

TOP 10 TIPS

for IIoT Implementations



Key aspects of manufacturing are set to fundamentally change due to Industrial Internet of Things (IIoT) connectivity. Think informed design, smart products, predictive analytics, connected factory floors and connected supply chains, to name a few. The technology is available now and manufacturers have already started to deploy it with the vast majority of the projects delivering expected outcomes.

To that end, successful implementations offer important real-world data given IIoT complexity and levels of integration involved. (We derived our list from the findings of the 2017 Industry Trends Survey.



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About These Findings**

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Here are top ten tips to ensure that your IIoT implementation is successful:

1

Ensure executive leadership support

Key champions of any IIoT initiative are the CEO and senior management team who can ensure corporate-wide buy-in, dedicated resources and deployment follow-through. Lacking executive support, IIoT projects risk losing focus or never gaining the necessary momentum that complex technology implementations require.

2

Encourage internal collaborations

A multi-disciplinary team is often essential in IIoT deployments. In addition to technical expertise, projects often include line of business team members as well as operations managers with deep knowledge of manufacturing processes. While it may prove challenging, fostering open-channel communications between different stakeholders are often essential to the success of an IIoT project.

3

Start small

IIoT can transform every aspect of a manufacturing company. Starting off small can reduce possible deployment issues related to physical infrastructure, networking, machine-to-machine communications (M2M) and automation, to name a few.

A small, manageable use case offers an ideal way to gain the benefits of IIoT connectivity more quickly. It enables teams to understand the complexity of the undertaking and to build internal expertise and ease the learning curve. Initial IIoT projects typically involve real-time alerts to notify operators of performance anomalies and connecting the plant floor to enterprise systems.



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4 Scope project appropriately

Clearly defining the goals of IIoT deployment and setting parameters will help to guard against scope creep. A sizable percentage of organizations planning first-time deployments find that implementations can quickly expand. In addition, scope creep can delay launches due to poor project definition and a lack of discipline in project focus.

5 Engage external resources

Most organizations lack the kinds of diverse resources that can help ease deployment. Bringing in outside resources can augment internal knowledge, fill gaps and provide expertise. Having the right technical experience in place not only ensures smooth adoption. It also eases operational tasks, such as upgrades and evaluations.

6 Adopt agile technologies for management and control

In addition to physical infrastructure and machine/equipment modifications, IIoT deployments require software upgrades. Leveraging Agile development methods and a process framework, such as Scrum, will enable organizations to adjust smoothly to rapidly changing requirements.

7 Choose the right project lead

In general, an IIoT implementation involves a number of different stakeholders from IT, business and operations. No single entity emerges as the most suitable project guide. In fact, forming an “innovation” group comprised of experienced leaders, or employing an outside vendor/consultant can offer the most effective management resource.

8 Actively adopt security strategies

Connecting plants through their manufacturing systems and the IIoT increases the number of security vulnerabilities. In some instances, security concerns can derail some IIoT implementations early on in the process, so it's critical to be proactively adopting mitigation strategies early on in the deployment process to help avoid disruptions.



9 Accurately quantify time and cost of IIoT projects

Similar to clearly defining a use case for deployment, formulating an effective business plan that accurately provides for such things as cost overruns and project delays is essential. To be sure, most IIoT projects miss deadline expectations. The reasons for schedule delays can consist of hardware/technical issues, scope creep, limited internal resources, lack of funding, and poor project definition.

10 Integrate existing infrastructure with IIoT

Enabling new IIoT solutions to work with legacy devices and machines presents its own set of challenges. These can include supporting unfamiliar communications protocols and OS versions that may no longer be supported. Plan to engage experienced leaders from both IT and plant operations to ease the integration process.



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