



Executive
Perspectives

12

The Future of Procurement with AI

Maximizing Value Potential in 2025

February 2025

Introduction

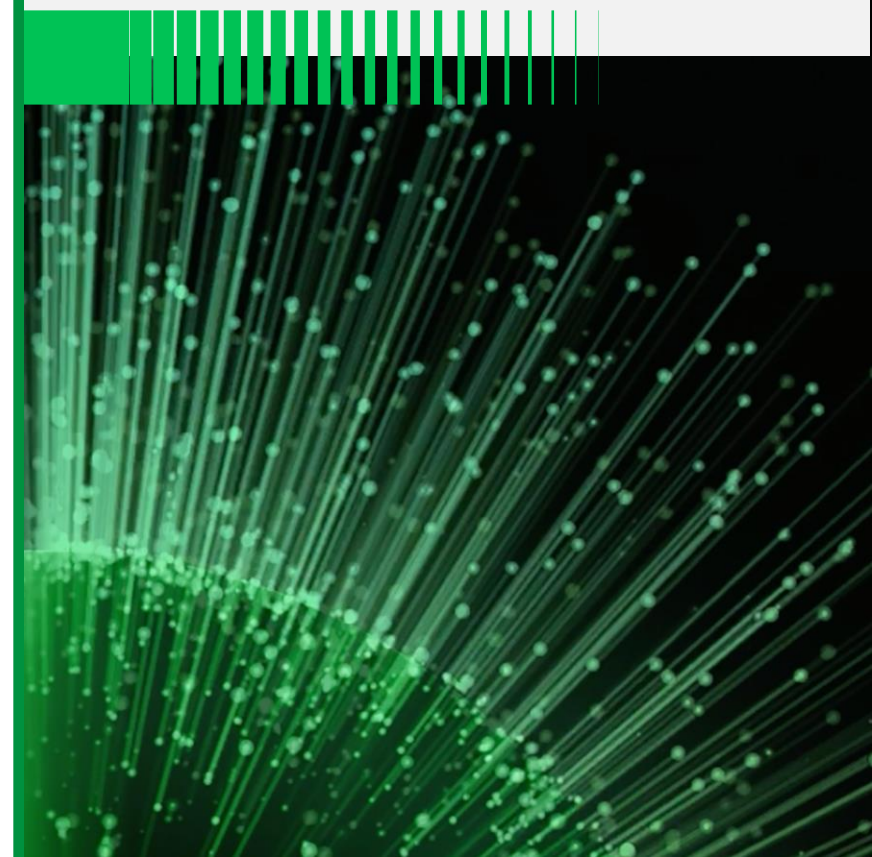
We meet often with CEOs to discuss AI—a topic that is both captivating *and* rapidly changing. After working with over 1,000 clients in the past year, we are **sharing our most recent learning in a new series designed to help CEOs navigate AI**. With AI at an inflection point, the focus in 2025 is on turning AI's potential into *real* profit.

In this edition, we discuss the future of procurement and the role AI will play in turbocharging growth. We address key questions on the minds of procurement leaders:

- How will AI reshape procurement? What value will it bring?
- How do I capture value from suppliers that are also adopting AI?
- What will my procurement team look like? Will I need a different team?
- How do I get started...and how do I get this right?

This document is a guide for CEOs and procurement leaders to cut through the hype around AI in procurement and understand what creates value now and in the future.

In this BCG Executive Perspective, we articulate the vision and value of the future of procurement with AI



Executive summary | Maximizing value potential from AI in procurement

Value potential and vision

Cost pressure, volatile market conditions, economic uncertainty, stringent regulations, and evolving buyer-supplier dynamics create a **burning platform to reshape procurement**

AI presents opportunities for companies to gain strategic advantages and operational efficiencies by transforming their **own procurement functions** and capture value unlocked by **AI implementation in their supplier base**

AI and GenAI capabilities are already being deployed across the procurement value chain, and companies are seeing immediate impact (e.g., up to **15% savings** depending on category, only **70% of buyers' capacity required**)

Conceptualizing the "how" with four pillars

The path to capturing value through an AI transformation can be conceptualized with **four key pillars**:

- 1. Digital maturity assessment** | Companies should assess their digital maturity and identify key pain points before diving into tech decisions
- 2. Best-suited technology** | Off-the-shelf solutions may not address all pain points, necessitating bespoke solutions and the development of internal capabilities alongside strategic hiring for effective AI adoption
- 3. Upskilling the team** | Focus will shift from analytics and operational roles to strategic roles, and new skills like prompt engineering and compliance and ethics will be in high demand
- 4. Capturing value from suppliers** | Up to 15% savings is achievable in the medium term, coming mainly from a select group of spending categories including IT and marketing

Executing successfully

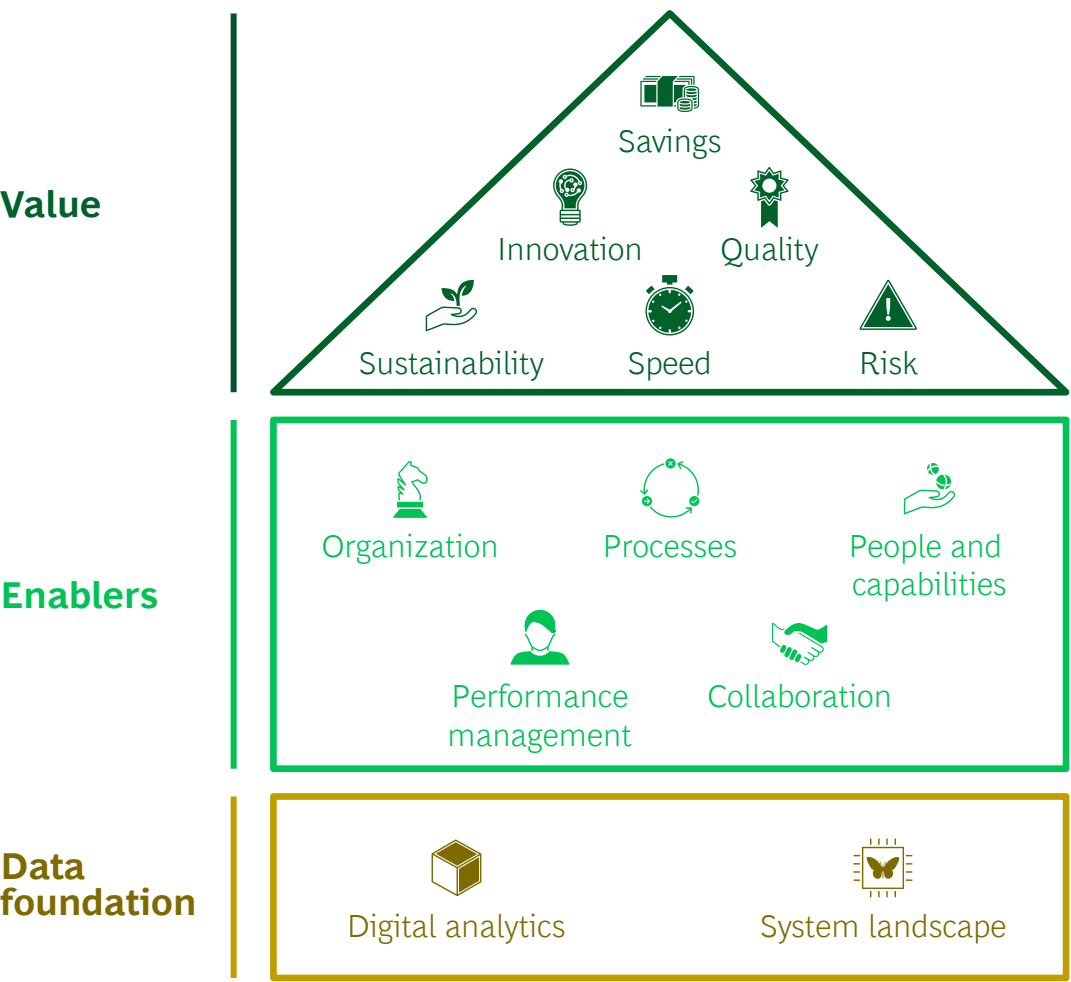
Companies are at **different stages in their AI journeys**, but exciting capabilities like effective, proactive insight and recommendation engines as well as real-time insights and visibility into spending lines and behaviors are on the horizon

Procurement leaders have the dual responsibility of ensuring that AI is **leveraged responsibly** in both their **own organizations** and their **suppliers' organizations**

As leaders take the **next steps** on their AI journey, they should start small (e.g., quick wins like tender assistants), focus on value, integrate in real-time, explore different implementations, and bring along the team

Why now | These key trends are shaping procurement

BCG's procurement house

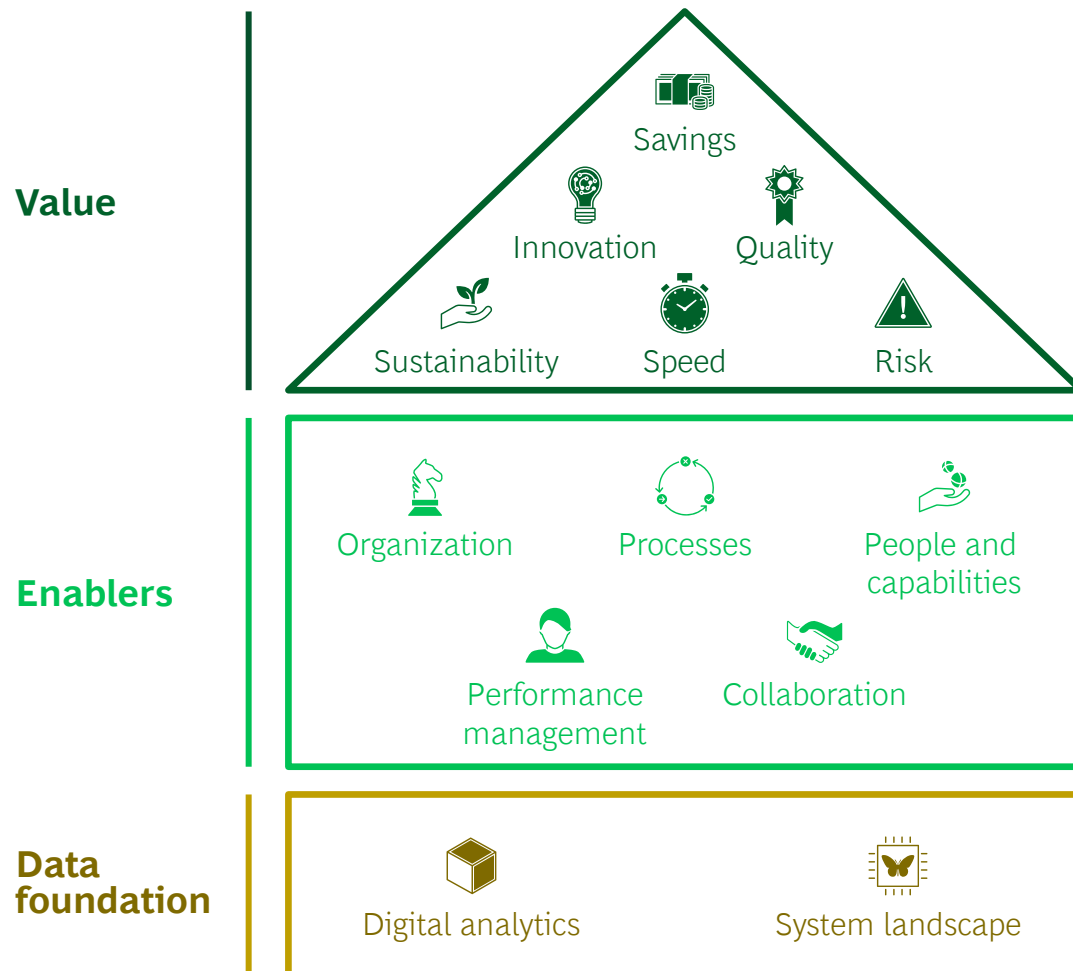


Key trends fueling the burning platform to reshape

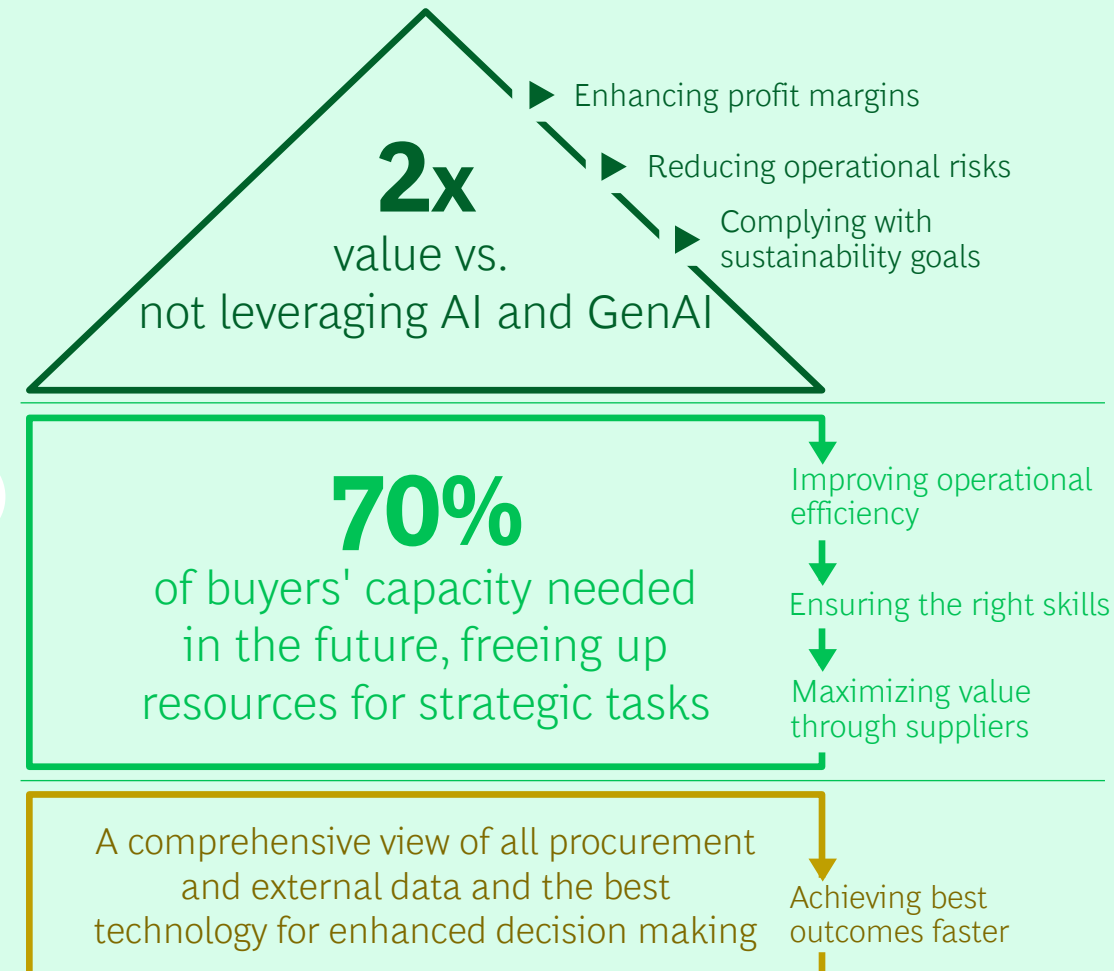
- Savings** | **Enhancing profit margins:** Rising cost of goods and services, price fluctuations, and necessity to secure budgets for company's transformation (e.g., energy transition), leading to tighter budgets and increasing cost pressure on own P&Ls
- Risk** | **Reducing operational risks:** Rising uncertainty and risks in global supply chains drive procurement teams to enhance real-time visibility and implement effective agile risk mitigation strategies across all tiers of suppliers
- Sustainability** | **Complying with sustainability goals:** Major moves toward decarbonization and strengthened human rights protection in supply chains challenge procurement teams to ensure compliance, cost efficiency, and greater supply chain visibility
- Processes** | **Improving operational efficiency:** The evolving procurement landscape, driven by AI and GenAI, enables faster processes and frees up buyers' time, allowing them to focus on strategic activities and higher-value tasks
- People and capabilities** | **Ensuring the right skills:** The shift toward automation and data-driven decision making requires new skills and roles, e.g., proficiency in AI, data analytics, and strategic thinking to effectively navigate and leverage these changes
- Collaboration** | **Maximizing value through suppliers:** Building stronger partnerships with suppliers to drive innovation, improve quality, reduce time-to-market, and achieve mutual growth requires enhanced supplier performance management
- Digital** | **Achieving best outcomes faster:** As sellers leverage AI to improve negotiations, enhance communications, and streamline sales processes, procurement must adopt advanced technologies to stay competitive and agile

AI-enabled procurement allows companies to achieve competitive advantage, resilience, and long-term profitability

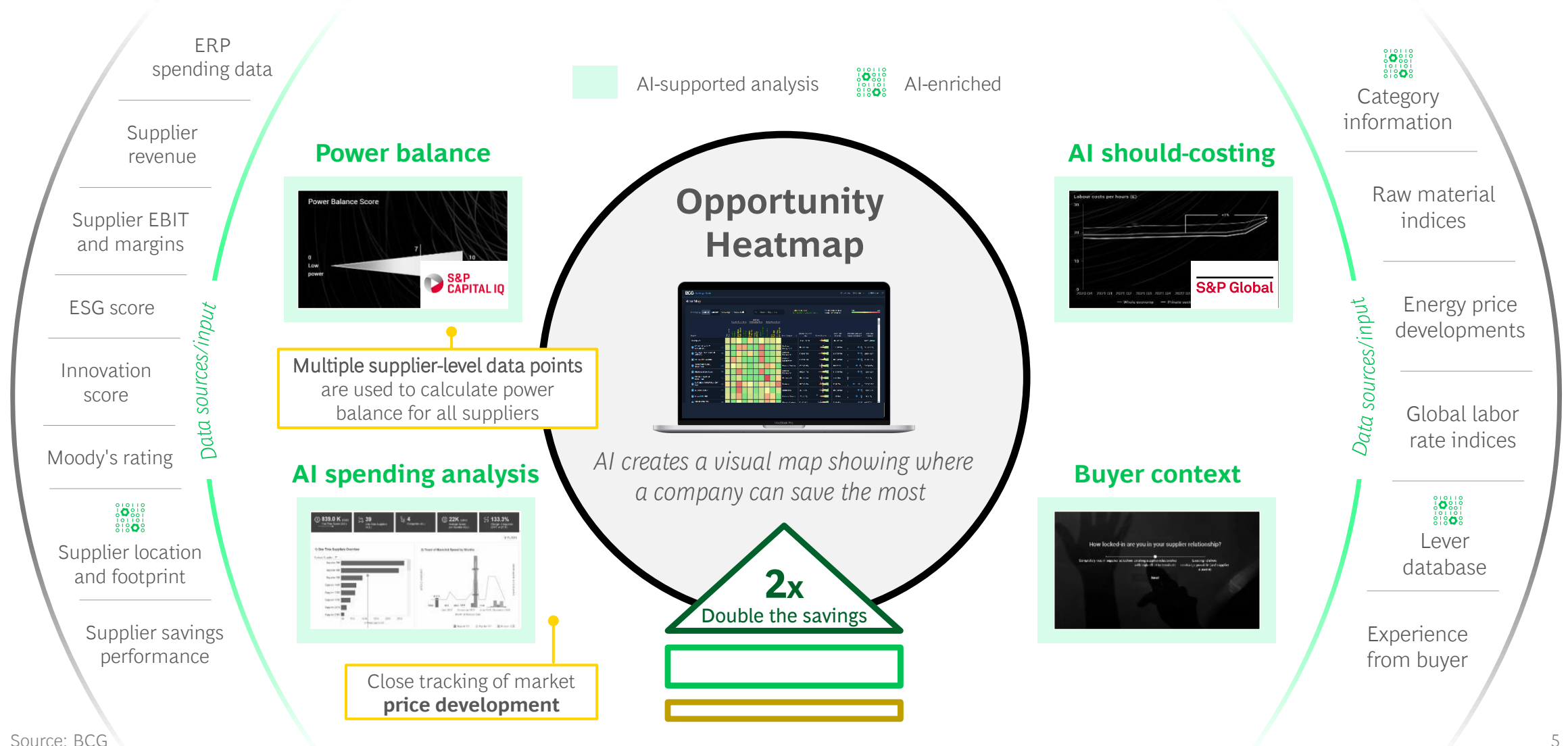
BCG's procurement house...



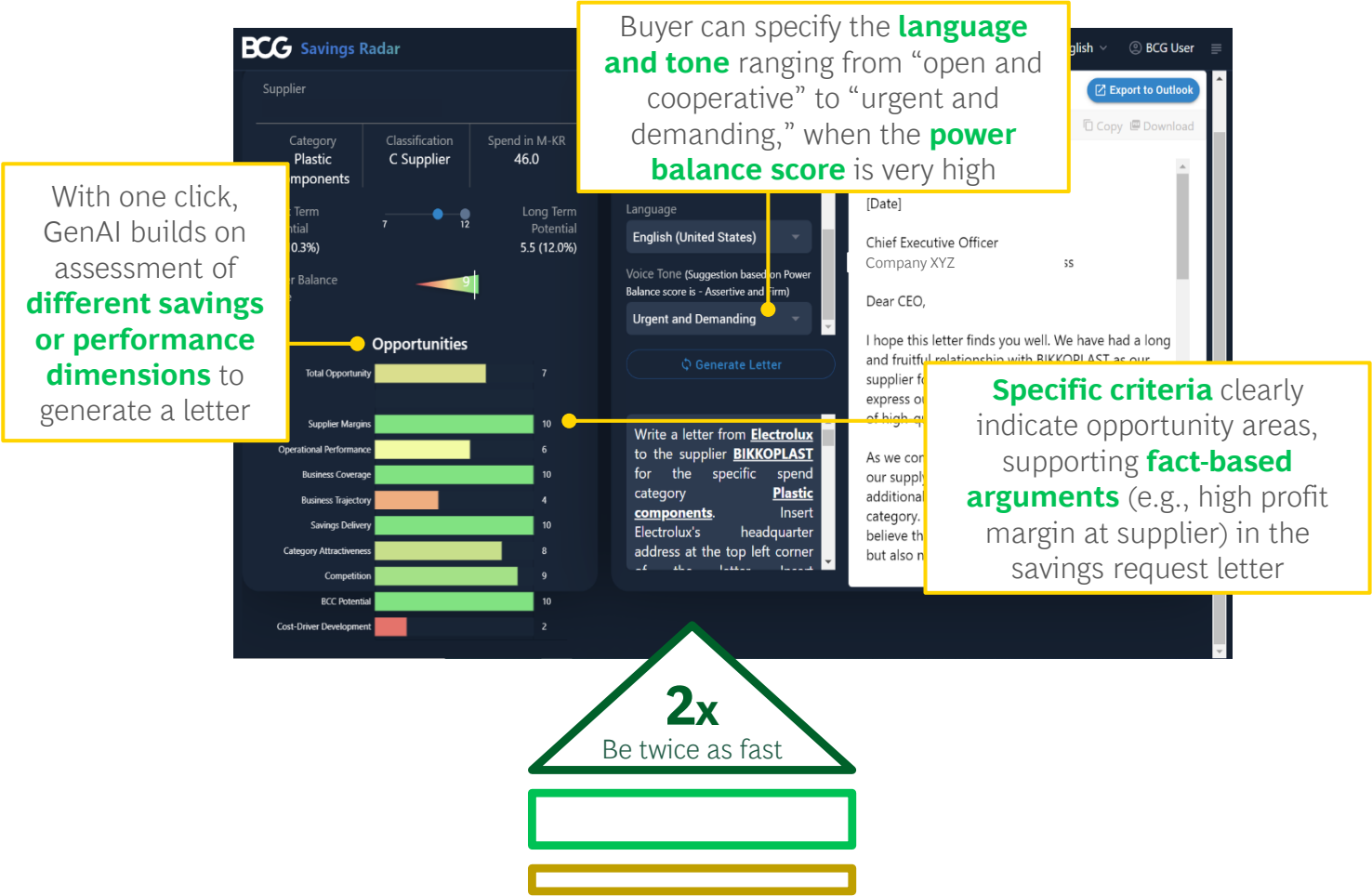
... will be completely revolutionized



Savings | AI combines multiple data points for all suppliers drawing from various databases to create a comprehensive opportunity heatmap



Speed | With one click, GenAI automatically creates supplier-specific communication (e.g., supplier letters) twice as fast

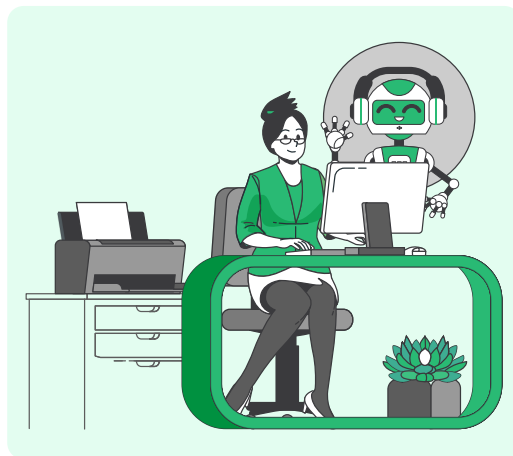


GenAI facilitates immediate interaction with suppliers and doubles the speed

- Eliminating **~90%** manual spending data analysis efforts
System rapidly identifies savings potential across suppliers as well as categories and suggests concrete and actionable levers to achieve savings
- ~15%** savings potential from selecting the best tools
Buyer selects the optimal procurement tool (e.g., cost-out-conventions or ideation workshops) and GenAI defines the respective supplier approach
- ~85%** time savings when writing supplier letters
AI drafts tailored supplier letters, requesting cost reductions based on up-to-date data, saving buyers hours of work (e.g., 10 vs. 60 mins to write a letter)

First-mover advantage | We are moving toward a state where both buyers and sellers leverage technology, enabling greater value and efficiency

Buyers



VS

Sellers



Exemplary **future of procurement** use cases

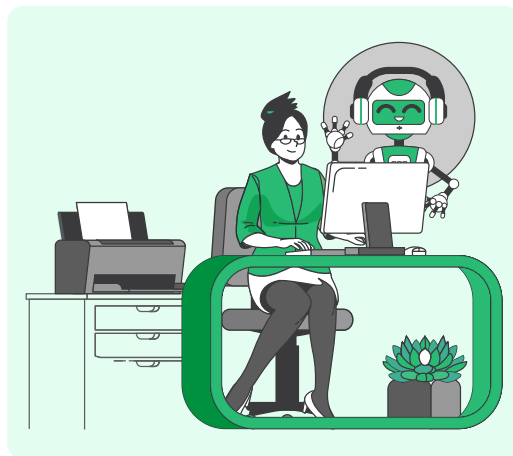
- ✓ **"Smart buying"** through real-time analytics, transcripts, and recommendations during **supplier calls**
- ✓ Generation of **personalized supplier emails** based on supplier data, past conversations, and outcomes
- ✓ GenAI agents to **create tenders and analyze offers**

Exemplary **future of sales** use cases

- ✓ **"Smart selling"** through real-time analytics, transcripts, and recommendations during **customer calls**
- ✓ Generation of **personalized customer emails** based on customer data, past conversations, and outcomes
- ✓ GenAI agents to **respond to tenders**

First-mover advantage | Buyers should leverage GenAI now to stay ahead before sellers dominate the space

Buyers



VS

Sellers



AI and GenAI fundamentally transform the buyer-seller dynamic

Zone of possible agreement

Buyer's
desired price

Buyer's negotiation range

Buyer's
max price

Seller's
min price

Seller's negotiation range

Seller's
desired price



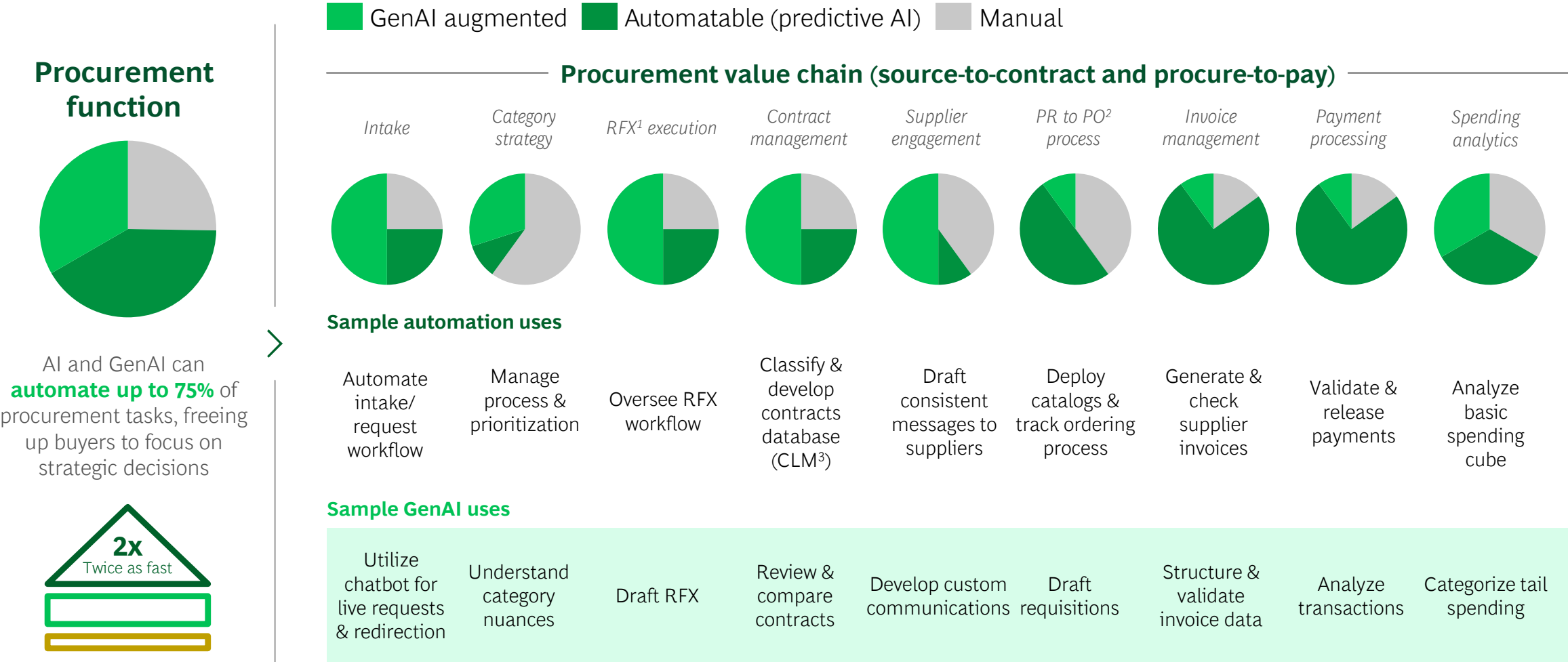
Settlement price if
buyer starts using AI



Settlement price
without AI

By using AI and GenAI early, buyers can make more informed decisions and ultimately achieve superior outcomes

Speed | AI and GenAI are streamlining procurement, doubling process speeds



1. RFX = request for information, proposal, quotation or tender. 2. PR = purchase requisition; PO = purchase order. 3. CLM = contract life cycle management

Risk | AI halves the risks along the entire supply chain for all suppliers, detecting any missing supplier information immediately

FROM...

Time-consuming process of collecting and analyzing a wide range of data, often limited to only strategic suppliers

TO...

Real-time rapid evaluation of the entire supply base on the basis of various risk factors and proactive risk mitigation

BCG's AI-powered supplier risk radar

AI **predicts risks** like supplier failures early, providing an opportunity to act before they impact the business. If a higher risk exposure is assessed, **risk mitigation measures are enforced**

Examples of risks: geopolitical, operational, financial, sustainability, reputational, etc.

Example: Human rights risk

AI monitors key risk factors across suppliers, products, locations, and sectors to warn buyers of potential supplier issues. E.g.,

- Countries with human rights concerns, weak enforcement of labor laws, or high corruption level
- Sectors known for labor abuses; sectors with complex and opaque supply chains
- Products involving raw materials often linked to human rights abuses
- Suppliers with history of labor violations, use of child labor, forced labor, and poor working conditions
- ...

Example: Insolvency risk

AI analyzes multiple factors to assess the risk of suppliers going bankrupt, so buyers can make informed decisions e.g., based on

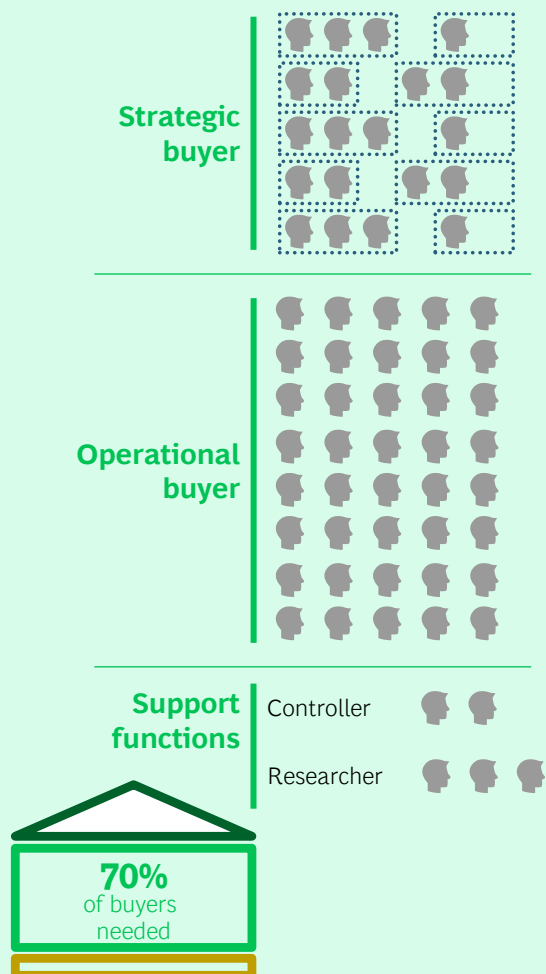
- Margin in supplier industry
- Access in industry to funding
- Supplier size
- Supplier legal entity
- ...

Improved
supply chain visibility
and **reduced risk of supply shortages**

1/2
Risks

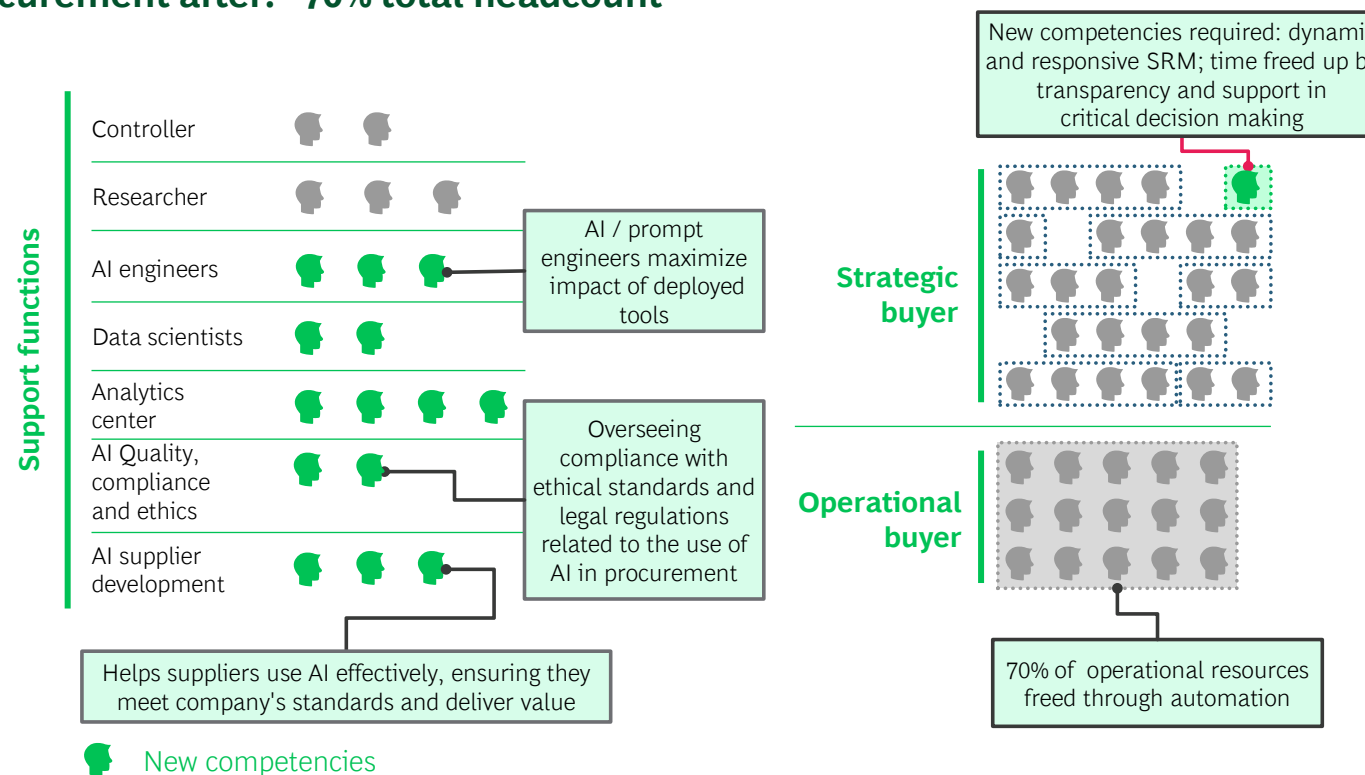
Organization | AI-driven procurement cuts headcount to 70%, freeing workers and requiring AI skills

Procurement today: 100% headcount



Source: BCG

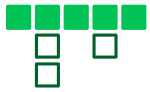
Procurement after: ~70% total headcount



- Reduction of headcount to 70% due to a shift from many analytics and operational roles to few strategic roles that manage relationships, explore new market opportunities, etc.
- New skills like data engineering, prompt engineering, and compliance and ethics in high demand

Case example 1 | Company accelerated tendering process by 40% and enabled better negotiation outcomes

Conceptualizing the "how" with four pillars



Approach

- Deployed an advanced **AI tender assistant** to automate and refine the tender creation process, translating **informal purchase descriptions into formal procurement specifications**
- Designed the MVP to minimize input from IT requesters while **ensuring legal compliance**
- Aimed to both simplify and enhance the accuracy of the procurement workflow for IT departments and buyers



Outcome highlights

- **Reduced tender creation time by 40%** – by about **1 hour** for buyers and by **4 hours** for IT department
- **Improved negotiation results** by approximately **2-3%¹**



Company

- Energy provider
- **~\$40B** revenue

Impact

- Value: **2-3% better** negotiation outcomes¹
- Efficiency: **5 hours time savings** per tender creation

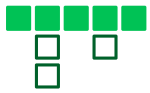


I describe what I want to buy, and the bot formulates the details for me

1. Based on BCG's project experience with similar IT services MVPs

Case example 2 | Manufacturer achieved more than 50% time efficiency in procurement processes with GenAI

Conceptualizing the "how" with four pillars



Approach

- Designed and hosted a **workshop** with the purchasing and sales teams
- Iterated on and **prioritized use cases** considering the client's tech cluster and time-to-value
- Shortlisted three use cases for **rapid prototyping**
- Developed an **implementation roadmap** with the team
- Built, industrialized, and **rolled out all three tools within 12 months**



Outcome highlights

Knowledge management

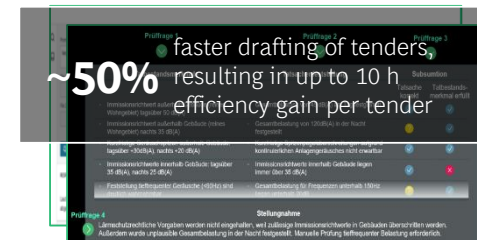
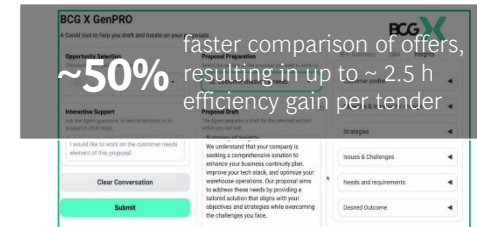
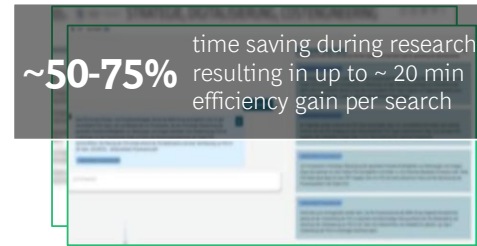
- Facilitate convenient access to internal knowledge
- Enhance quality and productivity in procurement and quality management

Offer analyst

- Compare and summarize offers with standalone tool processed by Amazon, Azure, and OpenAI

Tender assistant

- Automate tender creation and review
- Embed Word plug-in for seamless work



Company

- Global OEM
- \$160B** revenue

Impact

- Tendering time reduced by 50% and search for internal knowledge by 50-75%
- Only 12 months from workshop 1 to deployment



I was amazed by the speed in which we went from ideation to full implementation

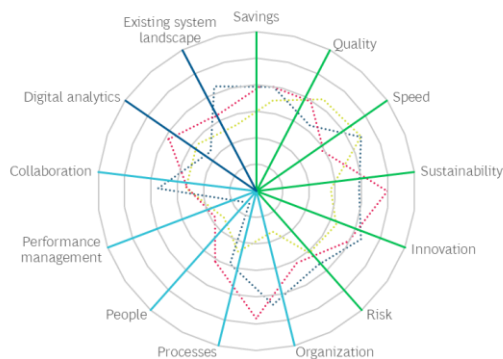
The path to capturing value through an AI transformation can be conceptualized with four key pillars

Conceptualizing the "how" with four pillars



Digital maturity assessment

Assess digital maturity and **identify key pain points** before choosing AI providers



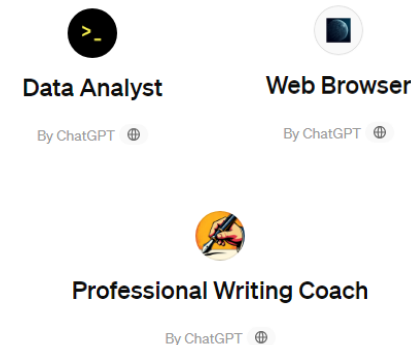
Best-suiting technology

Select the **best tools available** or **develop customized solutions** to specific problems



Team upskilling

Enable practical skill-building among sourcing and procurement teams



Capturing value from suppliers

Understand how AI and GenAI can **boost supplier efficiency** and **capture this value** for your business



Procurement internal

External

Digital maturity assessment | DMA report identifies high-value AI areas; off-the-shelf solutions are limited

Conceptualizing the "how" with four pillars

BCG's digital maturity assessment



See how company's digital readiness **compares against others in the industry**

Consists of **40 questions** that can be answered in 15-20 minutes

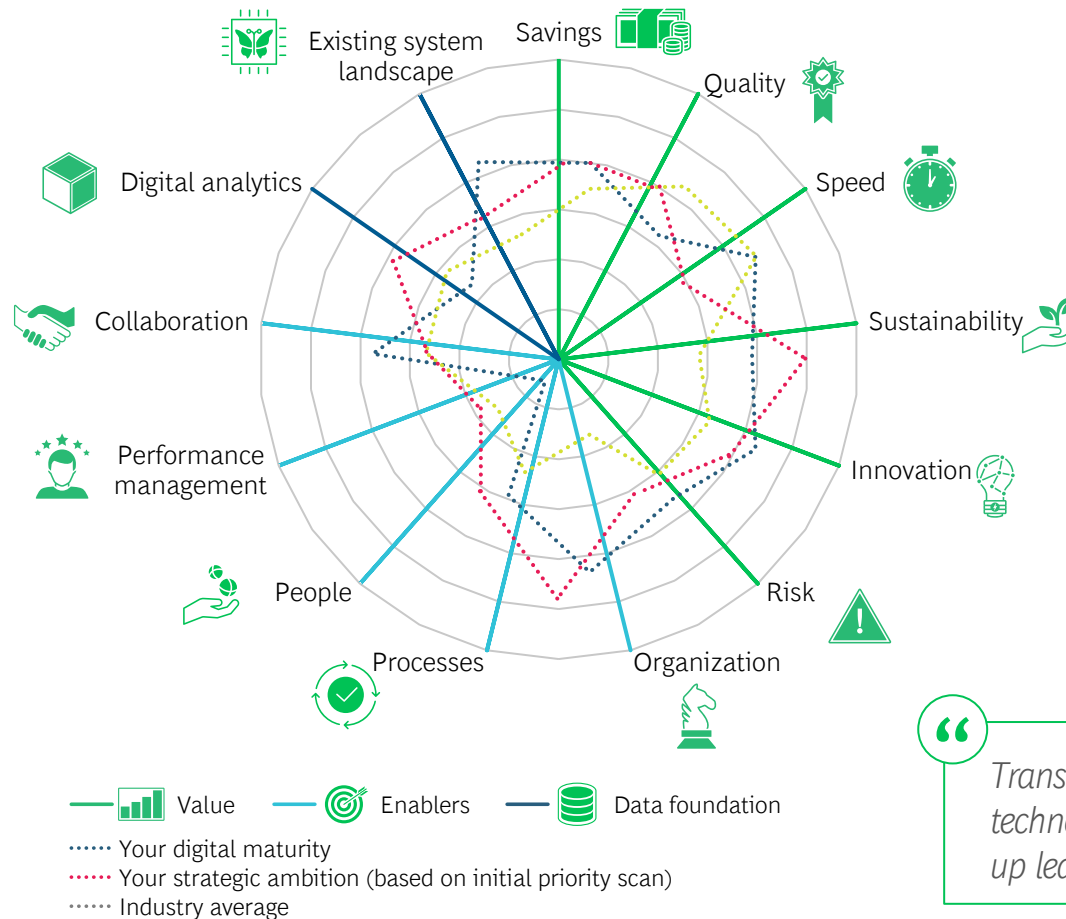
Deep-dive interviews

Selected areas to **discover pain points** along sourcing journey

5-10 buyers and <5 internal customers, interviews of 60 minutes

Source: BCG

Exemplary DMA report



Off-the-shelf AI solutions available for certain areas



Solution providers **are integrating AI and GenAI into offerings** to improve effectiveness and user experiences



More hands-on, **users can test the AI/automation with a product demo** before implementation



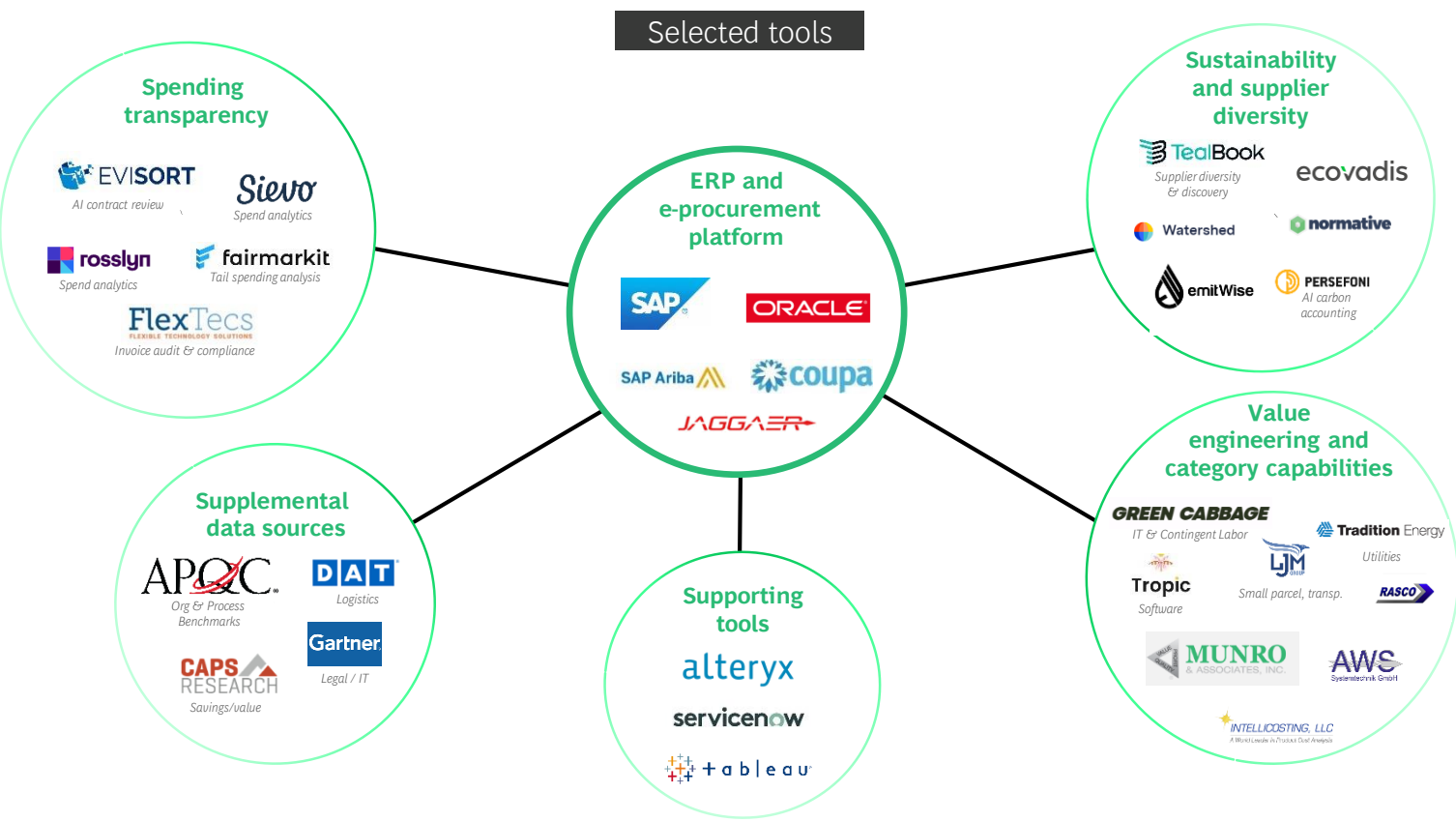
Organizations **are deploying two solution types** – fully ERP integrated and bespoke/standalone



*Transitions to digital procurement that begin with technology decisions **prior** to assessing pain points end up leaving substantial value on the table*

Best-suited technology | Companies should select and use the best tools available to accomplish the procurement mission

Product landscape: Core ERP and e-procurement tools can be augmented by a suite of standalone offerings serving particular needs



Key insights for off-the-shelf solutions

-  Solution providers **are integrating GenAI into offerings** to improve effectiveness and user experiences
-  GenAI is **driving traditional organizations** to explore and implement automation/AI solutions
-  More hands-on, **users can test the AI/automation with a product demo** before implementation
-  Organizations are **deploying two solution types** – fully ERP integrated and bespoke/standalone

Buy vs build | Six key decision criteria should be considered, with the relative importance dependent on the specific situation

Conceptualizing the "how" with four pillars

		Build vs buy comparison	
Decision criteria	Detailed considerations	BUILD	BUY
 Competitive advantage	Proprietary data: Will customization with proprietary data build competitive advantage?	Yes, customization with proprietary data supports competitive advantage	Standardized data; less likely to create unique advantage
	Core value prop: How related is the use case to the core business? Does it directly impact customers?	Strong alignment with core business and direct customer impact	Depends on platform fit; may have a less direct impact
 Performance in context of use case	Feature set: Can current feature set meet your requirement, or is customization needed?	Custom tailored to meet all relevant use cases and desired outcomes	Likely requires customization to meet all needs
	Performance and quality: Do the features produce the desired output?	Tailored for desired output	May vary; dependent on vendor performance
 Speed to launch	Lead time: Is there flexibility in the launch timeline?	Time flexibility, customization over speed, available resources to develop and test	Quick deployment required, proven solutions with min setup time exist
 Costs	Upfront cost: What are costs associated with development, deployment, and integration?	Upfront investment is feasible, licensing may offset build costs	Upfront costs need to be low, no resources to build and test
	Ongoing cost: What are costs associated with ongoing usage?	Costs baked into day-to-day operations, reducing OpEx burden	Predictable licensing, limited lifespan
 Existing tech ecosystem	Incumbent roadmap: Is a solution for this use case part of existing vendor's GenAI roadmap?	Independent of vendor's roadmap; high flexibility	Vendor roadmap may not cover all relevant use cases
	Integration complexity: Will it operate on its own, with min interaction/dependency on other systems?	Requires seamless integration with existing systems	Operates independently or integrates relatively easily
	User experience: How strong is the need to keep the same existing UI/user experience?	Custom platform tailored to meet specific UX requirements	Adaptation needed for off-the-shelf UX
 In-house engineering	Engineering capabilities and resources: How available is in-house talent with right expertise?	Adequate resourcing is a prerequisite to in-house build	Resourcing typically fully deferred to the vendor
	Computing availability: How available is on-premise or cloud computing resources?	Higher likelihood of on-premise or owned cloud infrastructure	Typically hosted on vendor or third-party cloud



Each criterion should be carefully weighted, with the weighting tailored to the specific context and priorities of the company

Deploy custom capabilities | Create bespoke solutions to company-specific complex problems

Conceptualizing the
"how" with four pillars

Non-exhaustive

Illustrative examples



Enhance spending transparency

- Convert unstructured spending information to categorized data
- Understand key suppliers and spending areas
- Identify opportunity areas and strategic initiatives for execution



Generate cost savings

- Leverage advanced analytical tools including Python and GenAI to standardize SKUs
- Deploy natural language processing, document intelligence, and GenAI tools to analyze invoices in detail, spotting errors or opportunities to save money



Support with complex supplier negotiations

- Conduct detailed analysis of supplier proposals
- Run different scenarios with AI to give buyers data that strengthens their negotiation position with suppliers
- Develop scripts to conduct negotiations



Analyze and optimize current contracts

- Extract key elements from supplier contracts
- Analyze pricing and term changes over time
- Compare critical contractual elements across similar suppliers



Support with ESG goals

- Consolidate disparate data sources
- Leverage natural language processing to match emissions factor data sets to develop emissions footprint
- Enable companies to track emissions and achieve reduction targets

Custom capabilities | The creation of AI capabilities within the existing organization, in tandem with AI upskilling, is needed for success

Conceptualizing the
"how" with four pillars



Capability building from existing buying force

Data management and integration

- Integrate AI with existing procurement systems for seamless data flow
- Efficiently collect, store, and process large amounts of procurement data using AI tools

AI proficiency and decision support

- Build AI proficiency within the org. and develop skilled users
- Utilize insights from AI for informed decision making in supplier selection and contract negotiations

Risk and compliance

- Develop robust protocols to address potential risks such as data loss, privacy breaches, and algorithmic biases
- Ensure compliance with regulatory standards for AI applications and set clear GenAI usage guidelines to help the workforce understand proper and improper use of the technology

Note: ML = machine learning



New skills required to successfully implement AI

AI product management

- Design, test, and optimize UX and prompts for effective AI model responses
- Ensure that AI is used ethically and legally within company's procurement processes

AI engineering (ML engineering/software development)

- Conduct data analytics procedures and procurement tools/tasks (e.g., AI coaches)
- Support data-based conclusions

Data science

- Create and monitor data collection processes – internally and externally
- Define “sources of truth” by controlling contradicting data points

People | While algorithms and technology are important, people has proven to be the most critical factor to succeed

Conceptualizing the "how" with four pillars



People are at the core of every successful AI journey

10%

Algorithms

Generative AI models

20%

Technology/IT

Data platforms, data quality and availability, visualization tools

70%

People

Motivation and mobilization

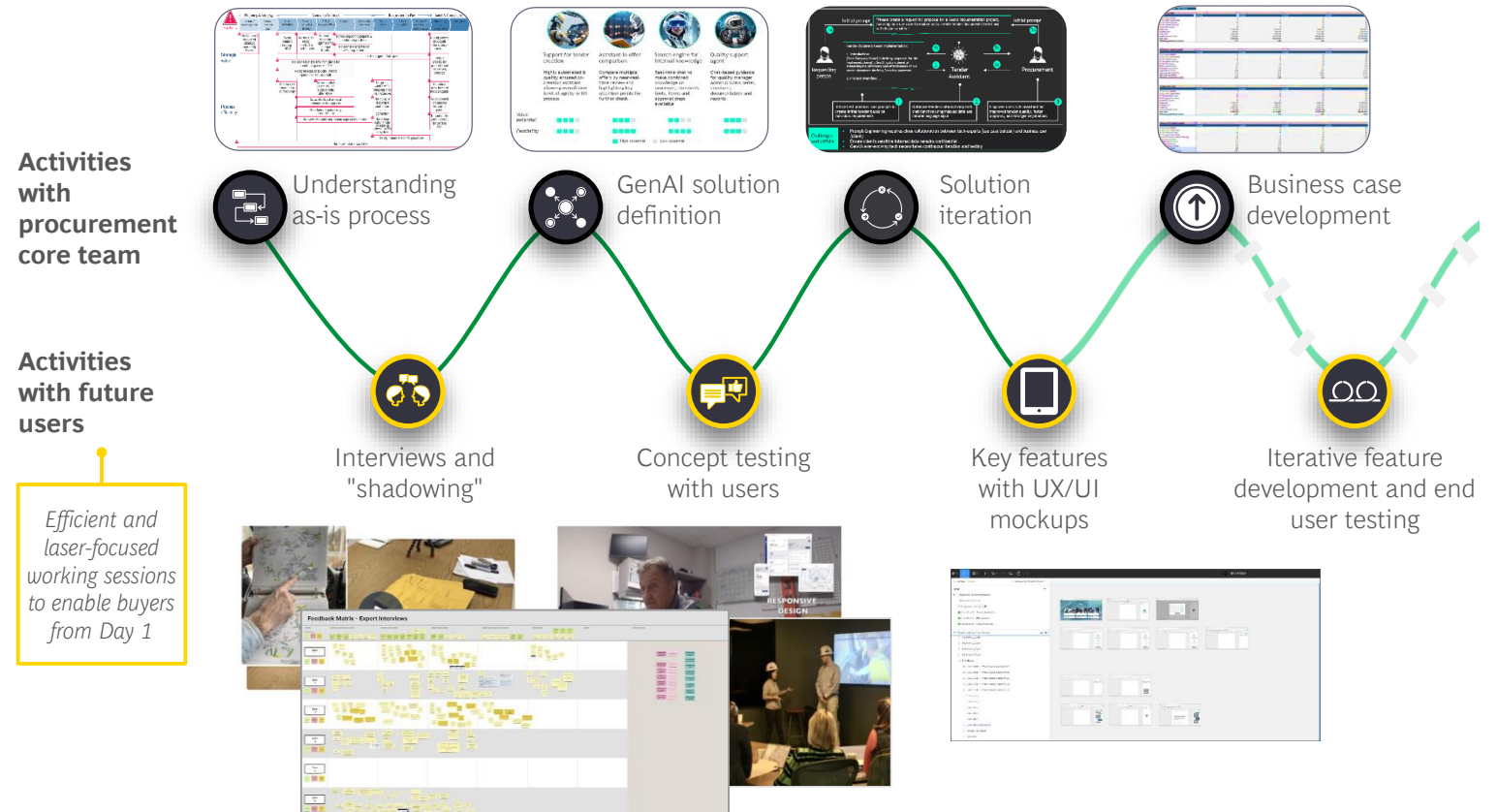
Change management and communication

Talents and skills

Governance, ways of working, and process design



BCG's people-centric approach is based on co-creating and continually refining solutions with future users



Capturing value from suppliers | GenAI enhances workforce and supplier productivity, reducing costs significantly

Conceptualizing the "how" with four pillars

Supplier



Leveraging GenAI to increase productivity

Example 1: Apps developer

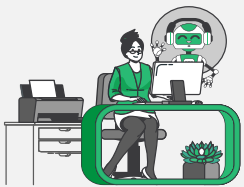
Adopts GenAI to automate repetitive coding tasks, assist with code generation, and quickly identify and fix bugs

Example 2: Marketing agency

Adopts GenAI in areas like content creation of ads and social media posts, campaign optimization, and customer insights



Buyer



Unlocking savings by exploiting efficiencies on the supply side

Scenarios to capture savings¹

Short-term

Negotiate

Analyze the specific GenAI potential and renegotiate immediately

Scout

Search for new suppliers that can deliver capabilities at lower cost

Long-term

Re-specify

Adjust tender scope and specs to unlock GenAI savings potential

Partner

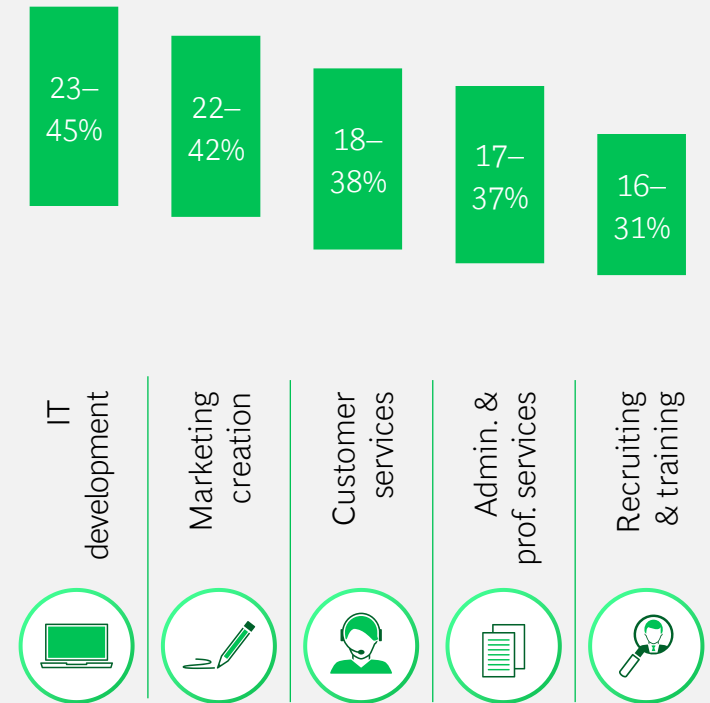
Fund suppliers to build GenAI capabilities specialized to your needs

Insource

Build up inhouse GenAI capabilities to replace suppliers

Spending categories with the greatest GenAI impact potential²

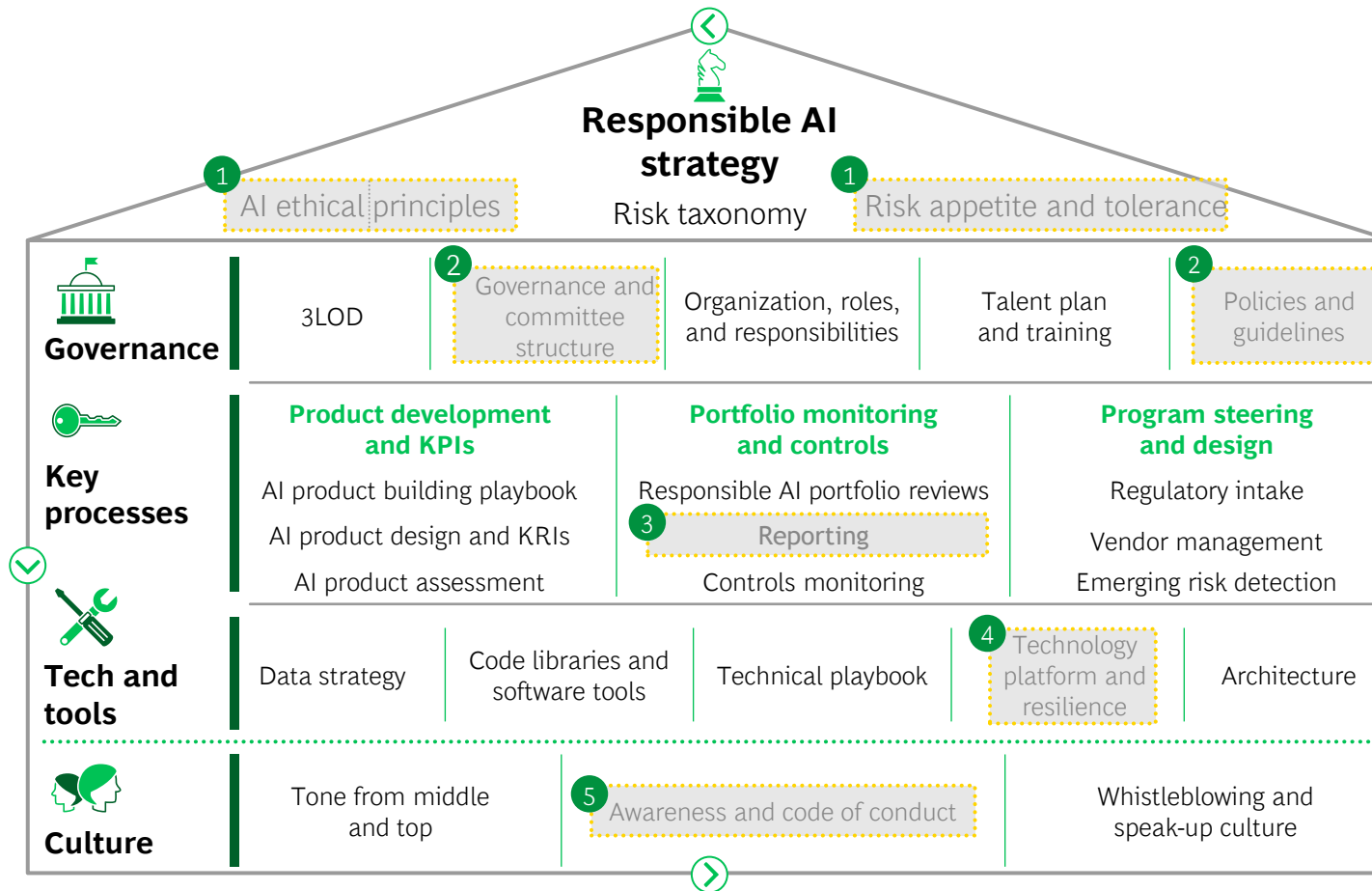
Savings potential in next three years as percentage of category spending



1. This is not a strictly sequential process. 2. Focus of the study – Indirect spending
Source: BCG analysis

Procurement leaders must assess AI use in both their firms and suppliers

Framework for responsible AI



Selected vendor deep-dive questions

- 1 Is the responsible AI strategy aligned with the company values and goals?
- 2 Are there agile, risk-tiered case reviews and clear guidelines captured in enforceable policies?
- 3 Is there reporting in place to screen, detect, and flag noncompliant AI solutions?
- 4 Are there enhanced MLSec practices in place to enforce new, broader controls to combat new threats?
- 5 Is the cultural embodiment of safe experimentation reinforced by appropriate messaging?

Three paths can accelerate your AI journey depending on current maturity

1



Identify quick wins

- **Align perspectives on AI** in procurement and **diagnose pain points**
- Identify the **benefits and limitations** of AI and GenAI use cases
- **Outline** data, technology, RAI,¹ and **people requirements**
- **Focus on quick wins** to engage team & rapidly unlock untapped value potential
- **Prioritize and prototype use cases** against value creation and ease of implementation

2



Use and learn

- Leverage **ready-to-use tools**, e.g., in cost-out projects
- No-regret use cases that **realize immediate savings** and let buyers **experience AI and GenAI in action**

Sample of tools used:

- **Savings radar:** Savings identification
- **Tender assistant:** Rapid RFP generation
- **Supplier risk radar:** Risk analysis

3



Implement and scale

- Identify **target AI tool set** to maximize efficiency and value creation, **create roadmap**
- **Build customized AI tools** that integrate into the target procurement workflow
- **Deploy and industrialize** the use of these tools
- **Implement new operating model** that leverages impact from these tools

Lower AI maturity

Higher AI maturity

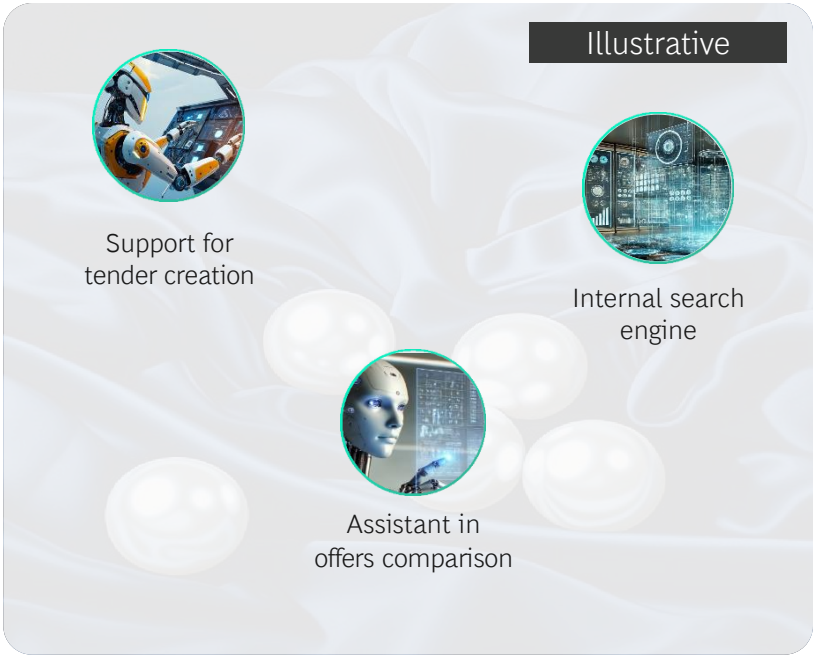
1. RAI = responsible AI, e.g., ethical guidelines, bias and fairness, accountability, etc.

Single use cases help to kickstart GenAI but need to be strategically connected for scale

“The pearl”

Single kickstart use cases

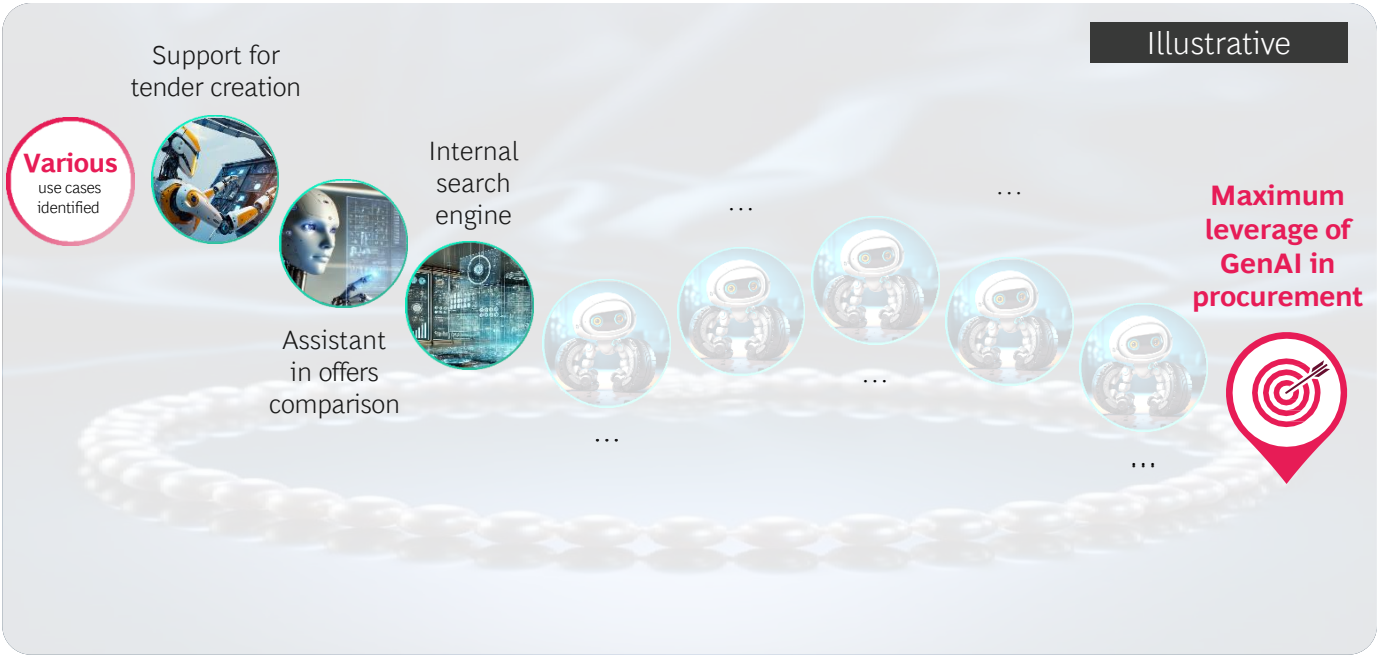
Development of **isolated use cases** to kickstart GenAI journey



“The pearl necklace”

Numerous streamlined use cases

Multiple use cases in seamless workflow and user experience to establish a procurement GenAI **vision and roadmap**





The time to integrate
AI into procurement
is now—those that act
today will lead
tomorrow's market

Five actionable steps to begin the GenAI journey

1

Start small: Make a series of “quick wins” and “small bets” while staying aligned with the company’s overall ambition and pain points to drive meaningful progress

2

Focus on value: Take the lens of value—all kinds, including cost savings, efficiencies, member outcomes, sustainability, diversity—when selecting and prioritizing use cases

3

Integrate in real-time: Use an agile-like approach to test and learn; integrate these tools into key processes early and often to understand whether they are helpful and how they can be improved

4

Explore different implementations: Determine whether the best way to execute each solution is through a fully integrated offering, a standalone product, or a bespoke analysis

5

Focus on people: A typical digital transformation breaks down into 10% from AI, 20% from tech & data, and 70% from people, processes, & org. Focus on enablement & team upskilling is required from Day 1

BCG experts | Key contacts for AI in procurement

Leadership



Alex Dolya
Global Proc. Lead
Singapore



Wolfgang Schnellbaecher
EMESA Proc. Lead
Global Proc. AI Lead
Stuttgart



Daniel Weise
CEO INVERTO
Düsseldorf

Core team

NAMR



Tom Rapp
NAMR Proc. Lead
Seattle



Tyler Vigen
MDP
Minneapolis

EMESA



Boris Sidopoulos
Partner & Associate Director
Munich



Nino Mori
MDP
Vienna

AP



Chitt Jha
AP Proc. Lead
Singapore



Rashik Gupta
MDP
Mumbai

Core BCG X & Vantage



Arndt Roller
MDP
BCG X
Berlin



Marion Nöske
Head of Digital
Factory
BCG X
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Ishita Srivastava
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