Operational Procurement and Inbound Logistics
Orchestrate Efficient Supply for Production

Automotive companies are under intense global competition. As a consequence, cost savings are necessary to ensure profits. Production planning and scheduling has to be flexible to serve volatile customer demands. To reduce costs, inventories have to be further reduced, and the overall efficiency of processes and operations has to be increased.

As customer demands change, inefficient and inflexible planning and procurement operations prevent manufacturers from adapting supply to the needs of production. The result is incorrect or missing inventory.

The absence of real-time inventory processes integrated into logistics and production planning and execution procedures leads to unnecessary inventory reserves.

The inability of suppliers to project future demand for their products impedes their ability to prepare for and respond to volatile demand. At the same time, the lack of visibility into suppliers’ capacities to deliver products increases the risk of disruptions in production and the potential for emergency situations. The results are increased costs and the potential loss of customers.

Insufficiently integrated and transparent solutions for procurement and inbound logistics cause higher operational costs and extended lead times, along with increased inventory. Latencies and redundancies, data errors and losses, and late and slow reactions to unexpected events contribute to inefficiencies and higher operating costs.
Efficiency and Visibility for Better Supply

Automotive companies benefit from integrated software solutions supporting efficient operations with real-time processing, fewer redundancies, and minimal latencies across processes.

Visibility into demand, inventory and supply, and supplier integration improves the potential to optimize processes and react appropriately when unplanned events occur.

Flexible production planning in response to fluctuations in customer demand, combined with integrated material requirements planning and operational procurement, results in a concordance of supply and demand along with optimized inventory.

Real-time inventory integrated into logistics and production planning and execution processes allows for the reduction of emergency inventory and reserves. Providing information to suppliers about future demand for their products improves their planning processes as well as their ability to respond to fluctuating demands. Visibility into what suppliers can deliver allows for earlier production reaction times with reduced effort and cost, and decreased risk of disruptions in production.

Real-time processing and automation with highly integrated software solutions lowers the workload and error handling and improves the efficiency of operations. Improved production efficiency and lower operational costs are the outcomes.
Reliable Supply with Lower Costs

With solutions for operational procurement and inbound logistics from SAP, automotive customers can improve their ability to feed production with the right supplies at the right quantities and the right time while reducing operations and logistics costs. Automated and integrated processes reduce workload and errors while improved visibility improves response to the unexpected event.

- Reduce operations costs through integration and automation to result in less effort and fewer redundancies and errors
- Reduce inventory through real-time, accurate inventory management, better planning, and lean procurement capabilities to procure the right quantities at the right time
- Improve the quality of supply with real-time inventory management and adaptive planning and procurement capabilities to get the right quantity at the right time
- Increase responsiveness to unplanned events by using alerts and other functions to improve visibility into supply processes
- Reduce disruptions in production due to missing components by enhancing visibility into – and the ability to manage – supply
- Increase customer satisfaction by enabling and providing reliable, flexible demand fulfillment on an ongoing basis

25% Lower inventory carrying cost where technology tools are used for receiving process to optimize accuracy and labor costs

Source: SAP Performance Benchmarking
SAP Innovations

The accelerating pace of IT innovation is driving a new era of opportunities for automotive companies to achieve efficiencies, speed up operations, and improve profitability with reduced logistics costs.

Huge volumes of data can now be analyzed for inefficiencies, latencies, and errors in supply, so manufacturers can further improve processes in coordination with suppliers. Faster simulations and what-if analyses can help speed and improve decision making.

Analytics
Powerful analytic applications that integrate with SAP and non-SAP applications and data sources can help manufacturers quickly address their specific set of diverse automotive-specific challenges.

In addition, embedded analytics within SAP applications provides help to users so they can analyze data sets quickly.

Big Data
The SAP HANA platform empowers automotive companies to rapidly analyze huge volumes of business, quality, and customer data in real time. This helps them derive actionable intelligence from processing vast amounts of highly variable data. As a result, companies can speed up innovation and improve quality to gain competitive advantage.

Mobile
SAP offers mobile solutions for every aspect of business. This helps companies run faster and more efficiently by providing employees with access to critical intelligence, anytime, anywhere.

Cloud
Cloud computing provides new ways to unlock extraordinary potential that allows businesses to run faster and better.
Supply Production Reliably and Efficiently

Solution Overview

Operational Procurement
Manage and monitor delivery scheduling and settlement for direct material.

Inbound Logistics
Process and monitor the receipt of direct material and the replenishment to production.

Why SAP?
Operational Procurement and Inbound Logistics

Solution Overview

Operational Procurement

Inbound Logistics

Manufacturing and Logistics

Why SAP?

SAP software for operational procurement and inbound logistics is a straightforward solution for discrete manufacturing supply.
Plan the supply of procured materials based on the production program. Provide delivery schedules to vendors, or provide requirements and inventory data for supplier managed inventory. Use lean procurement to pull supply directly to production. Settle goods receipt by invoice verification or use self-billing procedures.

Integrated with production planning and execution, and based on real-time inventory data, SAP solutions enable demand and supply to be evaluated anytime and adapted when needed. That enables an optimized supply with essential inventory only, resulting in reduced costs and more operational efficiency.

SAP solutions allow manufacturers to provide vendors with either delivery schedules, or gross demand and inventory data for supplier-managed inventory. In each case, relevant planning data is shared for maximized transparency across the supply chain to improve response to volatile markets.

Lean procurement enables just-in-time supply directly to the production line for more efficiency and lower inventory. Self-billing reduces the effort of invoice verification with payments based on what has been actually received.
To Meet Demand, Procure Direct Material Efficiently and Less Expensively

Using the scheduling agreements for operational procurement available within SAP solutions, automotive companies can readily and automatically adapt their supply planning to volatile customer demand and production scheduling. Each new generation of delivery schedules shared with suppliers reflects the current state of production planning for long-term demand, providing transparency along the supply chain.

As an alternative to delivery schedules, gross demand and inventory data can be provided for supplier-managed inventory, where the supplier is responsible for maintaining the stock within defined limits to cover demand. Order acknowledgements and delivery notifications from suppliers confirm the ability to deliver, as well as status and deviations in order fulfillment.

For lean procurement, delivery schedules are used as forecast only. The supplier delivers directly to the production line according to just-in-time calls.

After delivery fulfillment, payment can be executed by invoice processing. Either the vendor sends an invoice document to be processed and verified, or the automotive buying company chooses evaluated-receipt settlement as a self-billing procedure to create credit memos.

Lower expedited transportation spend where inventory is managed via automated signals such as min-max consumption

Source: SAP Performance Benchmarking
Improved Procurement with Reduced Costs

Flexible and adaptable to volatile demand, the operational procurement processes are straightforward and can be automated and integrated into manufacturing, logistics, and finance.

For collaborative transparency into planned and actual supply, both flexibility and efficiency are key elements in the supply chain.

Highly automated and in sync with material requirements planning, the delivery schedule process supported by SAP software flexibly adapts supply to changing demands with an accompanying reduction in inventory and expenses.

Supplier confirmations by order acknowledgments and delivery notes reduce the risk of short supply and disruptions in production, or flag problems in time to respond with appropriate alternatives.

Lean procurement adds lean principles and pull mechanisms to planning-based and planning-relevant delivery schedule processing. Just-in-time processing makes it straightforward and efficient to order direct material when and where a requested quantity is needed for production, according to the consumption and production schedule.

With evaluated receipt settlement for self-billing, the settlement process runs automatically and reliably, and the effort of invoice verification is significantly reduced.

7%

Lower transportation spend for organizations where automated replenishment planning has tight integration with vendor-managed inventory customers

Source: SAP Performance Benchmarking
Innovations for Operational Procurement

SAP offers a cloud-based business-to-business service that lets companies connect with their business partners in a flexible way – and at a predictable cost. The solution offers companies an efficient way to streamline operations that involve business partners.

Cloud
Take a cloud-based approach to partner connectivity with a business network solution from SAP. Available at a fixed cost, it enables organizations to have an automated and fully integrated business partner network for business-to-business electronic data interchange. It uses a preconfigured business-to-business content engine combined with partner profiles so organizations can get started quickly.

85%
Of organizations believe the cloud will have a big impact on them via efficiencies, innovation, or competitive differentiation
Source: SAP Performance Benchmarking
Inbound Logistics

Process and monitor the logistics of procured materials from the supplier’s loading dock to consumption on the line. Receive shipping notifications for more visibility and efficiency, and execute required activities efficiently with goods receipts, storage of goods in the warehouse, and stock pulling for production.

SAP software supports inbound logistics to allow streamlined and efficient operations before, during, and after the receipt of goods. Before receipt, a delivery notification informs the recipient of the estimated time of arrival and contents of the shipment. Matched to the order quantity and the corresponding demand, shortages are immediately visible.

At receipt, the posting of goods in the correct quantity and value for further logistics and finance processes is essential. Delivery and shipment documents have to be checked against physical goods. Product quality must be inspected, and obvious defects noted and processed accordingly. SAP software covers these requirements.

After receipt, goods are moved either directly to production for consumption or to inventory or warehouse storage until a stock transfer to production is called for. Process integration helps ensure frictionless operations and clear visibility and enables accurate inventories.
Receive and Transfer Goods to Production More Efficiently

Inbound logistics starts with the delivery of goods ordered. The receiving automotive company creates inbound delivery and shipment documents accordingly, typically based on processed messages from suppliers or freight forwarders. Material planning benefits by registering the delivery quantity and its expected time of arrival instead of the ordered quantity and date.

As goods arrive, a two-step process occurs. At plant entry, inbound shipment and related deliveries are checked against the freight documents of the carrier and corrected if necessary. At each unloading point, inbound deliveries and their handling units are checked against physical packages, and corrected if necessary. A goods receipt posting increases stock and vendor liability and reduces the open order quantity. A quality inspection can follow, or the goods can be stored in a warehouse until production replenishment is required. For lean procurement, posted goods are routed directly to the production line for consumption.

A lean replenishment with just-in-time processing enables a stock transfer to the production line, with or without warehouse management involved.

40% Lower inbound shipments labeled incorrectly with real-time visibility to warehouse order status, labor status, and inventory

Source: SAP Performance Benchmarking
SAP offers software for inbound logistics that is flexible and highly integrated, providing clear visibility into operations. The software enables efficiency improvements, helps manufacturers avoid disruptions in supply and production, and enables reductions in inventory and overall logistics costs.

SAP software enables automotive companies to run their supply processes in multiple and flexible ways from supply with intermediate storage to just-in-time supply. The software can integrate with supplier processes as well as other business processes such as manufacturing and procurement. This enables overall real-time processes, full visibility, and frictionless operations across organizational boundaries.

A delivery notification sent by the supplier is automatically processed and linked to the purchasing document. Delivery quantity, expected time of arrival, and arrival status are visible directly in a demand and supply view so the material planner can respond immediately to shortages. Operators for goods receipt can access the document data directly for verification and posting purposes. When a goods receipt is posted, the open order quantity is reduced, inventory is updated, and staging for replenishment can be executed.

23%

Fewer purchase orders (POs) requiring expediting for organizations where buyers have online access to PO status

Source: SAP Performance Benchmarking
Innovations for Inbound Logistics

SAP offers a cloud-based business-to-business service that lets companies connect with their partners in a flexible way – and at a predictable cost.

Cloud
SAP offers a cloud-based network solution that makes it easier for companies to communicate with their sales and logistics partners. Its predefined business-to-business content – including prebuilt partner profiles – helps companies establish partner connectivity faster and maintain it better across the entire procurement and logistics network.

66%
Of organizations expect greater flexibility and agility to be a source of business advantage from cloud computing.
Source: SAP Performance Benchmarking
SAP solutions address key requirements for manufacturing and logistics.

### Executive Summary

#### Solution Overview

- **Operational Procurement**
  - Operational Procurement
  - Inbound Logistics

- **Inbound Logistics**
  - Operational Procurement
  - Inbound Logistics

- **Manufacturing and Logistics**
  - Lean Manufacturing
  - Production Planning and Scheduling
  - Lean Six-Sigma Analysis
  - Poka-Yoke Processing
  - Manufacturing Execution

- **Make to Order**
  - Make to Order (SCM)
  - Model Mix Planning and Sequencing

- **Outbound Logistics**
  - Sales and Logistics Planning
  - Sales and Logistics Execution

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Why SAP?

SAP offers software for operational procurement and inbound logistics for automotive companies. It supports industry best practices for improved supply of direct material where and when it is needed. Process efficiency is improved with integration and transparency for reduced inventory and logistics costs.

Leverage Industry Best Practices
Run business with best practices, from delivery-schedule processing to supplier-managed inventory to just-in-time supply. Apply best practices to goods receipt processing and self-billing. Leverage the knowledge SAP has gained through years of working with the automotive industry.

Integrate Tightly
Reduce effort, disruptions, and redundancies using the native integration of SAP software and that of certified partner solutions. Leverage the advantages of business-to-business integration with business partners.

Take Advantage of Key Breakthrough Innovations
Utilize the power of Big Data, cloud computing, mobile devices, and intuitive analytics to align the organization’s processes across the supply chain. Let innovations from SAP provide the visibility and flexibility needed to delight partners and customers.
**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.

**Go Live in Weeks**
Here’s the fastest way to run your business better: our rapid-deployment solutions. In one package, you get everything you need to be up and running quickly – including preconfigured software and implementation services – in just weeks. With a defined scope and predictable costs, there are no surprises.

**Join Your Community of Practices**
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