Manufacturing

Epicor White Paper

Put Common Sense First in Your Digital Transformation in Manufacturing

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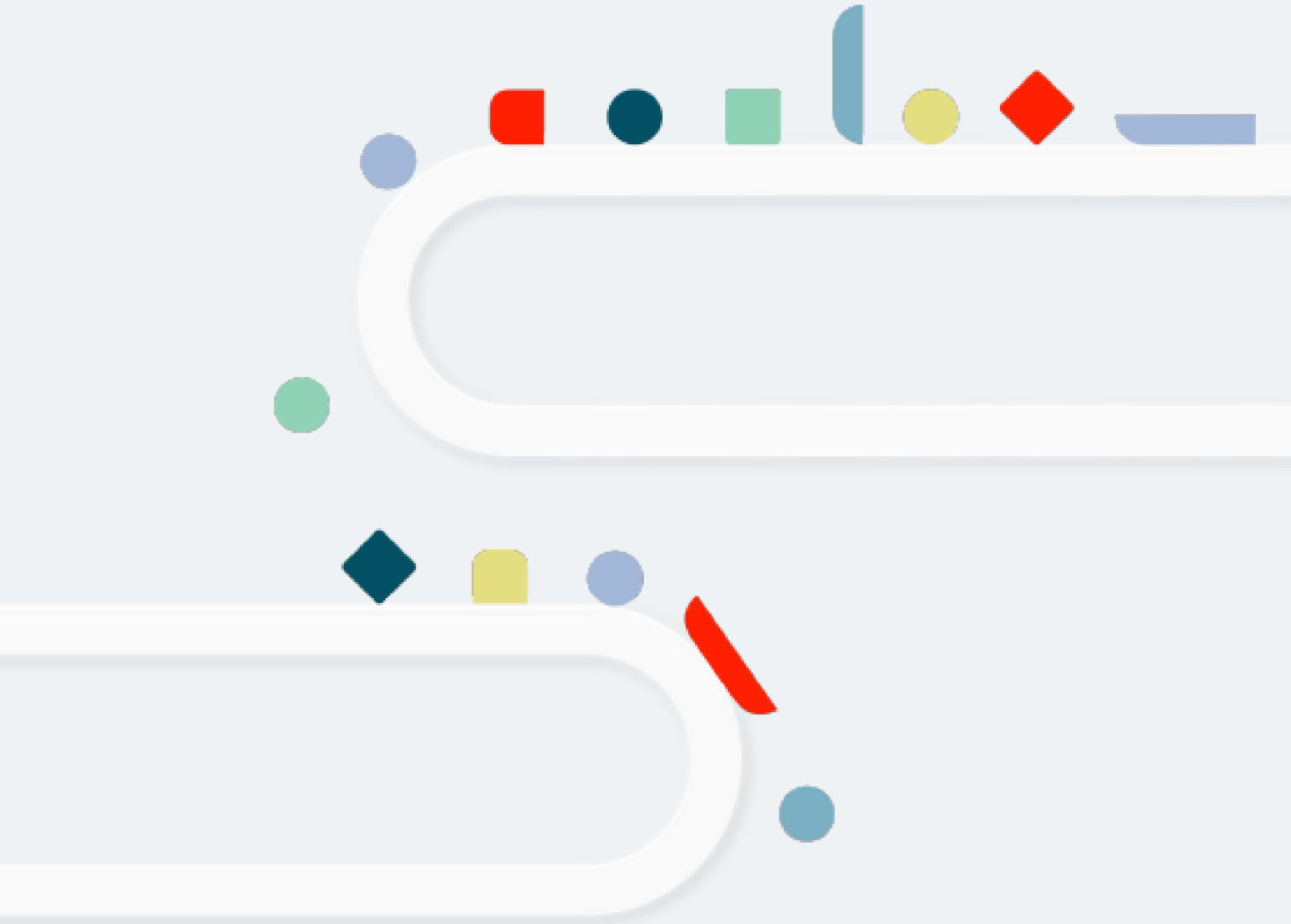

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Introduction

For manufacturers, simplifying your business process and streamlining your organization is a constant concern. Whether you're just starting out or are actively growing, making improvements to challenges like supply chain visibility, production, and product delivery can put you on a path to greater success.

The term "digital transformation" is often used to emphasize the importance of keeping pace in a competitive market, but what does this philosophy actually look like? How can it enable manufactures to do a better job of navigating supply chain disruptions? How can technology help?

After decades in operation, some companies may be reluctant to investigate—and invest in—new technologies, but the benefits far outweigh any temporary frustrations linked to making such changes. Here's a look at some of the ways that digital transformation can revolutionize your business as well as the tools that can get you there.

"Automation has immense value for supply chain management."

Improve Productivity and Reduce Production Costs

Automation is all around us, from the chatbots that pre-screen customer service queries to the software that populates a form with your zip code when you're placing an order online.

On the shop floor, automated tools can help manufacturers improve productivity and minimize production costs. With the right technology in place, you can save time and money, bringing that same efficiency that customers know online straight to your production facility.

According to Terri Hiskey interviewed in ERP News Magazine, digital transformation is essentially the idea of doing more with less, and automation is a big part of that. Not only does automation help companies leverage new technologies to extract "more efficiency out of your processes," Hiskey says, but it's also about "getting more from your bottom line while adding more to your top line."

Using automation to collect and process data is vital because there is just so much of it. Shop floor yield is directly linked to actionable data, and in order to take control of yours, you'll need software that delivers accurate information on everything from production output to labor costs, all in real time. This reduces the likelihood of mistakes tied to manual data entry, and allows for easy online data retrieval. They say that knowledge is power, and the more you know about your operations, the better equipped you'll be to improve your overall performance.

Automation has immense value for supply chain management as well. Automating your supply chain can improve the speed and accuracy of your operations. That's important, because customers have come to expect quick deliveries and a simplified returns process.

Providing a positive experience doesn't just increase the chances that they'll become repeat, loyal customers, but it can also boost their affinity with your brand.

Secure Your Data and Share it Safely

Used for such purposes as monitoring business operations, managing inventory, and storing sensitive data to facilitate secure sharing within your organization, cloud computing proves to be very valuable to manufacturers.

"If you look at what market experts say," shares Hiskey, "there's a belief in the market that everyone will be on the cloud. It's just a question of how quickly organizations are going to migrate." Hiskey believes that most companies will eventually "end up leveraging the cloud as part of their business processes."

Why make the switch? According to an article in Forbes, "For most organizations, the decision to foray into digital transformation is primarily driven by increased competitive pressures or growth opportunities." Cloud computing can give businesses a leg up and help them increase revenue. When you're working with an Enterprise Resource Planning (ERP) solution that's on the cloud, you can assess the effectiveness of shop floor activities in real time and make more informed decisions related to your business. This, in turn, lightens the load currently carried by your IT team, freeing them up to address more complex issues.

Hiskey says that in the near future, “We're going to see more cloud-based technologies and simplified ERP. For example, 15 to 20 years ago when companies would implement ERP, they used to have to send folks to a week of training to learn about ERP. But that's not how people prefer to learn now." She adds that we're now seeing a more streamlined user experience.

For companies that aren't quite ready to move to the cloud, seeking out an ERP that offers both cloud-based and on-premises solutions is a good option. This approach gives you the luxury of moving at your own pace.

Optimize Your Business Process and Machines

There's another way that digital transformation can positively impact your business, and that's through the use of the Internet of Things (IoT) and artificial intelligence (AI). These technologies have the capability to help you optimize your sales order process; gain end-to-end visibility into your supply chain, production, and delivery; and identify issues with machines that may require attention. All of this creates an opportunity to maximize your facility's overall performance.

For example, simply monitoring your machines using a smart device can reveal the factors that are slowing down production. Acting on this information by alleviating bottlenecks can have an immediate impact on overall performance. You might choose to monitor the condition of a machine, including factors like temperature, pressure, and vibration level.

You can share the resulting information with your machine operator and lead supervisor, who can use it to evaluate the equipment and determine whether it might need optimizing or maintenance.

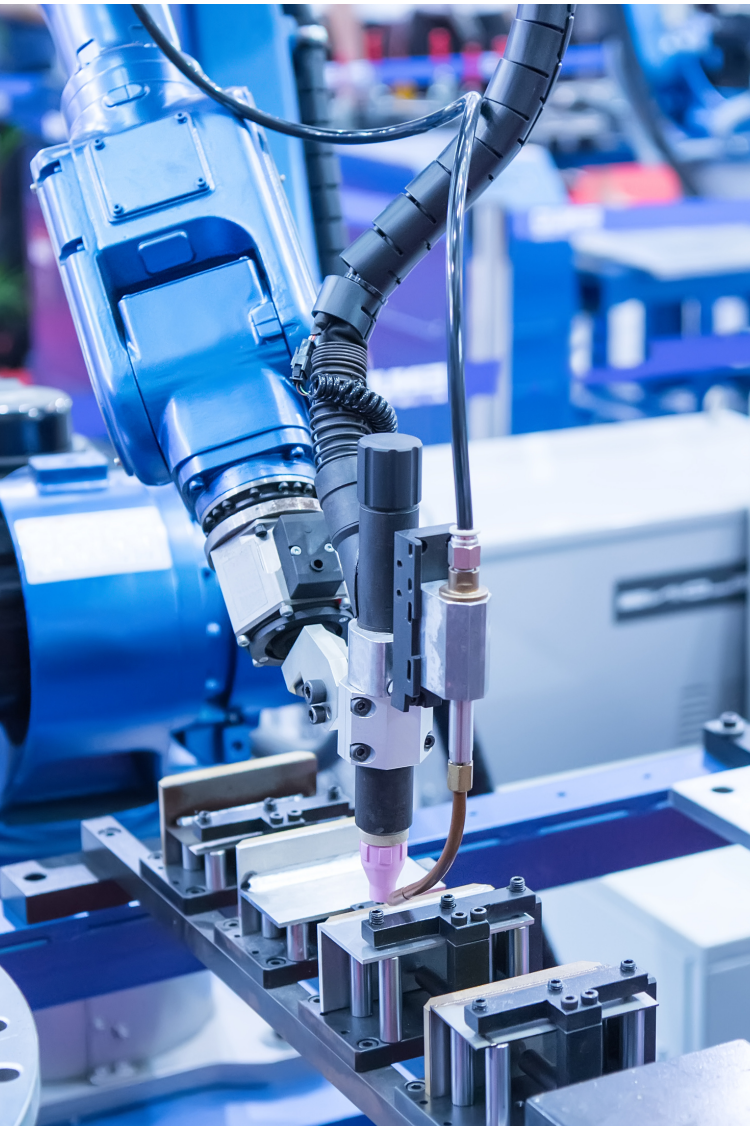
No manufacturer wants to be worrying about unexpected issues with their machines, but given that such a situation could impede production efficacy, these concerns remain top of mind.

With IoT, companies can connect sensors to their equipment to glean information about machine operations in real time. If a sensor indicates a possible maintenance issue, you can address it before a breakdown happens, thus avoiding production delays, missed shipments, and additional costs.

What's the best way to get started with IoT? In a conversation published in trade magazine the Manufacturer, Michael Gleaves, deputy director with UK-based data analytics research facility The Hartree Centre, recommends starting by "attaching simple and affordable sensors to machines." Once those data streams are in place, he says, manufacturers can start logging patterns in machine performance and use that information to optimize their equipment.

And as you explore IoT, be sure to consider AI as well. The two can work in tandem to alert you to potential problems and provide viable solutions, like scheduling maintenance or turning off a machine long enough to cool it down. "You're doing more with less, and increasing your productivity," Hiskey explains.

Because IoT and AI data flows in and out of your ERP system, you'll be able to consolidate the information that's most crucial to your production facility's performance. "ERP, at its core, is there to give you more visibility across your entire business around how things are functioning, what the profitability is to produce an item, how much labor it involves, what the schedule is like, etc.," Hiskey says. "Digital transformation is there to optimize and make those processes even better, so you can experience growth, profitability, and greater efficiency."



More Tech is Coming

Hiskey says we're likely to see far more of "embedded technologies" like IoT and AI that enable businesses to better monitor their machines. She adds that augmented reality may be used in the near future as well, particularly to visualize the shop floor through an ERP system. A customer once put it to Hiskey like this: "You invest a lot in your employees, you give them reviews, and you set expectations for them about what you'd like them to work on and how you'd like them to perform. If you think about IoT, it does the same thing for machines."

Digital transformation is somewhat of a catch-all term, and it can mean different things to different businesses, but when you break it down, it's simply about common sense. By automating and optimizing the tools your company relies on, you become more efficient — and efficiency is the most direct path to success.

To learn more about how you can employ digital strategies to streamline operations, get our free eBook, "Push Past Common Manufacturing Challenges."