



The Manufacturing Transformation

# Resilient Manufacturing Supply Chain

Manufacturers who embrace advanced technologies will drive intelligent operations, enhance product quality, and increase sustainability in ways that traditional methods can't match.



## Today's manufacturing challenges

Employing tech-based solutions can help manufacturers overcome some of today's most pressing challenges.

### Inflationary pressure

High operational costs lead to lower profit margins and drive customers to competitors.

### Operational inefficiency

Manual processes can lead to frequent downtime, hurt product quality, and cause resource inefficiency.

### Evolving regulations

Environmental and sustainability concerns push manufacturers to utilize more sustainable resources and optimize their energy usage.

### Labor shortages

Increasing competition for talent in a tight labor market makes it challenging to find reliable new hires while retraining current employees, which can strain organizational resources and negatively impact output.



"76% of manufacturers are adopting digital tools to gain enhanced transparency into their supply chain."<sup>1</sup>

<sup>1</sup> [2024 manufacturing industry outlook | Deloitte Insights](#)

## Intelligent supply chains for the future

Build a resilient manufacturing supply chain by analyzing multi-tier supplier and market data with AI and advanced analytics capabilities.

### What's possible?

#### Intelligent demand forecasting and planning

Optimize planning processes end-to-end, leverage data and AI to improve demand forecasting models, and optimize inventory levels.

#### Real-time visibility and risk

Gain continuous real-time visibility into the supply chain to better predict and manage potential risks.

#### Seamless warehousing and fulfillment

Employ automation and intelligent fulfillment systems to increase customer satisfaction.

### Solutions in action: Sandvik improves predictive maintenance with AI and cloud technology

Sandvik makes the mining industry more sustainable using Microsoft Azure cloud analytics and AI.

[Read the whole story >](#)



“Generative AI could help identify and simulate potential disruptions or risks in the supply chain. By assessing port congestions, shipment routes, and tier-n supplier mapping, generative AI can be used to predict risks, their corresponding impact on operations, and recommend actions to mitigate those risks.”<sup>2</sup>

Read the e-book [The Manufacturing Transformation >](#)

Discover [Microsoft Cloud for Manufacturing >](#)

<sup>2</sup> [The Generative AI Dossier](#)