

The smart factory of the future

Industry 4.0 technology connecting and transforming the factory of the future.



Industry 4.0

Industry 4.0 is the next revolution in smart manufacturing. Implementing modern factory solutions such as analytics allows for more automation and faster responses to manufacturing issues, sometimes without the need for human intervention.



Industrial robots and autonomous factory vehicles reduce labor-intensive tasks, saving time and money.



Embedded sensors enable predictive maintenance before machines break down.

Barriers to transformation

Manufacturers are encountering barriers to adopting new technology and transitioning to the factory of the future.





Read Gartner report, Innovation Insight for Smart Factory, published 6 March 2023 authored by Simon Jacobsen and Alexander Hoeppe.²

Innovation Insight for Smart Factory

Supply chain agility

Supply chain shortages, including raw materials needed for production, have had a major impact on manufacturing in the past several years and have resulted in distribution delays. In the factory of the future:



IIoT devices track the movement of raw materials and goods in real time, whether they are on a shop floor, in a warehouse or in transit.⁴



Artificial intelligence and predictive analytics make supply chain adjustments before issues affect shipments.



Manufacturers receive advance alerts of shortages, triggering automatic ordering from alternate, redundant suppliers.

ROI and operational efficiency

Transitioning to the factory of the future means more resilient and sustainable operations, a reduction in operational costs and increased insight into potential problems. Businesses that undertake a smart factory initiative have seen:



improved asset efficiency (20%)



improved product quality (30%)



reduced costs (30%)



improved safety and sustainability (10%).5



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Industry 4.0 can bring significant savings, including: 15%-30% labor productivity increase, 10%-50% machine downtime reduction and 85% increase in forecasting accuracy.⁶



Bringing it all together



Verizon and Deloitte's <u>Smart Factory</u> <u>@ Wichita</u> is a fully operational factory ecosystem that works with clients on real business problems, helping them transform manufacturing operations.

- Smart Factory @ Wichita has a team of solution providers, tech innovators and researchers that help organizations solve problems through smart factory use cases and bring Industry 4.0 to their own factories.
- It demonstrates the benefits of quality sensing and detection, energy management and a fully connected and cyber protected tech stack.⁶
- The net-zero factory is powered by a renewable energy smart grid and features wind trees, solar assets and smart lighting.

The factory of the future is the next step toward improving manufacturing efficiency and quality, lowering costs, boosting sustainability and becoming more agile. To achieve these goals, manufacturers must leverage new technologies such as mobile edge computing and 5G, especially when response time is critical. Verizon can bring the global infrastructure, solutions, network and expertise that manufacturers need to convert their factory into the factory of the future.



Smart supply chains. Increased automation. Enhanced customer experiences. Higher efficiency and reduced waste. To drive real outcomes like these and more, your business needs the right systems and solutions in place – so you can adapt in near real-time and respond with agility. Learn more at <u>verizon.com</u>

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