

# Demand-Driven Supply Chain



## Sense and Respond to Demand and Supply

### Balanced Supply, Demand

### Demand-Driven Imperative

### Competitive Supply Chain

### SAP Innovations

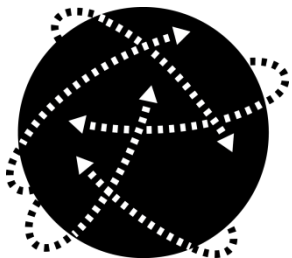
In a volatile supply chain, revenues are lost if companies underfulfill, and inventory write-offs result if they overplan. Companies need to be “demand-driven” in all aspects – from sensing customer demand to responding to change quickly and by better aligning internal and external supply chains.

The empowered customers of today have more choices than they have ever had before. Stock-keeping units (SKUs) continue to proliferate, with competition on a global scale. The Internet bombards the world with product reviews, trends, and “likes” that influence markets virtually overnight. Around the world, new product introductions and promotions drive demand constantly.

Moreover, the supply situation faces unprecedented complexity. Today’s advanced, distributed supply networks include remote contract manufacturers and suppliers, often offshore.

This complexity has led to long lead times and supply constraints, forcing commitments to decisions before demands are well known. Furthermore, distances and organizational boundaries raise visibility and transparency challenges that make it difficult and time-consuming to change a plan, once made.

To address these critical supply chain issues, today’s best-run companies use an integrated, demand-driven approach to reduce and avoid latencies across the entire supply chain. Advanced planning functions that can sense changes in demand and supply enable these companies to respond more quickly and precisely.



## The “Demand-Driven” Imperative

Balanced Supply, Demand

**Demand-Driven Imperative**

Competitive Supply Chain

SAP Innovations

Customer demand continues to be unpredictable. To succeed, companies must respond with agility and speed to changes and new opportunities by sensing, anticipating, and shaping demand with extraordinary visibility and insight into demand signals across a global supply chain.

The speed and volatility of business today points to the reality that it is no longer competitive or profitable to push product to market based on long frozen periods and production cycles.

Using near-real-time visibility into demand, companies must anticipate and shape demand by capturing, cleansing, harmonizing, and mining demand signals with speed and intelligence.

For companies also to meet demand responsively, they need the ability to commit to orders accurately and adjust plans to capture upside opportunities while protecting commitments. They also need to make continuous, fine-tuned adjustments to shipments and supply.

A transformation of production and procurement processes is also required to reduce frozen periods with suppliers, and to replan and reallocate supply on a daily or more frequent basis.

SAP solutions for demand management, collaborative response management, and manufacturing and supply planning provide these essential functions to drive speed and responsiveness in any supply chain.

### Best-Run Supply Chain



## Supply Chain As a Competitive Advantage

Balanced Supply, Demand

Demand-Driven Imperative

**Competitive Supply Chain**

SAP Innovations

**8%**

Higher on-time delivery performance reported by top 25% as compared to average

Source: SAP Performance Benchmarking

The new supply chain is demand-driven at the speed of real time. With the ability to sense and adjust current plans based on market and demand data, you gain immediate benefits that include competitive differentiation and targeted improvement on your organizational key performance indicators (KPIs).

The operational and strategic business benefits of a fast, transparent, and intelligent supply chain are huge. So, too, are the opportunity costs and real costs of missing a market signal or not having your supply chain aligned to changing conditions.

SAP solutions facilitate all aspects of a competitive, demand-driven supply chain, resulting in the following benefits.

Forecast accuracy is improved through more precise demand visibility tied directly into forecasting and planning processes.

“Bull whip” effects are reduced through reduced latency and capture of demand signals at the source, plus a more intelligent and stabilized response.

Higher delivery performance is achieved at the lowest cost through intelligent allocation of scarce product demand and more intelligent inventory availability.

Inventory and working capital are reduced through optimized inventory placement at each node in the supply chain and better inventory utilization to meet customer demand.

Collaborative processes drive speed and accuracy with suppliers, contract manufacturers, third-party logistics providers, and customers, as well as channel partners.



## SAP Innovations

Balanced Supply, Demand

Demand-Driven Imperative

Competitive Supply Chain

### SAP Innovations

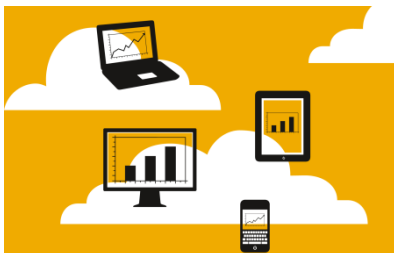
A demand-driven supply chain leverages technology innovations for greater visibility and speed. Scalable, flexible deployment options help empower supply chain professionals throughout the enterprise with faster response, real-time demand visibility, and full-time information accessibility.

Database and technology solutions powered by the SAP HANA platform help supply chain professionals to achieve these objectives by monitoring high volumes of variable internal and external demand signals in real time. This includes orders, shipments, syndicated data, point-of-sale data, loyalty data, and social data to enrich analytics, enable predictive forecasting, and spot exceptions to mitigate demand and supply risk.

Analytics solutions enable immediate visibility and predictive insights through every aspect of the demand-driven supply chain, from assessing current downstream demand to improving forecasts to monitoring detailed stocking information and measuring partner performance.

Mobile solutions provide always-on access to status reporting and exceptions, better decision making, and improved customer service. Enterprise mobility for the supply chain creates a new collaborative process that lets users see and respond to the supply chain on the go.

Cloud-based solutions are a fast, low-risk way to minimize an IT footprint while unlocking immediate access to analysis, facilitating new levels of business partner collaboration, and providing quick access to supply chain information for all key stakeholders.



## Sense and Respond to Demand

### Demand-Driven Supply

#### Demand Management

#### Collaborative Response

#### Manufacturing and Supply Planning

A demand-driven supply chain senses current demand, enables a quick response that incorporates business rules and priorities, and effectively aligns global manufacturing and supply chain processes.



#### **Comprehensive Demand Management**

This approach provides complete demand process capabilities, including direct insight into demand signals, customer sentiments, and market research data.



#### **Integrated Collaborative Response Management**

This approach drives supply and demand fulfillment, while executing company policies and protecting prior commitments.



#### **Flexible Manufacturing and Supply Planning**

The best practice optimizes demand with integrated supply modeling, drives manufacturing planning flexibility, and automates production and scheduling.

## Comprehensive Demand Management

Demand-Driven Supply

**Demand Management**

Collaborative Response

Manufacturing and  
Supply Planning

Comprehensive demand management enables companies to anticipate and shape demand based on near-real-time visibility to demand signals. Furthermore, it provides the means for these companies to incorporate demand-based decisions and planning into core business processes.



# 12%

Lower order fulfillment lead time for organizations that are driven by comprehensive demand signals

Source: SAP Performance Benchmarking

Organizations with disparate demand management approaches struggle with demand signal visibility and poor forecast performance. However, they can overcome these challenges with a comprehensive, holistic demand management approach that enables them to sense demand patterns and respond to them faster and more accurately.

Comprehensive demand management includes the ability to capture and harmonize demand into a single demand picture to understand changing patterns quickly. These demand signals are integrated into core demand management response processes, such as short-term planning to drive fulfillment and manufacturing execution, and demand planning to adjust

forecasts and new product launches. Promotional plans also benefit from more accurate adjustments that increase their effectiveness and feed better inventory and supply planning decisions.

Effective demand management processes are driven across the organization, providing insight from all departments within the company. Items like sales forecasts and new product plans are incorporated into the demand management process with full understanding of the context.



## Integrated Collaborative Response Management

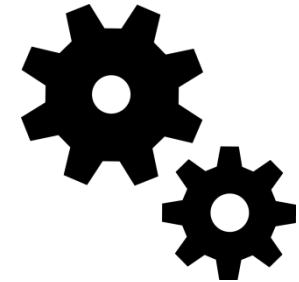
Demand-Driven Supply

Demand Management

**Collaborative Response**

Manufacturing and  
Supply Planning

Experience teaches supply chain professionals that even the best forecasts can be wrong. For this reason, leading companies focus on responsive management to dynamically fulfill and match supply to demand. This approach ensures that priorities are followed, commitments are met, and customer loyalty is maintained.



Demand is volatile. Customers order from the source they think offers the best price and availability, as they respond to frequent promotions and new product introductions. Changing orders can disrupt the supply picture, affecting existing commitments. Compromised delivery performance can result in sizable penalties.

To meet today's customer expectations, companies recognize that large order volumes require same-day disposition. They also see that to meet upside opportunities while satisfying existing commitments, priority orders cannot rely on slow manual activities, such as blocking orders, holding stocks, or managing allocations manually.

Today's organizations must maintain superior customer service with minimal inventories across a variety of fulfillment processes, including discrete order-centric processes, make-to-stock processes, or a combination of both. To stay competitive, leading companies must focus on priorities to establish accurate commit dates for orders and forecasts.

Given the volatility of demand and supply, integrated collaborative response management enables a more stable plan. It protects commitments while allowing stock deployment according to business rules that are aligned with customer service and revenue priorities.



## Flexible Manufacturing and Supply Planning

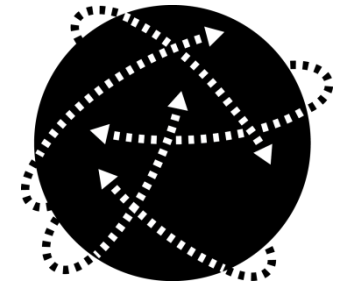
Demand-Driven Supply

Demand Management

Collaborative Response

**Manufacturing and  
Supply Planning**

Organizations can improve their global manufacturing and supply planning capabilities and processes by increasing the flexibility needed to respond to the entire supply chain – across both internal and external manufacturing sites – all while maintaining efficiencies and minimizing costs.



To improve supply chain metrics, including customer service, revenue, inventory, cash, and margin, companies must operate a manufacturing global network as a single aligned entity with minimum latency. They must plan the network as one, with a holistic network model that allows visibility to key demand and supply information from both internal and external sources. This approach facilitates incorporation of lean supply chain disciplines directly into planning processes and helps companies model realistic constraints.

Internal manufacturing operations need to support fast, responsive manufacturing, using both pull and push techniques to drive plans quickly down to the plant floor.

Integration of outsourced manufacturing processes allows for fast turnaround of published plans and orders. Companies should be able to communicate flexibly with contract manufacturing by supporting different transaction types, such as discrete purchase orders, blanket agreements, and work orders, and by supporting a range of communication mechanisms. Leading organizations have inventory availability and order visibility across multiple tiers of the supply network, allowing them to orchestrate a material flow to meet their service objectives.

## Demand-Driven Supply Chain Value Map

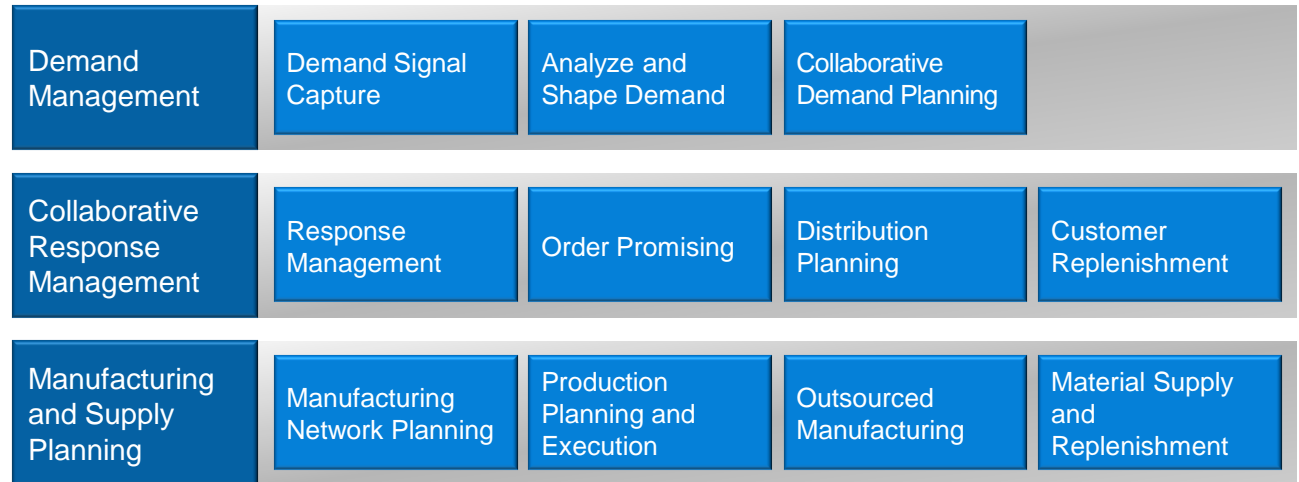
### SAP Solutions

SAP solutions address key requirements of the demand-driven supply chain.

Demand Management

Collaborative Response

Manufacturing and  
Supply Planning



# Holistic Demand Management

SAP Solutions

**Demand Management**

Collaborative Response

Manufacturing and  
Supply Planning

## Enable a holistic view of what customers want and why.

Demand management is a holistic solution approach that includes a full process, from demand signal capture to long- and short-term forecasting. This solution utilizes new sources of demand intelligence, directly impacting forecast accuracy and providing the ability to sense short-term changes. Signals can be integrated to develop a unified demand plan; collaboration allows all to contribute.



### Demand Signal Capture

Streamline the acquisition of demand signals with tools to transfer and monitor the collection of downstream signals. Cleanse, enrich, and harmonize demand signals, including market research, social data, and information from the Web.

### Analyze and Shape Demand

Perform robust analysis against huge amounts of demand signals. Use root cause analysis for out-of-stock events and increased insight into consumer behavior. Integrate into response mechanisms, such as fulfillment or promotions.

### Collaborative Demand Planning

Project demand through best fit and automatic forecast generation. Improve accuracy by integrating data from multiple sources, with continuous updates from key forecast input providers.

# 23%

Lower inventory carrying costs where forecasts are dynamic and are updated frequently

Source: SAP Performance Benchmarking



## Collaborative Response Management

SAP Solutions

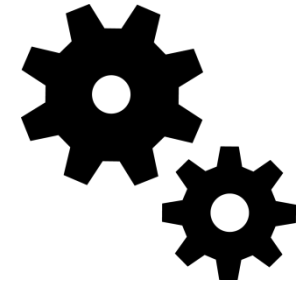
Demand Management

**Collaborative Response**

Manufacturing and  
Supply Planning

### **Perform responsive fulfillment, order promising, and customer replenishment.**

Leading companies focus on responsive fulfillment to match supply to demand dynamically, make commitments and replenish stocks, maintain customer loyalty, and achieve competitive advantage. They achieve this through response management, order promising, distribution planning, and customer replenishment.



#### Response Management

Perform operational planning and what-if analysis to make adjustments to accommodate short-term disruptions in supply as well as changes in demand.

#### Order Promising

Use strategies like availability checking, rules-based substitution, and allocations management to provide customers with commitment dates to match demands.

#### Distribution Planning

Plan the fulfillment of customer demands and the stocking of inventory at distribution centers by deriving the requirements for inventories in the distribution network from data in the system.

#### Customer Replenishment

Drive vendor-managed inventory, including collaborative processes to capture customer demand and inventory information, replenishment calculations, and actual replenishment triggers.

# Flexible Manufacturing and Supply Planning

SAP Solutions

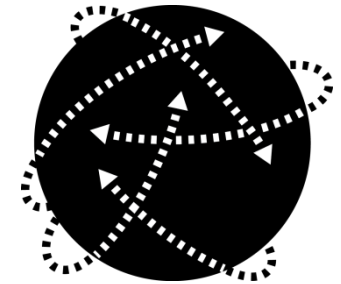
Demand Management

Collaborative Response

**Manufacturing and  
Supply Planning**

## Gain network visibility for production and procurement planning.

Manufacturing and supply planning solutions from SAP enable quick, harmonized responses to demand and supply changes using integrated planning from internal and outsourced manufacturing sites to minimize supply disruptions. The result is highly flexible manufacturing processes without increased costs.



### Manufacturing Network Planning

Minimize lead times by sourcing production requirements across the network. Integrate demand signals into the manufacturing planning process and enable real-time communication.

### Production Planning and Execution

Improve manufacturing responsiveness through visibility, faster finite capacity scheduling, and real-time visibility of orders.

### Outsource Manufacturing

Orchestrate responsive execution of outsourced manufacturing to shorten lead times with electronic work orders and accurate tracking.

### Material Supply and Replenishment

Manage materials availability flexibly while reducing costs through scalable supplier connectivity and optimal materials management at each tier of the supply chain.

## SAP Innovations

### SAP Innovations

SAP HANA

Mobile

Analytics

Cloud

Using applications powered by the SAP HANA platform, companies can take advantage of Big Data to analyze massive amounts of highly granular data. Mobile solutions using a variety of devices extend the reach of this information, facilitating input from more participants in the supply chain process.



### SAP HANA

Handle large data volumes, including demand signals. Harmonize downstream, social, and Web data. Perform analysis in-memory at zero latency to drive better decisions.

### Mobile

Unwire employees and supply chain participants and empower business processes to make agile and informed decisions closer to the customer.

### Analytics

Gain targeted insights on essential business success factors. Perform easier simulation and what-if analysis across all response and manufacturing processes.

### Cloud

Fast, flexible deployment of business processes can transform and optimize global supply networks and provide new levels of collaboration and process monitoring with other key stakeholders.

## SAP HANA

SAP Innovations

**SAP HANA**

Mobile

Analytics

Cloud

Today's unprecedented availability of end-customer and demand data offers significant opportunities for doing business as never before. Using the SAP HANA platform, best-run companies are able to benefit from Big Data to drive landslide competitive advantage, both today and tomorrow.



### Supply Chain Monitoring

Perform high-speed analysis and track key performance indicators (KPIs) against current supply chain information. Spend less time compiling, generating, and waiting for information. Use in-memory supply chain monitoring to make high-speed decisions. Connect better operational decisions to KPIs to ensure improving supply chain performance.

### Demand Signal Management

Collect, store, manage, and analyze large volumes of demand data without latency. Anticipate demand changes and react to dynamic customer behavior. Include holistic downstream, social, Web, and other demand data. Enrich and harmonize demand signals for high-speed analysis and use in-memory functionality to drive analysis.

## Mobile

SAP Innovations

SAP HANA

**Mobile**

Analytics

Cloud

Manufacturing and supply chain organizations can connect sales, service, and operations teams to company back-office business processes through mobile solutions that are convenient and easy to use and manage. With full accessibility to information at any time and from anywhere, users can perform business functions on the fly.



### Mobile Supply Chain Analysis

Companies can gain immediate insights and decision-making power when they have the ability to access real-time global planning and key performance indicator data and also the ability to perform root cause analysis, anytime and anywhere, through a mobile device.

### Mobile Planning and Forecasting

Companies can enable consensus forecasting and planning capabilities through the entry of mobile data directly into business processes. They can also see key information updates and receive notifications and alerts to new or changing process requirements.

### Mobile Demand and Customer Insights

Supply chain professionals can access detailed demand signal information from multiple sources, including both internal and external manufacturing sites. This data and information can illuminate downstream sales, inventory availability, customer process and status, and promotion performance.

# 22%

Lower days in inventory when a high percentage of warehouse or inventory management employees have mobile access

Source: SAP Performance Benchmarking





## **Analytics**

SAP Innovations

SAP HANA

Mobile

**Analytics**

Cloud

Organizations can now provide up-to-the-minute visibility to key performance indicators across the enterprise, illuminating every facet of business operations. With this capability, companies can enable real-time monitoring for root cause analysis, risk mitigation, predictive modeling, and optimization.



### Supply Chain Monitoring

Technology has now made it possible for companies to measure key supply chain drivers in real time across planning, collaboration, and execution processes, utilizing live operational data. Organizations can also perform context analysis to complement their core supply chain processes.

### Demand Signal Analytics

Demand signal analytics includes a set of highly efficient analysis tools that can quickly analyze massive amounts of demand signals for market insights and better, faster decision making. Analytics tools help planners measure out-of-stock and out-of-shelf situations, detailed sales, and the effectiveness of promotions and new product launches.

# 20%

Higher availability of real-time and predictive insights when a higher percentage of strategic KPIs are tracked using business intelligence tools

Source: SAP Performance Benchmarking



## Cloud

SAP Innovations

SAP HANA

Mobile

Analytics

**Cloud**

# 85%

Of business professionals believe cloud technology will have a major impact on their organization through efficiencies, innovation, or competitive differentiation

Source: SAP Performance Benchmarking

Companies that want a quick, low-cost, low-risk way to minimize their IT footprint choose cloud-based solutions and on-demand technology. Fast, flexible deployment of critical solutions is essential for on-demand technology. Best-run supply chains deploy cloud solutions to create global sales and supply networks that scale quickly.



### Cloud-Based Information Hub

A cloud-based information hub enables companies to establish scalable connections with business partners. Critical supply chain data, based on a common information standard, is exchanged securely back and forth.

### Cloud-Based Collaboration

Integration of demand-driven supply chains with cloud-based solutions, such as sales and operations planning, provides immediate access to analysis, facilitates new levels of business partner collaboration, and aligns supply chain information with input from other key stakeholders.

## Best-Run Customers

### Best-Run Customers

apetito

Arla

Braskem

Mibelle

Why SAP?

# 85%

Of the top 100  
most valued brands in  
the world are SAP customers

Source: SAP Fast Facts

63% of the world's transaction revenue is handled by an SAP system.

SAP is the #1 provider of overall supply chain management solutions (and gaining).

SAP is the #1 supply chain planning solution provider.

17 of the top 25 Gartner-recognized companies use supply chain solutions from SAP.



## Customer Co-Innovation

### Best-Run Customers

apetito

Arla

Braskem

Mibelle

Why SAP?

Whether involving Big Data, mobile, analytics, or cloud, shared innovations using the SAP Supply Chain Management (SAP SCM) application are integral to every new discovery and step forward in demand-driven supply chain technology. These continual innovations help to steer SAP's strategic road map for supply chain management.

SAP actively performs co-innovation in the areas of new solution definition, in-memory computing, analytics, usability, and enterprise mobility through executive councils and formal co-innovation.

Past co-innovation partners have included the following: Arla, BASF, Colgate, Coca-Cola, and Procter & Gamble.

# 79%

Of the Global Fortune 500 are  
SAP customers

Source: SAP Fast Facts





Best-Run Customers

apetito

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Braskem

Mibelle

Why SAP?

**apetito gains transparency of market demand with the SAP Advanced Planning & Optimization (SAP APO) component.**

The company needed scalable software to support business growth. Specifically, they were looking for a configurable application to support enterprise integration and workflow automation.

**Key Benefits**

- Ability to gather market demand data and provide central access to it for planning and reporting staff
- Focus on demand planning exceptions
- Support for consistent global processes
- Higher data quality
- Direct access to planning data for all departments



Harmonized processes at two sites



Integrated software with the existing SAP NetWeaver Business Warehouse application

“With the demand planning software in SAP Advanced Planning and Optimization, we at apetito have found a forward-looking solution that helps us to forecast demand for our products.”

Ludger Sasse, Head of Production Planning, apetito AG





Best-Run Customers

apetito

**Arla**

Braskem

Mibelle

Why SAP?

### **Arla uses SAP software to increase margin with better matching of supply and demand.**

Arla sought to increase the contribution margin for powdered milk through better matching of supply and demand. The firm wanted to optimize forecasting for powdered milk products to maximize sales, while implementing proper processes for sales and operations planning.

#### **Key Benefits**

- Fully uniform view of sales plan, financial plan, and production plan
- Decrease in lead times from data to overview from 21 days to 10 days
- Increase in data available for planning personnel
- Improvement in forecast accuracy by 10%
- Increase in annual earnings by €2 million

**10%**

Improvement in  
forecast accuracy



Accessibility to  
financial, supply,  
and demand data  
online through  
integrated SAP  
software

**6**

Number of months  
needed to go live  
with full  
functionality

“There’s less noise in our business now. Everyone knows what to do, how much surplus there is, and how we can sell what and when. We can show there is revenue out there to be made if we do things in a proper and structured way.”

René Gaarde-Vahlberg, Director GCO Planning & Allocation BSM/Powder,  
Arla Foods amba





Best-Run Customers

apetito

Arla

**Braskem**

Mibelle

Why SAP?

## Braskem increases sales forecast accuracy and reduces costs by optimizing supply chain.

Braskem chose global available-to-promise functionality from the SAP Advanced Planning & Optimization (SAP APO) component to better understand inventory levels across several plants and to plan how orders would be fulfilled. The company's objectives were to integrate operational areas, improve planning, and gain real-time visibility over inventories of finished goods. The firm also sought to establish a process to prioritize sales orders, considering volume and quota restraints.

### Key Benefits

- Increased accuracy of sales forecasts through better inventory management
- Enhanced customer satisfaction through faster fulfillment of orders
- Reduced costs in logistics and supply chain management

**90%**

Reduction in  
inefficiency-related  
logistics costs

**18%**

Increase in sales  
forecast accuracy

**\$3 million**

Value generated in  
first year after  
implementation

“The SAP implementation has had a strong impact on how Braskem fulfills customer demands, thanks to improved inventory management. The return on investment has been extremely fast.”

Roger Ueno, Processes and Systems, Braskem





Best-Run Customers

apetito

Arla

Braskem

**Mibelle**

Why SAP?

### **Mibelle gains transparency in stock and demand planning with SAP Advanced Planning & Optimization.**

Mibelle sought to reduce stock on hand, increase service levels, and mitigate risks in warehousing.

#### **Key Benefits**

- Improved planning and warehouse transparency and precision
- Streamlined processes in purchasing planning
- New partners in Switzerland and abroad
- Improvement in forecast accuracy by 10%
- Increased annual earnings by €2 million

**98%**

Service level across all customers, an improvement from an average of 75%

**30%**

Cut in inventory days of supply

**90%**

Increased accuracy in forecasts, an improvement from 38%

“With SAP Advanced Planning & Optimization, we’ve been able to set the stage for a networked mind-set both within and outside of our company to the benefit of everyone involved – all while conserving our natural resources.”

Peter Härdi, Director of Supply Chain Management and Executive Board Member, Mibelle AG Cosmetics





## Why SAP?

Best-Run Customers

apetito

Arla

Braskem

Mibelle

**Why SAP?**

SAP solutions empower today's supply chain professionals by enabling a demand-driven approach to supply chain management. Such an approach enables fast response to market dynamics, real-time visibility to customer demand, and low-cost yet flexible deployment options, all while leveraging the latest innovations.

### **Enable Tightly Integrated, Comprehensive Solutions**

SAP offers the most comprehensive portfolio of solutions for supply chain management, enabling a responsive supply network – from strategic supply chain planning to tactical fulfillment. It is integrated and collaborative by design.

### **Leverage Key Breakthrough Innovations**

SAP solutions are based on the industry's most innovative technology foundation. This foundation combines solutions for database and technology, enterprise mobility, analytics, and cloud-based deployment options to enable supply chain optimization and efficiency at the lowest possible cost.

### **Achieve Fast Time to Value**

The world's leading manufacturing companies, across every major segment of the industry throughout the world, continue to rely on SAP to enable them to build a real-time supply chain.



# Find Out More About How Your Organization Can Become Best-Run

## Benchmark Your Performance

Position your organization for dominance in this new economy with the business performance benchmarking program from SAP – available free to SAP customers and select prospects. The SAP benchmarking program has helped more than 3,000 organizations assess their strengths, uncover areas for improvement, and identify best practices and IT strategies that generate clear, tangible value – not someday, but today.

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