ECONOMIST IMPACT

How far will AI agents go?

The advance of AI tools and agents into procurement and supply chains

Supported by GEP INTELLIGENCE DRIVES INNOVATION

Contents

About this report

'Next-gen supply chains' is an Economist Impact report sponsored by GEP. It explores the evolving world of supply chains amid continued disruption from technology, notably AI, and climate change. The report is based on a survey conducted between January and March of 2025 of over 400 executives in the US and Europe who were familiar with their organisation's supply-chain strategy and operations.

Economist Impact is solely responsible for the views expressed in this report, and the content does not necessarily reflect the perspectives of the sponsor.

Economist Impact would like to extend its thanks to the following interviewees for their time and insights:

- **Abe Eshkenazi,** chief executive, Association for Supply Chain Management
- **Douglas Kent,** executive vice president, Association for Supply Chain Management
- **Jurriaan Lombaers,** former chief procurement officer, Air France KLM Group
- **Matteo Perondi,** chief procurement officer, Bulgari
- **Radharaman Jha,** vice president of supply chain, Flaconi

The report was produced by a team of Economist Impact researchers, including:

- **John Ferguson,** project director
- **Oliver Sawbridge,** project manager
- **Eddie Milev,** analyst

Executive summary

1

AI adoption is patchy but progressing, with structured tasks leading the way

Three in ten firms now qualify as AI enthusiasts, deploying the technology in at least five supply-chain functions with an effectiveness rating above 75%. Planning and forecasting are among the best-rated applications, yet adoption is comparatively low in these areas, likely due to integration challenges. AI performs best when rules are clear and data standardised, but only four in ten firms say they have aligned AI with existing platforms. Procurement tasks, with their structured workflows, remain the most widely adopted, showing that AI's reach is shaped less by its potential and more by organisational readiness.

2

AI agents are bound to transform procurement and supply-chain operations—but firms are still exploring where agents add the most value

Only one in ten firms have fully integrated AI agents across operations, but interest is growing. About 40% of companies are already using agentic AI in some cross-functional capacity, and another third are experimenting with isolated use cases like inventory or route optimisation. Adoption is highest for tasks with clear logic, such as supplier onboarding and performance monitoring. Yet nearly half of firms see potential for AI agents to negotiate contracts or manage procurement autonomously—suggesting that while few have yet taken the leap, many are preparing to.

3

Firms struggle to measure AI's ROI, risking underinvestment in high-impact areas

Six in ten firms say they find it hard to quantify the operational benefits of AI—such as reduced downtime or faster decision-making—and just as many say the intangible gains, like risk avoidance, are even harder to track. This uncertainty is holding back investment: more than half of firms cite unclear returns or high implementation costs as barriers to adoption. Yet some of the most effective uses of AI, from scenario modelling to early supplier risk detection, deliver value precisely by preventing problems that never appear on a balance sheet. Without better metrics, firms may underinvest in the very applications that offer the greatest long-term resilience.

4

AI is reshaping procurement roles, but firms offer reassurance over reskilling

Half of firms have surveyed staff about AI, and 45% have launched reskilling initiatives—but few are doing so at scale. Most firms prefer hybrid models: four in ten favour combining automation with human oversight, and another three in ten want to use AI to strengthen collaboration across partners. Only a fifth support fully automated procurement. Without greater investment in training and job redesign, however, companies risk creating a growing gap between AI's capabilities and their workforce's readiness to use them.

5

Siloed data and decision-making are limiting the strategic gains of AI

Around a third of firms use AI only in isolated functions, while a similar share cite external data-sharing concerns. Internally, rigid departmental structures could hinder AI's ability to deliver end-to-end visibility. Externally, reluctance to share sensitive commercial data could limit collaboration. Such silos—within firms and across supply chains—are holding AI back from its full potential as a coordination tool. Without better alignment, AI will optimise local processes but fail to improve system-wide performance.

6

AI is boosting efficiency, but trust and transparency will define its success in supplier relationships

Almost half of firms believe AI will reduce errors and improve complexity management in procurement. But the same proportion worry about algorithmic bias, supplier distrust and over-reliance on automation. Autonomous supplier selection and contract negotiation raise concerns over fairness, especially when procurement has long relied on informal judgement. Some firms are addressing this with audit trails and human-in-the-loop reviews. As AI increasingly mediates supply-chain relationships, trust may come not from personal rapport—but from clarity in how machines decide.

On a recent morning, a procurement manager at PepsiCo checked her dashboard to find that newly hired logistics coordinators and warehouse staff had already been granted access to the firm's databases and tools overnight.[1] An autonomous system powered by generative artificial intelligence (an AI agent, in short) had verified credentials and activated permissions, allowing them to start work immediately. A year ago, the process needed about 10 employees, and newjoiners often arrived unable to access scheduling systems or inventory databases.

A growing number of such examples illustrate a broader point: generative AI is fast emerging as a co-worker in procurement departments and supply-chain teams. Far from the warehouse robots and factory-floor automation that have been around for years, this wave of AI, powered by content-creating models similar to those behind ChatGPT, can now significantly optimise supply-chain planning and procurement operations, and, with the right pre-programming, perform them autonomously.

Yet, for all the advances of AI, firms remain divided in their aim for and approach to the technology. Many see an opportunity to eliminate inefficiencies, some seek to improve forecasting and the most ambitious are striving for fully-automated supply chains. Challenges and caution abound. Some are struggling to integrate even simpler generative AI, whereas others are worried about the role of trust in an automated world, while testing the limits in judgment-heavy tasks. As a result, adoption of AI, agentic or not, has been fragmented. But the broader case is clear: firms are not debating whether to use AI, but how much control to give it.

As they mull over the role of AI in their operations, the tech is reshaping the roles of procurement and supply-chain professionals, as well as the partnerships between firms. Buyers are increasingly using AI to evaluate suppliers, negotiate contracts and manage risk—tasks that once relied on human intuition. At the same time, supplier selection and logistics coordination are becoming more automated, shifting procurement from a relationship-driven function to one where AI agents interact across firms, raising questions about transparency, adaptability and control.

Getting this transition wrong comes with risks. If automation introduces bias into sourcing, undermines flexibility or erodes supplier trust, firms could find themselves with faster systems but weaker partnerships—precisely when agility matters most. The danger is not that AI fails, but that it succeeds on the wrong terms.

Missteps now, as firms increasingly integrate AI, could lock them into brittle supply-chain strategies with long-term shortcomings. This makes our report timely. It examines how AI is transforming procurement and supply chains, mapping where firms are investing, where they are holding back—and why. It explores the uneven adoption of AI, the rise of autonomous agents and the impact on supplier relationships. It finds that despite the clear potential of AI, the challenge of using the tech is not just implementation but ensuring that it strengthens long-term resilience and trust, rather than eroding them.

[1] https://consumergoods.com/tapestry-and-pepsico-talk-agentic-ai-and-enterprise-automations

The state of AI in supply chains: hype, reality and uneven adoption

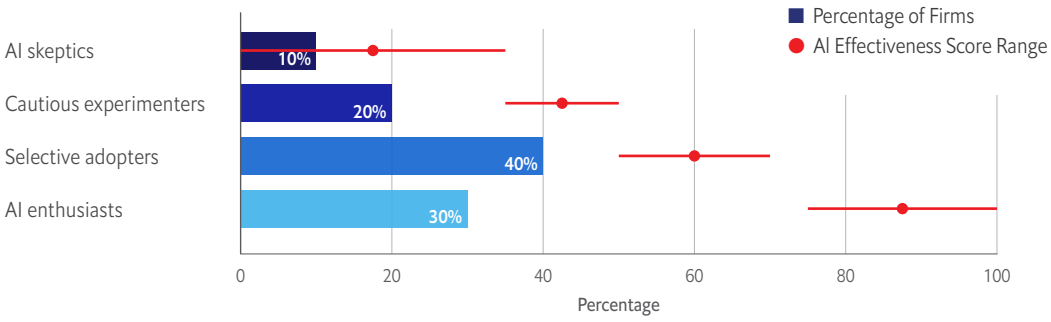
Enthusiasm for AI in procurement and supply-chain management has surged in the past two years. Generative AI has dominated headlines for its ability to produce human-like content and reasoning, but its work in the back office has not been less impressive. With AI tools performing an increasing number of procurement and supply-chain tasks, the question in 2025 is not whether firms are using AI, but how they are using it—and with what results.

To answer this, we surveyed American and European executives about how their firms use AI.[2] Based on the results, we devised four categories of distinct maturity levels, considering the breadth of firms' AI adoption and their confidence in its effectiveness. The results reveal that roughly three in ten firms qualify as *AI enthusiasts*, deploying the technology in five or more supply-chain functions and reporting an average effectiveness rating of at least 75% (see chart 1). A larger group—of around four in ten firms—are *selective adopters*, using AI across multiple areas but remaining circumspect about its value. This group finds the technology effective between half and two-thirds of the time.

About a fifth of firms fall into the *cautious experimenters* category, using AI in just one or two functions and reporting much lower confidence in its effectiveness (it works well roughly half the time, they say). Finally, one in ten firms are *AI skeptics*, having either implemented AI in just one category or avoided it altogether. They rate AI's effectiveness at barely a third of use cases, suggesting they have yet to be convinced that AI is worthwhile.

Chart 1: Artificial intelligence, genuine adoption

Breadth of AI use and levels of AI effectiveness, in four categories



[2] The survey drew on senior executives in Europe and America, including chief supply-chain, procurement, information and financial officers, as well as leaders in finance, technology, strategy and supply-chain operations

"Planning, especially of demand, is not a unifactor—it's a multifactor, almost a polynomial problem influenced by competition, pricing, weather and much more."

Radharaman Jha, vice president of supply chain, Flaconi

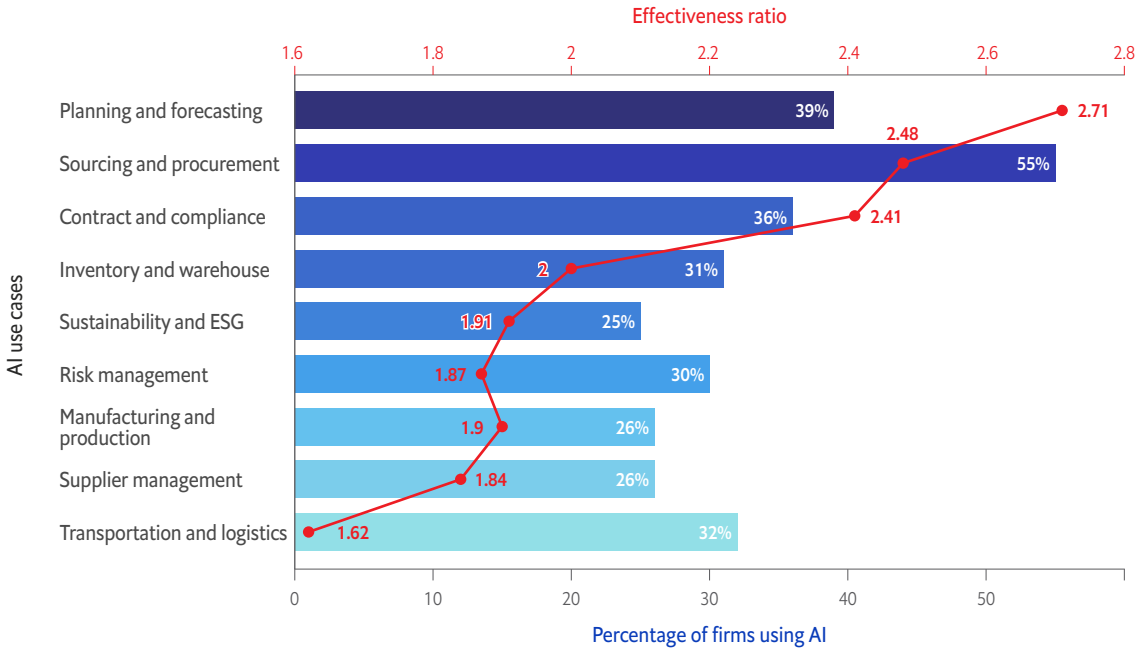
Where AI works

Even if it sparks much enthusiasm, AI's use and effectiveness in procurement and supply-chain tasks is not uniform. The technology works best when rules are clear, processes are repetitive and decisions follow predetermined logic. But not all procurement and supply-chain operations are neatly structured. To understand where AI works and where it does not, we developed an AI effectiveness ratio—a measure of how much more often AI is rated as useful rather than neutral or ineffective.[3] A high ratio means AI is widely trusted across firms, while a lower one suggests that its value is more uncertain or dependent on whether firms have prioritised digitalisation and standardised their data-heavy processes (see chart 2).

The strongest confidence in AI lies in planning and forecasting, where firms are nearly three times more likely to rate AI as useful than ineffective (see chart 2). Among companies that use AI in this area, a third rate it as highly effective (5 out of 5), while nearly half consider it effective enough (4 out of 5). Despite this high level of efficacy, only one in four firms have actually deployed AI for planning and forecasting. In some cases, this is because the many factors that go into planning make training AI to do it well harder. As Radharaman Jha, vice president of supply chain for Flaconi, a German retailer for beauty products, puts it: "Planning, especially of demand, is not a unifactor—it's a multifactor, almost a polynomial problem influenced by competition, pricing, weather and much more." But getting AI right for the task "would add a lot of value," adds Mr Jha, as "demand planning is the supply-chain area that drives everything else".

Chart 2: AI at work, but is it working?

Adoption and effectiveness of AI across tasks



[3] The ratio is based on responses from our survey. Respondents rated AI effectiveness on a scale from 1 (not effective at all) to 5 (highly effective). The effectiveness ratio is calculated by dividing the proportion of positive responses (ratings 4 and 5) by the proportion of neutral or negative responses (ratings 1 to 3).

"It's about taking data, turning it into useful information and allowing the human being to take proper decisions, but the human part in this case remains indispensable, because, if planning fails, execution fails too."

Douglas Kent, executive vice president, Association for Supply Chain Management

Another part of this hesitation stems from concerns over integration. More than four in ten firms report difficulty aligning AI with existing procurement platforms and supply-chain management systems. A similar share cite ethical concerns, particularly in areas where AI is involved in supplier selection or resource allocation. The fear is that automation could lead to procurement choices that prioritise efficiency over long-term business relationships or supplier responsibility (see briefing paper two). A similar share of firms worry that over-reliance on AI could weaken human oversight.

Another part of this hesitation stems from concerns over integration. More than four in ten firms report difficulty aligning AI with existing procurement platforms and supply-chain management systems. A similar share cite ethical concerns, particularly in areas where AI is involved in supplier selection or resource allocation. The fear is that automation could lead to procurement choices that prioritise efficiency over long-term business relationships or supplier responsibility (see briefing paper two). A similar share of firms worry that over-reliance on AI could weaken human oversight.

Quick in planning, slower in motion

Among the planning uses, AI's strengths lie in optimising resource allocation and scenario modeling. In fact, four in five firms rate modelling alternative supply-chain scenarios as effective or highly effective—a functionality which allows firms to simulate supply-chain disruptions and develop contingency plans. This could reflect an inherent strength of AI in pattern recognition and probabilistic forecasting—or could be a recognition of the shortcomings of more ad hoc, human-led methods that AI could help in or replace. The general use of AI, however, is clear: "It's about taking data, turning it into useful information and allowing the human being to take proper decisions," says Douglas Kent, executive vice president at the Association for Supply Chain Management. But the human part in this case remains indispensable, because, as Mr Kent adds, "if planning fails, execution fails too."

Consider the case of Walmart. The American retailer uses AI to forecast the impact of extreme weather on crop yields and adjust sourcing plans accordingly.[4] When heatwaves threatened lettuce supplies in California, it secured alternatives elsewhere, avoiding shortages and price swings.[5] A planning use besides scenario forecasting is AI-driven resource allocation, which a quarter of firms rate as highly effective and half rate as effective, helps firms manage costs by optimizing how materials and labour are distributed across different operations.

Procurement is another area where AI has been widely embraced. It is the most commonly adopted AI function, used by more than half of firms, and is two and a half times more likely to be rated useful than not (see chart 2). AI is particularly well suited to automating supplier selection and purchase order approvals, where it can replace manual comparisons and approvals with real-time data processing. Among firms that use AI for these tasks, more than three-quarters find it effective or highly effective. AI in supplier selection can rank vendors based on past performance, pricing trends and delivery reliability, helping procurement teams make faster and more informed choices. But the quality and source of the AI's data will matter a lot.

[4] https://www.newfoodmagazine.com/news/248605/walmart-partners-with-helios-ai-to-climate-proof-global-agri-food-supply-chains/
[5] https://www.newfoodmagazine.com/news/248605/walmart-partners-with-helios-ai-to-climate-proof-global-agri-food-supply-chains/

Similarly, in purchase order management, AI speeds up approval processes by automatically verifying contract terms, flagging discrepancies and ensuring compliance with company policies. The high adoption rate in procurement reflects the fact that these functions can be among the easiest to automate. Unless there are disruptions, procurement workflows are structured, with well-defined rules rather than human intuition or subjective decision-making.

However, AI's value declines as the need for flexibility and human judgment increases. In inventory and warehouse management, firms still rate AI as twice as likely to be useful than ineffective (see chart 2). But adoption is much lower. Around three in ten firms use AI here. This reflects the greater complexity of these environments, which depend on variable factors such as supplier delays, shifting patterns and physical storage constraints. These make it harder to apply the kind of structured, rules-based logic that Ai handles best. Even so, stock replenishment is one of AI's highest-rated applications, with four in five firms finding it effective or highly effective.

At the bottom of the list is transportation and logistics, where AI adoption is at one in three firms, but effectiveness scores are the lowest (see chart 2). AI is used for route optimisation, transport cost management and improving delivery tracking, but it is only one and a half times more likely to be useful than ineffective. Several factors may explain this modest level of effectiveness. Transport operations depend on many external variables—traffic, weather, customs delays—that can complicate forecasting, even when models are well trained. Data quality is another constraint: for some firms, sensors and tracking systems yield patchy or inconsistent inputs, reducing the reliability of AI. This is also a crowded space: transportation and logistics is the fourth most common application for AI, meaning marginal gains for individual firms may be limited.

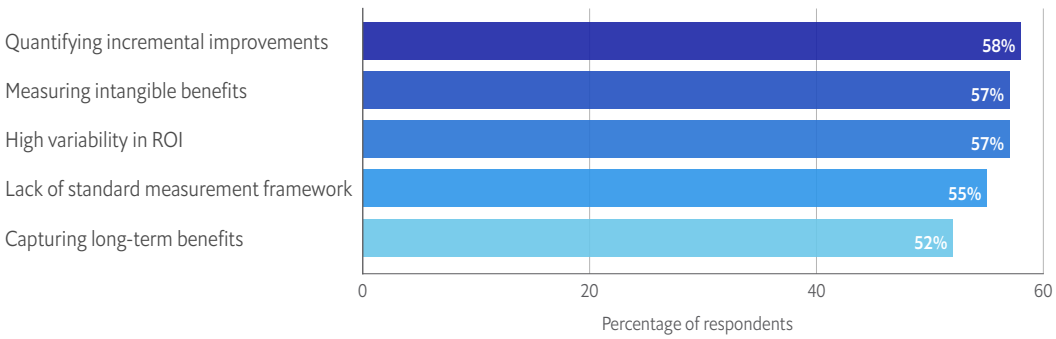
The challenge of measuring nothing

Many firms can see that AI is useful, yet they are far less certain about how to measure its impact. The problem is not just in identifying which AI investments generate returns, but in defining what 'returns' of using the tech means.

About six in ten firms say they have difficulty quantifying incremental improvements, such as reduced downtime or operational efficiencies (see chart 3). A similar proportion say that the intangible benefits—such as risk avoidance and enhanced decision-making—are even harder to measure. The challenge is not unfounded. When AI prevents a supply-chain disruption, the value is real but invisible: a crisis that never happened does not show up in a balance sheet.

Chart 3: The cost of intelligence

The biggest hurdles firms face in assessing whether AI delivers real value



Consider the AI use of Unilever, a consumer goods giant, which wields generative models to identify alternative suppliers before a crisis hits, scraping data from sources as varied as patent filings and customs records.[6] When a key supplier suddenly became unavailable, the system worked as intended: Unilever's procurement managers pivoted early enough, avoiding major disruption. But putting a number on how much was saved through this success remains elusive.

This might explain why more than half of firms cite implementation costs or an unclear ROI as their biggest barrier to AI adoption. Even if AI is making supply chains more efficient, firms remain hesitant to invest without a clear, measurable return. But this hesitancy may be shortsighted, suggests Mr Jha from Flaconi, a German retailer for beauty products. "Initially, the marginal return from AI will be very low," he says, "but like the earlier digital transformation—now taken for granted—the benefits accumulate over time, especially when aimed at high-impact problems."

[6] https://hbr.org/2023/11/how-global-companies-use-ai-to-prevent-supply-chain-disruptions

May (A)I help you?

As the supply-chain manager at PepsiCo found out, AI is not just about processing vast datasets and optimising existing procurement and supply-chin processes. It is also about automation and decision-making. For decades, automation in supply chains was concentrated in manufacturing plants and warehouses. Conveyor belts, industrial robots and automated storage systems have transformed physical operations, but procurement and other supply-chain tasks, like risk-management, have remained stubbornly human-centred. They required the sort of judgment that was difficult to codify into algorithms. With AI-powered agents, this is now changing.

The promise of these autonomous machines is tantalizing: free human workers from mundane tasks so they can focus more on strategic areas, while a machine handles transactions and makes routine decisions. Just as robots on the factory floor boosted output and lowered costs, AI agents could now do the same for supply chains by automating judgment-heavy work. One study estimates that nearly 90% of the decline in American factory jobs between 2000 and 2010 was due to automation.[7] Yet over the same period, manufacturing output rose by 15.7% to $1.79tr.[8] The trend has continued: by 2021, output had reached $2.5tr. AI agents may now trigger a similar shift in white-collar supply-chain roles. Tasks that once took weeks—reconciling data formats, evaluating sourcing options or adjusting plans to shifting demand—can now happen in hours. If implemented correctly, the result is not just faster decisions, but smarter ones.

Yet even as bolder companies are embracing these agents with optimism, the impact of AI-powered autonomous systems remains uneven and where the tech will have the greatest value is still hard to tell.

According to our survey, only about one in ten of firms have fully integrated AI agents across cross-functional operations (see chart 5). A larger share—roughly four in ten—employ some type of autonomous AI in a limited, cross-functional role, and about three in ten use an AI that works in the background for isolated functions, such as inventory management or route optimization. Put simply, a minority of firms are taking bold steps, but most are still cautiously exploring this new technology. That caution is understandable. As one executive at a global consumer-goods firm put it, “There’s always resistance to new technology—especially when it isn’t invented in-house. Trust must be earned, and the only way to win people over is to show, not tell. You can’t ask them to take a leap of faith. You have to prove the machine performs better.”

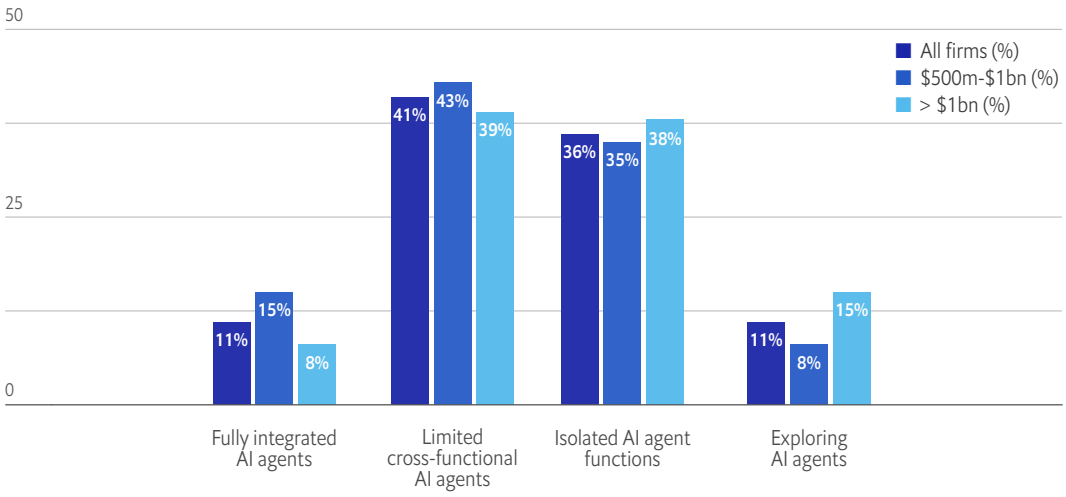
[7] https://www.economist.com/graphic-detail/2025/04/25/did-international-trade-really-kill-american-manufacturing
[8] https://www.macrotrends.net/global-metrics/countries/USA/united-states/manufacturing-output

When the data are disaggregated by firm size, a distinct pattern emerges: firms with revenues between $500m and $1bn report a full integration rate of 15%, about double the rate of firms with revenues exceeding $1 bn, where just 8% say they have fully deployed AI agents. One explanation, says a supply-chain expert from a fast-moving consumer goods multinational, might be that small- that mid-sized firms, often unburdened by rigid legacy systems and bureaucratic inertia, are more agile in adopting fundamentally new technologies, like AI agents. Larger firms, the professional adds, "have to be more cautious", limiting AI adoption to specific functions or to a fenced part of their operations.

Some of that caution, however, can be overcome with the right implementation strategy. According to one supply-chain expert, firms that succeed in deploying agentic AI systems tend to follow a four-step approach. First, they secure executive-level support—often by pointing to returns on other AI investments—to ensure long-term commitment. Second, they encourage rapid experimentation, inviting teams to test where autonomous agents might enhance efficiency. Third, they weigh how to develop their AI capabilities, internally or to work with partners—a decision that depends as much on available talent as it does on appetite for speed. And finally, they restructure roles around AI, assigning human workers to the areas that require oversight, creativity or empathy, while letting agents handle the rest. Smaller, more nimble firms may be better positioned to carry out such a transformation, but the logic applies broadly. The barriers are cultural and strategic, not just technical.

Chart 4: Understaffed agents

Adoption of AI agents in procurement and supply-chain operations



"Think big about AI, but start small and accelerate fast."

Jurriaan Lombaers, former chief procurement officer at Air France KLM Group

Use of AI agents

Firms see a future in which AI agents play a larger role in their procurement and supply-chain functions, but the boundaries of their responsibilities remain undetermined. Agents are being introduced in increments, with executives still pondering which tasks should be entrusted to AI, and which still require human judgment. But one thing is clear: there is a broad willingness to experiment with AI agents across multiple tasks. This pragmatic yet ambitious approach aligns with the advice of Jurriaan Lombaers, former chief procurement officer at Air France KLM Group, on adopting the technology: "Think big about AI, but start small and accelerate fast."

Confidence is strongest where AI agents can handle structured, rules-based processes.

Around six in ten firms anticipate using AI agents for supplier onboarding and query management, where automation can process documentation, verify compliance and manage vendor interactions (see chart 5). A similar proportion expect AI to monitor supplier performance and compliance, ensuring contract obligations are met without continuous human oversight.

Beyond compliance, AI's role in direct procurement decisions is more complex. Nearly half of firms believe AI could handle autonomous supplier negotiations, adjusting pricing, evaluating bids and managing standard contract renewals. A similar share sees value in contract lifecycle management, using AI to flag risks, spot cost-saving opportunities, and track deadlines. These differences suggest that firms trust AI more as a monitor than a dealmaker, though the gap is not large. Ultimately, the case is not settled: some firms are hedging their bets, unsure where AI will deliver most value—others are casting the net wide precisely because they see so much promise in the technology.

Chart 5: Agentic AI's to-do list

How firms are using or considering AI agents for various tasks

"The most prolific use we're seeing is in demand accuracy—where AI weighs variables like tariffs, weather, GDP, and translates them into better forecasts."

Douglas Kent, executive vice president, Association for Supply Chain Management

One of the most contested areas is real-time demand forecasting, which half of firms are either using or considering. At Flaconi, a German beauty retailer, supply-chain managers are testing AI agents to predict demand more accurately. The challenge is that beauty sales are volatile, swayed not just by seasonality but by sudden social media-driven spikes. Flaconi's AI is learning to detect such triggers—whether a celebrity promoting sunscreen or a viral fragrance trend on TikTok—but it remains a work in progress. "AI can help spot patterns we'd miss," says Mr Jha, the firm's supply-chain head. "But for now, it still needs human oversight." Mr Kent from the Association for Supply Chain Management agrees that such use cases are especially provident: "The most prolific use we're seeing is in demand accuracy—where AI weighs variables like tariffs, weather, GDP, and translates them into better forecasts."

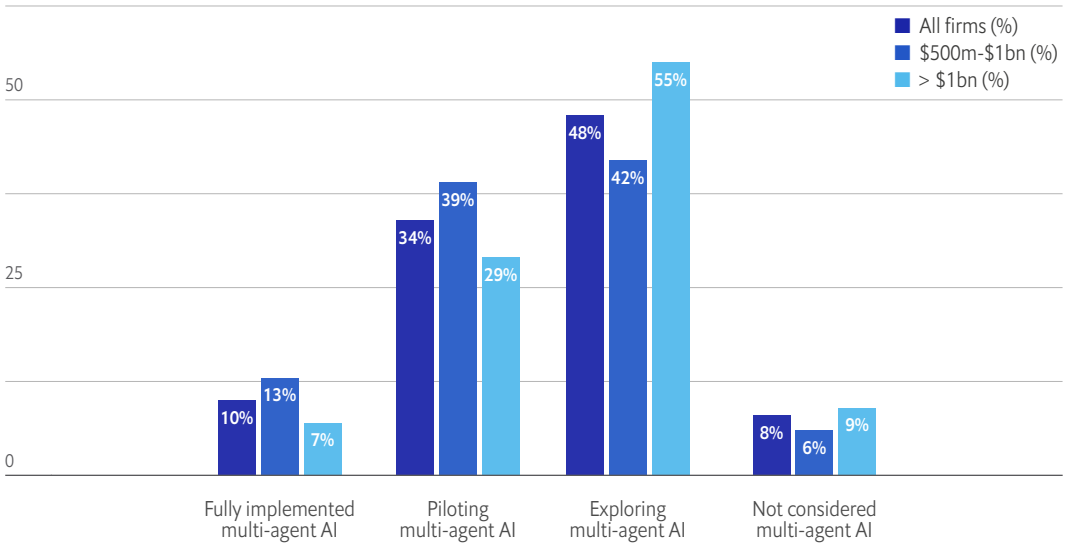
Beyond the lone agent

If AI agents in procurement and supply chains remain bold, their next evolution—multi-agent AI systems—are a further step away. The idea of multi-agent AI systems, however, is simple: deploy teams of AI models, each specialising in a different aspect of procurement, to coordinate and refine each other's decisions, much like human teams do today.

For now, multi-agent AI systems are only for the most advanced firms. Only one in ten firms report having implemented them at all, while another third are running pilot projects (see chart 5). Yet there is promise for more widespread adoption. Nearly half of firms are exploring the benefits of the technology. The remaining 8% have dismissed the idea entirely. Among those who see potential, the barriers are clear: nearly half of firms cite complexity as the biggest challenge, followed by concerns over cost, uncertain returns and a lack of expertise (see chart 7).

Chart 6: AI teamwork, one day

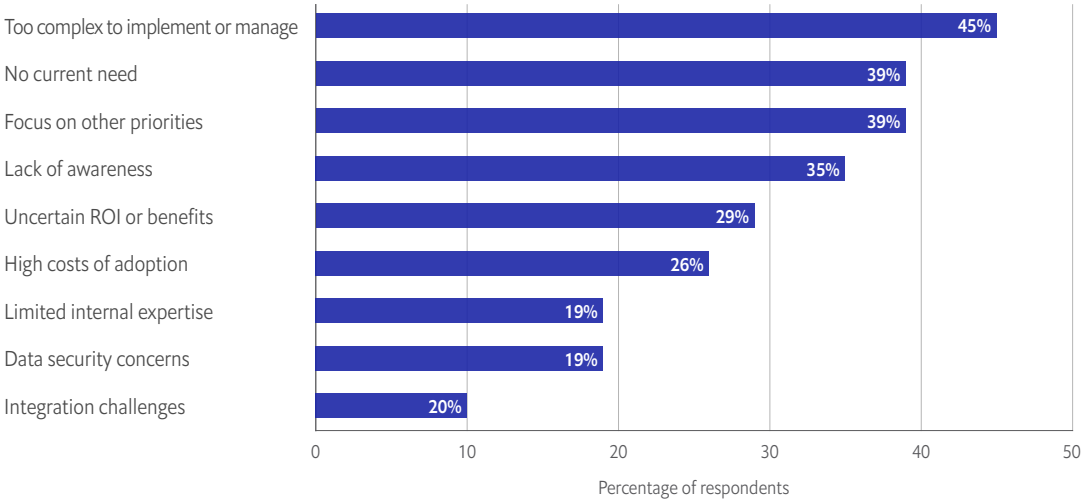
Adoption of multi-agent AI systems in procurement and supply-chain operations



The appeal, however, is undeniable. A multi-agent procurement system could allow one AI to analyse supplier bids, another to evaluate compliance risks, and a third to model logistics constraints—all working in parallel. Instead of procurement being a series of disconnected steps, AI could enable real-time decision-making, compressing weeks of back-and-forth negotiations into a single automated exchange.

Chart 7: Too many agents, not enough bandwidth

Challenges with adopting multi-agent AI systems



Reskilling, not replacing

"Talent is our number one asset. Investing in upskilling is not optional if we expect AI to truly make a difference."

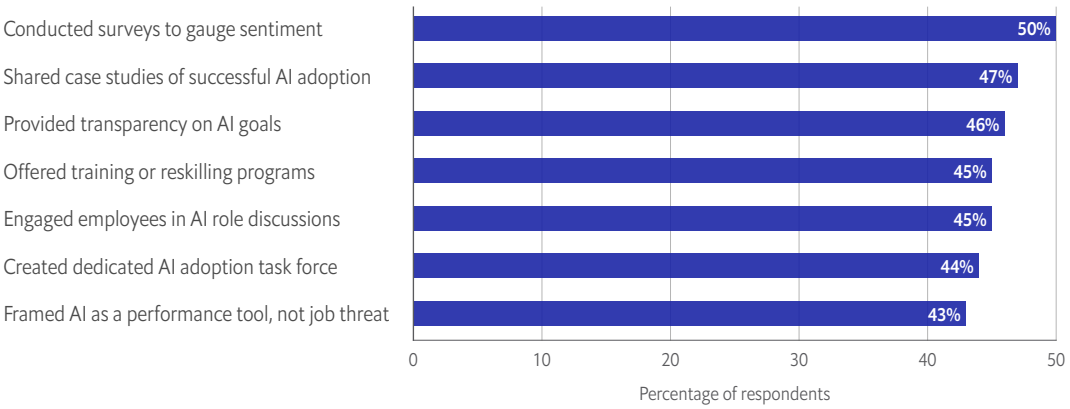
Abe Eshkenazi, chief executive, Association for Supply Chain Management

Every technological shift in business eventually comes down to a human story: how it reshapes jobs and the skills needed to perform them. AI in procurement and supply chains is no exception. Instead, the impact will likely be subtle: procurement and supply-chain roles are evolving, some tasks are being automated, and workers must adapt to AI as a tool, rather than resist it as a threat. The transition will not be frictionless. But to ease it, firms should invest in training and restructure workflows. Abe Eshkenazi, chief executive of the Association for Supply Chain Management also sees it this way, "Talent is our number one asset," he says, adding that " investing in upskilling is not optional if we expect AI to truly make a difference."

According to our survey, many firms are taking steps already. Half of all firms say they have conducted internal surveys to understand employee concerns and adjust their AI strategies accordingly (see chart 7). Nearly as many—45%—have launched reskilling programs, ensuring procurement teams are equipped to work alongside AI rather than be displaced by it. But reassurance still dominates: firms seem more inclined to allay fears than to invest in skills—risking a growing gap between AI adoption and workforce readiness.

Chart 8: How not to be concerned

Steps firms are taking to address employee concerns about AI adoption



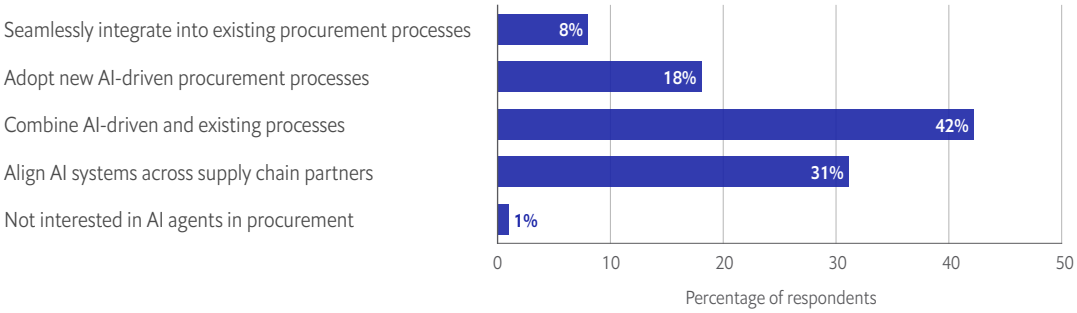
The shifts are evident in procurement training. Some firms have established internal 'AI academies,' teaching employees to work with automated tools much as previous generations learned to navigate enterprise resource planning (ERP) systems and spreadsheets. For example, Amazon, through its Upskilling 2025 initiative, has committed $700 million to training employees—including procurement and logistics staff—in higher-tech skills. The emphasis is clear: firms that invest in AI must also invest in their people, or risk losing the talent that makes procurement more than just a numbers game.

Upskilling for procurement and supply-chain workers aligns with most firms' vision of how AI should be integrated into everyday tasks. According to our survey, no more than one in five firms support moving to entirely AI-driven procurement workflows (see chart 8). Instead, most firms favour a hybrid model, where AI enhances existing processes rather than replaces them. More than four in ten firms prefer a blended approach, combining AI-driven automation with human oversight. Another three in ten favour AI integration that strengthens collaboration across supply chain partners, suggesting that AI's biggest advantage may lie in improving coordination rather than making independent procurement decisions.

This human-in-the-loop design is especially well-suited to AI agents, whose value depends not only on speed but on trusted judgement and decision-making quality. In contexts where full autonomy may still feel premature, AI agents may be used through guided automation: surfacing options, evaluating risks and drafting decisions—while leaving final calls to experienced staff.

Chart 9: Co-pilot, not autopilot

Adoption of AI agents in procurement and supply-chain operations



Some firms have already embraced this hybrid AI-human model. BMW, for instance, restructured its supply chain planning department after introducing AI-driven procurement tools.[9] Rather than eliminating roles, the company redefined planners' responsibilities, training them in scenario planning and risk assessment—areas where human intuition remains critical. Planners now spend less time on manual data entry and more time investigating supplier disruptions, assessing AI-generated recommendations, and responding to unexpected changes in supply chains. The company found that, far from making procurement teams redundant, AI made their work more strategic and engaging. "The job is more interesting now," said one BMW planner. "I'm not just crunching numbers—I'm interpreting what the AI finds and making decisions."

Yet one obstacle remains: silos. Both within firms and across supply chain partners, siloed decision-making continues to limit the broader impact of AI. About four in ten firms say they use AI only for isolated tasks, rather than embedding it across workflows. The challenge is compounded by a reluctance to share data externally—half the businesses we surveyed cite concerns about data security or the sensitivity of commercial information (see chart 10). As Matteo Perondi, chief procurement officer at Bulgari, points out, "And then there's another big topic—data privacy and cybersecurity—which makes many companies reluctant to open AI to the entire organisation." In other words, silos are not always vestiges of organisational inertia—for some, they emerge as part of deliberate firewalls amid uncertainty of how to handle data in an AI age.

One workaround could be AI agents. Designed to interact with each other without requiring direct access to underlying datasets, agents could collaborate across organisational boundaries while handling data appropriately. (Although this opens quality assurance and decision-making risks, as discussed above). In any case, fragmentation of AI adoption will limit its ability to generate end-to-end visibility and insights. Procurement thrives on coordination, but without greater alignment—within teams, across departments and between firms—AI will struggle to deliver on its full potential.

[9] https://aws.amazon.com/blogs/industries/revamping-procurement-operations-with-generative-ai/

A new king of partnerships

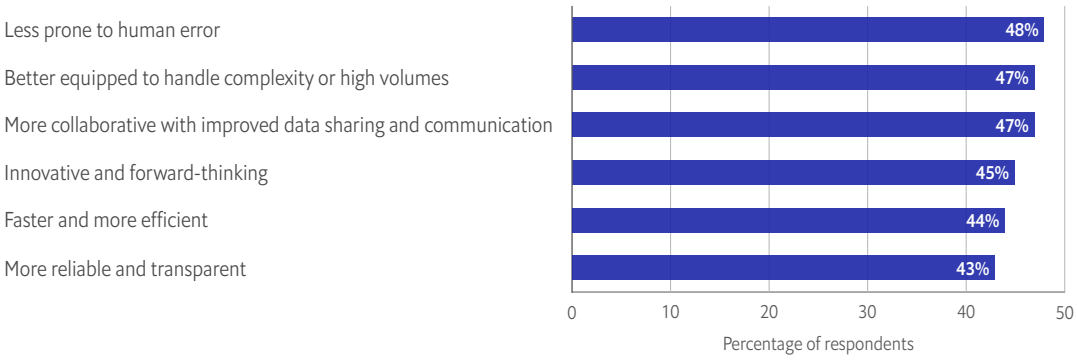
In supply chains, trust has always been personal. A procurement officer might favour a supplier not just for competitive pricing but for reliability in a crisis. A logistics partner might win business because they pick up the phone at midnight when shipments go awry. But with AI, the nature of these relationships are changing. AI-driven processes change how firms work with partners—who are doing the same.

The AI-fication of firm-to-firm partnerships presents a paradox. The use of the tech is supposed to make procurement more efficient, transparent and data-driven. Our survey finds that nearly half of firms believe AI-powered procurement teams will make fewer errors (see chart 9). A similar share thinks AI will help partners handle complexity, speed up processes and improve data-sharing across supply chains. In theory, that should make business smoother.

Yet, efficiency is not the same as trust. Our survey also shows deep reservations about AI-led procurement. Nearly half of firms worry about the ethical risks, from algorithmic bias in supplier selection to sustainability trade-offs hidden in AI-optimised contracts (see chart 10). Others cite data security risks—an AI that can instantly compare suppliers on price and performance could just as easily expose commercially sensitive contract terms. More than four in ten firms fear that AI-driven

Chart 10: Partners with processors

How firms perceive procurement and supply-chain partners using AI agents



procurement teams will become overly reliant on automation, losing the flexibility that human relationships provide in a crisis.

In both cases, however, firms rate AI's benefits—efficiency, accuracy, collaboration—at nearly identical levels to its perceived risks—security, ethics, flexibility. This suggests uncertainty rather than conviction, with businesses still working out where AI will prove most useful, and where it might cause trouble. That ambiguity need not last. Trust in AI, like trust in people, can be earned through consistency and transparency. Some firms are already moving in that direction: by auditing AI recommendations, introducing human-in-the-loop protocols, and giving suppliers visibility into how decisions are made, they are beginning to demystify the black box. In time, trust may emerge not despite AI, but because of it—if firms can prove that the machines make decisions that are not just fast, but fair.

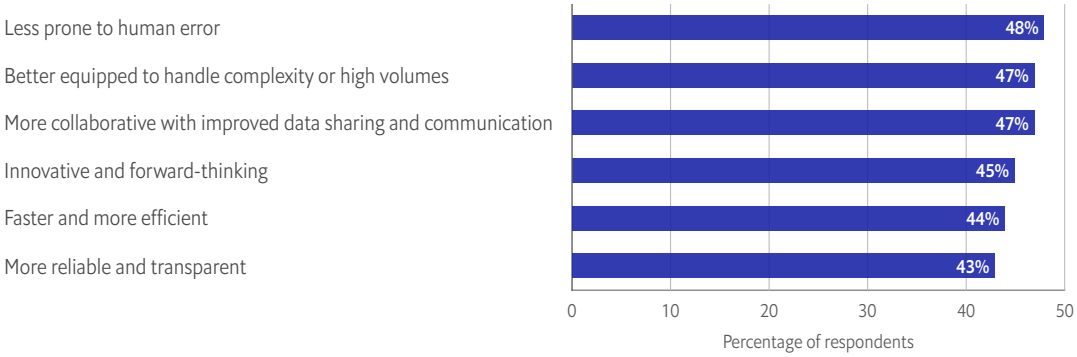
The risk of automated rigidity

This hesitation of companies might reflect a deeper concern: AI is not built to handle ambiguity. Procurement is rarely a clean, rules-based process. It requires negotiation, judgment and the ability to handle exceptions.

Take supplier selection. An AI-powered system might flag a manufacturer as the most cost-effective choice, ranking it based on historical pricing, delivery speeds and other quantifyable metrics. But a human buyer—attuned to industry chatter or subtle shifts in tone—might know that this supplier tends to overpromise during contract talks or struggles with last-minute adjustments. AI, for all its speed and data-mightiness, has no instinct for the unsaid. Yet, AI models trained on procurement and supply-chain data may improve tasks such as supplier risk assessment and regulatory compliance.

Chart 11: The trouble with thinking machines

Concerns firms associate with supply-chain partners using AI agents



Conclusion

Artificial Intelligence tools and agents are increasingly useful to supply-chain managers—not because they are that clever, but because much of procurement is dull. Many of the tasks are underpinned by clean data and clear rules, making them easy to hand over to AI agents. But the future of procurement and supply chains is not full autonomy. For many tasks firms are rightly opting for human-machine hybrids, in which AI handles the routine and people deal with what is more complex, includes sensitive data and might prove an important decision. The risk is not that machines will take too much control, but that companies will stop short of the hard organisational changes needed to make AI useful, from digitalisation and data privacy to AI investment decisions.

ECONOMIST IMPACT

LONDON

The Adelphi
1-11 John Adam Street
London WC2N 6HT
United Kingdom
Tel: (44) 20 7830 7000
Email: london@economist.com

GENEVA

Rue de l'Athénée 32
1206 Geneva
Switzerland
Tel: (41) 22 566 2470
Fax: (41) 22 346 93 47
Email: geneva@economist.com

SÃO PAULO

Rua Joaquim Floriano,
1052, Conjunto 81
Itaim Bibi, São Paulo - SP
04534-004
Brasil
Tel: +5511 3073-1186
Email: americas@economist.com

NEW YORK

900 Third Avenue
16th floor
New York, NY 10022
United States
Tel: (1.212) 554 0600
Fax: (1.212) 586 1181/2
Email: americas@economist.com

DUBAI

Office 1301a
Aurora Tower
Dubai Media City
Dubai
Tel: (971) 4 433 4202
Fax: (971) 4 438 0224
Email: dubai@economist.com

HONG KONG

1301
12 Taikoo Wan Road
Taikoo Shing
Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
Email: asia@economist.com

SINGAPORE

8 Cross Street
#23-01 Manulife Tower
Singapore
048424
Tel: (65) 6534 5177
Fax: (65) 6534 5077
Email: asia@economist.com