GENERAL MANUFACTURING, DISTRIBUTION AND EQUIPMENT

Prerequisites for your digital journey

Putting the infrastructure in place to support new thinking

Digital technologies are dramatically changing the way we work and how we do business with customers and suppliers. Companies are seeing the inevitability of transformation. Whether you are on a fast-track for modernization or planning an elongated ramp-up, putting the right ERP foundation in place is key to success. In this paper we will discuss what it means to be digital-ready and provide tips for making sure your organization has the proper IT groundwork to support your digital plans for today and the future.

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Digital disruption: understanding the big picture

Organizations in all facets of manufacturing, distribution, and equipment are being bombarded with promises of a digital revolution and predictions of new business models and new ways of conducting business. The potential benefits are staggering. One analyst predicts that connected, smart factories with their value-added service offerings could add $500 billion to $1.5 trillion to the global economy in five years (**Capgemini, 2017**).[1] Such draw-dropping numbers and tantalizing technologies, like Augmented Reality and Artificial Intelligence, are capturing the imagination of visionaries. Many enterprises are jumping in with enthusiasm and high investment. **IDC Manufacturing Insights** forecasts worldwide spending on digital transformation (DX) technologies to be more than $1.2 trillion in 2017.[2]
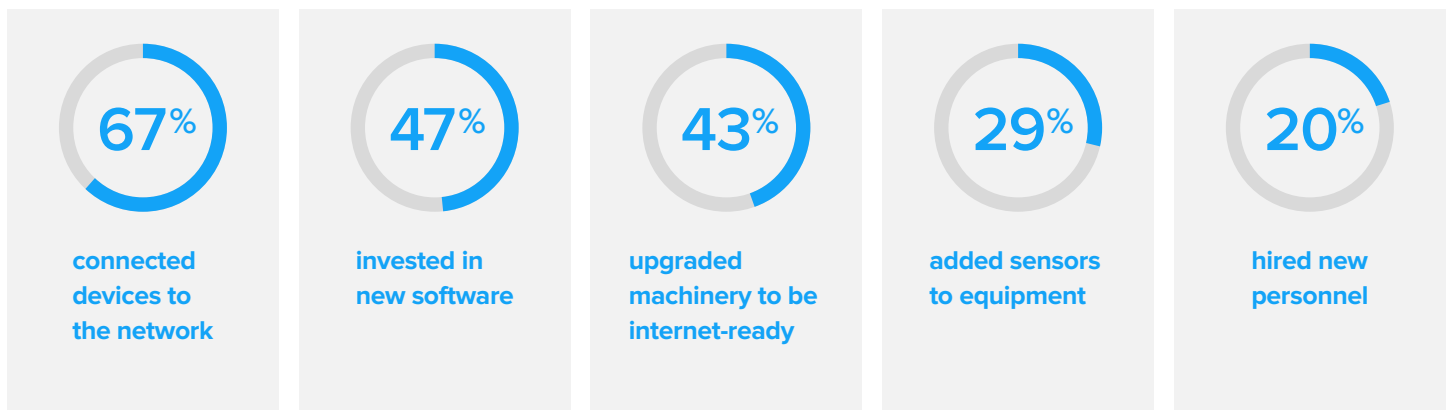
Is enterprise-wide reimagining for everyone?

Not every company is ready for bottom-to-top transformation. Some may still be recovering from the recent recession and have limited cash reserves. Others may be gradually replacing machinery and modernizing systems, opting for a phased approach, rather than plunging into a full-enterprise overhaul.

A few lucky companies may seem to have limited immunity to competitive pressure and not feel the urgency of digitization—yet. The manufacturer with long-term contracts, the only equipment dealer in a remote location, family-run micro-brewery with a loyal following, or distributorship content with a profitable niche market may be able to stall a major revamp of systems—for a limited time. They, too, will eventually be forced to join the modern era of digital systems because suppliers will expect it and customers will demand it.

There is nothing wrong with a slow and steady approach to modernization, as long as the organization creates one overarching strategy upfront, rather than haphazardly working on random details, like building a house without a blueprint. Very early in the planning process the existing ERP solution needs an objective evaluation. Without the right ERP solution in place, other digital tactics will be more difficult to execute and may cause disappointing results. You may even find, midway into execution, that you need to retrace steps, starting over with a more modern, agile system in place. It's far more efficient to make those decisions upfront.

A recent study from the **Internet of Things Institute and PTC** asked organizations what upgrade they conducted in order to become digital and deploy an IOT project. Results are below. [3]

Upgrades manufacturers made before digital initiatives.

67%	47%	43%	29%	20%
connected devices to the network	invested in new software	upgraded machinery to be internet-ready	added sensors to equipment	hired new personnel

What's working for the early adopters?

Those entering in a digital planning stage now can take advantage of some lessons learned from early adopters. Many companies investing in digital strategies are making cloud deployment a critical part of the plan, analysts like IDC report. This is especially true in manufacturing which has seemingly turned the corner from being cloud-skeptics to being cloud-enthusiasts.

"Cloud adoption is accelerating quickly in the manufacturing industry," says **Kimberly Knickle, research vice president, IT Priorities and Strategies at IDC**. "For line-of-business executives, cloud offers a quick and economical way to support business requirements, which is critical, given the accelerating pace most manufacturers are facing. For CIOs and the IT organizations, cloud represents a new model of developing and deploying IT resources with implications for vision, people, process, and technology."

Key findings of **IDC's cloud benchmark research** in worldwide manufacturing include:

65.1%
of manufacturers worldwide are using public cloud for more than one or two small applications.
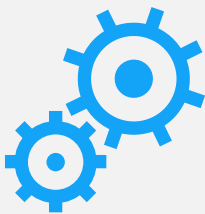
45.8%
of manufacturers have stated that within 24 months they will have broadly implemented a cloud-first strategy that is proactively managed and is clearly driving business.[4]

What prerequisites do you need before you set out on a digital journey?

As you access your current systems and decide what are preliminary steps you will need to take in order to prepare for your digital deployment, be sure to look closely at your ERP. Here are 10 items to consider:

1. Agility.

In order to keep pace in the digital era, your organization needs to be agile. Escalating market pressures change seemingly overnight. Trends come and go. Customer expectations evolve continuously. To respond, manufacturers may need to put in place regional divisions, leverage mergers partnerships, add distribution hubs, create new service branches, or build facilities to focus on high tech components or parts. All of these tactics require setting up new systems, hardware and software.

With the traditional on-premises approach, the IT department would be burdened with procuring and managing the hardware, servers, security, and back-up systems for these new locations. Then, software for traditional on-premises systems can be time-consuming to implement. These "old-school" approaches are no longer the most practical. Cloud deployment, in contrast, leaves the system set-up to the cloud provider, eliminating the burden on your team. Implementation takes days, not years.

2. Elasticity.

Digital technologies often involve the use of smart sensors and leveraging vast amounts of data collected from sensors. Legacy solutions deployed on premises seldom offer the storage capacity needed for digital technologies, like the Internet of Things. Cloud deployment provides the elasticity you need for data storage. companies are recognizing this value of cloud and making the move.

3. Visibility and flexibility.

Digital transformation is all about data, visibility, and access. It involves connecting to other systems, solutions, and even other devices, like shipping containers and material handling equipment. In order to be digital-ready the organization must have a core ERP that is flexible. That means getting rid of the cumbersome modifications that make upgrades and integration difficult. In the past, ERP providers were concerned about keeping data within the organization, not in sharing. Today, visibility must extend beyond the four walls of the enterprise to the supply chain network, colleagues, co-manufacturers, field service technicians and partners. Turning to a modern ERP solution in the cloud makes this level of enterprise-wide connectivity easier.

4. Fully modern today, fully modern tomorrow.

You already know how quickly technologies are changing today. This pace of change is likely to continue, bringing new capabilities we may not even imagine today. Keeping up with change is a challenge for organizations as multiple upgrades can become costly and time consuming. Cloud deployment ends that upgrade hassle. One of the most substantial benefits of cloud deployment is that the company no longer has to worry about upgrades and keeping the software modern. Cloud solutions are updated on a continual basis so that the software always contains the latest functionality. Your IT team can worry about more strategic issues.

5. Consistent customer-centricity.

Your ERP solutions should support a customer-centric approach rather than hinder it, as many outdated solutions do. You should be able to address the entire customer journey, not just order entry or field service dispatch. Customers today want an experience, one that is pleasing and memorable. This can be achieved by increasing and managing multiple touchpoints in the buying cycle, from early product inquiries to aftermarket service and repeat sales or upgrades. With a modern ERP solution in place, collaboration tools, portals for customer interaction, enhanced customer relationship management (CRM) and digital marketing tools can be leveraged.

6. Predictive analytics.

Analyzing historical activities is no longer sufficient in today's complex business world. You also must be able to accurately predict trends, forecast sales, and anticipate demand in resources. If your legacy ERP has only basic business intelligence capabilities, it is holding you back. Analyzing data and predicting results based on data science will give you an important added advantage.

7. Proactive decision making.

Outdated ERP solutions tend to have limited tools for the user, forcing the user to contend with clunky interfaces and clicking on multiple screens to find the right information. Modern ERP solutions place an emphasis on usability and productivity, as well as meeting the current workforce's expectations for a consumer-like experience. Today, modern ERP solutions provide contextual analytics when and where the user needs them in order to speed decision making. They also provide role-based workbenches, dashboards, and the ability to track and monitor personalized Key Performance Indicators (KPIs). This allows managers to be attentive to customer needs, spot issues proactively and make timely responses. This speed of reaction and informed decision making are important parts of a modernized, digital enterprise.

8. Preventive maintenance.

A digital strategy often incorporates the use of smart sensors to monitor the physical condition of equipment, machinery, vehicles, and material handling equipment. The goal is to identify early symptoms of performance failure when there is still time to take corrective measures and prevent an unplanned downtime. For example, sensors may identify that a conveyor belt is running hot or slow. These signs may indicate maintenance is required and automatically trigger a technician to investigate further. In order to optimize the use of sensor technology to keep your facilities running smoothly, you need to have systems in place for Enterprise Asset Management (EAM). This includes managing parts inventory, tracking service history, technician scheduling, and managing warranties. Advanced digital strategies will have little impact if the basics of equipment maintenance are overlooked.

9. Tech-centric workforce.

Finding highly skilled technical workers can be difficult. As retiring baby boomers leave the workforce, a gap in the organization is often left that is hard to fill. This is especially true if you are using outdated technology, struggling with heavily modified systems, or are located away from a technology hub. This IT staffing challenge is another reason that eliminating modifications and turning to cloud deployment makes sense. Your cloud provider takes the responsibility of upgrades, system maintenance, and security, so you don't have to worry about staffing up to perform these functions. The CIO, IT director and key IT personnel can focus on more high-impact strategic functions, leaving the day-to-day IT management to someone else. Making the move to cloud deployment early will free up the internal IT team so they can lead the full digital strategy.

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>
> **R "Ray" Wang**
> Constellation Research

10. Team up with partners.

Planning and launching a digital strategy is no easy task. It makes sense to form partnership and turn to organizations which have a track record. In the recently published report, **"Nine Starting Points to Digital Disruption,"** author R "Ray" Wang explains this point well when he states, "The future of an organization rests heavily on its ability to put a partner ecosystem in place. This will come from the orchestration of content (products, services, experiences, insights, and outcomes), networks (distribution models, channels, and suppliers), and technology platforms with each other. Most of these integrated capabilities have not been developed yet. The goal is to find partners who can co-innovate and co-create these capabilities with you." [5]

The right foundation

Manufacturers, distributors and equipment-centric organizations are enticed by the exciting dazzle of disruptive technologies which promise big benefits. The pragmatic, results-driven company is also concerned about ROI, achieving early wins, and using proven methods for solving day-to-day operational pains.

Deploying a modern ERP solution in the cloud takes care of both aspects. The cloud deployment offers the starting point for digital activities that are visionary and high impact, like IoT. The enterprise-wide advanced functionality of a modern ERP solution brings the very practical applications that the enterprise needs now in order to be competitive and please customers. Even if you plan to take a gradual, phased approach to modernization, start by putting the right foundation in place, one that will support agility, visibility, analytics and customer-centric capabilities.

Learn more ›

References

[1] Capgemini, "Smart Factories: How can manufacturers realize the potential of digital industrial revolution," May 2017

[2] Industry Today, "IDC Manufacturing Insights 2017 Predictions for worldwide manufacturing," January, 2017

[3] Internet of Things Institute and PTC, "Been There, Done That: How Manufacturers are Achieving Success with the IIOT," May 2017

[4] IDC, Worldwide Public Cloud Services Spending Forecast to Reach $122.5 Billion in 2017

[5] Constellation Research, "Nine Entry Points for Digital Disruption," R "Ray" Wang, May, 2017

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