

TOP 5

MANUFACTURING TRENDS FOR 2025

A WNS Perspective



Before the pandemic, the global manufacturing industry was already under pressure. Amid geopolitical instability, economic uncertainty and slowdown in growth, the landscape was turbulent. COVID-19 created further unprecedented challenges for the industry. Digital transformation has never been more crucial for the sector.

Research from WNS and Corinium Intelligence shows that 90 percent of enterprises across eight sectors that didn't

accelerate their digital transformation programs in response to COVID-19 lost business as a result.¹ Those that did, however, were able to stymie the negative impact of disruption. Increased digitization is enabling new, innovative and integrated ways of driving operations, manufacturing products and delivering value — shifts that will continue post-pandemic.

Here, we explore five trends that will define how the global manufacturing industry will function in 2025.

1 Foresight Factories

The manufacturing sector is an early adopter of intelligent automation. By 2025, digital transformation will see smart factories develop sentience and foresight, and respond intuitively to changes in demand. Predictive maintenance will help identify potential issues before they occur and understand the impact of an action before it is made.

According to one research, the average automation levels in factories will rise from 69 percent to 79 percent over the next decade.² Automation is most successful when it is ready to impact every touchpoint, with new opportunities unlocked as connectivity spans the entire manufacturing value chain.³

One leading automotive brand, for example, has developed a fully functioning, real-time digital

twin of one of its factories.⁴ The virtual replica is capable of simulating production at scale. It gives the enterprise the ability to model the impact of an action or circumstance — from shifting customer demand to a global pandemic — before they happen.

As digitization increases, so will the threat of disruption from data security challenges, including malware outbreaks, loss of data, or Denial of Service (DoS) that cripple operations. In response, remote security management and monitoring tools will be increasingly important as enterprises harness transformational solutions to protect and monitor industrial control systems and associated networks for manufacturing lines.⁵

2 Decentralized Manufacturing

Post-pandemic, the manufacturing industry is evaluating alternative models to minimize business disruptions. One approach set to define the next five years of the industry is decentralized manufacturing as companies embrace hyper-local models which increase agility, responsiveness and resilience.

One leading retailer has developed a new manufacturing concept based on micro-factories that can be easily moved and re-formatted

anywhere globally, responding seamlessly to local market changes.⁶ An electric vehicle manufacturer, meanwhile, is planning to build a series of micro-factories that enable vehicles to be produced closer to its main markets.⁷

Predictive analytics and enhanced demand sensing will be integral to the success of decentralized manufacturing, as enterprises leverage new data sources to understand changes in demand patterns and respond swiftly.⁸

3 Purposeful Production

By 2025, digital transformation will provide manufacturers real-time view of their operations. New insights will be gained from this position of strength as manufacturers harness data to make operations more efficient and have a positive environmental impact.

Once Master Data Management (MDM) systems create a single version of truth within an enterprise and internal operations are standardized, manufacturing leaders will be able to understand the action required to shift the industry toward a more sustainable future.⁹ Opportunities to improve energy or material efficiency will be revealed as companies make their operations purposeful.

One leading Japanese automotive company is showing the way by leveraging Artificial Intelligence (AI), the Internet of Things (IoT) and robotics to manufacture next-generation vehicles in a zero-emission production system.¹⁰ The manufacturing industry is ahead of the curve when it comes to recognizing its role in building a more sustainable future. Recent research reveals that 46 percent of manufacturing companies intend to invest in sustainability for commercial reasons over the next five years — compared to just 20 percent overall across industries.¹¹

4 Metaverse Monitoring

Over the next five years, the metaverse — the next, hyper-immersive iteration of the Internet — will re-define how all industries function. Within manufacturing, the deployment of metaverse-based tools will empower workers by driving new opportunities for virtual training, testing and monitoring.

One US-based industrial technology company, for example, has developed smart glasses that provide front-line factory workers with hands-free operation and voice commands.¹² When wearing the device, workers are empowered with immersive, real-time

situational awareness about their immediate environment and can compare 'as is' versus 'should be' conditions. Such functionality enables remote maintenance of plants and equipment too.

Another US-based company is harnessing the metaverse to enable enterprises to test new manufacturing software in realistic virtual worlds.¹³ Using these simulations, they can not only test software but train robot operators and try physical integrations before risking real-world implementation.

5 Experience Hubs

By 2025, next-generation manufacturing will be so advanced that enterprises will open up factories and let customers experience their innovative capabilities firsthand. In this future, manufacturing will become a crucial consumer touchpoint — a point of differentiation for brands.

We've already seen one Swedish retailer bring manufacturing into stores through a machine that transforms customers' old clothing into new garments before their eyes.¹⁴ As intelligent automation, analytics and the continued rise of 3D printing unlocks new levels of personalization within manufacturing, 2025 could even see consumers visiting pop-up factories directly for bespoke products created on demand.¹⁵

A leading global packaging manufacturer is hinting at what this future will look like, inviting local customers to its innovation center to

experience its end-to-end manufacturing solutions in person.¹⁶ Global attendees were also invited to visit a virtual replica of the center and digitally immerse themselves in the manufacturer's capabilities.

The disruption caused by the pandemic has served to illustrate the necessity of digital transformation within manufacturing as the industry seeks to build greater resilience. Companies must prepare for 2025 by developing predictive capabilities through digital, exploring hyper-local concepts, imbuing operations with purpose, embracing the metaverse and making manufacturing experiential.

(This article was created in collaboration with The Future Laboratory)

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