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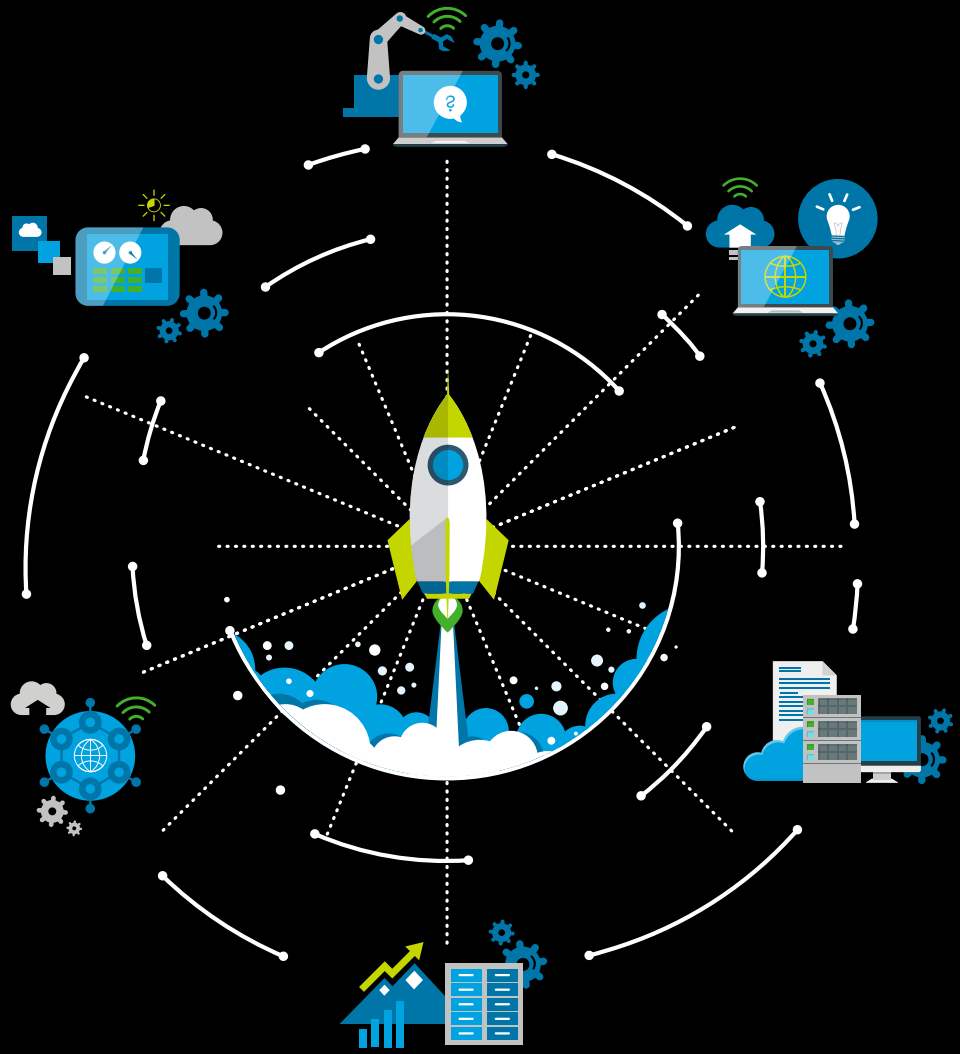


Kinetic Enterprise

Putting the next-generation organization into motion

Introduction

Six areas that have begun driving business disruptively into the future

Business models and technologies continue to evolve rapidly across the globe.

A few big forces—such as digital commerce, cloud computing, analytics, artificial intelligence, and mixed reality—are shaping the business and IT landscape of the future. These forces are rapidly transforming what was once a distant vision into reality. But as leaders traverse today's changing landscape, organizations could find themselves merely responding to developments rather than moving strategically to get ahead of challenges.

A kinetic enterprise is an evolving organization that quickly adapts, overcoming the operational inertia that can occur when technology disruptively advances. Proactively addressing the changes taking place across the business and technology landscape means developing a vision of the next-generation enterprise and then putting in place the capabilities to turn that vision into a reality.

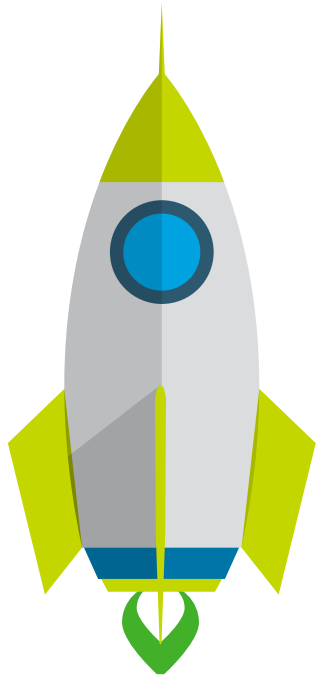
A lot more than before

What does a next-generation enterprise look like?

For many businesses, it involves a digital core ERP, big data, and the cloud. Business leaders continue to expect to do a lot more with their ERP systems. With SAP S/4HANA®, organizations can have an extensible platform for innovating in the digital era—for managing complexity, simplifying business, developing an insight-driven business, and providing flexibility for responding rapidly to shifting demands.

But the next-generation enterprise could require more than SAP S/4HANA at the core. It will likely require a host of technology capabilities that can support digital innovation and the ability to deliver new value for the enterprise. Ubiquitous technologies such as the Internet of Things (IoT), as well as exponential technologies such as machine learning and robotics, can shape the "business of the future." Addressing the disruptive forces will require an ability to create a kinetic enterprise, one that can move nimbly and respond proactively to evolving forces on many fronts: competitive, regulatory, financial, and beyond. As SAP® solutions address these forces through the SAP S/4HANA digital core platform and related integrated solutions, it will be important for organizations to realize that waiting is not an option. They should consider acting immediately to reimagine their core systems and how they can deliver real value quickly in the digital and physical worlds.

What would it take to build the next-generation kinetic enterprise and put it into motion? Here's a quick look at six key trends that will likely drive tomorrow's business needs—trends for which your organization should prepare.



01. Making room for the machines

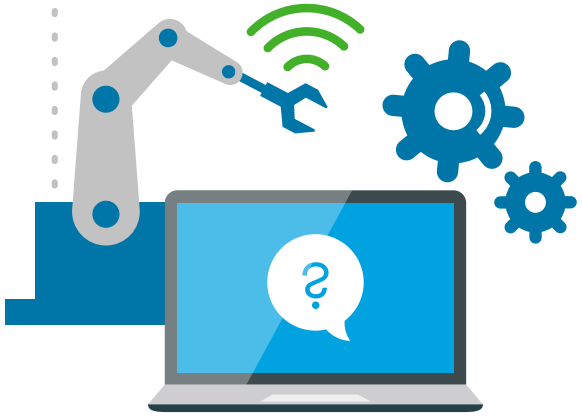
Robotic process automation, machine learning, artificial intelligence

With data growing exponentially, finance, supply chain management, warehouse operations, and more will be taxed far beyond today's levels. As organizations look to transform their enterprise applications into more than just systems of record, they should consider developing new automation capabilities to effectively create "systems of automation." Machine intelligence offers a solution, bringing to bear capabilities such as robotic process automation (RPA), machine learning, and artificial intelligence.

RPA capabilities can help organizations automate traditionally human-involved processes such as invoice processing, taking on rote processes that require straightforward, objective "thinking." Machine learning and artificial intelligence (AI) capabilities can do even more, helping to discern patterns and meaning in mountains of data and then route or derive information and insights appropriately. At its core, machine learning is the process of automatically discovering patterns in data and then using patterns to make predictions. AI takes things a step beyond, applying more human-like intelligence to "think" about patterns, to anticipate possibilities, and to perform more complex tasks such as natural language processing, visual identification, and other activities that involve learning or problem solving.

Ultimately, machine intelligence capabilities can help create automated systems of transaction and interaction in which smart software gets smarter, providing actionable data-driven insights and executing decisions. Possibilities include applications that engage with customers to anticipate needs and provide answers, or a set of image-recognition and natural-language-processing tools that serves effectively as a smart digital assistant for workers in the field.

With machine intelligence, humans can spend less time on traditional support and maintenance activities and spend more time on strategy, to support a kinetic enterprise that can respond proactively to market forces. SAP solutions such as SAP® Leonardo Machine Learning stands to be a critical toolset.



IoT and predictive analytics

The IoT has moved beyond the realm of hype to become a growing reality at many of the world's largest organizations. As intelligent devices proliferate, organizations will seek new ways to leverage IoT data for actionable insights and new process efficiencies. Predictive analytics lie at the intersection of those needs.

With tools such as the SAP Leonardo platform and SAP® Cloud Platform, organizations can build new capabilities that allow them to have greater information transparency for assets throughout the enterprise, from fleet vehicles to pipelines to products on the shelf. And with the SAP HANA® in-memory platform enabling real-time analytics, organizations can ask and answer questions they previously could not have imagined—to remotely monitor and visualize the history of a specific airplane component, for example.

SAP solutions such as SAP S/4HANA will continue to receive a constant stream of data from IoT devices—embedded sensors in power generation equipment, for example. Meanwhile, these connections to the physical world can enable business applications to harness machine learning and RPA functionality to not only predict situational awareness, but also perform prescribed actions and trigger downstream activities.

They can better predict at a greater degree of granularity when things will fail, when they will arrive at their destination, when they will require maintenance, when they will be in greater demand, and much more. The potential result? Greater flexibility and efficiency for next-generation enterprises.

Big data

If data is big now, it stands to get a lot bigger as the hyperconnected digital world creates new layers of data. As new and different sources of data flow into your ERP and supporting systems, what are you going to do with it? How are you going to make sense of it? How will you "direct" and organize the data and mine it for insights?

Embedded analytics capabilities, provided in real time and in the context of business process transactions, can transform systems of record into "systems of insight." Embedded visualization offers consumers more flexibility in how they get real-time information and how they consume analytics via mobile devices and wearables. Data integration will remain central to enterprises' information infrastructure, enabling them to access "mash-ups" of structured and unstructured data in real time.

A big data platform can provide a scalable data and reporting platform for organizations to store large amounts of data at a fraction of the cost of traditional data storage systems. Historical data volumes can be transferred to a "data lake" built on a cloud or to on-premise big data platforms, thereby reducing capital expenditure and operational expenditure. IoT sensors and solutions generate a continuous and extensive stream of data; a big data platform can provide a necessary complement to store such data. A big data platform also can provide the capability to perform predictive modeling and advanced analytics on very large historical data sets—something that would otherwise not be possible with traditional database solutions.

Data stewardship in the digital age

Taming tomorrow's growing digital data will require more than machine learning and big data tools. Organizations should understand how to organize their data, how to stage it so that it can be deployed rapidly and effectively to help drive new digital business processes and generate value.

They should have clear process-driven capabilities for cultivating quality data. They also will require capabilities for archiving, tiering, and right-sizing the data, since data will grow exponentially in the next-generation, hyperconnected digital enterprise.

BDaaS (big data as a service) will transform raw data into quality data assets for agile data provisioning. Such a transformation can enable delivery of applications at a global scale, improve business agility, and increase infrastructure elasticity in a nondisruptive way.

Data-tiering (i.e. hot/warm/cold data), using solutions such as Hadoop and nearline storage, as well as data aging, could become critical to information architecture as organizations start migrating to SAP S/4HANA appliance-based infrastructures.

The vision here is one in which old stovepipes of sometimes redundant data fade, replaced by common, consolidated processes that can rapidly deliver actionable information—the right information—at the right time to the right people, processes, or systems. It's also a vision in which the right rules and governance surround data, to protect sensitive information, to adhere to regulatory requirements, and maintain the data integrity that is critical for next-generation business applications.

The stakes are high. Kinetic enterprises could sink or swim based on their ability to deliver and consume their data "as a service."

05. Extending beyond a strong core—rapidly

Platform as a service (PaaS) innovation: enabling a competitive advantage

Platforms are the foundations on which we build things: capabilities, services, business models. In the next-generation enterprise, platforms grow in strategic importance. Having platforms that allow you to quickly deploy new data-driven capabilities and services built around RPA/ML/AI, for example, can help you thrive in a hotly competitive landscape.

Cloud (XaaS—everything as a service) is becoming the preferred deployment model for business applications portfolios. Demand for software as a service (SaaS) is increasing rapidly in core application areas. Platform as a service (PaaS), meanwhile, is becoming central for developing new composite applications, and infrastructure as a service (IaaS) continues to enable organizations to move away from owning and managing data center operations.

Increasingly, many organizations understand that cloud platform as a service can help them realize their vision—to rapidly create apps, services, and other offerings to simplify business, enable growth, deliver efficiencies, and generate new value. SAP Cloud Platform stands out as a prime example, providing a platform that can extend the power of SAP S/4HANA and enable new capabilities for the Internet of Things and other digital endeavors.

But there's an opportunity to sharpen the edge that PaaS can provide—by tapping the power of the container, a pre-packaged or "canned" collection of tools, interfaces, digital services, and other resources that can help you expedite and simplify PaaS activities. With containers, IT organizations can spend less time pulling together resources and more time innovating. With containers, you can accelerate your ability to deliver new IoT capabilities, for example, or respond nimbly with new PaaS-built offerings that put you ahead of the competition.

The vital role of cloud integration

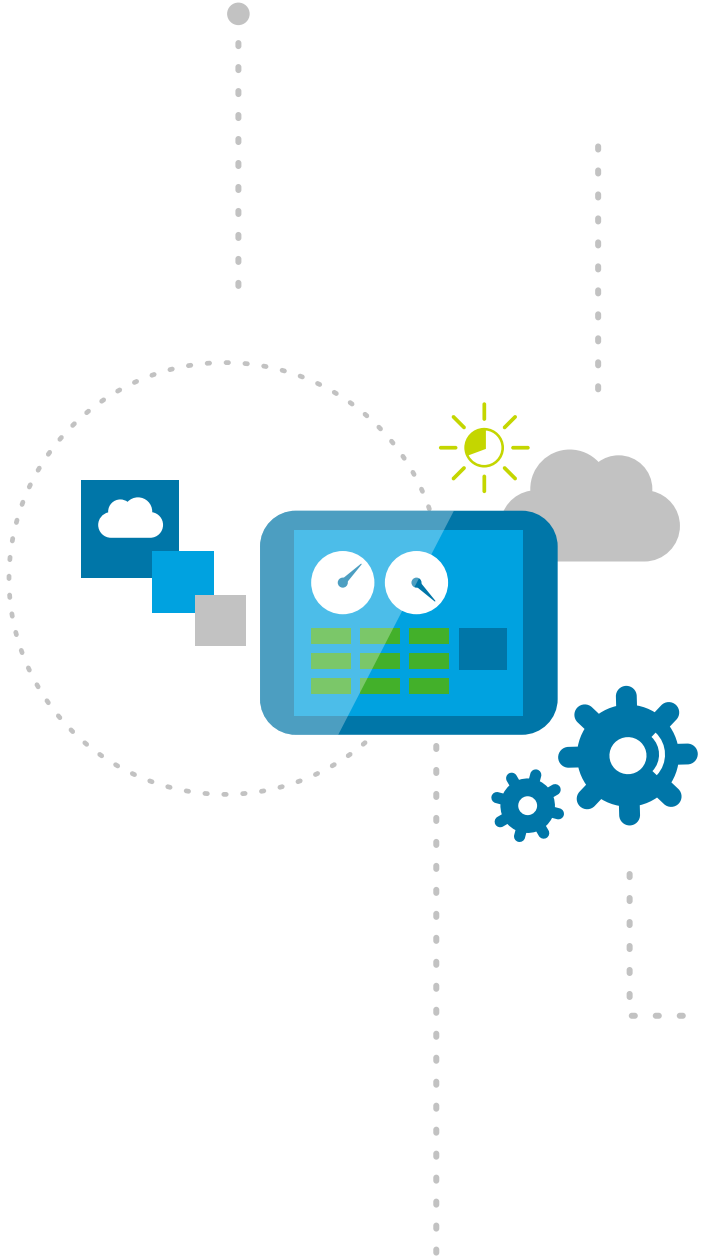
Putting together all the pieces of a next-generation enterprise becomes critical. Cloud is here to stay, and it can play a big part in how you operate as a next-generation enterprise.

Effectively connecting cloud capabilities to other cloud capabilities and to more traditional systems will be a mandatory skill for the next-generation enterprise. Applications and systems of all types should reliably talk with one another. And the need could extend far beyond an SAP-powered digital core and its "satellite" systems.

A comprehensive cloud integration strategy can allow you to deliver comprehensive service—to recognize a customer as the same individual across all the various touchpoints of your enterprise, or to create a comprehensive picture of data across your enterprise to support better decision-making.

As applications move to the cloud, enterprise architecture teams in your organization should revise existing integration strategies to include cloud integration and other integration patterns that can enable seamless and secure integration with cloud applications.

Effectively using integration offerings such as SAP® HANA Cloud Integration (HCI) will help create the "connective tissue" needed for applications such as the SAP® Digital Boardroom, a real-time analytics super-app that gives leaders detailed insights and visualization capabilities to support improved decision-making. For tomorrow's enterprise, well-connected applications such as that can provide crucial speed and flexibility for maintaining a sharp edge.



Where do we go from here?

The six trends described here will likely shape the future of your enterprise. The timing and breadth of the impact of these forces might vary, but they will significantly influence what it means to create the next-generation enterprise. How will your organization act on these trends? How will you unlock the potential that each trend brings? What's your plan?

Understanding how all the trends work together and how you can proactively respond to them requires more than vision. It requires a strategy, extensive SAP experience, and a rich set of tools and accelerators that can help you move fast along the digital transformation path. We can help.

With more than 16,000 business and technology professionals focused on SAP solutions around the globe, Deloitte can provide a full spectrum of resources you will need for meeting tomorrow's challenges—from business strategy to systems implementation and ongoing support.

Ready to put your plans in motion and take the next step toward becoming a next-generation kinetic enterprise? Contact us to get the conversation started and begin exploring the art of the possible.

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