Five ways data and AI fuel intelligent supply chains

Break down data silos to drive operational synergy

SAP

Table of contents

Staying ahead of challenges and seizing opportunities early

Supply chain leaders have long prioritized cost and efficiency. However, modernized supply chain orchestration is also essential—aligning traditional disciplines horizontally and facilitating networking with external partners. This shift enables companies to achieve the resilience, adaptability, and operational excellence to compete in an economy defined by constant uncertainty.

Gain real-world advantages with real-time insights
From geopolitical tensions and shifting trade policies to natural disasters, the disruptions impacting your supply chain are just too numerous to count. But with the SAP Business Data Cloud solution, you can get what you need to stay ahead.

The managed software-as-a-service (SaaS) solution unifies and governs SAP data and smoothly connects it with third-party data. The result? Analytics insights with the context necessary to make effective decisions.

With real-time integration, SAP Business Data Cloud can give your teams and trading partners comprehensive operational visibility and the tools to collaborate continuously. In doing so, it connects different aspects of your supply chain with a unified foundation of AI-driven insights.

Breaking barriers with real-time supply chain intelligence

Simplify complexity, predict disruptions, and lead smarter
Supply chain teams face a mountain of data—much of it siloed, outdated, or impossible to act on fast enough. Fragmented systems, manual processes, and disconnected tools only add to the burden.

Complexity may be the norm in supply chain management. But with SAP Business Data Cloud, you can flip this reality of missed opportunities, reactive decisions, and resource-draining inefficiency.

With analytics tailored to your supply chain operations, you can leverage real-time intelligence, predictive recommendations, and business-wide visibility. This clarity cuts through complexity so you can optimize inventory, streamline logistics, and mitigate disruptions before they impact production and delivery (see the figure).

Supply chain analytics

Real-time dashboards for comprehensive visibility

Gain instant insights into inventory, supplier performance, and logistics to make faster, smarter decisions.

Automated workflows for greater efficiency

Save time and reduce errors by eliminating manual tasks, such as inventory restocking and delivery scheduling.

AI-driven models for smarter predictions

Leverage AI to forecast demand, predict risks, and optimize operations with confidence.

Integrated data for business context

Retain critical context by connecting SAP and third-party data sources for a unified view.
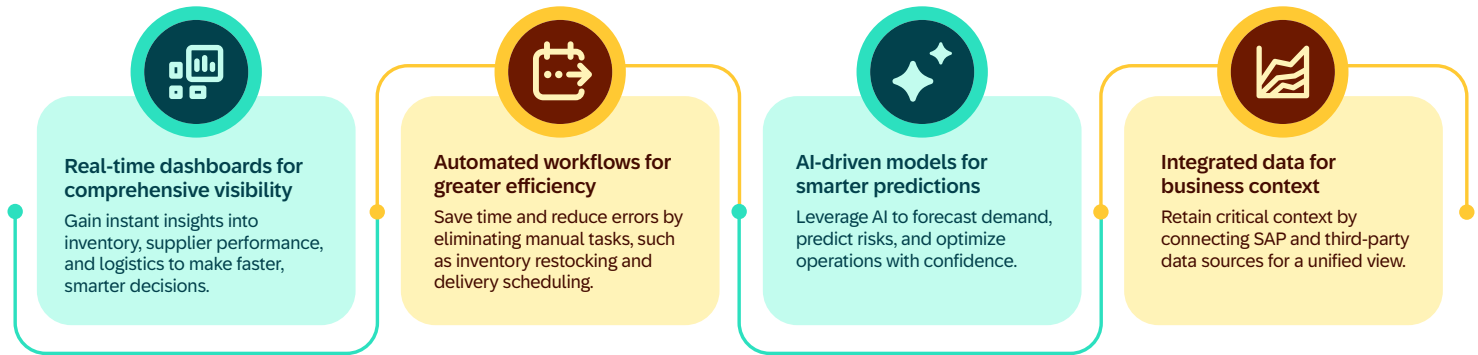
Figure: Key features of SAP Business Data Cloud

Closing supply chain gaps with critical decision-making capabilities

Unify data and eliminate guesswork
SAP Business Data Cloud consolidates supply chain data across SAP and third-party systems, replacing partial insights with real-time visibility into operations, procurement, production, and logistics.

Move from reactive to proactive strategies
Predictive recommendations from SAP Business Data Cloud enable you to optimize demand planning, fine-tune inventory, and streamline logistics, so your supply chain can act on disruptions before they escalate.

Reduce costs and boost agility
Manual processes and third-party tools ultimately create inefficiencies. With SAP Business Data Cloud, you can reduce costs and adapt your supply chain operations faster—no matter how dynamic the environment.

Align goals across your business
SAP Business Data Cloud connects operations with finance and HR, helping ensure continuous collaboration, more effective resource allocation, and optimized workforce performance.

Act with AI-enabled intelligence
Supply chain disruptions are inevitable—but being unprepared isn't. SAP Business Data Cloud provides the clarity, speed, and foresight to turn challenges into opportunities and keep your business ahead.

Introducing five supply chain use cases for AI-driven data

Supply chain leaders must rethink how they manage and use data to stay resilient and drive meaningful growth. Using SAP Business Data Cloud, your supply chain team can be empowered to act with precision by using AI-driven insights to streamline operations, enhance decision-making, and adapt to a rapidly shifting business landscape.

Explore how the analytics capabilities in SAP Business Data Cloud can reshape supply chain operations and set the stage for a smarter, more-strategic future:

- Product design optimization
- Demand and supply planning
- Manufacturing efficiency
- Logistics excellence
- Asset and service optimization

←

Product design optimization

Disconnected processes, fragmented systems, and siloed data slow product design, delaying collaboration and leading to inefficiencies. The result? Designs that miss market demands, compliance requirements, or sustainability goals.

SAP Business Data Cloud creates a digital thread that connects product design data across teams and partners, so you can:
- **Facilitate data-driven design** by centralizing product data to help ensure stakeholders work from a single, reliable source of truth
- **Improve collaboration** across design, procurement, manufacturing, and trading partners to align goals, requirements, and timelines

- **Embed compliance and sustainability** into design decisions, including regulatory needs and environmental, social, and governance benchmarks
- **Accelerate iteration cycles** by rapidly testing, refining, and optimizing designs using real-time insights and external data inputs

As a result, each aspect of the design process is connected—giving you the visibility and agility to deliver better products faster while meeting cost, compliance, and sustainability goals.

Turn product design into a data-driven advantage that accelerates innovation and drives smarter collaboration to meet business goals.

Demand and supply planning

Demand variability and disconnected planning create a constant struggle between overstocking and stockouts. Excess inventory inflates costs, while shortages frustrate customers and disrupt operations. Without accurate forecasting, inefficiencies and lost opportunities follow.

SAP Business Data Cloud helps solve these challenges by analyzing historical data, market trends, and external factors to:

- **Generate accurate demand forecasts** through AI-driven analysis of historical patterns, market trends, and external variables
- **Align supply plans with business goals** to balance inventory levels, optimize production schedules, and align supply with demand
- **Improve resource allocation efficiency** with greater visibility into demand variability and resource availability across production, warehousing, and transportation

- **Reduce waste and improve customer service** by minimizing excess inventory and optimizing product availability

By unifying demand and supply planning into a connected, data-driven process, your supply chain team can respond faster to changing market conditions, improve inventory accuracy, and optimize operations.

> Evolve demand and supply planning from reactive guesswork to a proactive strategy—minimizing costs and driving supply chain excellence.

Manufacturing efficiency

Production inefficiencies, quality issues, and lack of real-time visibility can disrupt even the best-planned operations. Disconnected data and manual processes force teams to react rather than prevent problems—wasting time, resources, and opportunities.

SAP Business Data Cloud is designed to unify production data, supplier metrics, and quality insights in one environment. This enables manufacturers to streamline operations, reduce variability, and improve product quality as they:

- **Gain real-time production visibility** to identify and resolve bottlenecks or inefficiencies before they escalate
- **Streamline quality control** by spotting inconsistencies, improving defect detection, and helping ensure compliance with standards

- **Optimize supplier performance** through real-time monitoring to improve material quality and minimize disruptions
- **Enhance customer satisfaction** by aligning production with demand to deliver reliable, on-time products

With integrated insights into production, quality, and suppliers, you gain a powerful foundation for proactive issue resolution, optimized operations, and product excellence.

Achieve the supply chain productivity and quality necessary to exceed customer expectations in a dynamic market.

Logistics excellence

Inefficient warehousing, poor transport routing, and fragmented freight data disrupt logistics—driving up costs, frustrating customers, and reducing agility. SAP Business Data Cloud solves these challenges by optimizing routes, tracking shipments in real time, and providing actionable insights into freight performance.

With a unified logistics view, SAP Business Data Cloud can help your team:
- **Optimize delivery routes** with AI-driven recommendations to reduce transport times, cut fuel costs, and improve delivery accuracy
- **Track shipments in real time** to preempt delays and resolve disruptions proactively

- **Evaluate freight provider performance** with real-time, more-accurate insights into costs, reliability, and efficiency
- **Enhance operational agility** by aligning warehousing and transport activities with shifting demand and schedules

This ability to replace guesswork with actionable intelligence helps reduce delays, cut costs, and streamline the entire logistics flow—elevating your supply chain's operational excellence and customer satisfaction.

Access the tools and insights to drive down costs, enhance agility, and deliver a satisfying customer experience every time.

Asset and service optimization

Inefficient maintenance and disjointed service operations lead to costly downtime, underutilized resources, and unnecessary environmental impact—increasing costs and disrupting your supply chain.

Driven by AI, analytics in SAP Business Data Cloud can help you overcome these challenges by enabling your supply chain team to:

- **Predict maintenance needs** with AI-driven insights for early identification of issues and proactive maintenance scheduling
- **Track asset performance** by monitoring real-time performance metrics to optimize asset utilization and extend equipment lifespan

- **Recommend optimal service schedules** to keep maintenance and service operations aligned with production timelines to maximize efficiency and minimize disruptions
- **Reduce environmental impact** through asset performance optimization, lowering resource consumption, reducing waste, and supporting sustainability goals

By tapping into predictive intelligence based on your asset performance data, your team is well-equipped to maximize uptime while extracting the most value from every asset.

> Make asset and service optimization a cornerstone of operational excellence—delivering reliable performance and sustainable results.

Delivering actionable insights for confident supply chain decisions

To stay ahead of disruptions, supply chain leaders need real-time insights and predictive tools that enhance efficiency and sustainability. SAP Business Data Cloud combines AI, analytics, and SAP's expertise to optimize operations and turn challenges into opportunities.

Embedding intelligence into supply chain workflows, SAP Business Data Cloud enables:
- **Real-time decision-making** with unified insights across SAP and third-party systems
- **Business-wide alignment** by connecting supply chain data with finance, HR, and operations
- **Sustainability-driven strategies** using AI-enabled forecasts

Ready to make smarter decisions for better outcomes?

Learn more
For more information on SAP Business Data Cloud, visit us at www.sap.com/bdc-supplychain.