from suppliers and customers. This responsive planning enables you to react quickly to changing needs.

As a supply chain planner or customer service manager, you make various decisions every day, such as: "Can I honor this customer's request to increase its order?"; "How do I adjust to a delayed supplier shipment?"; or "I have an excess of XYZ component; can I promote a product that will consume it?" A new class of planning solutions called "Response Management" addresses such needs.

These solutions go beyond traditional material resource planning. Besides identifying materials shortages, they determine which orders you can commit to and which orders you can delay based on your priorities. They take into account your finite materials and capacities, consider alternative sources, and optimize the use of substitute parts. And with product life cycles constantly shortening, these solutions help you plan for new product launches and engineering changes to enable you to consume soon-to-be-obsolete materials.

Demand-driven companies strive to reduce their "frozen period" — that is, the horizon in which plans cannot be changed — to make final build decisions as late as possible to address these types of changes. These companies control the actual moment of order launch to the plant or contract manufacturer to capture the best demand mix. As a result, order commitments are met, and available stocks and capacities are utilized efficiently. Ultimately, these companies can then benefit from enhanced revenues due to captured upside opportunities, improved customer

FIGURE 1 ▼ SAP solutions enable companies to achieve the three success factors that are critical to becoming a demand-driven enterprise

Success factor	Relevant solution	Solution description	Learn more
Improved collaboration	SAP Supply Network Collaboration	Enables cooperation and knowledge sharing across the supply chain to optimize visibility, control, and efficiency of planning and execution processes	**www.sap.com/solutions/business-suite/scm**
Optimized inventory	SAP Enterprise Inventory Optimization by SmartOps	Sets appropriate inventory targets for every item throughout the supply chain as a function of variability, seasonality, and promotions to keep levels low while maintaining target delivery service levels	**www.sap.com/solutions/solutionextensions/enterprise-inventory-optimization**
Responsive planning and what-if analysis	SAP Supply Chain Response Management by ICON-SCM	Supports rapid replanning, demand reprioritization, and what-if analysis to respond to changes in demand and supply	**www.sap.com/solutions/solutionextensions/supply-chain-response-management**

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service, lower inventory levels, and fewer inventory write-offs.

How SAP Can Help

To enable organizations to improve their responsive planning processes, SAP has released a new solution extension in the Response Management category. The **SAP Supply Chain Response Management application by ICON-SCM** helps you manage how you fulfill orders and forecasts using a powerful, rules-based approach to demand prioritization. Using rules, you can maximize your supply plan's responsiveness to new demands, while also providing a stable schedule that protects the orders and forecasts already committed.

Based on prioritized demand and user-defined parameters, the application determines a supply plan using an intelligent, finite-capacity, order-based algorithm, which considers substitute parts, engineering change use-up, and alternative sources of supply and capacity. The solution's advanced allocation logic allows for maximum shipments within a given situation, while respecting order priorities. The application also includes flexible, powerful reporting functionality that provides full transparency into planning results to help you identify trade-offs and understand allocation decisions. Plus, you can run what-if analyses to evaluate scenarios quickly and predictably. You can easily understand the quality of a given plan, looking at factors like orders filled, inventory position, revenue, and margin.

SAP Supply Chain Response Management can improve your supply chain's effectiveness and efficiency by:

- Capturing revenue and market share through fast, creative responses to demand upside opportunities. What-if analysis enables you to simulate the impact of potential new demands and determine what supply actions you can take to accommodate them.
- Fulfilling more demand from the same supply using allocation logic that optimizes your existing supply and capacity while protecting your order priorities.
- Reducing excess and obsolete inventory by modifying your plans to respond to real demand when forecasts don't materialize. The solution facilitates the shift toward postponement and build-to-order by creating feasible build plans on a daily basis.
- Increasing service levels and delivery performance with precise, systematic control over customer commitments and order fulfillment. Through demand prioritization rules, you can protect all previously committed orders, assuring plan stability and loyal customers.
- Identifying untapped demand and increasing inventory turns using powerful analytics and rapid supply chain scenario execution that tests demand opportunities against existing inventory.
- Reducing material safety stocks while maintaining the same customer service levels by using more frequent and accurate planning cycles.

Summary

Companies looking to become more demand-driven will benefit from improving their collaboration with partners, managing their inventory levels more effectively, and increasing their ability to respond quickly to supply and demand fluctuations. By transforming their supply chain processes — with the help of SAP solutions — these companies can derive competitive advantage and achieve significant top-line, bottom-line, and working-capital benefits. To learn more, visit **http://ecohub.sdn.sap.com/irj/ecohub/solutions/SAPsupplychainresesponse**.

The new SAP Supply Chain Response Management solution enables you to constantly update your plan using the latest demand and supply information. You can revise and improve it up to the last minute to gain market share, reduce inventory, and improve customer satisfaction.

Additional Resources...

- The SAPinsider **Supply Chain Bootcamp** seminar (see **www.scmbootcamp.com** for dates and locations)
- *Non-Standard Scenarios for SAP Supply Network Collaboration* by Christian Butzlaff, Thomas Heinzel, and Frank Thome (SAP PRESS, **www.sap-press.com**)

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