Photo: Bosch

# ROBERT BOSCH LLC

## AT A GLANCE

| | |
|---|---|
| **Industry** | Automotive |
| **Revenue** | US$5.8 billion |
| **Employees** | 14,000 |
| **Location** | Farmington Hills, Michigan |
| **Web Site** | www.boschus.com |
| **SAP® Solution & Services** | SAP® Supply Network Collaboration application |
| **Implementation Partner** | SupplyOn |

The Bosch Group provides automotive, industrial, and consumer goods and building technology in more than 50 countries. Robert Bosch LLC is the world's largest supplier of precision automotive components and systems, providing electronics and electrical components, braking systems, gasoline and diesel systems, and automotive aftermarket services for every major automotive OEM. The group's North American operations generate annual revenue of over US$5.8 billion and employ approximately 14,000 associates.

## Key Challenges

- Delivering just-in-time shipments in exact quantities
- Meeting constantly changing customer requirements
- Reducing excess inventory
- Reducing risk of obsolescence
- Implementing lean production process
- Solving lack of electronic data interchange (EDI) capability in 70% of supplier base

## Why SAP Was Selected

- Real-time visibility into supply and demand
- Integrated demand-driven replenishment capability
- Less expensive alternative to EDI for small suppliers
- Compatibility with SAP® applications already in place
- Multiple replenishment models
- Integration with SAP software processes for receiving materials

## Implementation Best Practices

- Business ownership of requirements and implementation
- Development of process first, then tools
- Initial pilot prior to broad rollout
- Standard communication process to drive adoption for non-EDI suppliers
- Training and support for suppliers on an ongoing basis

## Low Total Cost of Ownership

- Standard integration with SAP applications in place
- SAP NetWeaver® platform integration with non-SAP software applications
- Intuitive Web application for efficient implementation
- Low infrastructure cost with SupplyOn MarketPlace
- No EDI infrastructure costs for suppliers

## Financial and Strategic Benefits

- Better supplier collaboration and responsiveness
- Elimination of manual processes
- Improved planner productivity
- Better supplier access to real-time demand information
- Fewer receiving discrepancies
- Increased inventory accuracy
- Improved demand and supply synchronization
- Proactive production planning
- Automatic tracking of supplier delivery performance

## Operational Benefits

| Key Performance Indicator | Impact |
|---|---|
| Inventory | −17%* |
| Planner productivity | +20% |
| Premium freight costs due to last-minute shipments | Reduced |
| Downtime due to stock-outs and parts shortages | Reduced |
| Space requirements | Reduced |

\* For supplier parts in the initial pilot

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"We wanted a solution for standardizing the way we do business with suppliers that could be implemented globally and lead to more efficient business processes. We found that SAP could deliver both."

George Berg, Director, Corporate Purchasing, Robert Bosch LLC

"Now that our planners and suppliers have realized the benefits of using [the SAP Supply Network Collaboration application], they do not want to go back to the old way of planning using phone calls and faxes."

Nayak Ullal, SAP E-Commerce Leader, Robert Bosch LLC, Charleston, South Carolina

## More Intelligent Communication with Suppliers

Robert Bosch LLC (Bosch) has long used electronic data interchange (EDI) to communicate with key suppliers. However, the high costs of EDI make it hard for smaller partners to use. As a result, Bosch planners relied on phone calls, faxes, and e-mails to interact with 70% of their thousands of global suppliers. This approach was labor-intensive and prone to error and resulted in late deliveries, excess inventory, high premium freight costs, and production downtime. To address these problems, especially the inventory costs, Bosch realized it needed an alternative to EDI that was less expensive for suppliers.

## Codevelopment with SAP

In 2002 Bosch and SAP began discussing development of a Web-based application to share planned requirements, inventory, and shipments. Initially, SAP proposed a custom development project, but after hearing about similar needs of other customers, the firm decided to build the SAP® Supply Network Collaboration application as a standard product. Bosch agreed, and the two companies worked together to define requirements and develop software for high-volume operations on a global scale.

## Inventory Reduced by 17%

In 2003 the Bosch plant in Charleston, South Carolina, began piloting SAP Supply Network Collaboration. The first suppliers and parts managed by the application showed a 17% inventory reduction. Additional benefits included:

- Reduced premium freight costs due to fewer last-minute shipments
- Reduced downtime from stock-outs and parts shortages
- Increased planner productivity due to automation of manual activities
- Fewer quantity discrepancies and billing errors
- Reduced space requirements

Line disruptions were also down dramatically. In fact, 80% of the disruptions were caused by parts from suppliers not yet covered by the SAP application.

Initially, Bosch used the SAP application to deploy supplier-managed inventory strategies based on lean demand-driven processes. With this approach, suppliers ship their products based on real-time inventory visibility, and the application's alerts are designed to maintain inventory within minimum/maximum quantity levels. This was a fundamental change to Bosch's business process and transferred responsibility for inventory management from Bosch planners to suppliers. Using SAP Supply Network Collaboration, suppliers also send advance shipment notifications to facilitate material receiving at Bosch.

## Remote Hosting Saves Costs and Accelerates Time to Value

SupplyOn — an SAP partner that provides application delivery, training, supplier on-boarding, and 24x7 call center support — hosts and supports the SAP application at Bosch. Working with SupplyOn significantly reduced Bosch's IT support costs and also helped speed up supplier adoption and time to value. Suppliers require minimal Web-based training and need only an Internet connection to access SAP Supply Network Collaboration.

The results in Charleston provided justification to roll out SAP Supply Network Collaboration to all Bosch Automotive Technology plants in North America and ultimately across the world. By the end of 2007, the application will be in place at all 32 North American plants and will connect over 900 North American suppliers.

"Our goal is to use SAP Supply Network Collaboration to communicate electronically with all of our suppliers through one portal, reflecting one face to our suppliers for communication of inventory and planning requirements," says Keith Schaecher, manager of corporate logistics for Bosch.

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