

Accelerating Supply Chain Transformation with Cloud and AI

End-to-End Orchestration

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External Disruptions and Internal Capability Limitations Create the Perfect Storm for Transformation

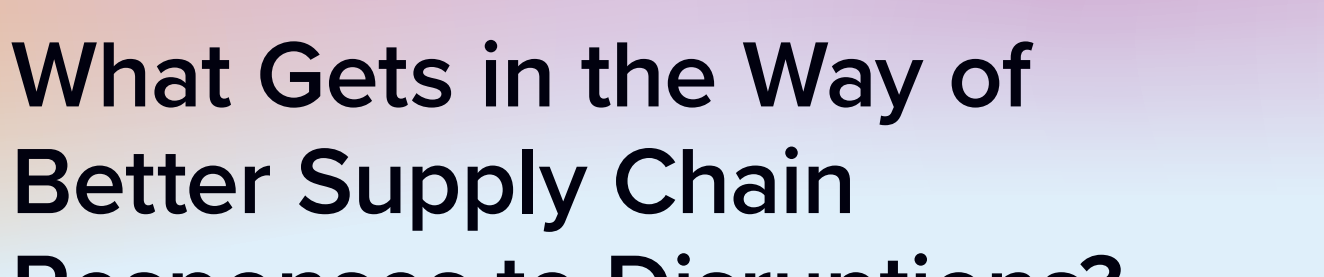
Global supply chain disruptions continue to be front of mind and materially impact operations and strategic priorities. Supply chain leaders are focused on integrated solutions to enhance visibility and responsiveness. Impediments to responsiveness are supplier capabilities and legacy IT drag.

87% of supply chain leaders expect **supplier and transportation costs to continue to increase**, **33%** expect **tariffs** to adversely affect their operations, and **20%** see continued challenges **finding people/skills**.

51% of supply chains view **economic uncertainty (inflation, tariffs, recession, and currency fluctuations)** as presenting the most significant global risk over the next five years.

36% say **protectionism/tariffs/economic confrontation** will be a significant risk to their supply chains over the next five years.

Top 3 global or regional disruptions in the next 12 months



n = 829 (interim cut); Source: IDC's Worldwide Supply Chain Survey, April 2025

What Gets in the Way of Better Supply Chain Responses to Disruptions?

Although supply chain leaders generally view the ability of their supply chain to respond well to disruptions, there are some key opportunities.

Supply chain leaders see a lack of collaboration, speed, and visibility as the **biggest gaps to supply chain success**.

Scalable analytics, migration to the cloud, and targeted deployment of analytics/artificial intelligence are key technology focus areas. Although it's still early days, GenAI and agentic AI are ramping up rapidly.

These opportunities align well with key investments, including **business networks** to help better align supplier expectations and performance and **business suites** to replace lagging performance from legacy, on-premises tools and eliminate the integration challenges supply chains report from a mix of new and old tools.

Supply chain leaders say that to **"continue to modernize/upgrade IT-related supply chain infrastructure"** is their second most important priority (after efficiency) over the next three years.

What limits your supply chain's ability to respond effectively to disruptions?



Legacy 'drag' significantly and negatively impacts supply chain performance.

n = 829 (interim cut); Source: IDC's Worldwide Supply Chain Survey, April 2025

Supply Chain Orchestration

Many disruptions are difficult (or even impossible) to predict. Supply chains must be able to respond quickly by eliminating any/all latency within business processes and the systems that support those processes.

Over 60% of supply chain leaders report a **"lack of supply chain visibility/agility to see necessary changes in time to react to them effectively"** as their top supply chain gap, both today and in the immediate future.

Challenges in achieving full visibility, particularly in an increasingly outsourced, regulatory-intense environment, **mean a focus on end-to-end supply chain orchestration**.

Successful supply chain orchestration initiatives will **balance necessary/enabling supply chain processes with the right end-to-end technology tools**.

The least mature end of the maturity scale is a linear view of the supply chain with latency between tasks/silos. **As supply chain leaders seek to improve visibility and increase collaboration across silos, they advance toward orchestration.** Advancements in integrated tools, extended scenario planning, and future advancements in AI/ML will continue to aid the maturity journey.

Navigating Complexity in Modern Supply Chains: Strategies for Enhanced Orchestration and Risk Mitigation

Complexity Responses to disruption and volatility have resulted in increasingly complex supply chains. Managing this complexity requires improved end-to-end tools and processes.

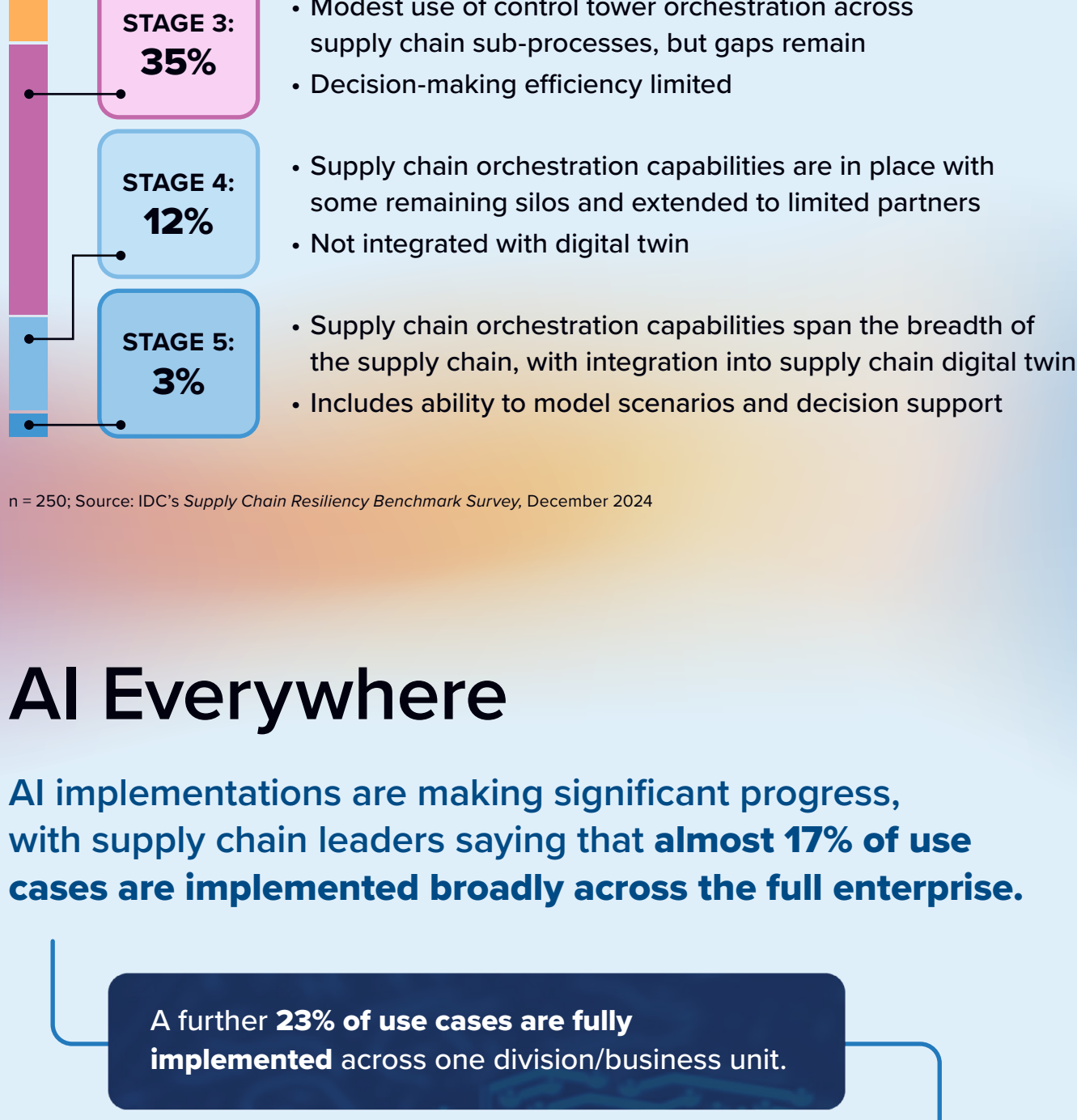
Latency/time to response Disruption and volatility will never be perfectly predictable. Improving response time through orchestration supports reducing risk and increasing options.

What got us here won't get us there Legacy tools, processes, and skill sets are struggling under the pressure of increasing requirements and are not able to best leverage advancements in technologies.

Control towers have not delivered the promise To date, many point control towers have either "read the news" rather than enabled action and/or have been siloed, not yet achieving holistic orchestration.

Systems thinking The trend of integration is growing as organizations adopt strategies that focus on improving systems as a whole rather than individual components.

Orchestration maturity remains very much a work in progress, with only 15% of supply chains advanced in their adoption.



n = 250; Source: IDC's Supply Chain Resiliency Benchmark Survey, December 2024

AI Everywhere

AI implementations are making significant progress, with supply chain leaders saying that almost 17% of use cases are implemented broadly across the full enterprise.

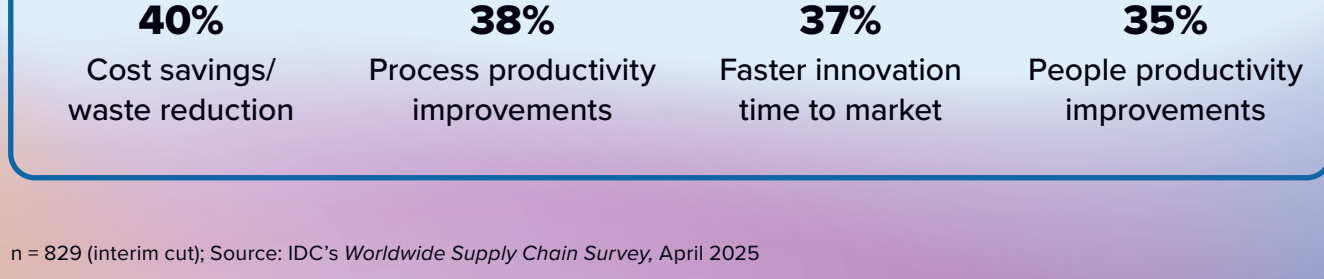
A further **23%** of use cases are **fully implemented** across one division/business unit.

AI-enhanced demand forecasting and inventory optimization are among the top use cases, implemented in **47%** of supply chains.

GenAI in procurement and contract management is implemented across **40%** of supply chains.

AI-powered cybersecurity threat detection for supply chain systems is implemented across **45%** of supply chains.

What benefits have you seen from AI deployments in your supply chain?



Benefits Exceeding 10%

40%
Cost savings/
waste reduction

38%
Process productivity
improvements

37%
Faster innovation
time to market

35%
People productivity
improvements

n = 829 (interim cut); Source: IDC's Worldwide Supply Chain Survey, April 2025

Key Takeaways

The future of the differentiated supply chain means full visibility (data through analytics to action); resilience to internal and external disruptions; and design-integrated/ multi-tier-managed, collaborative at scale, and predictive/ prescient where possible/fast were not possible.

What are the implications of NOT having the above capabilities?

Data and integration

There is a reason data integration and quality are long-standing areas of focus. These are foundational elements for true supply chain orchestration. If your company lags in this area, it may be worth addressing before attempting to progress along the maturity scale.

Variety of tools/maturity

Because control towers, visibility, and orchestration have been buzzwords/shiny objects for some time, many vendors are seeking to address business requirements. This means a variety of solutions are beginning to come to the market, each with its own pros and cons and varying levels of success. It's important to assess what each solution delivers.

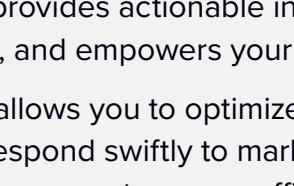
Business process maturity

Having well-defined business processes (including rules for exception, identification, and response) is another fundamental building block to achieve supply chain orchestration. It will be impossible — or at least ill-advised — to attempt automation and leverage orchestration tools without well-defined business processes. This is a critical input for automation and management by exception.

Alignment of desired outcomes at an organizational/systems level

Similarly to business process maturity, shifting an organization to holistic thinking will be required to give the right inputs to end-to-end orchestration tools and processes. Moving from a legacy of functional optimization to whole operations optimization will require understanding, and there may be times when it's appropriate to suboptimize a part to optimize the whole.

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