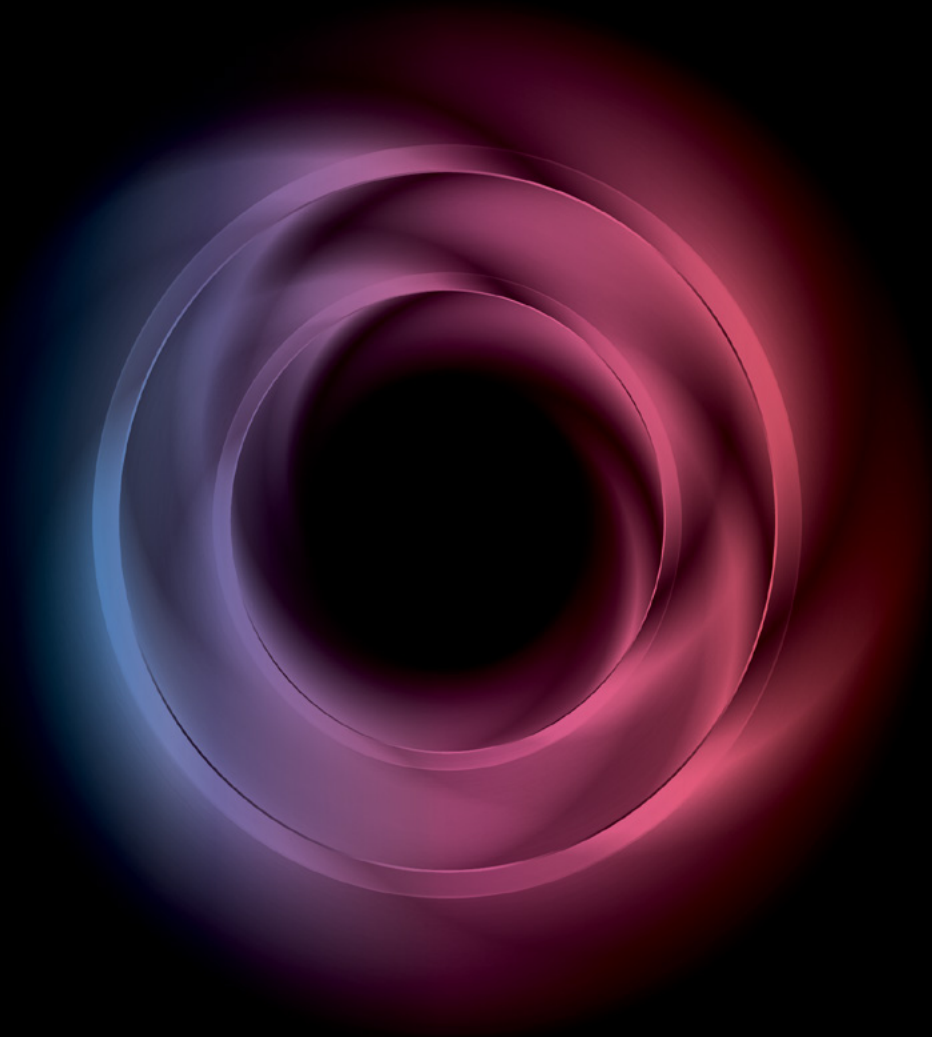


**Deloitte.**



**Deloitte Accelerated Value:  
Supply chain innovation**

Embedding intelligence and value into end-to-end operations—from the factory floor to the future supply network

# Supply chain innovation

In tomorrow's digital economy, the supply chain is about far more than supply. It's about new integrated, end-to-end value—from demand planning to sourcing to manufacturing to shipping to customer engagement. Each link in the chain—and each touch point between links—represents a potential new area for insights, efficiencies, and growth opportunities.

An intelligent, automated, deeply connected supply chain represents a vision for tomorrow. But what does that vision really look like, and how can you start putting the pieces together to unlock new value while at the same time continuing to run your operations? And why do it now?

## Accelerating innovation

For the supply chain, the digital challenges that tomorrow will bring promise to be massive. Strengthening your digital core will remain important, but accelerating innovation also will be critical—typically requiring comprehensive digital solutions and an ability to build innovation into business processes.

Want to get a jump on tomorrow's demands, "own" the supply chain, and

stand apart from the competition? Making systems intelligent can help, and the good news is that SAP® technologies are enabling tomorrow's vision for an intelligent supply chain.

Leveraging SAP technology, you can pull in more data, intelligently automate processes, radically improve insights for decision-making, and deliver exponential value throughout the enterprise—moving rapidly and responding proactively, not merely reacting to events after they have happened.

## New solutions for new needs

For many organizations, the future will be about more than managing disruption. It will be about getting ahead of disruption, planning for it, and taking advantage of the opportunities for value that it can bring. To address those needs, Deloitte and SAP

are collaborating on a new set of offerings that can help enterprise leaders begin innovating the supply chain to address tomorrow's digital demands.

Through the collaboration, new Deloitte Accelerated Value offerings can help you build an intelligent ecosystem for the shop floor, provide a digital "brain" for manufacturing operations, and make the supply network more autonomous. The new offerings will blend Deloitte's strength in business-focused technology enablement and SAP leading-edge technology such as the SAP® Leonardo digital business system, including SAP's innovation portfolio of machine-learning capabilities, Internet of Things (IoT) offerings, advanced analytics solutions, and the SAP® Cloud Platform, in conjunction with the digital core.



“You can fix problems right away. You can identify savings. You can look for new product sources early, before problems grow. You can avoid customer complaints and dissatisfaction. ”

**Exponential opportunities in three areas**

Sensor-enabled devices and assets at points up and down the supply chain today can provide granular data that allows you to see, for example, the speed of a delivery truck, how hard the driver applied the brakes, the temperature of the truck, and more. You can use that information to respond in real-time as you identify points of failure—or opportunities—in the supply chain. You can fix problems right away. You can identify savings. You can look for new product sources early, before problems grow. You can avoid customer complaints and dissatisfaction.

That’s just one example of the potential that you can unlock by innovating the supply chain. Where can you begin? You can start by concentrating on big areas that can yield exponential value. The new co-

innovation initiative between Deloitte and SAP will focus on providing organizations with offerings that deliver next-generation functionality in three key areas:

- **Live Enterprise**
- **Cognitive Manufacturing Insights**
- **Future Supply Network**

Key enablers will include:



**IoT applications and services**



**Embedded analytics**



**Cognitive technologies, including machine learning and artificial intelligence**



**SAP Cloud Platform**

Here’s a closer look at each offering area.

# Live Enterprise

## At a glance:

A set of solutions that provide factories with a “nervous system”—an ecosystem of sensors, embedded analytics, automation capabilities, and visualization tools that connect the shop floor to enable predictive decision-making that can improve throughput and reduce bottlenecks

Factories have been “talking” for decades, thanks to sensors that have become even more affordable today. New enabling technologies, however, can make the factory analogous to a living nervous system—in which sensors can work in conjunction with one another to automatically solve problems and help your employees make more informed decisions. For example, humidity sensors can indicate when boxes in storage might weaken and sag—good to know for determining how high you can stack boxes before they collapse. Linking humidity sensors and optical sensors, which can count the boxes, can automate basic insights and decision-making. A factory manager could then see on a tablet, for example, the current status, potential for failure, and causes of failure—and then act to prevent problems.

With an ecosystem of Live Enterprise capabilities, organizations might know days ahead of time when a particular part is predicted to fail and then replace it at the optimal time—not after the fact, not prematurely, and not unnecessarily. A manager also could see historic failures in a particular work shift and identify which human factory operators might be involved—to identify and correct operator error. With a Live Enterprise, you can find problems and solve them. You can predict problems. You can reduce maintenance costs. You can increase product visibility. You can decrease labor by automating manual steps. Ultimately, you can produce and move products in a more reliable, higher-quality manner—while maintaining a detailed digital record that also can support audit and compliance needs.



### TYPICAL TECHNOLOGY ENABLERS INVOLVED:

- SAP Leonardo IoT capabilities
- SAP Leonardo Edge
- SAP Manufacturing Integration and Intelligence
- SAP Plant Connectivity
- SAP Digital Manufacturing Insights
- SAP Overall Equipment Effectiveness Management

# Cognitive Manufacturing Insights

## At a glance:

Capabilities that provide a “brain” to bring higher-level analytics and predictive decision-making to the many moving pieces of manufacturing operations—helping to deliver intelligent processes by leveraging the real-time information that RPA and machine learning provide

A Live Enterprise is a must-have in tomorrow's supply chain. But the supply chain is bigger than a factory. It requires a “brain” that can extend far beyond the shop floor. The supply chain of tomorrow likely requires a set of capabilities to interpret all of the live data that might be streaming from various points in manufacturing operations, pumping the data through cognitive technologies such as machine learning and artificial intelligence, and then interpreting it.

Cognitive Manufacturing Insights involves high-level analytics that extensively measure what's going on across multiple facets of manufacturing activities. Such functionality can discover “aha!” moments (perhaps that a process typically takes four hours instead of the allotted six

hours) and then automate decisions based on those insights. Decisions might involve automatically balancing workloads, increasing production, activating additional resources, or taking other actions.

Cognitive Manufacturing Insights is about more than just your organization's factories. It's about your outsourced production capabilities, too. In the full vision, such cognitive insights can bring together data from multiple sources (like the Live Enterprise, customer-facing systems, and third-party systems), make sense of it, and then “know” when you need to outsource, for example.



### TYPICAL TECHNOLOGY ENABLERS INVOLVED:

- SAP Leonardo Machine Learning
- SAP Vehicle Insights
- SAP Leonardo IoT capabilities
- SAP Digital Manufacturing Insights

# Future Supply Network

## At a glance:

Capabilities that provide a “brain” to bring higher-level analytics and predictive decision-making to the many moving pieces of manufacturing operations—helping to deliver intelligent processes by leveraging the real-time information that RPA and machine learning provide

What happens when you integrate Live Enterprise and Cognitive Manufacturing Insights with capabilities that automate big-picture business-level thinking across your entire extended supply chain and related relationships? You get a Future Supply Network that can “self-drive” when it comes to strategic decision-making. Heavily reducing human decision-making gets you only so far. Potential efficiencies and opportunities abound in the supply chain. Humans seek them on and off. The autonomous, “self-driving” Future Supply Network enabled by analytics and cognitive technologies can seek them constantly.

With a “thinking,” forward-looking Future Supply Network, your organization can deploy capabilities for recognizing a disruption and then shifting processes

to manage or exploit that disruption. The vision becomes particularly important as organizations seek upstream commoditization and downstream differentiation—as they seek to flexibly tap production resources (internally and externally) and then deliver a flexible array of products to consumers. If an earthquake were to halt operations at a supplier's site, for example, a Future Supply Network could identify the disruption and instantly switch to another supplier. Responding to changes in a market or new customer demands, a Future Supply Network could autonomously acquire manufacturing services such as 3D printing services to deliver differentiated products—bringing “SAP Ariba-like” capabilities to future manufacturing needs.



### TYPICAL TECHNOLOGY ENABLERS INVOLVED:

- SAP Leonardo IoT capabilities
- SAP® Ariba® offerings
- SAP Distributed Manufacturing
- SAP Integrated Business Planning for Response and Supply

# Strategic next steps

Innovating the supply chain is not a “nice to have” these days. In the rapidly evolving digital economy, many organizations will fail if they can’t get ahead of disruption and deploy supply chain capabilities that can evolve as the market evolves. Our collaboration around SAP Leonardo can allow us to accelerate the innovation cycle while our clients continue to operate their core business. Innovation with SAP Leonardo, in combination with our digital transformation thought leadership, can allow us to bring these leading capabilities to supply chains, factories, and operations—regardless of the status of their backend, core systems.

Whether you want to begin building Live Enterprise capabilities, bring Cognitive Manufacturing Insights to life, or begin building a Future Supply Network that can give your organization an edge, you likely will require comprehensive digital solutions. Deloitte Accelerated Value offerings can fit the bill, delivering end-to-end technologies and end-to-end technology enablement.

If taking the supply chain to the next level is important for your organization, we should talk. Deloitte can provide solution demos, additional insights on managing digital disruption, and other resources to help you get ahead of tomorrow's big digital challenges. Contact us to get the conversation started.

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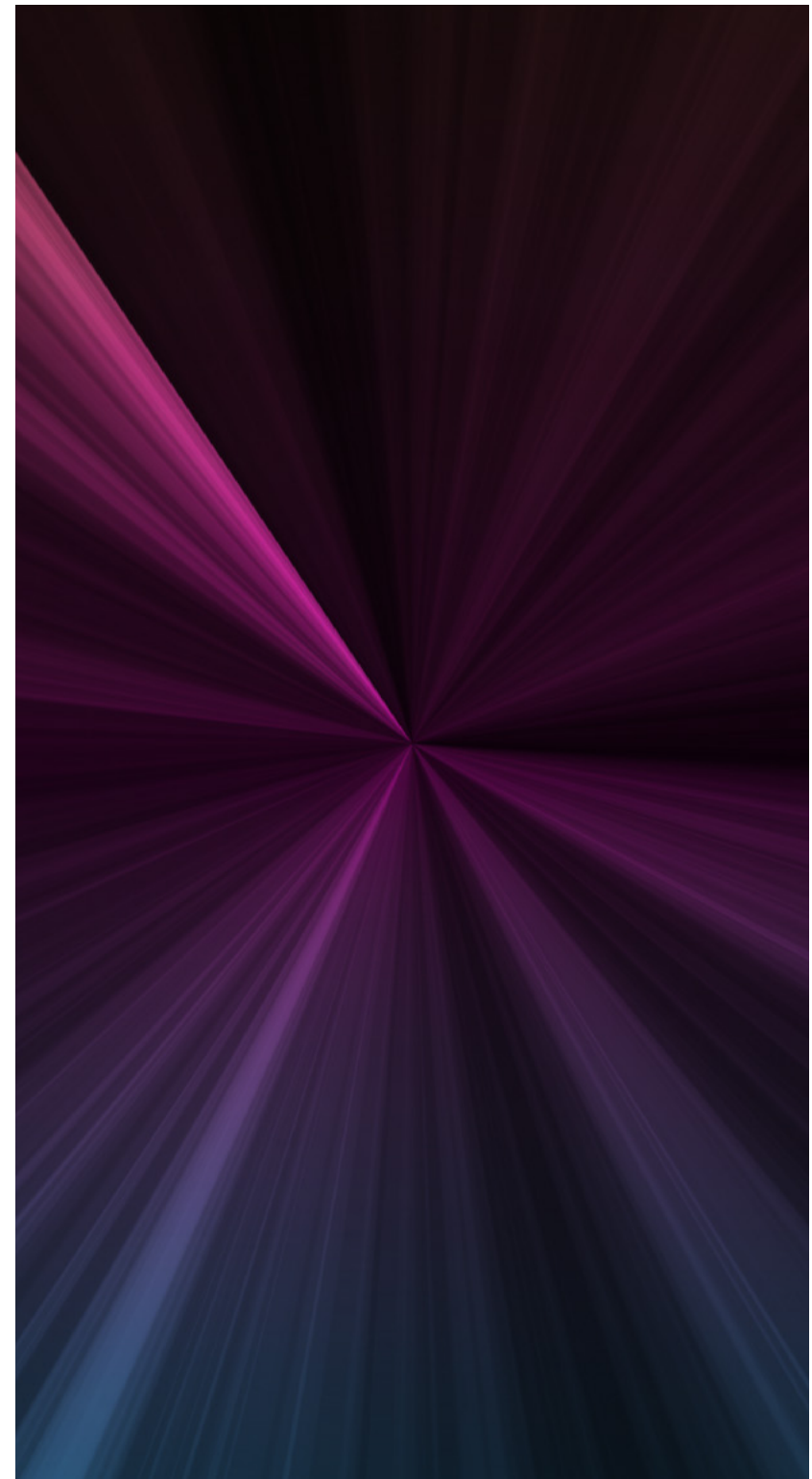
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