



AI in procurement: How AI is reshaping risk, resilience, and the human role

Discover how 600 senior procurement decision-makers perceive AI: the opportunities, concerns, and a business case for moving forward.

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Foreword

by Nikolaus Kirner, Chief Procurement Officer, SAP

Procurement is evolving quickly. What was once a transactional cost-control function is rapidly transforming into a smarter, faster, and more strategic business partner.

Artificial intelligence will continue to accelerate this shift, helping procurement become not only more efficient but also more intelligent and proactive in its decision-making. Over the next two to three years, I anticipate that procurement teams will become “smaller, smarter, and faster” by leveraging the combination of automation and augmentation.

Automation will eliminate a significant amount of repetitive, back-office work, while augmentation will empower teams to make more informed strategic decisions in areas such as category management, sourcing, and predictive analytics.

It’s also important to emphasize that people will still play a crucial role in this process, and effective change management will decide whether these transformations ultimately succeed or fail. I strongly recommend that leaders explain the “why” behind the change they are implementing, while actively encouraging their employees to be curious and experiment with AI tools.

The long-term opportunities this technology offers are enormous; however, procurement leaders should start small, celebrate successes, and stay curious. If they can learn how to use AI to consolidate data, improve forecasting, and

enhance risk detection, these tools can help them become the intelligent hub of their organizations – driving innovation, resilience, and value creation. This report explains how to turn that potential into reality.



Key findings

Procurement teams are under more pressure than ever

An overwhelming majority of leaders in the US (81%), UK (74%), and France (73%) report that their procurement-related challenges have intensified over the past year, driven by inflation, supply disruption, ESG demands, and data complexity.

There is strong interest in AI

While 82% of procurement leaders are eager to adopt AI, investment priorities are scattered, indicating uncertainty about where to begin.

AI can help procurement transition from reactive to predictive

This shift is crucial for improving resilience, with 87% of leaders agreeing that analytics and AI are already helping them move away from reactive processes.

AI adoption is happening, especially in GenAI

A significant 63% of respondents are already using generative AI tools like Microsoft Copilot or ChatGPT. Furthermore, 90% of global finance leaders confirm that AI has enhanced their decision-making capabilities.

Data remains the biggest barrier to scaling AI – but AI can also help solve this

Leaders point to poor data quality, lack of standardization, and siloed ownership as key obstacles.

There are concerns about cost-cutting and job loss

Despite these fears, our research strongly suggests that AI is more likely to change roles than eliminate them, creating demand for new skills.

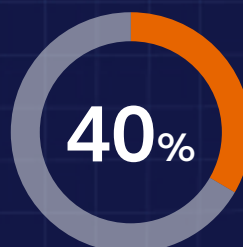
The biggest hurdles to scaling are data quality, unclear business cases, and securing internal buy-in

Leaders who define a clear use-case funnel, standardize data, use embedded tools, and communicate the “why” behind AI are moving fastest from pilots to measurable impact.

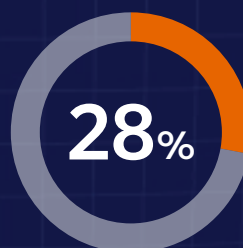
Successful AI programs start small and scale deliberately

The most successful procurement leaders define clear use cases, standardize data, use embedded tools, and secure internal buy-in to scale their AI programs effectively.

Leaders expect AI to reshape procurement in three main ways:



Shifting focus from short-term cash-flow optimization to long-term product and service quality (in the future).



Strengthening risk detection and mitigation (28%).



Providing better strategic decision support (26%).

1.

What opportunity is there for procurement and AI?

“When you wire AI into procurement and working capital, it connects operational signals with financial ones. That lets teams spot supplier stress, liquidity constraints, and demand shifts early enough to protect both the supply chain and the cash position.”

Andrew Schafer, Vice President of Technology & Security, Engineering, SAP Taulia

Procurement has always evolved with technology. From ERPs consolidating spend to cloud platforms digitizing workflows, each innovation has pushed the function forward. AI is the next major acceleration point in this journey.

Today, procurement leaders face unprecedented disruption. A majority in the U.S. (81%), the UK (74%), and France (73%) report that challenges have increased significantly. Inflation, supply constraints, geopolitical risk, and data complexity are stretching traditional processes to their limits. AI offers a ‘capability uplift’ to meet these new operational demands.



81%

of leaders in the U.S. reported that their procurement-related challenges had increased

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73%

of leaders in France reported that their procurement-related challenges had increased

The goal isn't just to "become more strategic." It's about delivering what the business now expects: greater resilience, faster decisions, and predictive risk management. AI can remove low-value manual work, elevating procurement's ability to provide risk foresight and intelligent planning.



AI as the catalyst for resilience and prediction

Three broad patterns are emerging in how procurement teams use AI:

1

For assistance: AI helps people work faster by summarizing information, drafting content, or highlighting patterns.

2

For augmentation: AI enhances human capability by analyzing vast datasets, forecasting scenarios, and detecting risks beyond human capacity.

3

For automating: AI, often paired with automation, can perform well-defined tasks like touchless invoicing with limited human oversight.

In today's volatile environment, high-performing teams are distinguished by their ability to anticipate disruption, sense weak risk signals, and respond faster than competitors. Strategy is the goal, but resilience and predictability are the new requirements.

Expectations: What leaders think AI will do

Our research shows high expectations for AI's role in procurement. A significant 87% of leaders agree that procurement is moving away from manual processes, and 82% believe AI will be instrumental in overcoming challenges. However, this enthusiasm often lacks a clear roadmap for investment and adoption. This gap between excitement and execution is a key theme we'll explore.

Reality today: How is AI actually being used?

So, how are procurement leaders using AI right now? Our research indicates that 63% are using generative AI (GenAI) tools, and 55% are using AI-powered procurement-specific tools. These are most commonly applied to spend analysis (35%), risk monitoring (32%), and contract management (32%).

AI will accelerate procurement's transition

Procurement maturity is often described in three stages: reactive, proactive, and predictive. While most organizations are now proactive, reaching the predictive stage – where emerging risks are forecasted – requires AI.

Despite widespread interest in AI (82% of leaders want to use it), there's no consensus on where to invest. This shows that while the appetite for AI is high, confidence in where to start is low. Everyone is in the same boat: eager to move forward but uncertain about the first step.

“Here, we're pushing from reactive to predictive. AI can flag demand and supplier constraints earlier, but progress rises and falls on data quality and system integration.”

Muzammil Haniffa, General Manager, Telekom Malaysia

Three ways AI will reshape procurement

Leaders expect AI to reshape their functions in three main ways:

01

A shift from cash-flow optimization to better quality and reliability

Leaders see AI moving their focus from short-term cost savings (44% today) toward higher quality and more reliable services (40% in the future). This aligns with historical tech trends in procurement, where each innovation – from ERPs to supplier dashboards – has improved quality control and reliability. AI is the next evolution.

02

A broader impact on risk detection and mitigation (28%)

Leaders expect risk sensing to be one of AI's most valuable contributions. As macroeconomic and geopolitical instability have grown, risk management has become a core procurement mandate. AI enhances this capability by enabling teams to detect weak signals earlier and intervene faster.

03

Better strategic decision support (26%)

Leaders believe AI will improve strategic decision-making by generating deeper insights and forecasting scenarios. This follows a long history of technology improving procurement decisions, from ERP data integration to eSourcing transparency. AI is the latest tool in this progression.

The most cited benefits of AI among our respondents were increased productivity (30%), more strategic procurement planning (27%), and saving company time (27%).

Why should procurement prioritize this?

- 1. Strengthen risk detection and resilience:** AI can analyze thousands of signals to highlight emerging risks, helping teams anticipate shortages and protect continuity. This aligns with leaders' expectations that risk mitigation (28%) and improved reliability (40%) will be AI's biggest contributions.
- 2. Enhance decision intelligence for category and sourcing strategies:** AI can synthesize large volumes of data to support scenario modeling and data-backed decisions. This enables faster responses to market changes and aligns with how leaders expect AI to support strategic decision-making (26%).
- 3. Automate time-consuming manual work:** AI can automate high-volume tasks like invoice matching and spend classification, freeing up teams to focus on resilience and predictive decision-making.
- 4. More time for high-value, impactful work:** When mundane tasks are automated, teams can focus on strategic priorities.
- 5. Solving data challenges with deep analysis:** AI can analyze data, but humans must ask the right questions and validate the results.

6. Strengthening operational resilience:

“There’s now a much bigger focus on resilience. Organizations are rethinking their strategies, not just to achieve cost savings, but to build resilient supply chain solutions. That requires automating operational processes to free up time, eliminate inefficiencies, and enable teams to address the key challenges supply chains face today. This push for automation is fundamentally about creating the capacity to build resilience.”

Gordon Donovan, Global VP of Research for Procurement and External Workforce, SAP

“AI could definitely make us more efficient in terms of better risk management, cost efficiency, and resiliency. I could have a more stable supply chain and will know who to depend on.”

Muzammil Haniffa, Telekom Malaysia

“AI assists procurement teams by consolidating global information and providing real-time insights and early warning signals. It augments decision-making by enabling smarter, more strategic use of data and predictive analytics. Through automation, especially in transactional and back-office work, AI autonomizes routine processes, allowing teams to respond proactively and build greater resilience against risks.”

Nikolaus Kirner, SAP

“The real value comes from iteration, where humans guide the inquiry and AI does the deep analysis, as long as we use our critical judgment to ensure the insights are truly meaningful.”

John Roberts, NTT DATA Americas



Here are three more ways AI can boost operational resilience:

Anticipate future supplier disruption: Nearly half (44%) of leaders say optimizing cash flow and reducing financial risk is their greatest impact. AI can help anticipate demand and supplier constraints, but this depends on data accuracy and system integration.

Develop effective early warning systems: AI consolidates real-time signals into early warnings, helping teams move from reactive firefighting to proactive risk management.

Give you time to walk before you run: Start with small pilots like agentic sourcing or touchless Procure-to-Pay (P2P) to demonstrate value and build momentum.

2.

AI concerns: What are the risks and hurdles on the path to adoption and scaling?

While procurement leaders see AI's potential, they also have valid concerns about the risks and practical barriers to scaling these tools. This section addresses those concerns head-on and offers solutions for mitigating them.

What are the risks?

Data quality – a big barrier (but also an enabler?)

Poor data quality leads to poor outcomes. However, waiting for a perfect “single source of truth” is unrealistic. The principle of “don’t let perfect be the enemy of the good” is essential here.

Instead of waiting, teams should use AI to progressively improve the data they already have. AI excels at classifying, standardizing, and enriching messy datasets. Key data challenges include a lack of standardization, siloed ownership, and complex integrations. AI can also improve data literacy by turning raw data into actionable insights, freeing up teams to focus on strengthening resilience instead of deciphering spreadsheets.



“You don’t need a perfect ‘single source of truth’ to start. Use AI to continuously classify, clean, and reconcile what you already have. Over time, you get a virtuous cycle: better data, better models, better decisions on cash and supplier risk.”

Andrew Schafer, SAP Taulia



This is where multi-functional collaboration comes in.

“Collaboration is key: finance provides the invoice data, procurement adds the supplier context, and together we build a full picture.”

John Roberts, NTT DATA Americas

Achieving data maturity also depends on company culture. An open, shared environment where teams see the mutual benefits of sharing data builds trust naturally. One of the most effective ways to foster this is by using tools embedded within existing ERP and finance platforms. This eliminates silos and makes collaboration the path of least resistance.

“Without reliable data, you can only go so far. The issue is that procurement tools are often customized for each organization, rather than built on a standardized data domain. If everyone followed consistent standards, like in telecoms or IT frameworks, AI could deliver far greater value.”

Muzammil Haniffa, Telekom Malaysia

Could AI undermine procurement's shift to value?

A significant portion of leaders worry that AI will focus too much on cost savings (40%) or make it harder to demonstrate procurement's value (39%).

“These concerns are understandable. If AI is deployed solely to automate transactions, it could reinforce a narrow cost-cutting narrative.”

Andrew Schaefer, SAP Taulia

However, AI amplifies the intent behind its deployment. When applied to risk sensing and scenario modeling, the same tools can strengthen procurement's strategic position. Often, these concerns stem from a lack of understanding. Among leaders not using AI, 35% didn't understand its benefits, and 33% cited a lack of internal expertise.

AI's productivity boost: A double-edged sword?

The fear that “the machines are taking over” persists. With AI, a task that once required ten people might now need only two. But does this mean the human role will become obsolete? History suggests otherwise.

Major technological shifts, from computers to automation, have always transformed jobs rather than eliminating them. Elevator operators became mechanics, and bank tellers took on more advisory roles after ATMs were introduced. In procurement, AI will handle the heavy lifting, allowing people to focus on human judgment, relationship building, and strategic navigation.

AI is an opportunity for employees

Learning to work with AI now offers a competitive advantage. Early adopters can achieve significantly more than those who wait. For individuals, this means up-leveling existing skills and positioning themselves for emerging roles like AI-assisted category managers or data-augmented risk specialists.

For companies, early AI adoption translates into a powerful competitive edge. With AI, complex scenario modeling becomes instantaneous, delivering deeper supply chain visibility and strengthening resilience.

Human oversight remains essential.



“We’re using AI to highlight the differences from our template to a document that’s been red lined. The Category Manager still needs to look at those variations, but AI can highlight them very quickly. AI does the deep analysis but humans still make the call.”

John Roberts, NTT DATA Americas

AI should be seen as a collaborator, not a replacement. No matter how advanced it becomes, businesses will always need human accountability. However, this transition will require employees to broaden their skillsets. As AI expert Vin Vashishtha notes, future roles will require a mix of technical, product, strategic, and domain expertise – a shift already appearing in job descriptions.

Practical barriers to adoption and scaling

While 81% of procurement leaders are concerned about AI's impact on their teams, research from McKinsey points to three key barriers to digital adoption.

1 Data quality and access: As Haniffa notes, “Today, too many tools are bespoke.” Standardizing data and using embedded tools can solve this, as they integrate seamlessly into existing systems and facilitate real-time data access.

2 An unclear business case: Many leaders struggle to articulate the business case for AI. As we've noted, 82% want to use AI but are unsure where to start.

3 Adopting and scaling tools: Securing internal buy-in is a common challenge. Often, employees receive AI tools without proper training or a clear understanding of the benefits.

“The way we approached it was to define a complete strategy and create a long list – a funnel – of use cases. We prioritized those with the greatest ease of implementation and clear benefit and started small to prove value quickly. As you see the benefits and learn from early use cases, it becomes much easier to accelerate and scale your investment in AI.”

Nikolaus Kirner, SAP

“Change always starts at the top. Leaders must model AI use in their own roles and explain the ‘why’ behind these tools, not just the ‘what’. Psychological safety and transparency are critical to mobilizing teams and achieving buy-in.”

Nikolaus Kirner, SAP

Finally, don't forget the investment paradox. Leaders are prioritizing cybersecurity (38%) over procurement (35%) for AI investment, which is logical. A robust technical infrastructure is necessary before scaling new tools. Concerns about AI leading to excessive cost-cutting are likely an educational and infrastructural problem, not a reflection of AI's intrinsic value.

3.

The business case for AI: adopting & scaling

In an era of unprecedented volatility, procurement has been thrust onto the front lines. The focus is no longer just on process efficiency; it's about building the resilience, agility, and liquidity essential for survival.

Donovan describes AI as an industrial revolution, requiring a “mass training and transition program” to manage the shift from old ways of working to new ones.

How can procurement teams leverage AI to enhance their strategic capabilities?

The challenge lies in scaling AI successfully. Data quality, poor alignment, and a lack of understanding are common barriers.

“Start where cash, risk, and cycle time intersect. Automate intake-to-pay and three-way match, embed live risk signals into sourcing, and give category managers AI Copilots to compress analysis-to-action. Then scenario-plan relentlessly. The next disruption won't look like the last.”

Gordon Donovan, SAP



“Procurement teams can choose to harness AI or ignore it. Regardless, the genie is out of the bottle: AI is here to stay and the rest of the C-Suite will expect us to use it.”

Gordon Donovan, SAP

How to scale AI successfully

1. Fortify the business with intelligent liquidity

The journey begins with intelligent automation of high-volume processes like spend analysis (43% appetite) and invoice processing (39%).

This isn't just about efficiency; it's a strategic imperative. Automating these tasks unlocks working capital and provides the financial agility needed to navigate turbulent times.

2. Emphasize the wider strategic role of AI

beyond automation While automation delivers cost savings, its broader benefits are even more significant. AI can predict supply and demand shifts, model complex sourcing scenarios in minutes, and strengthen organizational resilience planning. The more teams understand AI's capabilities, the better they can identify high-impact projects.

3. Harness decision intelligence to build resilient supply chains

With an operational foundation secured, AI becomes a powerful tool for sharpening human decision-making. Donovan identifies curiosity, problem-solving, and change management as essential human skills for building resilient teams.

4. Never underestimate the role of human oversight

Donovan emphasizes the importance of human intervention, even with advanced AI. The same principle applies to procurement. Regardless, procurement leaders must recognize that AI is here to stay. Though procurement has often been a "laggard" in technology adoption, the old ways of working will not suffice for future challenges.

5. Embrace change

Remember, change is nothing new for procurement. This is not a rejection of technology but a redefinition of how procurement operates. Today's leaders are armed with a fusion of human expertise and machine intelligence, giving them a stronger negotiating position and the ability to build resilient supply chains.

“Our preferred method is PO-first for everything. Working with finance on invoice data lets us spot ‘after-the-fact’ spend and close the gaps.”

John Roberts, NTT DATA Americas

“If we're not curious about stuff and identifying and potentially trying to solve where the problems are, we're lost. If we're just going to take the data that comes from AI, for instance, without being curious about where it came from and what it means, I think we're missing a trick.”

Gordon Donovan, SAP

“If you own a Tesla and you use self-driving mode, you'll still be asked to keep both hands on the wheel and be ready to intervene.”

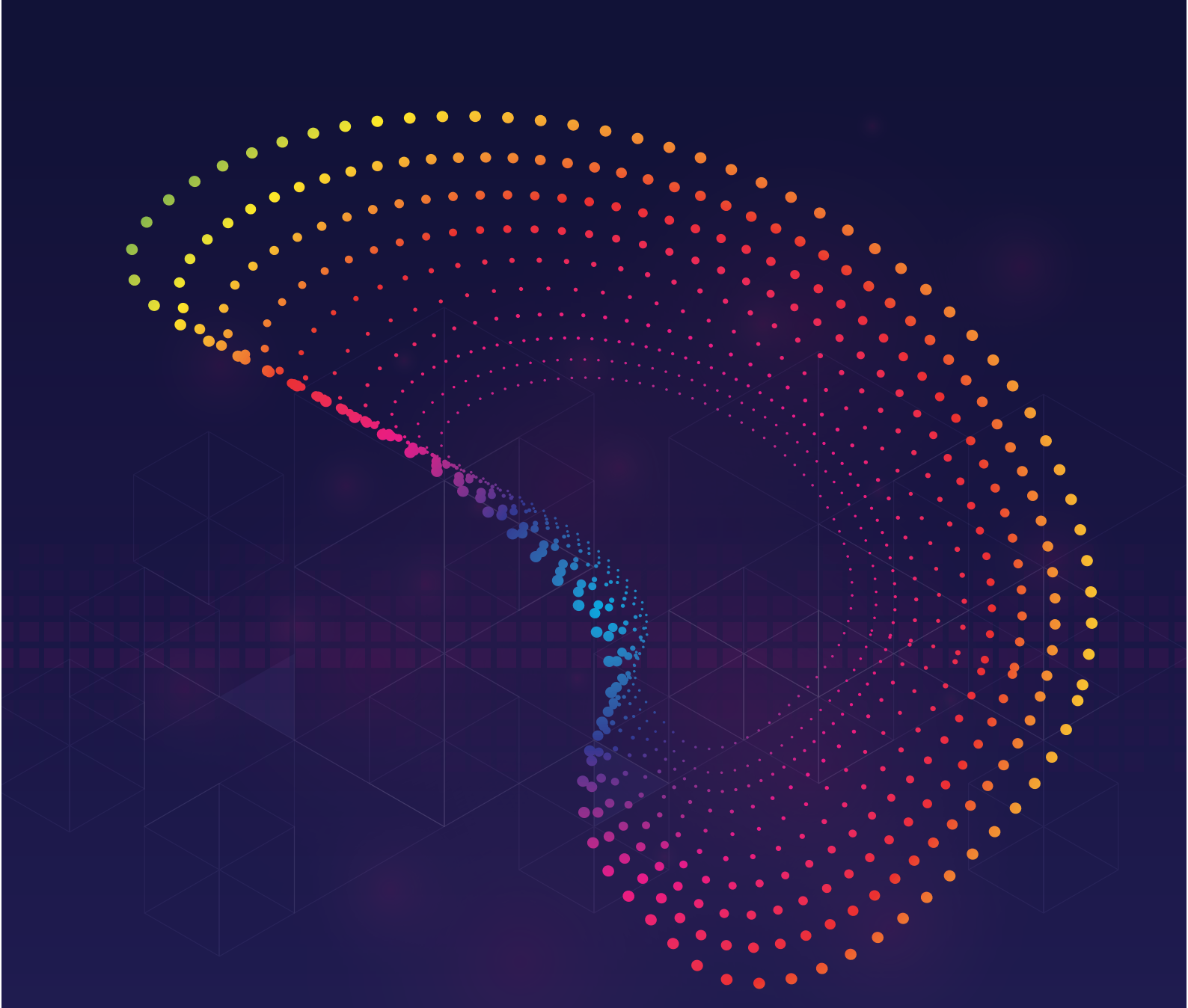
Gordon Donovan, SAP

“Procurement is being redefined, not replaced. The goal isn't to eliminate people but to make them have a bigger impact. With the right data and enough human curiosity, AI can help procurement become an intelligent hub of business decision-making.”

Nikolaus Kirner, SAP

“Procurement is nothing more than in the business of change. That's what we do. We change things. So we've got to be good change managers.”

Gordon Donovan, SAP



“AI isn’t replacing procurement but procurement leaders who learn to harness it will outperform those who don’t. The future belongs to teams who combine human judgment, resilient processes, and secure, intelligent systems. If you get those three elements right, AI is far more than a tool – it is a competitive advantage that compounds over time.”

Andrew Schafer, SAP Taulia

There is a clear roadmap for an AI-powered, resilient future

For modern procurement to thrive, integrating AI is essential. The optimal path involves using intelligent automation to unlock liquidity, advanced analytics to increase supply chain resilience, and data-driven foresight to give the business agility. This is the new roadmap for an AI-powered procurement function that actively secures the organization's ability to compete and win.

The teams that outperform will be those that start small, establish effective guardrails, and leverage AI as a collaborative assistant, not a human replacement.



4.

References & notes

Note on the research

This report is based on research conducted by market research agency Opinium, in collaboration with SAP Taulia, in 2025. 600 senior decision-makers in finance or procurement, who have decision-making responsibility over supply chains, were surveyed.



600

total respondents

100

in each country: UK, Australia,
United States, Singapore,
Germany and France

420

managers

180

senior leaders





Bring out your best.