



CASE STUDY

Remedy for a Healthier Supply Chain

One Synchronized View of Demand Helps Merck Serono Increase Sales, Reduce Inventory and Enhance Service Levels

OBJECTIVE

Accelerate the integration of two very different supply chains in order to improve the efficiency of its supply chain network and overall business operations.

SOLUTIONS

- JDA® Collaborate
- JDA® Demand
- JDA® Fulfillment
- JDA® Master Planning

REAL RESULTS

- Increased supply chain visibility by providing a central, worldwide view on sales forecasts for all products, inventory levels and planning parameters
- Ability to support company-wide sales and operations planning process
- Improved operating efficiencies
- Improved planning of production orders
- Standardized and synchronized processes within the organization

Merck Serono International S.A., the Geneva-based division of parent company Merck KGaA of Darmstadt, Germany, is a global pharmaceutical and biotechnology leader that is committed to bringing therapeutic innovations to patients. Merck Serono's success is characterized by cutting-edge therapies and treatments with pharmaceuticals and application-oriented research and development. As an industry leader in biotechnology, Merck Serono is focused on developing specific treatments that provide beneficial therapeutic outcomes in the areas of oncology, neuro-degenerative diseases, fertility, endocrinology and cardio-metabolic care, as well as auto-immune and inflammatory diseases.

Diagnosing the Challenges

Even a successful, global corporation like Merck Serono is not immune to the ever-increasing demands and expectations of being a leader in the highly competitive pharmaceutical and biotechnology research and development industry. Merck Serono defined many business objectives, operational challenges and requirements that it needed to address to help maintain its market leadership position and strengthen its core therapeutic areas.

Merck Serono's biggest challenge was the integration of two very different supply chains for traditional pharmaceuticals and biotechnology-based pharmaceuticals. The traditional pharmaceutical supply chain was locally driven with more of a pull concept – purchase orders from the affiliates to the manufacturing sites. The biotechnology supply chain was centrally managed with more of a push concept – automatic replenishments from the manufacturing sites to affiliates. During the time of integration, another challenge was to maintain and ensure high customer-service levels that were aligned with Merck Serono's "no stock-out" philosophy. Additionally, Merck



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Head of Supply Chain Process
Merck Serono

Serono needed to improve sales forecasting accuracy and manufacturing planning to drive production efficiency, as well as reduce inventories to increase cash flow.

To achieve its strategic business objectives, Merck Serono needed a highly precise sales forecast to pinpoint and predict consumer demand with the highest level of accuracy, effectively driving the distribution and the production of its manufacturing sites. Secondly, in order to optimize and reduce the stock levels at various distribution centers and production facilities, Merck Serono required a highly efficient distribution planning process.

The company also wanted to constrain distribution with planned production orders, which could take into account the capacity constraints, as well as availability of the materials of the products' main components. Optimized production orders and fewer write-offs would reduce the production and resource costs and therefore fulfill that segment of Merck Serono's implementation requirements.

Finally, increasing customer service levels with better product availability, from the delivery of raw materials to the final product, was one of the driving forces for the implementation of Merck Serono's tactical planning project to improve the efficiency of its supply chain and achieve one synchronized view of demand.

Merck Serono's innate ability to combine its strong research and development initiatives with logistics and supply chain opportunities is a testament to this company's ongoing success. Key to Merck Serono's prescription for supply chain excellence was its proactive approach to addressing supply chain challenges, as well as the company's strategies to expand its product offering into new specialist areas with significant unmet medical needs.

“As a recognized biotechnology leader, Merck Serono's expertise in research, development and production ensures absolutely high-quality manufacturing, a key success factor in the biopharmaceutical industry,” said Didier Dayen, head of supply chain process at Merck Serono.

Providing Supply Chain Therapy

Merck Serono decided to create one centrally managed supply chain, based on the push principle and driven by JDA Software's Manufacturing Planning suite. The company selected JDA Demand, JDA Fulfillment, JDA Collaborate and JDA Master Planning to effectively manage its entire supply chain for the company's network of manufacturing sites, distribution centers, distributors and logistics partners located worldwide. Merck Serono's choice of JDA was driven by two key factors: the positive experience that former Serono realized using JDA to support its biotechnology supply chain initiatives prior to being acquired by Merck; and the flexibility of JDA solutions to be used as an integration platform with Merck Serono's many different local enterprise resource planning (ERP) systems.

“The flexibility that the JDA solutions offer as an integration platform was one of the main reasons they were deployed for the entire Merck Serono network,” added Dayen.

JDA Demand enabled Merck Serono to leverage forecasting methodologies across the enterprise. With improved forecasting, Merck Serono can better respond to shifts in demand, therefore driving high customer-satisfaction levels, minimizing inventory carrying costs and maximizing sales. Incorporating JDA Fulfillment allowed Merck Serono to position the right inventory in the right places at the right time, while ensuring that inventory is available across the entire company.

The flexible hierarchies and tracking features of JDA Collaborate help Merck Serono to synchronize its demand chains, leveraging an easy-to-use, Web-native interface for users to view and create multiple versions of data streams and adjust data for specific products, customers, stakeholders and geographies.

JDA Master Planning helps Merck Serono to determine the best time and place to develop and manufacture biopharmaceuticals to meet consumer demand. Merck Serono can efficiently manage production across multiple sites in order to accurately respond to fluctuating demand. Additionally, sourcing decisions and capacity planning are less of a challenge for Merck Serono. Materials and products can efficiently flow throughout the supply chain network and can be optimally produced at the best facility.

By transforming its supply chain operations and synchronizing consumer demand across every channel, Merck Serono now has strategies in place for more accurate forecasts and optimized execution across dispersed production and distribution facilities.

Prescription for Supply Chain Challenges

With the help of JDA's solutions, Merck Serono accelerated the integration of two very different supply chains. It improved the efficiency of its supply chain network and overall business operations. Merck Serono continues to strengthen its core therapeutic areas, while also improving its demand practices and key supply chain metrics.

JDA's solutions enable Merck Serono to better respond to fluctuations in consumer demand. The ability to create what-if scenarios and data integration allows Merck Serono to quickly report demand changes, which can be seen directly by the entire supply chain organization. The impact of these fluctuations can then be assessed quickly and decisions can be made immediately by the supply chain planners. Having the ability to quickly analyze the impacts of the demand changes in real time and being able to easily assess distribution-change requests empowers Merck Serono to proactively manage demand volatility.

Additional qualitative benefits that Merck Serono achieved with JDA Software's unmatched value in supply and demand chain innovations include the transparency of the planning parameters and the visibility of the supply chain data, as well as the

synchronized processes and standards throughout Merck Serono's entire organization.

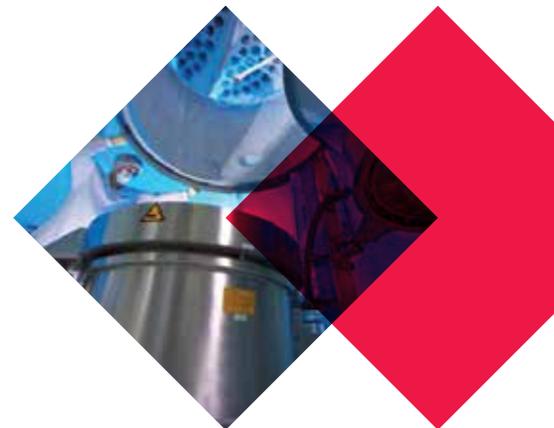
"Implementing JDA Software solutions has provided Merck Serono with one synchronized view of demand," added Dayen. "Having only one demand-data repository for the entire company allows us to easily follow an aligned process across the organization. Having only one application instance forces us to define clear rules in terms of forecast data availability and process. We now have timelines for data availability and for forecast submissions within the whole organization."

Prognosis for Success Looks Good

Merck Serono gained the valuable insight and knowledge it needed to drive real results while maximizing the return on its JDA investment. Merck Serono achieved process compliance across all operations, a rapid return on investment, seamless integration from planning to execution, increased shareholder value and improved operating efficiencies.

The complete automation of the data transfer from the various systems gives Merck Serono's manufacturing users the assurance that they don't miss any information, waste time checking data or spend time asking other supply chain stakeholders for information.

Merck Serono's success illustrates the importance of effective supply chain management and demonstrates how the biotechnology industry is embracing supply chain solutions. From a strategy level to an operational level, Merck Serono synchronized its supply chain network and overcame operational challenges to reinforce its leadership position in the competitive biopharmaceuticals and biotherapeutics market.



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