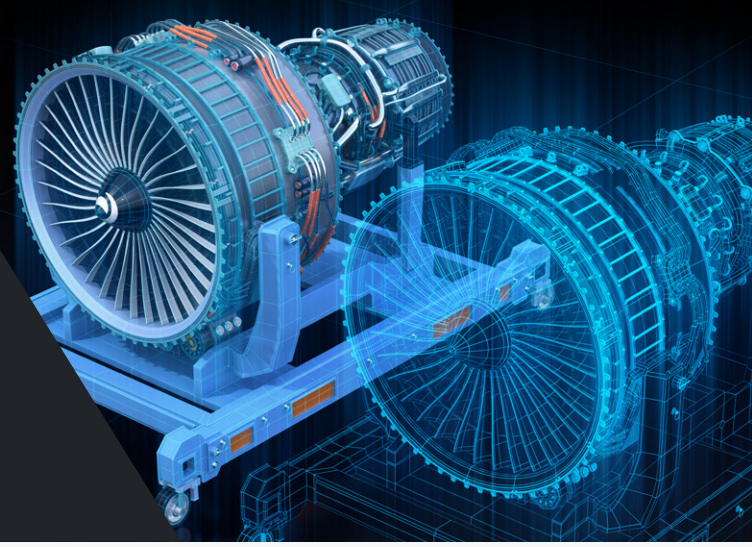


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7 Tips to Transition Legacy Operations to a Digital Business



Manufacturers that digitally connect product design, sourcing and manufacturing can gain performance, profit, and agility. Digital manufacturing intelligence can also provide important visibility to navigate potential supply chain disruptions.

Brands can launch products 20%-40% faster by connecting product development, sourcing, and manufacturing operations.

To maintain a competitive edge, manufacturers are transitioning their legacy operations to digital capabilities. Learn how manufacturers are reducing operational costs, accelerating growth, and mitigating risk with digitization.

1. Know what digital transformation means for your company's success

The 2021 Deloitte Digital Transformation Executive Survey finds that companies with a higher digital maturity are about twice as likely to report significantly greater net profit margins and annual revenue growth than their competitors.

This is especially important since more than 50% of Fortune 500 companies have been acquired, merged, or declared bankruptcy since 2000. Business innovator and author Tom Siebel believes that digital transformation is the causal factor for these changes. Fully integrated digital transformation will increase pre-launch maturity, reduce late-stage design changes, and minimize post-launch product issues.

2. Drive business value through digital automation and manufacturing intelligence

To address ongoing industry changes, digital transformation will provide organizations with the speed and agility to remain competitive. Products can be brought to market 20%-40% faster through connecting multiple functions and operations throughout key product development, manufacturing, and supply chain lifecycles.

Through adopting digital-focused business integration to accelerate design and manufacturing capabilities while strengthening supplier relationships, digital transformation becomes a solution to a smoother running and more profitable business.

3. Using manufacturing intelligence software to mitigate a skilled labor shortage

Skilled labor shortages have become an issue in almost every manufacturing industry. Companies need to consider how automation can alleviate these shortages, particularly in product development lifecycle areas.

Manufacturers can adapt by modernizing the systems used to run their businesses, making better choices on how to use existing workers for critical operations, and improving overall operations.

By modeling and simulating parts and processes using digital manufacturing simulation software, manufacturers can improve the quality of manufacturing decision-making as well as mitigate their skilled labor shortage.

4. Apply the digital factory concept

A digital factory is a virtual representation of a physical factory, enabling companies to simulate the manufacturability of current designs and evaluate alternatives for design, manufacturing processes, sourcing, and more.

Since simulations can be run in near real time, you gain multiple benefits without slowing workflows or impending innovation.

The proper digital factory software will leverage the intelligent features captured within a 3D CAD model (digital twin), including geometry, properties, tolerances, surface finish, materials, weight, and size.

5. Run the digital factory to evaluate early designs

As part of digital transformation, digital manufacturing simulation software allows engineers and sourcing teams to evaluate concepts early in the product development lifecycle. This enables teams to catch manufacturability issues long before the design is sent out for quotes to the suppliers.

The process is also used to compare cost variations across multiple geographies and production facilities so that engineers can find the most economical alternatives.

Taking advantage of cost management software as part of a digital manufacturing operation enables users to make processes more efficient.



6. Recognize the complexities associated with Design for Manufacturability (DFM)

Successful manufacturability can hinge on one of many variables such as materials, production considerations including heating or cooling times, and throughput speeds.

To help manage this complexity, DFM simulation tools compare design alternatives to reduce production costs; identify design features that may require additional manufacturing; and ensure that manufacturing issues don't surface in later design stages.

Without a robust DFM simulation tool, manufacturability issues are likely to emerge after a product has already gone to production—rather than eliminated while still in the design phase.

7. Make decisions confidently with digital manufacturing simulation

When issues are discovered in a digital factory model, your business gains flexibility to respond optimally—whether for sourcing from a third-party supplier or investing in new machinery internally to produce the part.

By using the right simulation software for manufacturing, engineers can determine which machines are required to build a particular design alongside detailed cycle-time requirements for each part of the process, allowing for a quick determination of how many machines a supplier will need to fulfill product volumes. This intelligence is essential, particularly when responding to a supply chain disruption.

Ultimately, using digital manufacturing simulation software will help your company maximize the efficiency of third-party suppliers as well as streamline the quoting process.



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aPriori is the leading provider of digital manufacturing simulation software that brings product design and sourcing teams closer to production. By leveraging the digital twin within our digital factories, we automatically generate design for manufacturability (DFM) and design for cost (DTC) insights, helping manufacturers collaborate across the product development process to make better design, sourcing and manufacturing decisions that yield higher value products in less time. aPriori solutions are now available either in the cloud or on-premise.

