

Augmenting Workers with Supply Chain Intelligence

New Technologies Drive Shifting Roles
and Increased Productivity.



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In this InfoBrief

This InfoBrief explores how agentic AI and automated identification and data capture (AIDC) are reshaping supply chain work, moving people from task execution toward decision-led roles and driving measurable productivity gains across manufacturing, retail, distribution, and logistics.

Inside, you will find:

- ➔ The converging forces reshaping supply chain technology, operations, and people
- ➔ Why fast, complete data is the foundation for supply chain intelligence
- ➔ How roles are evolving from job insecurity to new orchestration and decision-led jobs
- ➔ Practical guidance for building an AI-ready, resilient frontline workforce



Key trends in the supply chain

From manufacturing floors to retail distribution centers, converging forces are reshaping supply chain technology, operations, and people all at once.

- Agentic transformation in supply chains as a way to enable next-level efficiency and productivity
- Supply chain orchestration with end-to-end alignment and data usage, with full visibility and nimbleness that drives resiliency and monetizable benefit
- Fast/complete data enablement with AIDC technologies that feed autonomous processes and value-added work
- Embracing workforce transition from tactical/task jobs to decision-making roles and moving from job insecurity to role clarity: What do humans do versus the bots?
- Ensuring that data and cyber-resilience create the right guardrails for the increasing use of AI for decisions and process automation
- Managing talent and skills shortages, particularly in industries such as retail and transportation/warehousing, where blue-collar workers are critical to efficient and effective operations

Q: What key challenges do you face in implementing the current agentic AI initiatives in your supply chain?

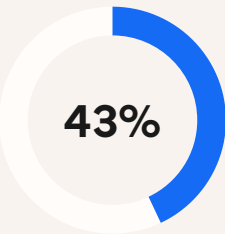
45%	Security and compliance		30%	Cultural and change management challenges	
35%	Data quality and governance		31%	Unclear ROI and business case	
36%	High cost of implementation/integration		18%	Skills shortages	
33%	Outcome/action reliability		23%	Ethical concerns	
32%	Observability/explainability		5%	Have no challenges	



Better and more complete data is critical for us to take our supply chain performance to the next level.”

VP supply chain planning at a large grocery chain

What gets in the way of better resilience?



of supply chain organizations name **integration with legacy systems**, not cost, talent, or trust, as the top barrier to AI-driven decision-making. The obstacle is **foundational**: The return on AI depends on first connecting the data and systems beneath it.

- Slow decision-making and skills shortages, particularly in retail, emerge as top concerns and significant drivers for automation.
- There is poor partner collaboration and alignment, particularly relating to data availability and fidelity.
- Although a focus on cost efficiency is less prevalent than in prior years, supply chains must still ensure a better balance with resiliency.
- IT system “legacy drag” continues to plague retail supply chain organizations that are stuck in old technology paradigms.
- Skills/talent shortages make adapting to or meeting new supply chain requirements challenging.

Barriers to better resilience

 Technology and data foundation	Integration gaps and data silos	42%
	Legacy and on-premises systems	31%
	Poor end-to-end visibility	25%
 Ecosystem and agility	Partner adaptability constraints	38%
	Limited agility to pivot	28%
 Operating model	Cost focus over resiliency	33%
	Slow/manual decision-making	32%

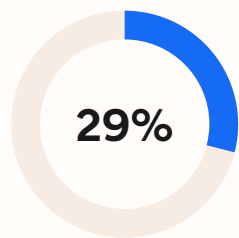


Tariffs and inflation have resulted in us focusing too much on efficiency and ignoring the importance of resiliency. We need better tools to be able to manage both.”

CSCO
at a midsize CP company

Supply chain intelligence informed by automated identification and data collection

Whether optimizing a manufacturing facility or running a retail distribution network, the organizations winning on intelligence share one foundation: fast, complete, accurate data.



of supply chain organizations report people-productivity gains of **over 10%** from AI (including AIDC); another **52%** report **5–10%** gains. The payoff is already broad but still early: The step-change to double-digit impact comes from **redesigning roles and decisions around the data**, not from capturing more of it.

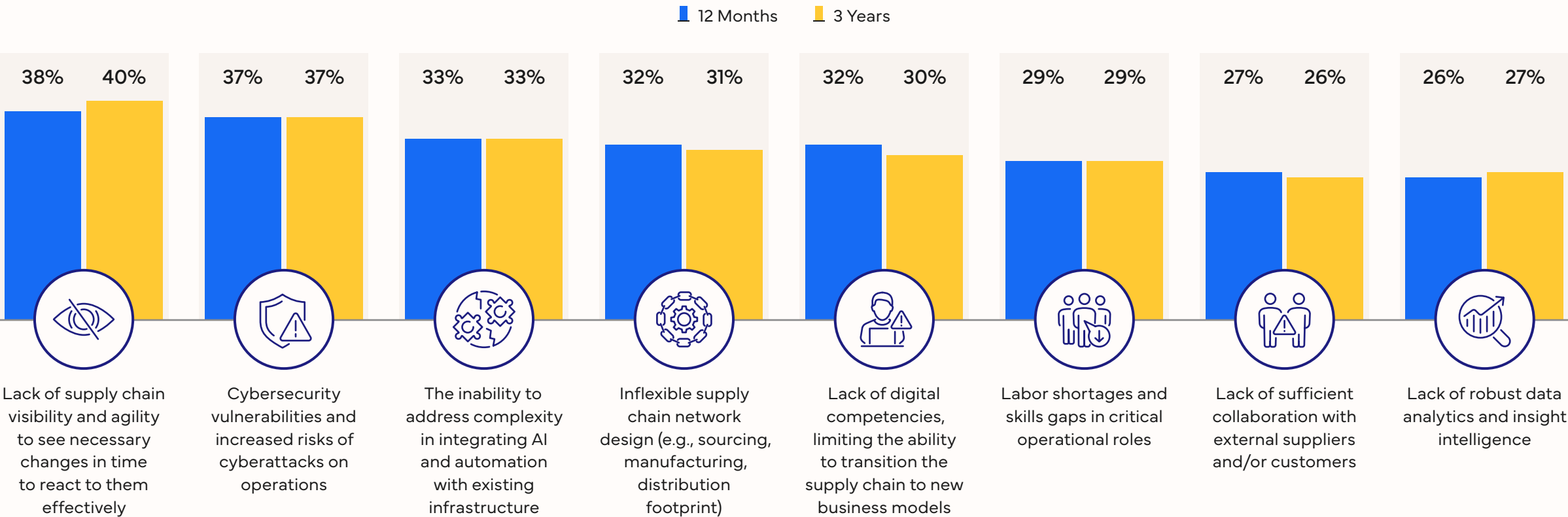
- Deep and broad data usage enables agility and better and faster decision-making.
- Task off-loading drives monetizable productivity gains and better alignment of labor and skills in critical supply chain roles in both retail and transportation/warehousing.
- More robust data analytics and process-contextual decision intelligence enables organizations to see it faster and respond more quickly.
- Using worker-centric solutions ensures AIDC tools enable workers to be more productive by effectively integrating them into human-centered workflows.
- Temper automation and agentic AI by recognizing the importance of the human worker experience and expertise and their ability to bring operational context to supply chain problems.
- Organizations will need to design and implement deliberate training and apprenticeship programs to develop the next generation of frontline experts.



Supply chain intelligence informed by automated identification and data collection (continued)

Q: What current supply chain gaps are likely to be the most problematic if not addressed within the next year? In three years?

See the figure data in an [accessible table format](#).



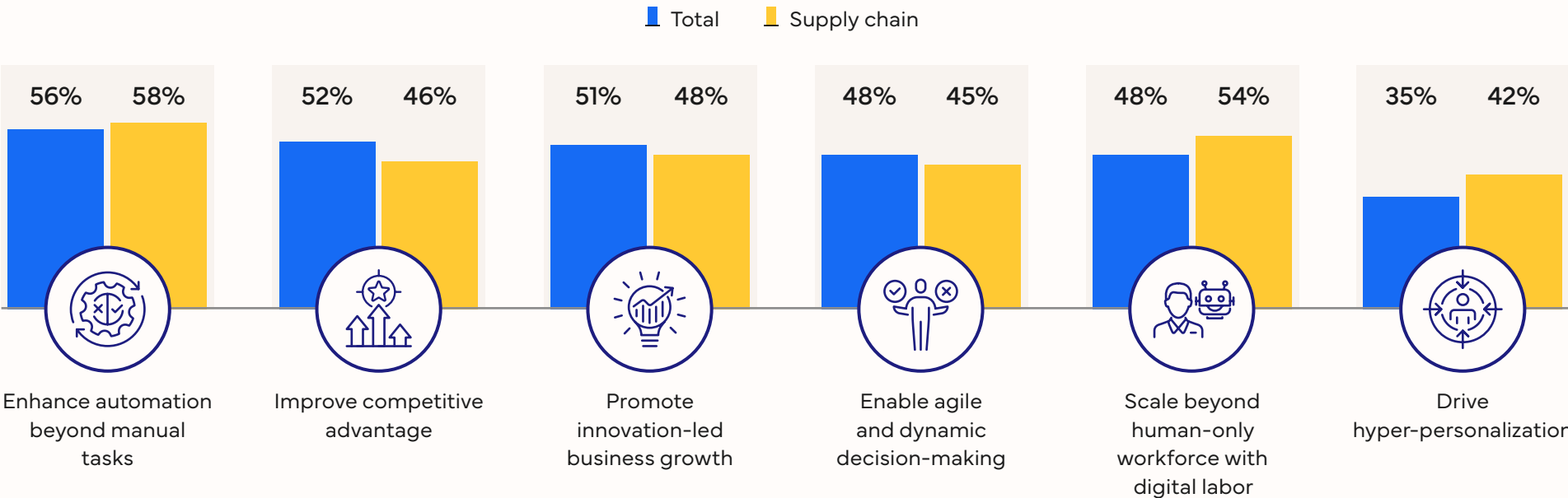
Source: IDC's Worldwide Supply Chain Survey, May 2026 (n = 1,374)

An orchestrated, integrated supply chain

- ➔ Operational visibility across the breadth of the supply chain ensures decisions are taken quickly with full fidelity.
- ➔ Data ingestion, alignment, and disbursement enable optimal operations and augment “data-hungry” workers.
- ➔ An orchestrated supply chain requires unified and synchronized planning connected to seamless execution fulfillment.
- ➔ The most successful supply chain and retail organizations will balance people, process, and technology to either achieve efficiency and resilience or be able to make informed contextual tradeoffs.

Q: Which strategic priorities are most critical for current agentic AI initiatives being done or considered within your supply chain?

See the figure data in an [accessible table format](#).



Source: IDC’s Early Adopter AI Functional Use Case Study, March 2026 (n = 1,967), supply chain (n = 148; weighted results)



An end-to-end, orchestrated supply chain requires better technology, more integrated processes, and AI-friendly employees. We have to get there.”

COO
at a large process manufacturer

From job insecurity to role insecurity

Potential new roles for workers

- As agentic AI is poised to change the supply chain across all industries dramatically, businesses need to understand and actively manage how roles will change.
- Although the focus is too often on job losses/ insecurity, the bigger challenge facing companies is role insecurity: What do human workers do versus the “bots”?
- Both business processes and the applications that support them will change, and AI technologies will fundamentally change how people interact with these applications.
- Rather than being obsolete, workers will be more important as key mechanisms to “guardrail” agents, particularly as routine tasks shift to agents and people take on more supervisory and strategic roles.



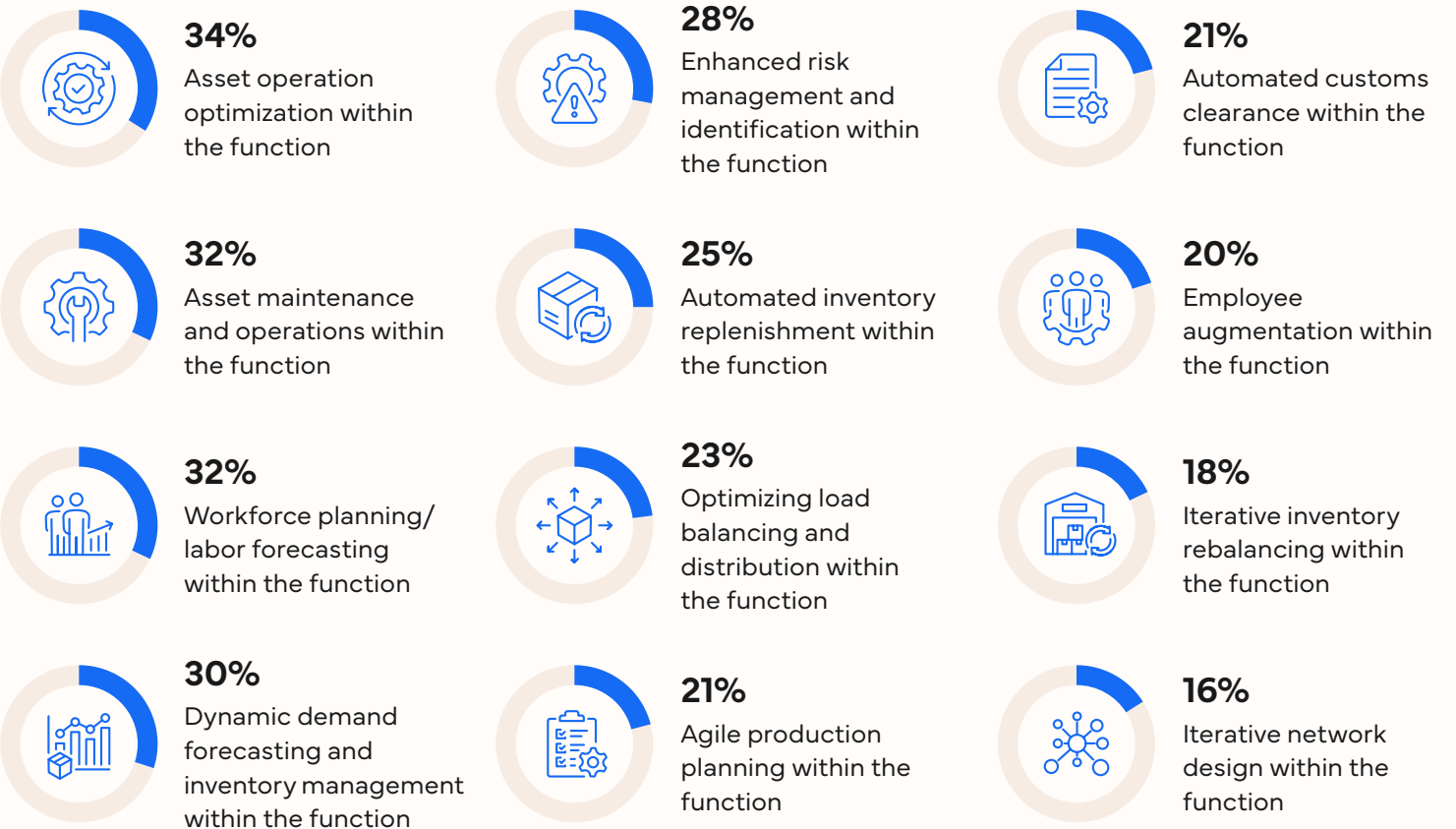
Consider RACI: Who is responsible, who is accountable, who is consulted, and who is just informed? Decisions must be understood in their operational context, and any AI-driven recommendation must be explainable to the person accountable for the outcome.

New orchestration roles

- Retail and transportation/warehousing organizations need people who can translate business intent into agent policies, define guardrails and escalation thresholds, evaluate agent performance against business outcomes, and intervene when agents encounter novel situations.
- Broadly, this means governing agents that manage demand planning, inventory positioning, production scheduling, and supplier negotiations.
- In logistics, it involves orchestrating agents across carrier selection, route optimization, and customs compliance.
- In retail, it certainly means handling store replenishment, assortment, pricing, and promotional execution, as well as consumer experience tasks such as stock inquiries, product location, and checkout.
- AIDC tools enable retailers and transportation/warehousing companies to drive worker efficiency and effectiveness through aligned effort and a clear focus on value-added activities.

As agents take on more autonomous decision-making, a new class of supply chain professional emerges, whose primary job is not completing tasks or executing transactions but rather designing, tuning, and governing the agents that do.

Q: Thinking of all the supply chain use cases where you plan to implement agentic AI in the next 18 months, please rank them in order of priority.

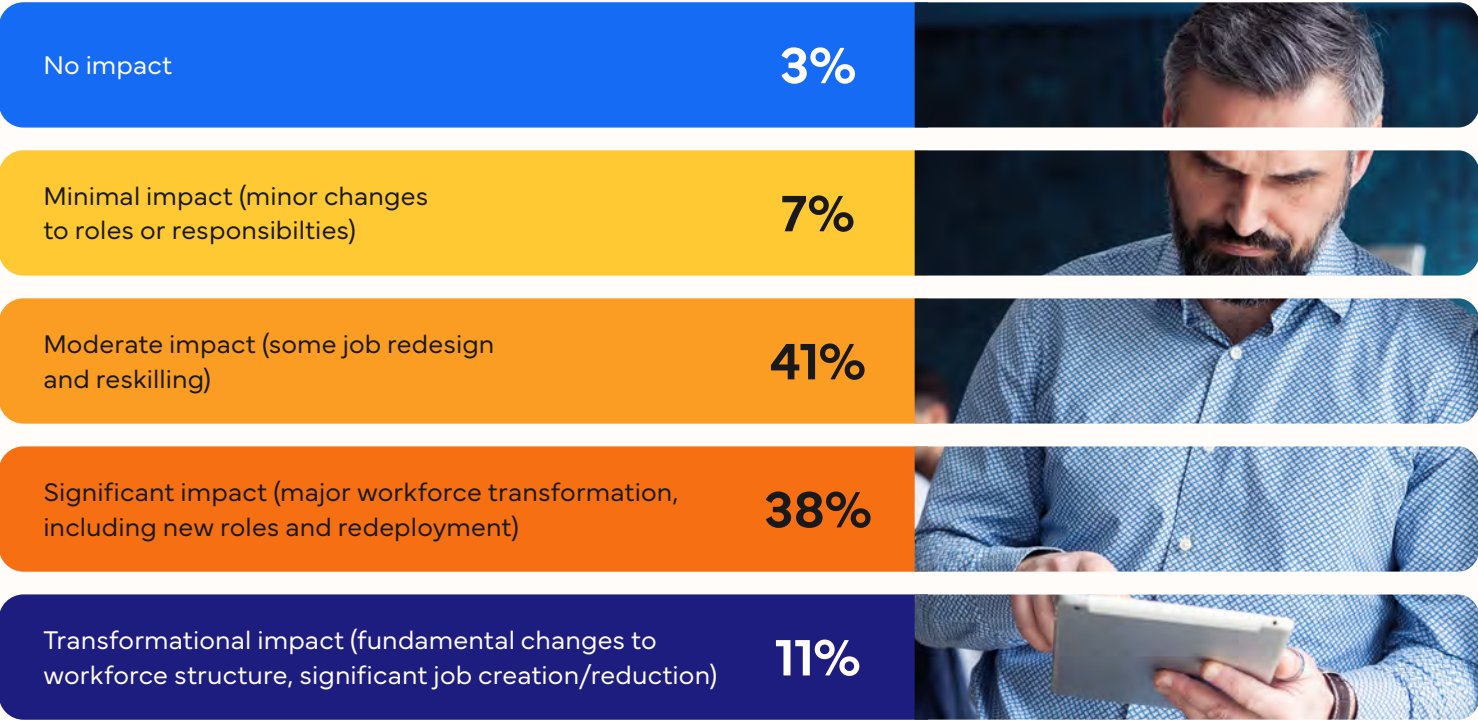


Source: IDC's Early Adopter AI Functional Use Case Study, March 2026 (n = 1,967), supply chain (n = 148; weighted results)

An evolving frontline workforce



- ➔ As agents and related technology change how people work in the supply chain, and as the required skills and competencies shift, organizations must adapt.
- ➔ Frontline workers, in particular, will see work transformed from being primarily task-centric to decision-centric. They will need better access to data and AIDC tools that make deep and broad data usage easier.
- ➔ Supply chain organizations are not blind to this, of course. Although the data here is not specific to supply chain or operations, the sentiments align.



More than 90% of organizations see agentic AI having at least a moderate impact on their workforce, with some level of job redesign and reskilling required. However, more than half of that 90% see a much more dramatic shift, with major workforce transformation that includes new roles/job creation, redeployment of resources, and some job reduction.

Source: IDC's CEO Survey, February 2026 (n = 492)

From “posters” to “practice”

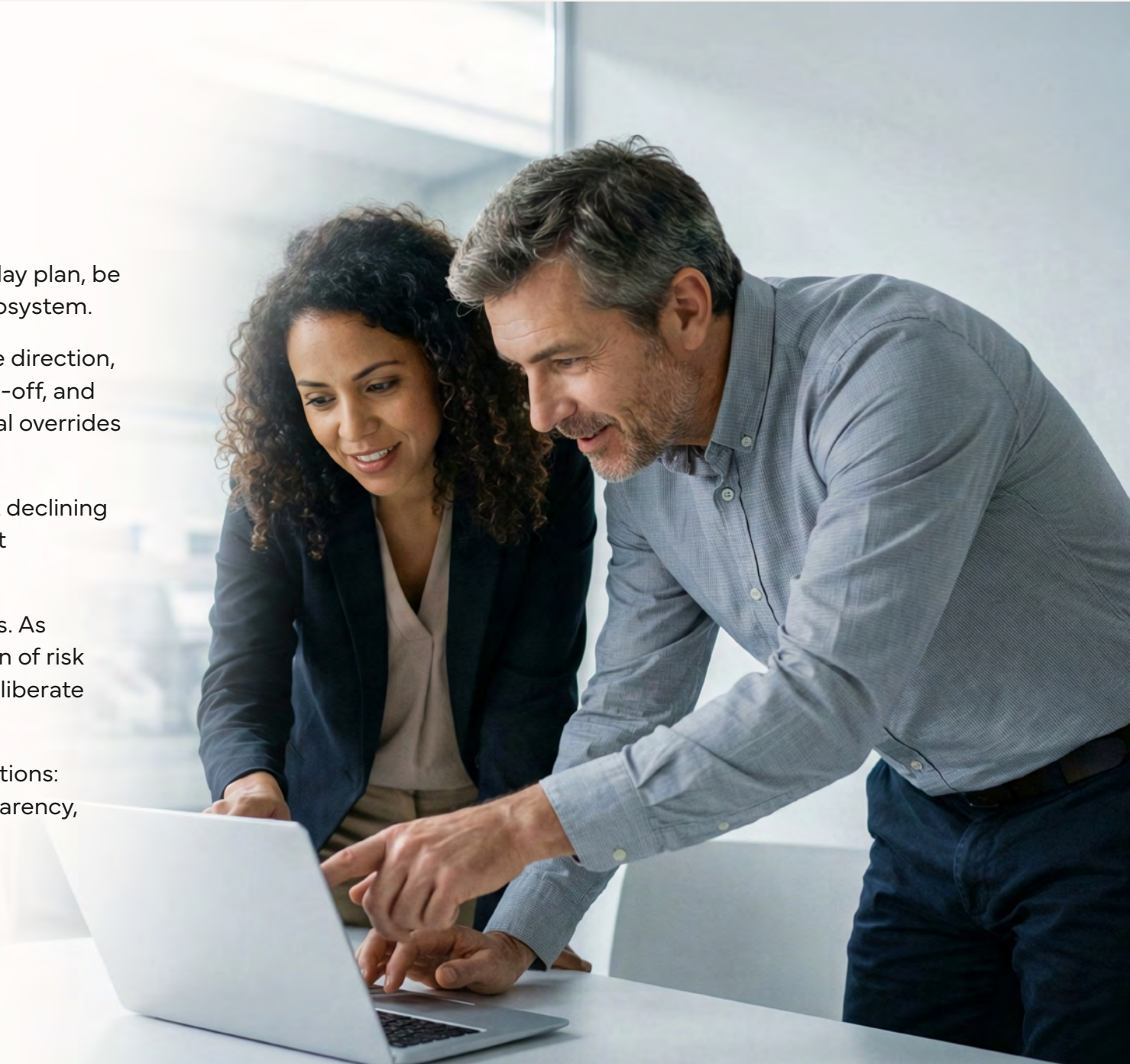
- ➔ Moving from technology experimentation to scaled impact is not a technology problem; it is a leadership problem.
- ➔ Ensure leaders model the change they evangelize. Posters are not enough.
- ➔ The organizations achieving measurable enterprisewide AI outcomes share a common set of characteristics: structured operating models, disciplined prioritization, financial transparency, and governance that enables rather than suppresses innovation.
- ➔ Ensure that the 90-day plan considers all people, processes, and technologies. None of them can be truly effective without the others.

90-day agenda

1	Establish the AI enablement team	Form a cross-functional team with a clear charter, defined membership, and explicit decision rights. Include the CIO, CFO representative, COO, BU leaders, and CISO. Set a monthly cadence with quarterly board reporting.
2	Launch 2–3 tiger teams on the highest-value use cases	Identify the 2–3 use cases with the highest value and clearest feasibility. Staff empowered tiger teams with business SMEs holding decision authority. Time-box to 4–6-week sprints with explicit success criteria established before work begins.
3	Implement the five-category financial framework	Introduce innovation, enablement, execution, avoided, and displaced cost categories across all active AI initiatives. Require finance co-ownership of AI investment decisions. Establish cost-per-use-case tracking from day one.
4	Create a formal use case prioritization process	Replace ad hoc selection with a scored process evaluating value, feasibility, strategic alignment, and time-to-value. Establish authority to formally stop low-scoring initiatives, not just deprioritize them.

Essential guidance

- ➔ As manufacturers, retailers, and logistics businesses embark on a 90-day plan, be clear about the availability of data and their current data-capturing ecosystem.
- ➔ Make decision rights explicit between agents and people. For each role direction, document what the agent can act on unsupervised, what requires sign-off, and what stays with the frontline worker. Vague autonomy produces manual overrides that erase the gains.
- ➔ Protect expertise; do not outsource it. Roles are widening in scope, not declining in value. A capability that is central to your agentic ambition but not yet resourced should be built internally, not contracted away.
- ➔ Invest in apprenticeship and succession before role responsibility shifts. As agents absorb the routine work that built expertise, the next generation of risk and opportunity leaders will not learn the trade the same way. Build deliberate training and apprenticeship pathways now, not afterward.
- ➔ Build the characteristics that distinguish mature autonomous organizations: structured operating models, disciplined prioritization, financial transparency, and governance that enables innovation rather than suppressing it.



Appendix: Accessible data tables

Page 7

Q: What current supply chain gaps are likely to be the most problematic if not addressed within the next year? In three years?

	12 Months	3 Years
Lack of supply chain visibility and agility to see necessary changes in time to react to them effectively	38%	40%
Cybersecurity vulnerabilities and increased risks of cyberattacks on operations	37%	37%
The inability to address complexity in integrating AI and automation with existing infrastructure	33%	33%
Inflexible supply chain network design (e.g., sourcing, manufacturing, distribution footprint)	32%	31%
Lack of digital competencies, limiting the ability to transition the supply chain to new business models	32%	30%
Labor shortages and skills gaps in critical operational roles	29%	29%
Lack of sufficient collaboration with external suppliers and/or customers	27%	26%
Lack of robust data analytics and insight intelligence	26%	27%

Source: IDC's *Early Adopter AI Functional Use Case Study*, March 2026 (n = 1,967), supply chain (n = 148; weighted results)

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Appendix: Accessible data tables (continued)

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Q: Which strategic priorities are most critical for current agentic AI initiatives being done or considered within your supply chain?

	Total	Supply chain
Enhance automation beyond manual tasks	56%	58%
Improve competitive advantage	52%	46%
Promote innovation-led business growth	51%	48%
Enable agile and dynamic decision-making	48%	45%
Scale beyond human-only workforce with digital labor	48%	54%
Drive hyper-personalization	35%	42%

Source: IDC’s *Early Adopter AI Functional Use Case Study*, March 2026 (n = 1,967), supply chain (n = 148; weighted results)

[Return to figure](#)

About the IDC analyst



Simon Ellis
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As Group Vice President, Simon Ellis currently leads the U.S. Manufacturing Insights, U.S. Energy Insights, and Global Supply Chain Strategies practices at IDC, specializing in advising clients on manufacturing/energy strategies, supply chain digital transformation, sustainability, cloud migration, network, and ecosystem design. Mr. Ellis works with end user companies, supply chain organizations and technology providers to develop best practices and strategies leveraging IDC quantitative and qualitative data sets. Within the Supply Chain practices, Mr. Ellis contributes extensively to the Supply Chain Planning and Multi-Enterprise Networks Strategies practice while also overseeing the Supply Chain Execution practices. These supply chain practices specialize in advising clients on supply chain network design, S&OP, global sourcing (Profitable Proximity and Low-Cost Sourcing), warehousing and inventory management, transportation, logistics, and more.

[More about Simon Ellis →](#)

Message from the sponsor



The shift this InfoBrief describes, from task work to decision-led roles, is reshaping how operations get done across retail, distribution, and logistics. The people doing the work are at the center of it.

Honeywell Productivity Solutions and Services is the technology behind that shift: mobile computing, scanning, printing, RFID, and software deployed across retail floors, distribution centers, and logistics networks worldwide.

As agentic AI changes how decisions are made, our focus is on giving frontline teams the right tools at the right moment, so AI supports the workforce rather than working around it. Data captured cleanly. Workflows that respond. Specialists on hand when the operation needs them.

The next phase of supply chain work is being built right now. Honeywell's role is to make sure the people doing that work have what they need to lead it.

See how leading operators are building the augmented supply chain

Talk to a Honeywell supply chain specialist

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