

AI Deemed Most Disruptive Technology in Supply Chain

Robotics and automation follow as the second most disruptive technology.



Article Summary

Artificial intelligence is viewed as the most disruptive technology for supply chains over the next decade, with 56% of supply chain leaders increasing technology investments and 52% planning to spend over \$1 million, according to the 2026 MHI Annual Industry Report. Nearly three-quarters of respondents rate AI's impact as significant or transformational, while workforce talent shortages and cybersecurity risks remain critical challenges affecting 90% and 88% of organizations respectively.

- **56% of supply chain leaders** are increasing technology investments, with **52% planning to spend over \$1 million** and 17% budgeting over \$10 million
- **AI is the most disruptive technology** for the next decade, with 24% calling it transformational and 48% rating its impact as significant or greater—up 25 percentage points from 2025
- **Workforce and talent challenges** affect 90% of supply chain organizations, with nearly two-thirds rating the issue as major
- **Only 11% of organizations** are actively using agentic AI systems in production, while 42% are still developing their strategy
- **Top 5 supply chain trends** include economic uncertainty and inflation, workforce talent shortages, technology adoption pace, supply chain visibility and agility, and cybersecurity and data security

Nearly 56% of supply chain leaders are increasing their supply chain technology and innovation investments with 52% planning to spend over \$1 million, according to the [2026 MHI Annual Industry Report, "Rewiring the Future: A Supply Chain Playbook for Innovation,"](#) published by MHI and Deloitte.

In fact, 17% plan to spend over \$10 million. These investments include AI and robotics solutions for improved supply chain resiliency, visibility, and transparency and as well as solutions for the ongoing workforce and talent shortage.

Key takeaways:

- Artificial intelligence is viewed as the most disruptive technology for the next decade, with one-quarter of respondents (24%) categorizing AI as transformational and nearly half (48%) considering its disruptive impact to be significant or greater—up 25 percentage points since 2025.
- Robotics and automation follow as the second most disruptive technology, with 39% rating its impact as significant or greater, up 16 percentage points.
- Talent and workforce issues are affecting 90% of supply chain organizations. Among those, nearly two-thirds rate the challenge as major, up 9 points from last year.
- Managing cyber risks is the second most common challenge (88%).
- Economic uncertainty and inflation topped the list of top trends impacting supply chains. Workforce challenges follow closely behind, with pace of technology adoption, supply chain agility and resiliency, and cybersecurity and data security rounding out the Top 5 trends affecting supply chains and their leaders.
- The workforce and talent gap is now the No. 2 trend affecting supply chains.
- Technology trends related to smart operations maintained the No. 3 and No. 4 spots respectively in this year's survey. Cybersecurity, risk and data security moved into the Top 5.
- While 30% of surveyed organizations are exploring agentic options and 38% are piloting solutions, only 14% have solutions that are ready to be deployed and just 11% are actively using these systems in production⁶.
- Also, 42% of organizations report they are still developing their agentic strategy roadmap, with 35% having no formal strategy at all.

- Top 5 supply chain trends are:
 - >Economic uncertainty, inflation and geopolitical risks
 - >Workforce, talent shortage and changing worker skillsets
 - >Pace of technology adoptions, digitization and need for real-time data
 - >Supply chain visibility, agility and resiliency
 - >Cybersecurity and data security

- Next 5 supply chain trends are:
 - >Rising costs of capital
 - >Inventory challenges
 - >E-commerce growth
 - >Customer-centricity
 - >Reshoring