

# A Smarter Supply Chain



**Dennie Norman**  
Principal Marketing  
Strategist,  
Supply Chain Intelligence,  
SAS Institute, USA

For years, demand planners, material managers, procurement professionals, and logistics experts have achieved efficiencies and synergies in the ways they buy, make, move, and sell products and materials. As a result, companies have increased their flexibility, cost-effectiveness, and competitiveness, setting new standards for “best-in-class.” Supply chain management now faces an even greater challenge: getting intelligence out of the vendor and customer network data and delivering business benefits.

Supply chain intelligence (SCI) is designed to assist you in managing

uncertainty in your supply chain, from customers to vendors and across your company (see **Figure 1**). SAP customers can achieve this by making use of the supply chain management data from your mySAP ERP and mySAP Supply Chain Management (mySAP SCM) systems, supported by SAP NetWeaver, plus other internal and external data sources, to deliver unique demand, supply, operational, and customer-related insights. SCI helps you address the supply chain challenges that persist in most enterprises, in particular the need to be proactive rather than reactive, with analytics for the supply chain.

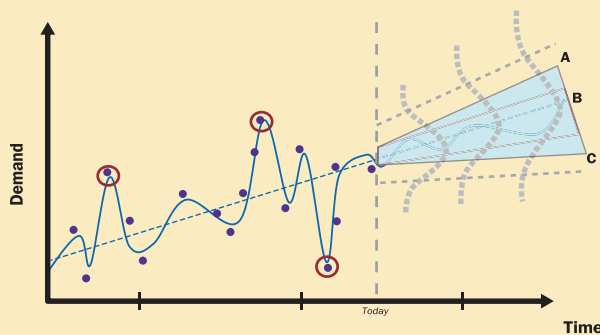
SAS is an SAP Software Partner with interfaces certified for SAP NetWeaver (the platform of mySAP SCM), for which we offer complementary solutions. SAS Supply Chain Intelligence applies predictive modeling to help planners foresee events and anticipate trends. It does not replace human expertise; companies need to understand what factors can be used as true business predictors, since the past is not always a sufficient guide to the future. But improving the accuracy of demand forecasts by even a small percentage can create exponentially beneficial ripple effects, both forward and backward through the supply chain, including fewer stockouts and lower inventory. Users are able to react faster to changing customer needs without increasing costs or reducing revenue.

Access to information alone isn’t enough, though — companies also need to conduct root cause analysis. For example, if a report from your mySAP ERP or mySAP SCM system indicates high product returns, what are the causes of product failures? How can field failures be detected sooner? Where should problem solvers focus their attention? Procurement professionals often ask how they can minimize total spending without sacrificing quality and delivery. Which suppliers should be part of the optimal supply base?

## With Supply Chain Intelligence

You can manage uncertainty and capitalize on:

- Improvement in forecasting accuracy
- Advanced knowledge of peaks and valleys
- Inventory levels driven by demand variations
- Higher or same service level at lower cost
- Accurate cash flow predictions
- True insight to demand drivers
- Contracts based on future volumes
- Shared risk with suppliers



**Figure 1** Managing Supply Chain Uncertainty

To better understand costs in the supply chain, it's important to identify the most profitable customers, plants, or products. This is the kind of detailed intelligence that drives strategic decisions and competitive advantage. The key is to enhance your data with the intelligence that creates a smarter supply chain.

## The Dimensions of SAS Supply Chain Intelligence

SCI has a broad mandate: providing an additional layer of intelligence to complement enterprise data and manage uncertainty, whatever the specifics faced by your company. It can drive the search for a profitable business strategy based on enhanced quality and service levels.

SAS 9 is the intelligence platform for all SAS solutions. It is certified for SAP NetWeaver, the framework of mySAP SCM, and ensures access to all relevant data and metadata across the supply chain through tight integration with SAP Web Application Server, the central component of SAP NetWeaver.

Here are just some examples of the ways organizations use SAS SCI to extend their current mySAP SCM landscape in the areas of demand management, strategic sourcing, production quality, warranty analysis, and inventory management.

- **Demand Prediction** — SAS high-performance forecasting automatically selects the time series models that best explain your historical data, optimizes all model parameters, and generates high-quality forecasts. This functionality enhances the SAP planning function by reducing the risk of planning against an inaccurate forecast. SAS can accept transactional data and make it forecast-ready by accumulating the data into a time

series format. Forecasts are based on data from mySAP ERP and mySAP SCM systems, plus other internal and external information sources, with the highest degree of data quality. External causal factors can be easily incorporated to improve forecast accuracy. Inventory levels can be reduced and service levels maintained or improved; purchasing patterns can be predicted and cash flow projections provided.

- **Production Quality** — SCI exploits integrated data to drive problem solving, monitoring, control, and process improvement. Using an analytically driven approach, results can include reduced cycle times, increased product quality and throughput, and better asset utilization — in short, market differentiation through superior quality, greater flexibility, increased speed, and reduced costs.
- **Early Warning** — Predictive analytic techniques and data and text mining can uncover patterns in data and text to indicate where and when future failures are likely to occur. Enterprise data such as shop floor records, supplier audits, warranty claims, and call center reports are all rich sources of information that hold clues about potential product failures. Combining structured information managed by mySAP SCM with unstructured data captured by field technicians provides warning of field issues months earlier than processes that are manual or do not include textual data in their analysis, enabling you to take action to reduce the production of defective units.
- **Sourcing Data Quality** — Accurate and complete data is an essential support for strategic sourcing. Data quality can be improved through standardizing, cleansing,

and rationalizing your supplier master files. Autoclassifying techniques can organize a company's purchased materials and services according to a standard classification structure like UNSPSC,<sup>1</sup> which allows procurement professionals to identify supplier consolidation or volume discount opportunities.

- **Supplier Ranking & Supply Base Optimization** — Ranking provides an objective, repeatable, and adaptable measuring system that reliably identifies the best suppliers for your organization, so you can respond effectively to changing business conditions. By using dynamic, weighted averages to add balance and flexibility to your selection criteria, SCI objectively evaluates and prioritizes suppliers based on your specific needs. Further supply base consolidation can be achieved by modeling your ideal supply base for specific commodity groups. Business objectives can be balanced against supply risk, available capacity, and other constraints and filters to generate optimized supply base models.

Predictive analytical modeling techniques, along with optimization across all of the dimensions described above, are at the core of the SAS SCI offering. This gives companies an enhanced understanding of their key business drivers and enables them to achieve disproportionate gains. SAS complements SAP supply chain offerings via SAP NetWeaver integration to drive higher ROI from your investment in mySAP ERP and mySAP SCM.

For more information on SAS, please visit [www.sas.com/sapinsider](http://www.sas.com/sapinsider). ■

<sup>1</sup> The United Nations Standard Products and Services Code (UNSPSC) offers a single global classification system for efficient, accurate classification of products and services. For more information, go to [www.unspsc.org](http://www.unspsc.org).