



**CONNECT THE SHOP FLOOR TO THE TOP FLOOR:
OPTIMIZE PRODUCTION OPERATIONS WITH THE NEXT
WAVE OF TECHNOLOGY FOR MANUFACTURERS**



The Industrial Internet of Things (Industrial IoT) refers to the use of Internet of Things (IoT) technologies strictly in the manufacturing industry. It is the next wave of innovation impacting the way manufacturing organizations conduct business, and changing how plant operations, supply chain partners, product and demand management all interact.

The Industrial IoT combines mechanical systems with electronics to “connect” all aspects of the manufacturing process. Specifically, it makes use of devices and factory equipment, that are internet-enabled, to collect, monitor, exchange, analyze, and implement information that is fed back to the organization, including plant managers and senior management—in order to make real-time, fact-based, informed decisions about the business.

This information primer outlines how manufacturing companies can incorporate Industrial IoT technologies into their existing procedures, in order streamline manufacturing processes, reduce costs, and increase production efficiency.

THE BENEFITS OF INDUSTRIAL IoT-ENABLED MANUFACTURING PROCESSES



Historically, manufacturers have been able to produce, track and export data from a variety of devices and factory equipment. This data would then be manually uploaded to the various business systems that managed and reported multiple lines of production, inventory management, forecasting and planning, order fulfillment, and more—in order to help streamline production, and demand and supply processes.

However, as the Industrial Internet of Things (Industrial IoT) continues to advance in the depth and breadth of internet-enabled technologies, critical production, inventory, purchasing and order processing data can now be passed automatically between manufacturing devices and systems. By allowing data to flow directly from the shop floor to the top floor, manufacturing leaders are able to easily access the information they need, when they need it, to make better-informed business decisions.

A common misconception that business leaders face is that they assume they will need to replace all of their current factory and business systems and technology, in order to leverage the Industrial IoT. While they can certainly look to purchase new internet-enabled devices as their current equipment reaches end of life, there are several steps manufacturers can also undertake to drive Industrial IoT-enabled processes without having to overhaul existing, expensive equipment or technology.

THE BENEFITS OF INDUSTRIAL IoT-ENABLED MANUFACTURING PROCESSES



Fundamentally, these Industrial IoT changes must begin with “the end in mind” and not the process itself. It is most important that manufacturing leaders consider the outcomes they would like to achieve with technology-enabled processes and go from there.

- What information should be collected, in order to help meet business goals?
- How should information be stored based on current software and systems used?
- How can the collected information best be analyzed and implemented, in order to improve shop floor processes?
- What business decisions should be made based on this data analysis, and who are the stakeholders?

Manufacturing leaders can incorporate these questions in their strategy to help outline the key data points they would want real-time insight into—with a greater degree of accuracy and ease, due to automation.

ENHANCE CURRENT MANUFACTURING PROCESSES WITH THE INDUSTRIAL IoT



There are four business benefits to using Industrial IoT-enabled processes to help increase business growth.



1 Real-time insights & notifications: Internet-connected machines and devices allow data to be captured and broadcasted to shop floor managers in real-time.

Use case: A food manufacturing plant proactively monitors and reacts to instances where production temperatures rise or fall out of an optimum range.

Action to consider: Upgrade factory equipment by installing an internet-enabled commercial thermometer to monitor production temperatures, and notify the appropriate person when it is trending out of range.



2 Connect the shop floor to the top floor: Collected data can easily be transmitted to senior management and sales teams in real-time—offering greater visibility into plant operations, and allowing them to make quicker, more informed business decisions.

Use case: A salesperson is immediately notified about delayed orders, and can proactively communicate with customers to manage expectations.

Action to consider: Retrofit manufacturing equipment to monitor the current progress of work orders, and immediately notify a salesperson when orders will not be completed on time.



3 Improve supply chain alignment: Data can extend beyond the manufacturing company, into the supply chain, and be shared with key suppliers.

Use case: Smart machines let suppliers know when inventory is running low, so suppliers can proactively replenish stock before critical levels are reached.

Action to consider: Enhance current inventory monitoring equipment, in order to automatically communicate projected and actual inventory levels with suppliers using the internet.



4 Enhance customer experience: Customers are easily notified about the progress and delivery of their orders, without any manual intervention.

Use case: Customers are notified at each stage of their order fulfillment process.

Action to consider: Enable GPS-location tracking on the order itself to bypass reliance on factory staff, or delivery drivers to update information.



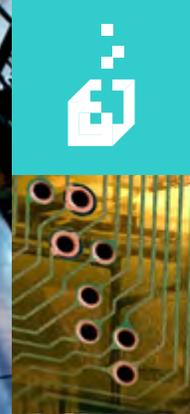
CONCLUSION

Connecting the shop floor to the top floor through the adoption of Industrial IoT technologies promises to deliver powerful business capabilities for manufacturing leaders to leverage their production data into their purchasing, inventory, order fulfillment processes more strategically. By “connecting” their manufacturing systems and devices with internet technologies, critical business data can flow more easily between multiple systems and devices for real-time and fact based decision-making abilities.

However, many business leaders are reluctant to adopt this new wave of innovation due to the perceived increase in associated costs and also not knowing where to get started. The results of the [2016 Manufacturers' Outlook Report](#) published by PLANT, a leading publication advancing Canadian Manufacturing, also confirm that manufacturers are reluctant to connect with internet technologies. While 69 percent of respondents say they're going to invest in machinery and equipment over the next three years, only 28 percent are considering business intelligence or data analysis software systems.

Adopting an IoT-enabled methodology does not need to be an overwhelming endeavor for manufacturers. Instead, a solid strategy and adoption plan should focus on simplification and understanding your facility's core competencies, business processes, and outcomes.

ABOUT SYSPRO



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Industry analysts rank SYSPRO software among the finest, best-in-class enterprise-resource planning solutions in the world. SYSPRO software's powerful features, simplicity of use, scalability, information visibility, analytic/reporting capabilities, business process and rapid deployment methodology are unmatched in its sector.

SYSPRO, formed in 1978, has earned the trust of thousands of companies globally. SYSPRO's ability to grow with its customers and its adherence to developing technology, based on the needs of customers, is why SYSPRO enjoys one of the highest customer retention rates in the industry.



NEXT STEPS:

If you want to learn how SYSPRO can help your business benefit from the Industrial Internet of Things, contact us today at info@ca.syspro.com or +1 (888) 259-6666.