

THE AGENTIC AI PLAYBOOK FOR PROCUREMENT PROS

How to Move from Hype to Action and Results



AI is Moving Fast, And So Must Procurement

The last three years have redrawn the boundaries of what's possible in procurement. Generative AI came first, showing that machines could now write, summarize and converse in ways that felt natural. But the value was narrow. Writing supplier emails faster didn't make the sourcing cycle shorter.

Then came AI agents. These tools promised task-level automation. An agent could complete an RFQ, update a supplier record or respond to routine queries. Helpful, yes. But still reactive — dependent on instructions, limited in scope and easily derailed by exceptions.

“90% of CPO survey respondents say they have considered or are considering using AI agents to optimize their procurement operations in the next 6 to 12 months.”¹

What we're seeing now is qualitatively different.

Agentic AI systems don't just wait for tasks. They interpret goals, build plans, weigh trade-offs, and then act. They can understand a category strategy, detect when it's no longer working, and recommend a shift, with supporting data.

Unlike earlier tools, these systems don't just complete tasks. They orchestrate decisions across systems and teams, working toward defined outcomes with minimal handholding. This is not just another evolution in AI capabilities. It's a shift in how enterprise systems operate.

What Changed?

Three fundamental developments enabled this shift, with each one accelerating the next.

1 Foundation models became operational

While early LLMs were impressive in language generation, they were weak in enterprise reasoning. That changed as models began ingesting multimodal data — from invoices and contracts to market indices and supplier risk reports. Today's models can parse the fine print in a force majeure clause, recognize patterns in invoice anomalies or extract supplier risk from external financial data.

2 AI agents gained autonomy

Earlier agents were designed to follow workflows. They could complete predefined steps but lacked adaptability. Today's agentic systems can pursue a goal, such as “identify cost-saving opportunities in indirect categories over the next quarter,” and work toward it by exploring data, orchestrating workflows, and engaging users only when needed.

3 Procurement's role became broader and more exposed

Procurement teams face a wide range of challenges — from tariffs and supply disruptions to ESG mandates and shifting regulations. They must navigate complexity across global markets while collaborating more closely with finance, legal and sustainability teams. Static playbooks and reactive processes are no longer enough.

Agentic AI arrives at a time when procurement needs systems that can adapt in real time and take the lead when conditions shift.

From Automation to Autonomy

Most procurement technology today still runs on fixed rules and triggers. A system detects that a purchase order (PO) exceeds \$50,000 and routes it for managerial approval. A three-bid policy kicks in automatically when sourcing a new supplier. These workflows are helpful, but they're rigid. They only handle situations they've been explicitly programmed to recognize.

Agentic AI introduces a planning layer. Instead of waiting for inputs, it defines objectives, evaluates options, and acts — with memory and feedback loops.

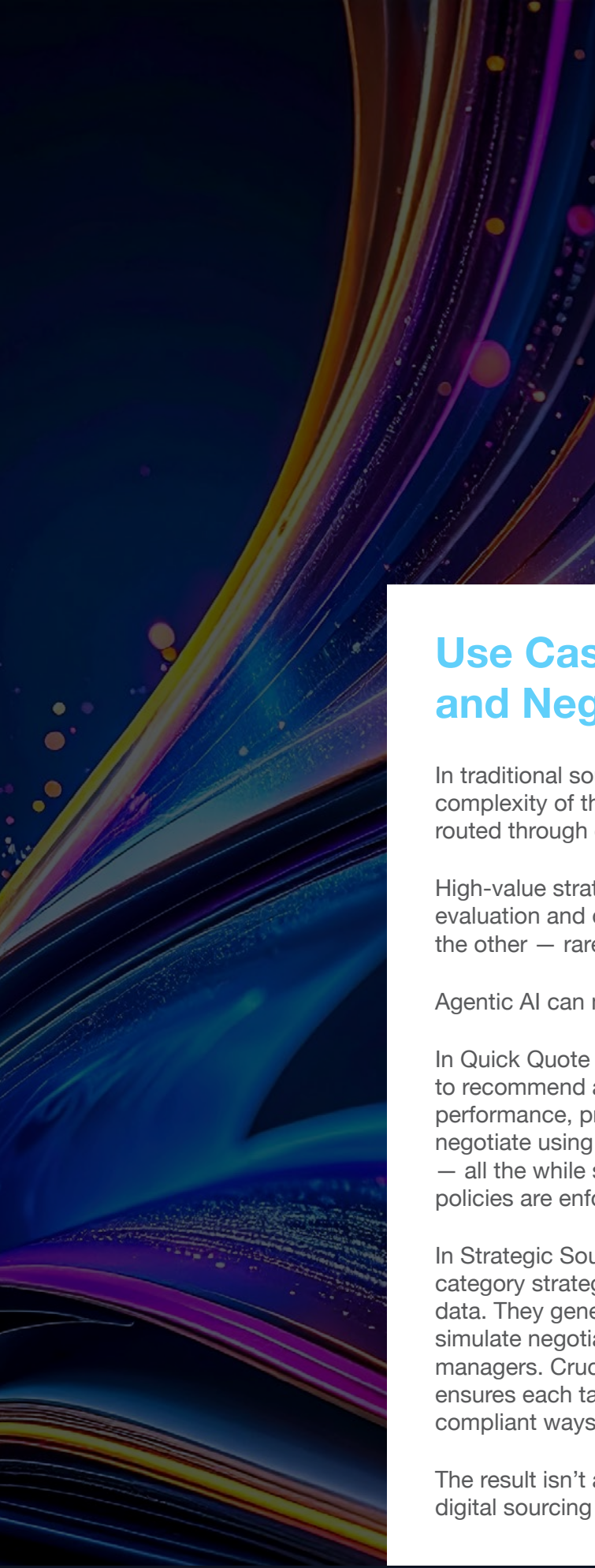


Here’s how the evolution looks across three generations of procurement systems:

Capability	Conventional Procurement Systems	AI Agents	Agentic AI
Autonomy	Fully manual or rule-based workflows	Executes when prompted	Acts on defined objectives
Planning	Step-by-step workflows coded by humans	Executes fixed sequences	Plans and adapts across multiple steps
Context Awareness	Operates in isolated systems	Uses current input and defined logic	Incorporates dynamic signals and history
Collaboration	Requires human intervention at each step	Responds to instructions	Coordinates across systems, teams and agents
Learning & Memory	No memory or learning capability	Stateless, task-based	Remembers outcomes and learns from feedback

In short, conventional systems follow a script. AI agents follow instructions. Agentic AI creates its own strategy based on your goals and your data and continuously improves it.

“70% of organizations expect **agentic AI** to disrupt business models within the next 18 months.”²



What Does This Mean for Procurement?

Agentic AI is not theoretical. In some organizations, it is already coordinating sourcing events, assessing supplier risk, and optimizing award strategies, with minimal manual involvement.

What makes it different is not just the capability to complete tasks, but the way it orchestrates decisions across systems.

Let's explore how this works in practice, using GEP's agentic AI framework as a reference.

Use Case 1: Autonomous Sourcing and Negotiation

In traditional sourcing, processes diverge depending on the value and complexity of the purchase. High-volume, low-value buys are often routed through catalogs or quick quotes.

High-value strategic sourcing requires stakeholder alignment, supplier evaluation and detailed negotiation. Most systems can handle one or the other — rarely both.

Agentic AI can manage both, contextually.

In Quick Quote Automation, agents use real-time requisition data to recommend a sourcing path. They identify suppliers based on performance, pricing, and transaction history as well as initiate bidding, negotiate using AI-driven counteroffers, and issue award decisions — all the while syncing with ERP systems and ensuring compliance policies are enforced.

In Strategic Sourcing, agents move upstream. They ingest policy rules, category strategy documents, market intelligence and sustainability data. They generate pricing scenarios, recommend supplier shortlists, simulate negotiation paths and provide decision support to category managers. Crucially, the process is coordinated by a super-agent that ensures each task flows into the next, transparently and in policy-compliant ways.

The result isn't a faster version of manual sourcing. It's an end-to-end digital sourcing layer that learns and improves over time.

“10% improvement in productivity, quality, and cost savings from AI-driven procurement tools.”³



Use Case 2: Intelligent Category Management

In most organizations, category strategy is set annually and revisited rarely. The process involves reviewing past performance, analyzing supplier concentration, and aligning with internal goals. But markets are moving faster than that now.

Agentic AI enables dynamic and intelligent category management.

These systems continuously monitor category-level data — from contract leakage and delivery lead times to price fluctuations and compliance breaches. They track supplier KPIs, monitor external indices like commodity prices and assess risk exposure. When thresholds are crossed or trends shift, the AI doesn't just raise an alert. It recommends updates to the strategy, flags underperforming suppliers, and provides options for rebalancing volume or renegotiating terms.

It even handles execution. If a strategy update is approved, the AI can adjust contract monitoring rules, change sourcing triggers or initiate renegotiations with impacted suppliers.

This is not just intelligence. It's adaptation.

Use Case 3: Real-Time Compliance and Risk

Procurement operates in a regulatory landscape that shifts faster than traditional tools can track. Certifications expire. Trade restrictions change. ESG rules evolve. And most compliance frameworks remain reactive, built around periodic audits or post-facto reviews.

Agentic AI makes compliance continuous and operational.

It integrates structured data (supplier records, contracts, invoices) with unstructured content (ESG reports, legal documents, real-time alerts) to form a live view of compliance posture. It can:

- Detect missing certifications or expired documents during supplier onboarding
- Identify contract clauses that no longer meet regulatory guidelines
- Monitor supplier diversity and carbon benchmarks in real time
- Recommend corrective actions when non-compliance risks emerge

Unlike dashboard alerts that require interpretation, agentic systems suggest what to do next — whether that's rerouting spend, requesting updated credentials or flagging terms for renegotiation. This is compliance not as a gatekeeper, but as an always-on safeguard built into the workflow.

What Makes This Possible: The Agentic AI Stack

To operate autonomously, agentic AI relies on more than just language models. It requires a purpose-built infrastructure that enables it to perceive, reason and act across enterprise systems. Here's what that stack looks like:



1. Multimodal AI Core

Procurement decisions span structured data (purchase orders, price sheets), semi-structured content (contracts, RFQs), and unstructured inputs (emails, PDFs, policies). Agentic AI processes all three: extracting context, classifying intent and triggering action.



2. Procurement-Tuned Intelligence

Generic models are insufficient. Agentic systems need to be trained on procurement-specific data — understanding clauses, payment terms, supplier types and category strategies.



3. Super-Agent Orchestration

Specialized agents handle sourcing, risk, pricing or compliance. A super-agent coordinates their activity, ensuring alignment with procurement policy and business objectives.



4. Connected Data Layer

Agentic AI draws from enterprise master data, supplier records, category strategies, contract libraries and external benchmarks. This connectivity gives it a full decision-making view, not just a slice of the process.



5. Governance and Control Framework

Every recommendation must be explainable. Every action must be logged. Agentic systems include a governance layer that ensures transparency, auditability and the ability for humans to intervene when needed.



6. Unified Source-to-Pay Platform

While it is possible to apply agentic AI across a patchwork of standalone systems, the greatest value emerges from a single, unified source-to-pay platform. With fluid data flow, real-time integration, and complete visibility across sourcing, contracting, purchasing, and invoicing, the agentic framework can operate with full context — making faster, smarter decisions without gaps or handoffs.

Without this foundation, the effectiveness and scalability of agentic systems will be limited.

What Procurement Leaders Should Focus On Now

“By 2028, 33% of enterprise software applications will include agentic AI, up from less than 1% in 2024, enabling 15% of day-to-day work decisions to be made autonomously.”⁴

Agentic AI offers a fundamentally different way to run procurement — one centered on goals, not rigid workflows. To make the shift successfully, leaders must take a step back and rethink how their teams define value, use data and engage with technology.

Here are four priorities to focus on:



1. Set goals, not just tasks

Agentic AI works best when guided by clear objectives. Define the outcomes that matter most for your business.

For example, reducing tail-spend leakage, improving supplier diversity or accelerating time-to-contract. Make sure your systems, people and metrics are aligned around these goals.



2. Identify high impact use cases

Look for categories or processes where traditional tools struggle: indirect spend, custom-engineered components or high-risk supplier portfolios. These are the areas where agentic AI can add the most value by evaluating trade-offs, adapting in real time and orchestrating actions across teams and systems.



3. Understand your data landscape

Agentic AI needs more than isolated data sets. It requires a connected view of your supplier records, contracts, category strategies, pricing benchmarks, and risk indicators. Assess the availability, accuracy and timeliness of this data across your source-to-pay ecosystem.



4. Prepare your teams to work alongside intelligent systems

Agentic AI does not replace procurement expertise, it amplifies it. But it requires a different way of working. Teams need to shift from managing transactions to guiding strategy and validating outcomes. That means building comfort with AI-generated recommendations, strengthening cross-functional collaboration and evolving roles to focus more on oversight, exception handling and value delivery.

Five Steps to Lay the Groundwork for Agentic AI

Once strategic priorities are clear, the next step is preparing your organization to operationalize them. This doesn't mean rebuilding your procurement function from scratch.

However, it does mean setting up the right conditions for agentic AI to perform at scale.

Here's what to do next:



1. Prepare systems for autonomous flow

Agentic AI needs access to the full decision context, not just one step at a time. Review how decisions move through your sourcing, contracting and supplier engagement processes. Eliminate friction where possible and ensure handoffs are seamless across tools and teams.



2. Strengthen your data infrastructure

Focus on making procurement-critical data available in real time and in a usable format. This includes supplier performance metrics, pricing data, contract terms and risk indicators. Connect what is currently fragmented and structure what is currently unstructured.



3. Design for transparency and oversight

Every action taken by an agent must be explainable and traceable. Build governance protocols that ensure you can audit decisions, monitor compliance and intervene when needed, without slowing the system down.



4. Allow space for iteration and learning

Agentic systems improve through feedback. Avoid hardcoding workflows that limit adaptability. Build in checkpoints, review cycles, and controlled test environments where the system can learn from outcomes and adjust its behavior.



5. Align teams to outcomes, not only processes

As your systems become more autonomous, people need to shift from executing steps to guiding performance. Begin evolving your organizational structure, incentives and KPIs to reflect business goals such as cost reduction, supplier resilience or ESG progress — not just process compliance.

The Right Tech Platform and Partner Matter More Than Ever

Agentic AI is unlike any technology implementation procurement has taken on in the past. It is not a system upgrade, a modular add-on, or a new interface layer. It changes how decisions are made, how teams interact with data and how procurement connects to the broader enterprise.

This isn't a question of whether it can be done. It can. But doing it right requires more than deploying a model or wiring up workflows. It calls for a new approach to how people, processes and technology come together around procurement's most strategic goals.

Generic agentic AI platforms won't get you there. They lack the procurement-specific intelligence, domain context and orchestration capabilities needed to handle real-world complexity. Procurement leaders need more than AI infrastructure. They need systems that understand contract terms, supplier dynamics, compliance policies and category nuances — and can act on them in context.

This is a foundational shift. It demands an ecosystem that is built for procurement, not retrofitted for it. And it requires working with partners who bring more than technical skill. Experts who understand how procurement works, what it's accountable for, and what it takes to move from experimentation to lasting transformation.

Ready to Lead with Agentic AI? Talk to GEP

GEP helps enterprises make the leap with a native agentic AI platform built for source-to-pay, and the strategic expertise to transform your people, processes, and procurement operating model for what comes next.

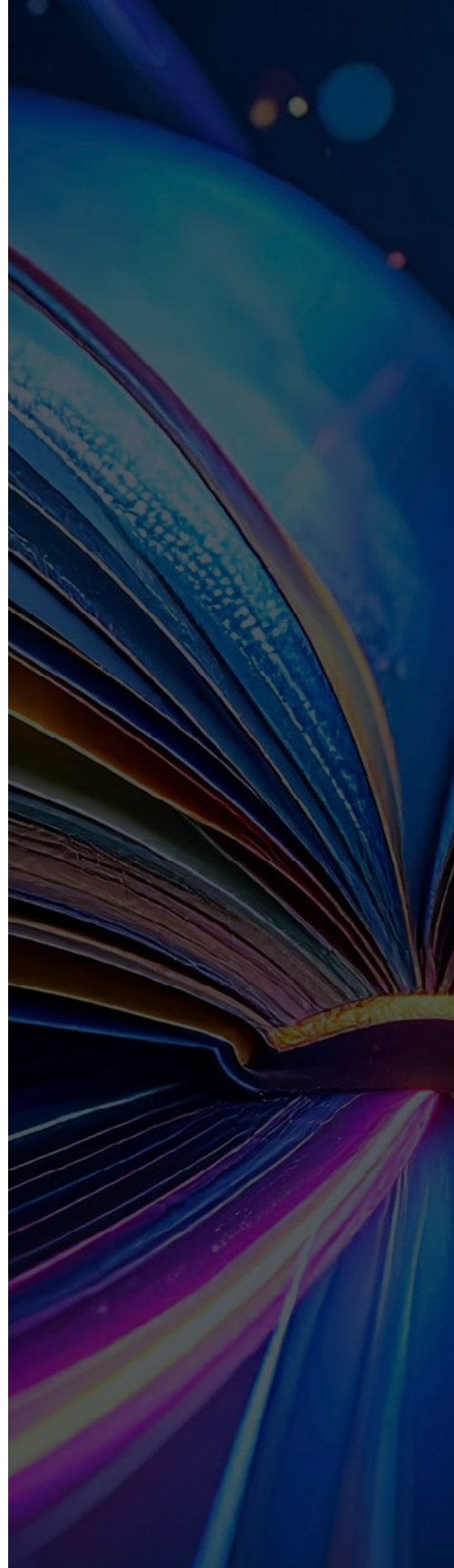
Let's get started – connect with us today.

¹"The 2025 Annual ProcureCon CPO Report," ProcureCon | <https://www.gep.com/research-reports/the-2025-annual-procurecon-cpo-report>

²"IDC: Around 70% of Asia/Pacific Organizations Expect Agentic AI to Disrupt Business Models Within the Next 18 months," IDC, 24 March 2025 | <https://my.idc.com/getdoc.jsp?containerId=prAP53273825>

³"The Hackett Group: 64% of Procurement Leaders Say AI Will Transform Their Jobs," The Hackett Group, 10 April 2025 | <https://www.thehackettgroup.com/the-hackett-group-procurement-leaders-say-ai-will-transform-their-jobs/>

⁴"Intelligent Agents in AI Really Can Work Alone. Here's How," Gartner, 1 October 2024 | <https://www.gartner.com/en/articles/intelligent-agent-in-ai>



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