
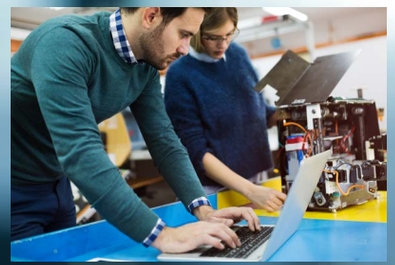



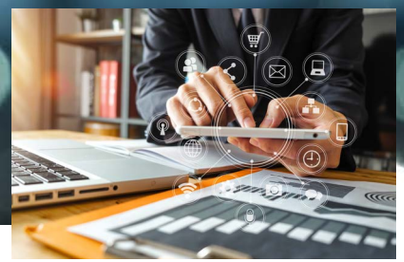

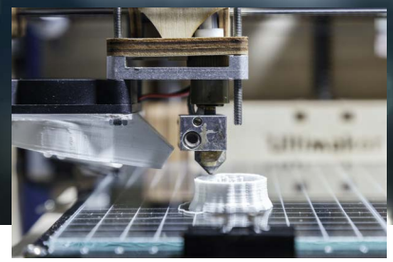

The Value of IoT for Manufacturers

An Interactive IDC eBook, *Sponsored by Schneider Electric* | **March 2018**

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Internet of Things

A Strategic Shift from IT to Business Strategy

Internet of Things (IoT) is shifting from being a technology solution to being a key enabler of business digital transformation (DX). Among all markets, companies on a DX journey are leveraging IoT solutions to seize the strategic and transformational opportunities IoT integration offers:

- **IoT is a Digital Transformation catalyst in 49% of all DX projects** in the manufacturing segment, for example — a close second behind embarking on a cloud transformation.
- **23% of organizations** see IoT as "transformational" by enabling a shift to new product or service areas, while generating additional revenues.
- Investing strategically also means that stakeholders from across the company (such as operations, R&D, and marketing) must come together to ensure a common vision for the organization's collective IoT vision.
- For manufacturers with successful IoT deployments, for instance, more than **40% of IoT projects are funded upfront by the Line-of-Business**, but IT is involved in the longer-term budget requirements.

More than 57% of organizations regard IoT as a strategic investment to help them meet internal efficiency goals and deliver increased time to value for their customers.

Top 3 reasons to accelerate your IoT journey

Seizing IoT Opportunity in Manufacturing

In manufacturing, 63% of businesses see IoT as a "strategic" path to help them compete more effectively with products and services.

Manufacturing presents one of the largest opportunities for seizing the value of IoT integration — and among the fastest to adopt IoT solutions. **Manufacturers see IoT as an improvement to help manage the large number of assets** involved in manufacturing and to reduce the time it takes to make products.

of IoT solutions for manufacturing processes are used in production

The result? Improved:
- quality
- throughput
- yield
- constraint management

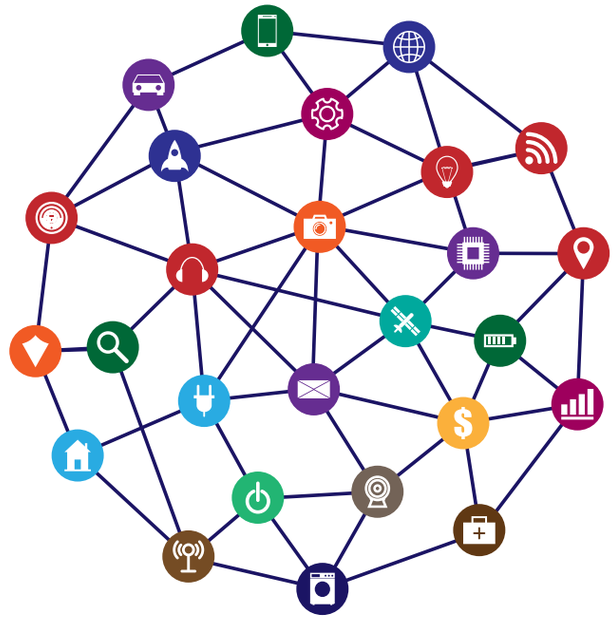
See manufacturing use case

Top Reasons to Invest in an IoT Solution

Initial IoT deployments for manufacturers tend to be internally, and operationally, focused, and less about driving end-customer value or experience. More recently, improving the customer experience and helping customers contain costs are rising in importance.

- **Improving** internal business efficiency, while also helping to reduce operational costs and maintenance costs, is what is driving these strategic investments in IoT in the manufacturing segment.
- **Focusing** on the key benefits of an IoT investment such as internal improvements and cost containment will help raise the bar of the return on investment in IoT, in turn, persuading C-suite management to invest.
- **Differentiating** from a broad-brush enterprise IoT investment is essential for industrial enterprises; in other words, specific IoT investments should be made to solve known pain points.

As the new information generated from connected machinery and processes becomes more insightful, manufacturers can use IoT data to drive increased efficiencies and productivity within their business processes.



What's driving IoT investments?

Going Beyond Just Connecting Assets

Analytics is increasingly becoming the epicenter of IoT projects. In the earlier days of IoT, the focus of an IoT solution was on the hardware and connectivity; however, this approach is shifting rapidly.

- Manufacturers looking to invest in a connected strategy must be ready to **invest in a IoT platform and analytics solution.**
- Data generated from connected products and processes can be **interpreted and used to drive operational — and strategic — decisions.**
- **Making data meaningful is critical.**
- **Using intelligent and interconnected I/O tools** (e.g., sensors, actuators, drives, vision/video equipment) allows different components in the manufacturing process (e.g., machine tools, robots, and conveyor belts) to autonomously exchange information, trigger actions, and control each other independently.

How important is good data management?

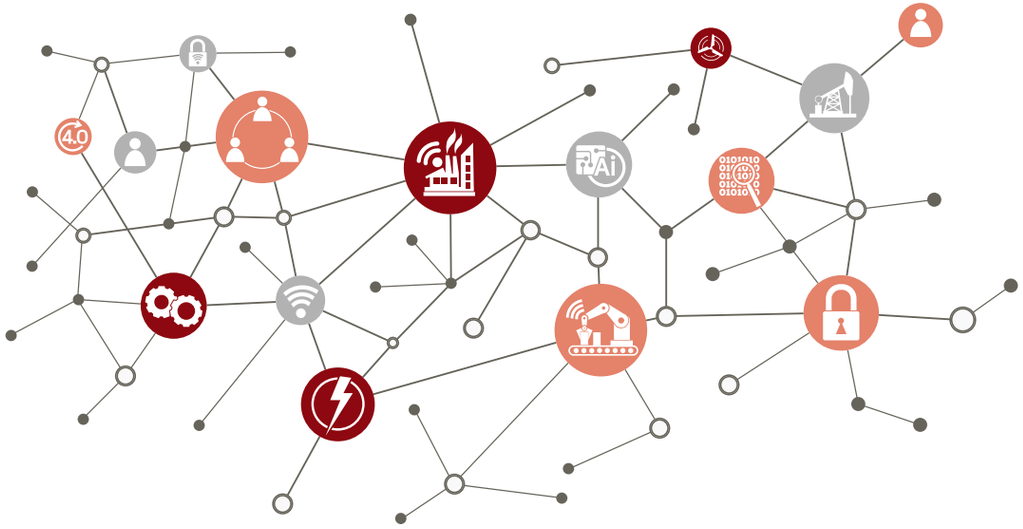
How Can You Scale Your IoT Adoption?

IoT applications are relatively easy to develop, but their overall impact on business may take longer than expected. Many businesses appear to be in the early stages of a maturity curve.

As Internet of Things solutions mature, manufacturers are evolving as well. They are shifting from just building connected assets to **delivering solutions that incorporate digital services such as predictive maintenance, asset monitoring, and energy monitoring.**

It is with these digital services that manufacturers can deliver increased value to their customers and become a trusted partner. The feedback loop that connected assets create provides the platform upon which digital services can be built.

What do manufacturers think about IoT deployments?



Nearly 50% of all businesses already have deployed an IoT solution and are planning to extend in the next 24 months, indicating a level of confidence in the deployment.

The Challenges of IoT

As manufacturers deploy IoT solutions, they face an incredible amount of data generated from the connected sensors, devices, and machines. By extension, they also will encounter the **challenges of storing, managing, interpreting, and, most important, securing this data.**

In fact, manufacturers cite security concerns as the top issue holding back IoT projects. At the most basic level, **46% of manufacturers are concerned** because some of their mission-critical applications and endpoints are being connected to the Internet for the first time, thereby opening the potential for vulnerabilities and breaches — unless a robust security strategy is developed alongside the project.

In addition, there's also the realization that existing IT resources will be challenged – both the staff and the infrastructure.

- Because IoT introduces a distributed computing architecture, the existing technology roadmap must be revisited.

Do you have an IoT security strategy?

Despite their concerns, organizations that have invested in an IoT project believe it has prompted them to make improvements and upgrades to their existing security processes.

A Common IoT Funding Approach

Understanding who initiates IoT projects — and, perhaps more important, who funds IoT projects — helps identify how to launch an ultimately successful project in your company.

Increasingly, the majority of IoT projects are budgeted, indicating that they are indeed part of the strategic planning process.

As your organization evaluates IoT investments, it is critical to consider not only the upfront investment, but also the **longer-term budget requirements of managing, maintaining, and expanding to include other endpoints and connected "things" over time.**

What makes the most successful IoT projects?

Bring Together Line of Business and IT

The level of coordination — and cooperation — between the business decision makers, IT, and other key stakeholders involved with an IoT project can make or break its longer-term success.

Success should be measured on the elimination of business silos and a quick shift to full integration. In many cases, these companies can **lean on the experience of its technology supplier to provide expertise** in managing the IT and operational technology (OT) needs surrounding a project. A strong IoT solutions provider will have mastered the convergence of IT and OT.

Coordinating business, IT, and stakeholders

Choosing an IoT Vendor

As manufacturers are making investments to digitally transform their business, there are several key criteria they are using to select a vendor(s) to support their IoT projects. According to recent research of manufacturers that have deployed IoT offers and solutions, the key elements to look for in your vendors include the following:

Proven track record

Prospective vendors need to have strong portfolio of named projects and proof points.

The vendor should also have customer success stories available for review.

Robust partner ecosystem

Any IoT solution will need technology elements from a variety of vendors; however, those vendors that can pull together a holistic IoT solution through strategic technology partnerships should be strongly considered.

Industry-specific expertise

Vendors that have knowledge of the manufacturing sector and familiarity with your company's pain points in specific business processes will help shorten the time to create an IoT project concept to trial.

Interoperable approach to solutions

Vendors who employ an "open" approach to their technology offerings provide a flexible and future-proofed option for longer-term IoT requirements. For a heterogenous equipment environment, machine-to-machine communication is essential to driving efficiencies.

Top 5 Questions to Ask Your IoT Solution Vendor

1. What makes this IoT offer worth the investment from a business standpoint?
2. Is your solution interoperable across systems (even other vendors' components)?
3. Which cybersecurity certifications and measures are in place with your solution?
4. Do you have a comprehensive partner ecosystem that can help with installation and integration?
5. Do you have digital services that go along with this offer?

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