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A Supply Network That's Responsive in Good Times and Bad

Gain Quick Wins on the Way to Fulfilling Long-Term Business Goals



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What a difference a year makes. In January 2008, the Dow Jones Industrial Average stood at 12,735. Fifteen months later, it reached lows of 6,600 – a drop of almost 50%. The effects of these figures have trickled – or cascaded – down to companies, individuals, and their financial situations. With poor holiday season figures, a drop in automotive sales, rising unemployment numbers, and crashing housing prices, 2009's early consumer confidence numbers were at an all-time low.

In a tough and uncertain economy, corporate executives are challenged to strike the right balance between reducing costs and making targeted investments to ensure future success. The natural reaction is to focus on cost reduction, delaying or cancelling all new initiatives and moving into "survival mode." But companies need to be much more strategic. They need to invest in initiatives that will not only see them through a rough economy, but help them thrive after it passes.

As a supply chain executive, what can you do to navigate your company through these trying times? Despite economic volatility, you should stay your strategic course and strive to transform traditional supply chains into responsive supply networks.¹

Why? Consider the following example. In January 2008, the price of a barrel of crude oil smashed through the US\$100 mark (rising to nearly US\$150 at its peak), significantly affecting companies' transportation management plans. As we write this article, however, a barrel of oil costs US\$46. How has your company handled these fluctuations? Is it able to react nimbly in either scenario? Perhaps when oil prices increased, you began consolidating

your product shipments or adding an extra fee for expedited delivery. Now that prices have dropped again, how has this change affected your plans?

The key is having not just the ability to react, but the responsiveness and efficiency to constantly re-plan and re-align your activities based on current business dynamics. After all, responsiveness enables companies not only to recognize and take advantage of great opportunities, but also to mitigate risks when things take a turn for the worst.

End-to-End Processes: Supporting Today's Needs, Enabling Tomorrow's Success

To enable a responsive supply network, SAP is delivering several end-to-end business processes that we believe are its key drivers. We also understand that in a climate where every penny spent is scrutinized, the ability to get a rapid return on your investment is more critical than ever.

To this end, we have designed these business processes to be deployed in implementable steps, which are smaller technology components all based on a stable, unified core. Each implementable

What Role Does the Supply Chain Play in Times of Economic Turmoil?

"The supply chain, and the technologies that support it, will play an important role over the next five years in helping companies deal and thrive in an economy that is going to be quite unlike anything we've seen in the post-war era."

– "In an Ominous Economic Environment, Can You Trust Your Trading Partners?"
AMR Research (November 2008)

¹ To learn more about responsive supply networks, see "Don't Just Survive, But Thrive, in a Networked Economy: Transform Your Static Supply Chain into a Responsive Supply Network" by Richard Howells in the July-September 2008 issue of *SAP Insider* (www.SAPinsideronline.com).

step is designed to deliver value – which can be measured through key performance indicators (KPIs). In a way, these end-to-end processes are deployment roadmaps toward a defined strategic goal (see **Figure 1**).

Determining Which Processes to Tackle First

To structure this discussion, we have divided these processes into three categories:

- **Strategic** – These scenarios support long-term, high-level strategies, enabling the decisions that take place over longer cycles. Historically, strategic decisions would be revisited every two to three years. These days, that cycle has been shortened to as little as six to nine months (see **Figure 2**).
- **Tactical** – These scenarios support the planning processes that take place in quarterly or monthly cycles (see **Figure 3**).
- **Executorial** – These scenarios support a company’s response to events that are happening now (see **Figure 4**).

Say that you have decided that manufacturing network planning and execution is your company’s most important core business process; you ultimately want to ensure fast and cost-effective responses to network demand changes, disruptions,

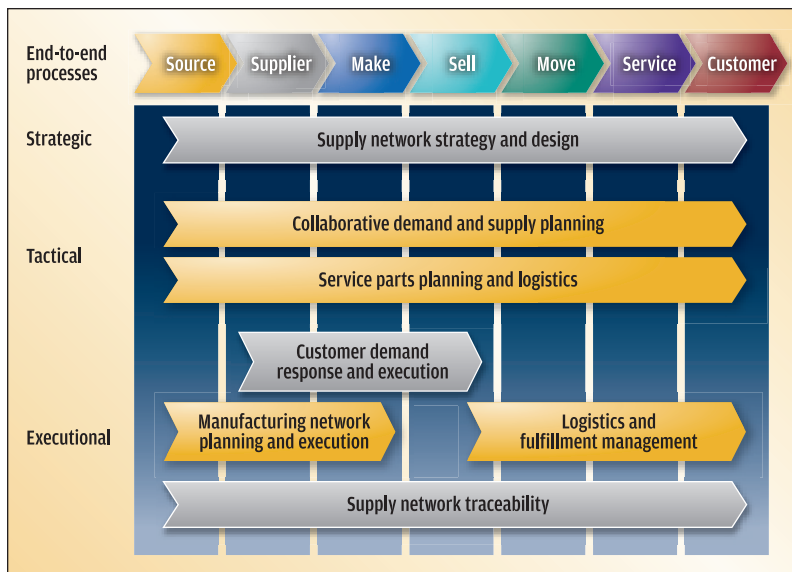


FIGURE 1 ▲ SAP’s end-to-end business processes support a responsive supply network

Value scenario	If your goal is to...	This process enables you to...
Supply network strategy and design	<ul style="list-style-type: none"> ▪ Shorten strategic planning cycles ▪ Design your supply network to be responsive to demand variability and flexible to changing conditions ▪ Quickly reevaluate your supply and outsourcing strategy or the positioning of inventory across your network 	<ul style="list-style-type: none"> ▪ Set supply chain business goals ▪ Evaluate alternative strategies based on changing conditions ▪ Design a responsive network that includes optimal facility placement, the right on/off-shoring mix, and the best push/pull strategy ▪ Measure and monitor performance

FIGURE 2 ▲ SAP’s value scenario to support strategic processes

Value scenario	If your goal is to...	This process enables you to...	SAP Business Suite 7 capabilities that support this scenario...
Collaborative demand and supply planning	<ul style="list-style-type: none"> ▪ Minimize inventory levels ▪ More easily respond to changing customer demand, supplier delivery volatility, and operational disruptions across the entire network ▪ Improve demand visibility and forecast accuracy 	<ul style="list-style-type: none"> ▪ Establish an integrated, collaborative planning process to: <ul style="list-style-type: none"> ▶ Drive supply strategies ▶ Synchronize supply activities ▶ Mitigate supply risks 	<ul style="list-style-type: none"> ▪ Trade promotion planning to support exception-based planning and promotion totals ▪ Enhanced mobile capabilities ▪ Demand planning with increased forecast accuracy and new forecasting algorithms ▪ Enhanced customer collaboration capabilities
Service parts planning and logistics	<ul style="list-style-type: none"> ▪ Boost after-sales profits ▪ Increase service supply chain efficiency ▪ Improve customer service 	<ul style="list-style-type: none"> ▪ Integrate and synchronize parts planning, warehousing, and fulfillment processes ▪ Gain real-time visibility into service parts inventory 	<ul style="list-style-type: none"> ▪ Enhanced service parts warehousing capabilities with, for example, improved graphical layouts and warehouse monitors ▪ Service parts planning that enables, for example, more efficient collaboration between planners and customers

FIGURE 3 ▲ SAP’s value scenarios to support tactical processes

Value scenario	If your goal is to...	This process enables you to...	SAP Business Suite 7 capabilities that support this scenario...
Customer demand response and execution	<ul style="list-style-type: none"> Continuously sense and respond to short-term demand signals and customer forecast changes 	<ul style="list-style-type: none"> Use demand-driven forecasting that is highly responsive to customer volatility 	<ul style="list-style-type: none"> Will be included in a future SAP Business Suite enhancement package
Manufacturing network planning and execution	<ul style="list-style-type: none"> Support demand-driven manufacturing with fast, cost-effective responses to network demand changes, disruptions, or unanticipated economic events Mitigate risks associated with supply chain complexity 	<ul style="list-style-type: none"> Closely integrate manufacturing planning to demand signals Generate build plans across your manufacturing network Schedule and execute production orders in internal plants, responding quickly to changes in demand and supply Electronically collaborate with outsourced manufacturers and material suppliers Capture status information to maintain up-to-date visibility across all internal and external manufacturing and supplier facilities 	<ul style="list-style-type: none"> Tighter integration of outsourced manufacturing into engineering change management Enhanced inbound shipment visibility Enhanced tracking of manufacturing batch and characteristics information Tighter integration of outsourced manufacturing processes into your own supply network Supplier dashboards and Quick Views Supply chain performance management capabilities
Logistics and fulfillment management	<ul style="list-style-type: none"> Ensure integrated, end-to-end logistics and fulfillment processes to deliver the right product, in the right quantity, at the right time Balance delivering the “perfect” order with reducing network-wide inventory and logistics costs, improving asset utilization, and improving customer service levels 	<ul style="list-style-type: none"> Respond proactively to normal variability in material flow with visibility and tight integration Manage and monitor import and export controls Mitigate risk across logistics processes Link the warehouse, transportation, and sales departments 	<ul style="list-style-type: none"> Transportation management with process enhancements, analytics, and workflow management Extended warehouse management capabilities to increase visibility via graphical layouts and monitoring tools
Supply network traceability	<ul style="list-style-type: none"> Ensure product integrity, comply with regulations, and protect your brand, even after you’ve shipped a product Comply with regulations around product pedigree from point of manufacture to point of consumption 	<ul style="list-style-type: none"> Track conditions in perishables, food, and drug products for temperature, pressure, and humidity Detect and respond to product compliance violations and execute recalls through reverse logistics with traceability of product components, suppliers, and manufacturing plants Track and trace at the batch and lot level as well as at a more granular level 	<ul style="list-style-type: none"> SAP Auto-ID Enterprise to enable: <ul style="list-style-type: none"> Full Electronic Product Code Information Services (EPCIS) compliance Improved SAP ERP integration Support for new returns processes User interface enhancements Item unique identification (IUID) support

FIGURE 4 ▲ SAP’s value scenarios to support executional processes

The Implementable Steps That Comprise the Manufacturing Network Planning and Execution Process

- Manufacturing network planning
- Production planning and execution
- Outsourced manufacturing
- Material supply and replenishment

or unforeseen economic events. So then what? What would your next step be?

Gaining Quick ROI

Your company needs a roadmap to achieving its business process goals. With SAP's help, you can determine which implementable step you'd like to tackle first. This modular deployment approach minimizes disruption, reduces project risk, and lowers IT project cost.

In an economy like this one, you'll likely want to first implement steps with quick ROI and rapid business benefits, such as improved visibility, collaboration, and responsiveness. In our manufacturing network planning and execution example scenario, you might start by implementing the **outsourced manufacturing** step (see sidebar). In this case, you could leverage SAP's capabilities to automatically:

- Create and publish work orders that integrate with planning and execution processes
- Create collaborative work order negotiations between a brand owner and an outsourced manufacturer
- Increase visibility of an outsourcer's work order progress via automated electronic notifications
- Generate shipping notifications upon project completion

These steps quickly ensure visibility across a network, resulting in shortened lead times without increased costs – important business benefits with quick ROI.

Setting the Stage for the Future

Now, let's say that the economy has finally picked back up – your IT budget has grown again and line-of-business managers are asking IT to help them with more strategic initiatives. At this point, you can start implementing other steps in the manufacturing network planning and execution area, such as **manufacturing network planning** to determine and source production requirements across a network of internal and external sites, **production planning and execution** to manage your own manufacturing facilities, and **material supply and replenishment** to ensure material availability across your network.

No matter which steps you implement or when you implement them, by working within a defined SAP roadmap, you'll always be moving toward a common goal. In this case, the result will be a supply network that supports an integrated manufacturing network planning and execution process. This will, in turn, lead to improved capacity utilization, comprehensive lot tracking and genealogy, and increased on-time customer shipments. From there, you can determine which business processes to work on next.

Supporting Responsive Supply Networks

The economy has changed drastically over the last year, highlighting the need for responsiveness within your supply network processes. You must be able to adapt and respond to change – in good times and in bad.

A responsive supply network is the ideal model for improving modern business relationships. A company that has prepared to participate in such a network is better able to create win-win relationships with partners and suppliers to provide better products and services to customers – and reap the subsequent rewards for all members of the network.

SAP solutions provide a stable core that delivers the flexibility to rapidly build these innovative business scenarios and to automate core processes that ensure operational efficiency. As a result, customers rely on SAP to help them compete effectively or even thrive during the economic downturn while continually positioning them for growth during the inevitable upswing. For more information, visit www.sap.com/solutions/executiveview/supply-chain. ■

To better enable a responsive supply network, SAP Business Suite 7's integrated business process capabilities allow IT to reallocate spend on activities such as strategy and innovation, rather than integration and customization.

Additional Resources...

...from **SAP Insider**

- ✦ “Don't Just Survive, But Thrive, in a Networked Economy: Transform Your Static Supply Chain into a Responsive Supply Network” by Richard Howells (*SAP Insider*, July-September 2008, www.SAPinsideronline.com)
- ✦ The **Procurement, Production, and Inventory Optimization in a Downturn Economy** seminar (see www.optimizationseminar.com for event dates and locations)
- ✦ “SAP Supply Chain Planning,” an *SAP Insider* Multimedia Training CD (www.SAPinsidermultimedia.com)