

The Manufacturing Executive's Primer on Digital Innovation

by Zachary Segundo, Alexander Tang, Michael Glessner and Joe Dury

We are on the cusp of a global digital innovation wave, with companies and consumers embracing more connectivity and finding success. As just one example - with [Amazon's Dash Replenishment Service](#), your smart Brita water pitcher can order its own filters, and your smart GE washing machine can reorder laundry supplies.

The demand for smart products drives the need for smart manufacturing, including new ways to link consumers to a company's design thinking, manufacturing methods and overall raw material suppliers via a digital connection. This new connected world holds great promise, and it's easy for executives to translate this potential into shorter innovation cycles, less manufacturing downtime, higher product adoption rates, and a more robust bottom line.

But it's not going to be easy. The numbers regarding digital preparedness are startling.

- According to a recent study commissioned by Infosys Consulting, only **15%** of executives believe that their company has the **skills and capabilities to execute** on their digital strategy
- Just **31%** of surveyed senior business and IT executives believe they have a **systematic digital strategy** today
- And only **9%** of firms have reached the level of **digital maturity where they are truly differentiating** across all aspects of digital activity¹

In order to combat these disappointing results, companies that decide to incorporate digital innovation as a critical piece of long-term success need a well-defined strategy. Pulling a company forward to catch the digital innovation wave is a company-wide initiative that shouldn't just be restricted to IT, marketing, or engineering to execute in isolation.

Critical Components to the successful execution of Digital Innovation Strategy

- **Leadership** – 57% of survey respondents whose companies had a systematic digital strategy indicated that their CEO was responsible for defining the firm's digital vision and strategy. The CEO should set the strategy for the company while other executives drive the supporting strategies for each of their respective areas.¹

In a recent interview, Siemens AG CEO Joe Kaeser outlined his company's digital strategy from R&D to end-use product. Senior leadership and backing of this strategy have put Siemens at the fore of digital manufacturing and innovation.³

- **Communication** – The shift from traditional manufacturing to manufacturing in a digital environment is very significant. Leadership must communicate how the change will affect all members of the organization, and this needs to be done on a very personal level. How will this shift affect their job security and their daily tasks? Lack of communication creates a vacuum that can quickly be filled with misinformation, creating unease and mistrust.
- **Commitment** – Well-executed digital innovation strategies require significant investment and dedicated resources at the working level of the enterprise. In many instances, there is also a need for significant investment to partner with 3rd parties to execute in areas outside of the company's internal competencies or capacities. As with any large transformational initiative, the journey will likely require years, not months, so executives need to have a long range view of the digital innovation path and remain committed to the goal.
- **Momentum** – Digital innovation success may require a long-term commitment, but digital capabilities and the enabling technologies change rapidly, so execution must include short term goals and prototypes to provide some near-term wins that the company can celebrate and learn from. These iterations will support a long-term digital strategy that will constantly evolve as the landscape changes. Agile thinking, constant improvements, and strategic experiments are important parts of staying ahead of the curve. With digital innovation programs, executives cannot wait for all of the components to be ready before a phase goes live. As specific aspects of the digital innovation strategy come online, release them, learn from them, and build off of them.
- **Making it Stick** – Short-term wins will remain short-term if there is no effort to ensure that the change becomes a permanent part of the company. Executives should celebrate and promote the successful execution of the strategy and the innovations that result from it.

Digital innovation comes in many forms, including adoption of cloud methodologies, harnessing the power of innovation analytics, connecting consumers to the factory floor and engineering teams, or developing smart connected products. Companies that are prepared with strategy, commitment and support will ride the wave and stay ahead of it to meet the challenge.

References:

- 1 - <http://www.experienceinfosys.com/bedigital>
 - 2 - <https://www.pwc.com/gx/en/advisory-services/digital-iq-survey-2015/campaign-site/digital-iq-survey-2015.pdf>
 - 3 - <http://www.strategy-business.com/article/Siemens-CEO-Joe-Kaeser-on-the-Next-Industrial-Revolution?gko=efd41>
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More Reading:

[A Look Ahead: An Interview from the Future on the Birth of Digital Manufacturing](#)

[Harnessing the Power of Big Data for Digital Manufacturing](#)

[Two Ways IoT is Disrupting \(and Helping\) the Manufacturing Process](#)

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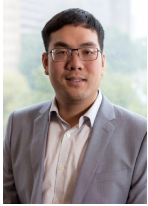
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