

4IR from Buzzword to Reality: Smart Factory Adoption Rates - Best Practices and Leading Technologies

written by Lauri Moon | July 8, 2019

Companies are making progress in implementing new technologies, but scaling and linking investment to value remains a work in progress.

The Fourth Industrial Revolution - 4IR - has been met with both enthusiasm and fence-sitting. While sentiments and experiences have been mixed, most business leaders are now approaching 4IR with a sense of measured optimism. While they recognize the potential business value advanced manufacturing technologies can present—particularly cloud computing, advanced analytics, robotics, the industrial internet of things (IIoT), 3D printing, virtual and augmented reality—they are still deliberating how and where to invest and balancing the hype with their own level of preparedness. Meanwhile, they're also well aware of the significant changes 4IR will bring to a new manufacturing workforce—one that is increasingly becoming a hybrid of human and machine.

There is little doubt that 4IR adoption has hit the tipping point, despite the fact that today only around 20% of companies are implementing smart factory technologies at scale. Momentum is building, however, as evidenced by the fact that 73% of manufacturers are planning to increase their investment in smart factory technology over the next year and 70% citing adopting an IoT strategy as being moderately to extremely critical. IoT and robotics have made the most inroads, with 80% of manufacturers planning to deploy sensors in operations over the next three years and 65% saying they've deployed applied robotics in their operations over the past three years.

About the 4IR survey

PwC and The Manufacturing Institute (the workforce and thought leadership arm of the National Association of Manufacturers), surveyed approximately 100 US-based manufacturers. Looking at the results, we see a definitive—and, indeed, inevitable—shift to 4IR as companies seek to integrate new technologies into their operations, supply chain and product portfolio. However, these companies acknowledge that scaling, justifying 4IR investments and dealing with uncertainty surrounding use cases and applications present a new set of challenges.

Join us to explore the survey findings and PwC’s recommendations. Here’s a sneak preview:

- While the sector as a whole is making assertive forays into 4IR, many manufacturers still inhabit the awareness and pilot phase. Nearly half of manufacturers surveyed reported that they are in the early stages of a smart factory transition (awareness, experimental and early adoption phases). The majority of those that have implemented smart factory use cases consider a quarter to be a success.
- Manufacturers expect the transition to accelerate in the coming years—73% are planning to increase their investment in smart factory technology over the next year.
- While we see a number of fence-sitters, the bulk of manufacturers are indeed prioritizing 4IR, the digital ecosystem and emerging technologies. 35% of survey respondents says they have deployed advanced analytics in their operations and 34% have deployed it in their supply chain.
- About 70% of manufacturers say the biggest impacts of robotics on the workforce in the next five years will be an increased need for talent to manage the robotics workplace and the opening of new jobs to engineer robotics and their operating systems.



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