The Next-Generation Supply Chain

Digital Transformation Made Possible by IBM and SAP

IBM | SAP

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Trends in Digital Supply Chain
The future has arrived

For more than a decade, people have been predicting that the future supply chain would be smarter. Machines would increasingly replace tasks performed by humans, and supply chains would become more connected and intelligent through advanced analytics and tools that enable easier and better decision-making.

Today, outperforming supply chain executives are implementing cognitive computing and artificial intelligent (AI) solutions to optimize their supply chain processes. The future supply chain is here now, and it's being driven by three key trends.

Innovative product development
Digital reinvention can be used to fundamentally change the way new products are developed and launched. In the digital world, when cognitive computing is embedded into products, new ideas, product use information, and new requirements from customers can be continuously captured and fed back to R&D teams. Digital tools can be used to design and prototype test iterations rapidly to foster a "fail fast and fail cheap" approach. Companies can move toward delivering a "lot size of one."

Intelligent procurement

Procurement organizations have a great deal of data buried internally in contracts and transactional systems, as well as externally with regulators. When you add unstructured data, such as news feeds and social networks, and the power of AI and machine learning into the mix, you enable purchasing professionals to gain unprecedented insights into supply risk scoring and supplier performance. In fact, 40% of CPOs expect that cognitive computing will add value with risk mitigation, spend analysis, and global logistics and distribution.[1]

Learning and automated manufacturing

Manufacturing executives are rapidly adopting the Internet of Things (IoT), cloud technology, and automation to help them manufacture more flexibly and reliably. AI offers the opportunity to take this one stage further, by building intelligent capabilities into machines that enable more personalized products, improve operations, reduce costs, and raise efficiency. For example, a cognitive application that rejects faulty components based on images of previous defects can boost productivity significantly.

Learn more

Find out how leaders are delivering the future supply chain.

Read the report ▶

46%

Of supply chain executives anticipate that AI or cognitive computing and cloud applications will be their greatest digital operations investments over the next three years.[2]

Financial outperformers are at the forefront of adopting cognitive computing, cloud applications, and Big Data or analytics.[3]

1., 2., 3. "Welcome to the cognitive supply chain: Digital operations – reimagined," IBM Institute for Business Value, 2017.

Reinventing the Core
Adopting a digital business framework

To successfully transform their supply chains, companies need an IT architecture that provides both stability and long-term reliability for the core enterprise processes. At the same time, the architecture needs to provide the flexibility to change and include new functionality as the business environment evolves.

This concept, often referred to as "bimodal IT," is brought to life through a digital business framework that covers all a company's core processes.

The framework allows companies to work smarter, faster, and simpler by connecting transactions with powerful cognitive analytics. Advanced in-memory computing allows companies to run the business live, in real time. As a result, total cost of ownership is reduced significantly, which frees up funds for additional infrastructure investments.

The digital business framework eliminates poorly integrated supply chain systems operating on disparate data sets. It enables companies to run more simply by leveraging one version of the truth across the entire company.

Accessing solutions to run core business processes must be simple. With SAP® solutions, companies can choose to deploy on premise, in the cloud, or a hybrid of the two. At the same time, the satisfying user experience the solutions deliver is key to gaining acceptance for digital change, as it helps drive user adoption, engagement, and productivity.

SAP Cloud Platform

At the heart of SAP software solutions is SAP Cloud Platform, which enables companies to accelerate digital transformation across the business – all without the requirement of maintaining or investing in an on-premise infrastructure.

Covering all supply chain processes, the platform allows companies to:
- Extend existing cloud and on-premise applications and maximize their value by quickly adding new functionality
- Integrate cloud and on-premise applications to eliminate data silos and make digital access simple, secure, and scalable
- Build and run brand new cloud applications rapidly to solve new problems, engage new customers, and drive new revenue

Learn more

Discover how SAP Cloud Platform reduces development costs and time, as well as cost of ownership.

Visit the Web site ▶

Running a Truly Live Business
Immediate, intelligent, and integrated ERP

A key part of SAP software solutions for digital logistics is SAP S/4HANA®. SAP S/4HANA connects all an organization's processes, provides live information and insights, and integrates the enterprise with the digital world at large.

By adopting SAP S/4HANA, you gain the benefits of:
- Real-time optimization of business-based changes that massively improve how you work, do business, and organize tasks
- The power of prediction and simulation that enables every employee to use real-time business insights to drive better decisions, improve productivity, and increase profitability
- Integration with IBM cognitive computing to optimize business models and better understand what is happening and what is likely to occur

Simplified supply chain

SAP S/4HANA allows companies to gain end-to-end visibility into real-time market conditions and production, and then react fast enough to deliver products customers want, when they want them. It includes sophisticated functionality for:
- Short-term demand prediction and real-time demand visibility, with analytics across all data covering demand, supply, and finance
- Live materials requirement planning (MRP) to provide unconstrained and constrained supply plans
- A single warehousing platform for all warehouse operations, both basic and advanced, with the SAP Extended Warehouse Management application
- Embedded features that simplify transportation planning and management to optimize costs while fulfilling customer demands

Learn more

See how inventory issues can be analyzed and resolved quickly with SAP S/4HANA.

Watch the video ▶

Discover more about the SAP S/4HANA Supply Chain solution.

Read the white paper ▶

Complex manufacturing

The world of manufacturing is becoming more complex. Manufacturers not only have to manage an increasingly intricate network of manufacturing plants, warehouses, suppliers, and partners. They must also deal with products that are more sophisticated, customers that are more demanding, and rules and regulations around tracking and tracing components that are tougher.

SAP S/4HANA enables unprecedented coordination of planning and execution processes by applying advanced machine learning and algorithms as well as connectivity to IoT devices.

With SAP S/4HANA, companies have access to the most current information on market and customer demand so that manufacturing processes, resources, and capacity can be tightly aligned.

"Thanks to our IBM and SAP solutions, we are achieving the digital transformation that will help us strengthen our competitiveness in a fast-moving marketplace."

Faizan Mustafa, CIO/Head of IT, Indus Motor Company Ltd

SAP S/4HANA bridges the gap between engineering and manufacturing, facilitating digital collaboration in the areas of master data, design structure handover, and process planning, as well as sign-off and change management.

The software unifies the system of record, logistics data, manufacturing planning information, manufacturing process information, and shop-floor execution, enabling a 360-degree view of all the related information and providing a digital thread from engineering handover to product delivery.

Learn more

Discover how Indus Motor Company is improving operational efficiency and quality control.

View the video ▶

Find out more about the SAP S/4HANA Manufacturing solution.

Access the white paper ▶

See how SAP S/4HANA gives MRP controllers superior insights.

Watch the video ▶

SAP S/4HANA provides system-optimized monitoring of all shop-floor operations with automatic issue detection, root cause analysis, and decision support. It also allows change requests to existing production orders and work queues to be easily managed.

In addition, SAP S/4HANA provides the unified, end-to-end tracking and tracing of individual parts globally as well as a part-specific genealogy by shop-floor item to help organizations meet regulatory requirements.

The result is optimal manufacturing efficiency combined with the profitable and timely delivery of products.

Extending the Power of SAP S/4HANA
Systems that take innovation to the next level

SAP S/4HANA provides the digital core that allows companies to run end-to-end processes live and gain greater understanding of the business. By integrating other solutions from IBM and SAP, companies can take innovation to the next level.

SAP Leonardo digital innovation system
Services embedded in SAP Cloud Platform within the SAP Leonardo digital innovation system enable you to enhance, accelerate, and automate business processes with SAP S/4HANA.

With SAP Leonardo capabilities, you can:
- Harness machine learning to automate the invoice matching process and easily handle problems like missing invoice references, outdated master data, or payments for multiple invoices
- Sharpen insights into procurement contract consumption to manage contracts proactively
- Predict shipment dates for each delivery, allowing you to manage delivery delays, production scheduling, and other downstream activities

In addition to extending existing applications, you can integrate and build your own machine learning applications using the functional services and lifecycle management capabilities provided with SAP Leonardo Machine Learning Foundation.

Cognitive procurement

As part of their global strategic alliance, SAP and IBM are working on cognitive procurement solutions that will redefine the source-to-settle process. The two companies will use SAP Leonardo, IBM Watson, and SAP Ariba® solutions to bring intelligence to procurement data and deliver predictive insights from unstructured data that will improve decision-making across supplier management, contracts, and sourcing activities.

Learn more

Watch the joint presentation on cognitive procurement at the SAPPHIRE NOW® conference in 2017.

View the video ▶

Find out more about SAP Leonardo.

Read the solution brief ▶

Discover how SAP and IBM are changing the procurement landscape.

Download the white paper ▶
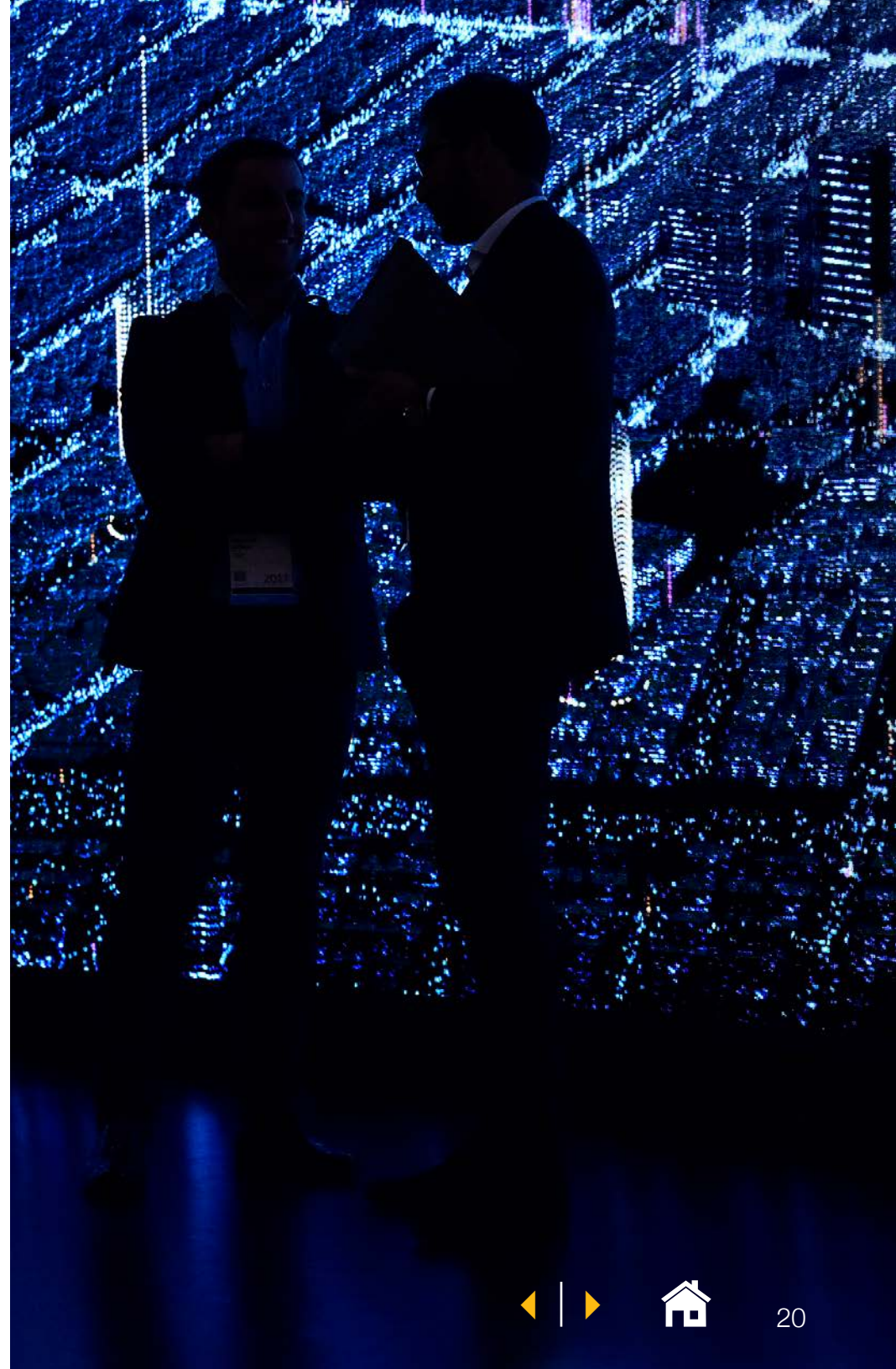
Starting Your Journey
Services to help you make progress rapidly

Working together, IBM and SAP can help you create a road map to progress rapidly on your supply chain digital transformation journey. As well as having in-depth experience and expertise from working with thousands of companies worldwide, IBM and SAP have also developed a set of tools to help.

SAP Transformation Navigator
The SAP Transformation Navigator tool is a free self-service tool that features the full set of SAP products and a comprehensive business capability model across all industries and lines of business. It features 1,000 value drivers compiled over years of working with leading enterprises to create next-generation business practices.

The tool enables you to generate a business, technical, and transformation guide to your digital future. These are tangible documents that reflect SAP's current product map and business and IT strategies.

IBM Value Accelerator
IBM Global Business Services has developed IBM Value Accelerator for SAP S/4HANA to help organizations understand the benefits they can gain from moving to SAP S/4HANA. It includes the IBM Impact Assessment tool, which is the journey starter for SAP S/4HANA, enabling organizations to assess the full end-to-end impact of transitioning from their current SAP ERP application to SAP S/4HANA – from data and custom code and interfaces down to level-four business processes.

IBM Value Accelerator for SAP S/4HANA can provide other services, such as:
• Business process impact assessment
• Industry and business function compatibility
• Business case and road map development for SAP S/4HANA

IBM Ascend

The IBM Ascend methodology is the framework used to deliver transitioning projects for SAP S/4HANA. It combines the SAP Activate innovation adoption framework and IBM's best practices, such as leading project management and organizational change management practices. The result is more efficient delivery execution, higher quality, and lower implementation risks.

Learn more
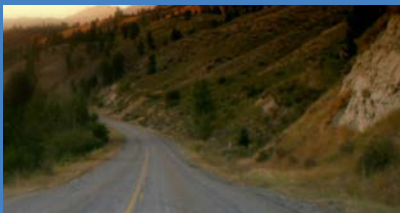
Discover more about the IBM Impact Assessment Tool for SAP S/4HANA

Watch the video ▸

Explore services for SAP S/4HANA

Visit the Web page ▸

Find out more about SAP Activate

Read the solution brief ▸

The SAP Model Company service and IBM's Impact Industry solutions

IBM and SAP are collaborating to expand the SAP Model Company service with IBM's Impact Industry solutions. These solutions deliver ready-to run, preconfigured industry and cross-industry solutions, with over 200 business processes, configuration, and WRICEF documents, and more than 900 other documents to SAP Model Company.

As a result, clients gain:
- Faster implementation, with 20% to 30% increase in implementation speed[4]
- Better solution fit, allowing customers to more quickly capture the potential of digital markets
- Higher project success and lower risk for SAP S/4HANA projects, backed up with premium expertise from IBM and SAP

4. Harald Martin and Keith Costello, "IBM and SAP Combine Efforts to Accelerate SAP S/4HANA Implementations," SAP News Center, January 2018.

Contact Us

For additional information about how we can help you, please visit:

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