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SAP

Intelligence at Scale: How SAP's AI Platform Delivers Enterprise-Wide Impact

OCTOBER 2025

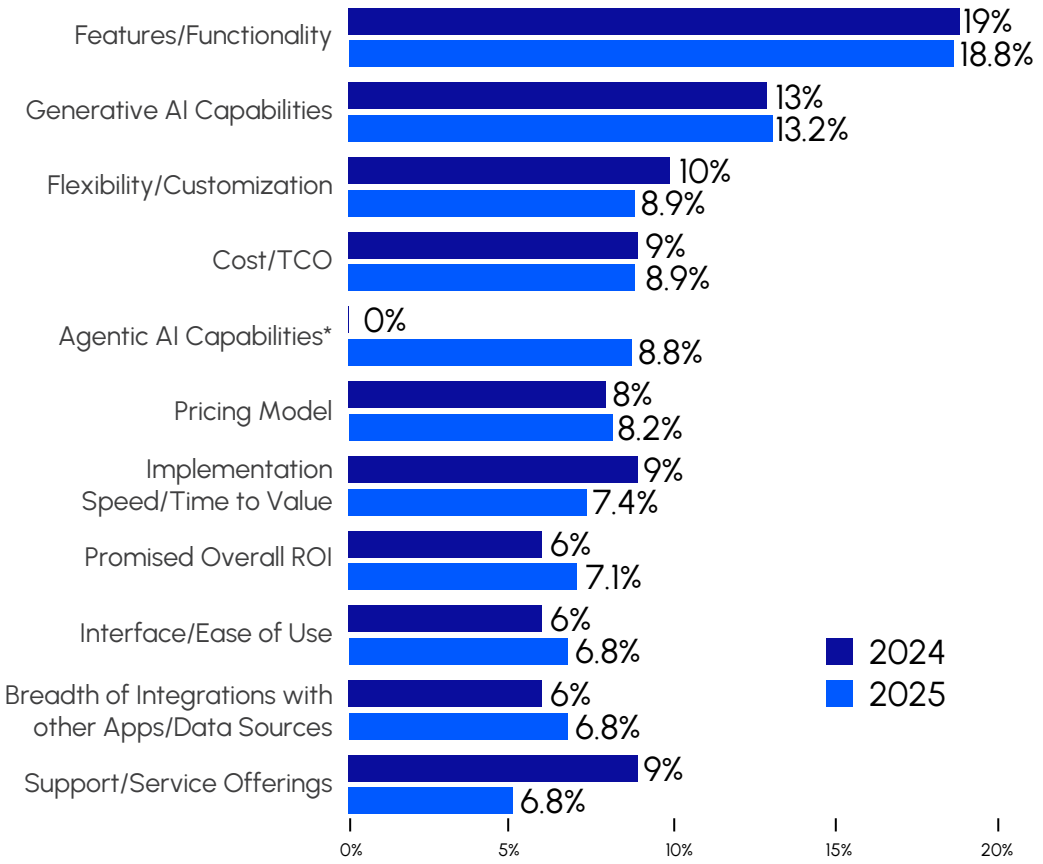
Introduction: Why AI-Driven Intelligence Matters for the Enterprise Today

AI-driven intelligence is no longer a luxury, but a necessity for modern businesses. As organizations continue to integrate data at scale, they have a massive opportunity to harness the varied insights contained within operational, product, and customer data, and leverage it to make faster, more confident decisions. Leaders can significantly shorten decision cycles, reduce wasteful spending, and uncover new revenue opportunities by integrating predictive models, automated insights, and closed-loop feedback into core workflows.

Instead of treating AI as a separate tool, AI becomes a seamless part of the flow of work. For example, instead of agents manually reading support tickets and deciding on responses, an embedded AI agent can triage tickets, suggest responses, and even automate routine resolutions while the human agent handles more complex cases. Indeed, the business impact of AI only emerges when it is embedded directly into everyday operations and workflows—from sales forecasting and fraud detection to demand sensing—which leads to accelerated business growth and sustainable strategic differentiation.

Indeed, AI is quickly becoming a key priority for enterprise buyers, falling just behind overall software features and capabilities, according to Futurum's 2H 2025 Enterprise Software & Digital Workflows Decision Maker Survey. Both generative AI and agentic AI capabilities are being cited as key decision criteria when evaluating enterprise software.

Figure 1: 1H 2025 Vendor Selection Criteria, 2024 vs 2025



*n=895 No data available for 2024 Survey Source: Futurum Research, June 2025

In 2025, agentic AI exploded as a new vendor selection powerhouse, eclipsing drops in ease of use and support, **as buyers ditch usability for autonomous AI edge**.

Generative AI and ROI gained ground, but flexibility and implementation speed slid, marking a ruthless **pivot to AI innovation over practical basics**.

Despite the potential of AI to transform all facets of a business, practical challenges can create significant hurdles to its successful implementation and utilization. Brittle data, which fails with minor changes to format, context, or use, and siloed data, which can only be accessed and used within a single system or application, can limit the ability of AI to be applied effectively to relevant company data.

Furthermore, fragmented systems, overly ambitious timelines, and resistance to change can impede or inhibit the rapid progress needed to not only implement AI, but quickly and sustainably generate business benefits. To overcome these hurdles, it's crucial to prioritize robust data infrastructure, as well as enact strong data hygiene and governance before focusing on model development or selection.

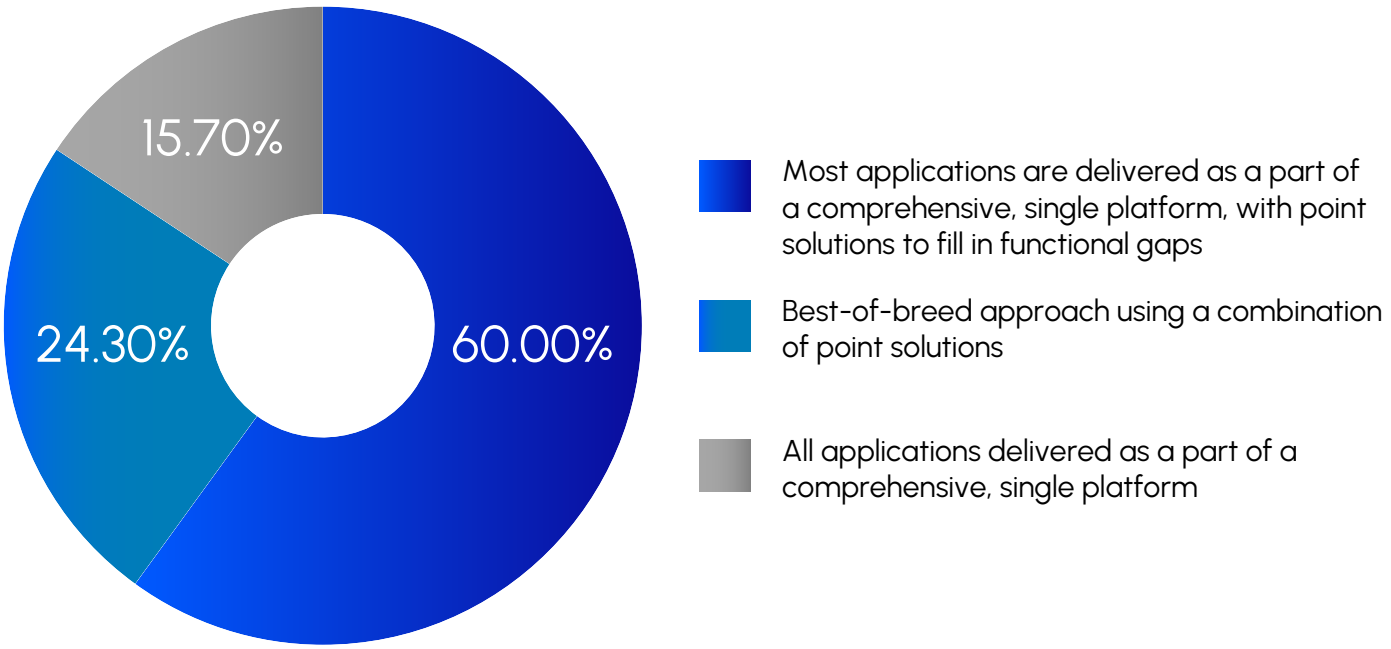
Conducting a Strategic Evaluation of Buy vs. Build

When deciding whether to buy or build AI capabilities, businesses must weigh tradeoffs in time-to-value, ongoing complexity, and scalability. Purchasing pre-built AI services offers faster outcomes and lower initial risk, making it ideal for standard needs and rapid pilots. Conversely, building in-house solutions allows for tailored differentiation, but requires additional engineering resources, strong governance, and lifecycle maintenance.

As such, the most effective strategy for companies seeking to quickly realize value from AI is to take a hybrid approach, which includes the selection of a robust commercially available software platform that embeds AI throughout applications and workflows to handle common functionalities, but also enables the use of custom models, templates, and workflows that can leverage unique domain expertise.

Indeed, data from Futurum Intelligence found that most organizations select a primary platform to run a majority of their core functions, and then augments it with additional applications to address business-specific functions.

Figure 2. How Organizations Approach Enterprise Software Acquisition



Source: 2H Enterprise Applications IT Decision Maker Survey, Futurum Research, June 2025

Unlocking AI's Full Potential Through a Platform Approach

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How SAP's Embedded AI Approach Provides Scalability, Security, and Value

SAP embeds AI directly into its core applications, ensuring intelligence appears in the flow of work, rather than through a separate, tangentially connected tool. Across S/4HANA, SuccessFactors, and other line-of-business applications, SAP surfaces contextual recommendations, predictive insights, and task automation within finance, supply chain, sales, service, and HR experiences.

These in-app capabilities are augmented by Joule, SAP's generative AI copilot and studio for building tailored skills. Moreover, at the platform level, SAP also provides pre-built experiences and agent capabilities that are designed to work across departments, and allow companies to ground embedded or custom AI in shared business context and data across functions rather than stitching disparate applications together.

This embedded approach drives immediate value by reducing the time and effort required to turn insights into action. Business users are served context-aware suggestions (e.g., cash-flow or demand-forecast adjustments) that can help automate routine work, and multi-step Joule agents can be used to execute context-aware and coordinated workflows across the business.

Most importantly, SAP Business Technology Platform (BTP) centrally monitors and governs the AI models, and the data that powers them. Because these AI capabilities are delivered as part of the SAP application portfolio, including ongoing product releases and hundreds of built-in AI scenarios and skills, customers can realize productivity gains and faster time-to-value without custom AI projects.

Leveraging Joule Agents to Drive Productivity, Efficiency, and Value

As SAP's copilot and contextual assistant, Joule surfaces answers grounded in business data. Joule agents can collaborate, plan multi-step workflows, and interact with enterprise systems. These agents are also able to autonomously identify underperforming sales regions, connect to supply chain or finance systems, and propose (or execute) remediation steps, thereby shortening decision loops and reducing friction across departments.

Joule agents are designed to plan, break problems into tasks, consult data sources (via Business Data Cloud and the Knowledge Graph), and either escalate to humans or carry out actions that are governed by policy. That reasoning and planning model makes it possible to automate cross-LoB processes (e.g., identifying a supply shortfall, calculating financial impact, initiating procurement, and updating customer commitments) with human oversight at defined checkpoints. The result is fewer manual handoffs, faster cycle times, and clearer audit trails.

Joule agents are explicitly designed to collaborate across departments, orchestrating information and actions so cross-functional problems (e.g., supply-chain disruptions that affect finance and sales) are surfaced and remediated faster, which supports better, more aligned decision-making.

Joule demonstrates its value by proactively recommending next best actions inside the flow of work. Joule and embedded AI scenarios present context-aware suggestions and predictive insights directly inside transaction screens and task lists. This immediate guidance shortens the path from insight to action so users can make corrections or approvals without toggling between analytics tools and core systems.

Finally, SAP makes advanced analytics usable and intuitive for all roles by embedding analytics, natural language interfaces, and low-code/no-code extension tools on SAP BTP. That combination lowers the bar to adopt predictive models and generative insights: analysts and frontline workers alike can query business context in plain language, onsume recommended actions, and iterate on agent recommendations, turning complex analytics into everyday operational intelligence.

Leveraging Domain Expertise and Experience

SAP's decades-long focus on enterprise workflows provides its AI initiatives an immediate advantage: the models and agents are built on deep, productized domain knowledge for finance, supply chain, procurement, and cross-industry processes, not generic one-off experiments. That history shows up as pre-built, tested AI scenarios and in-app Joule workflows that understand common transaction patterns, compliance checks, and approval workflows, so organizations get AI that's already tuned to real business realities instead of starting from scratch.

This expertise and experience with domain-specific workflows translates into the breadth and depth of capability. SAP publishes industry- and process-specific scenarios, such as invoice and receivables automation in finance, demand-sensing and integrated planning in supply chain, and guided buying and sourcing support in procurement, which unlock value because the data mappings, business rules, and success criteria are already embedded in the solution footprints. Customers therefore benefit from reduced integration effort and higher initial accuracy for task automation and predictive guidance.

At the same time SAP recognizes that AI maturity varies widely across lines of business and organizations; not every team is ready to deploy end-to-end agent orchestration immediately. That's why SAP advocates modular options, which are focused around delivering measurable improvements with packaged scenarios to deliver quick-wins with AI (e.g., document summarization or job-matching) alongside the option for phased rollouts and continuous upgrades as capability and trust grow. With a phased implementation approach, organizations can pilot AI in a controlled scope, learn from outcomes, and expand deployment while keeping disruption low.

Finally, SAP stresses measuring success with LoB-relevant KPIs rather than static, one-size-fits-all approaches. By defining clear metrics and tracking them through embedded analytics, process indicators, and KPIs, businesses can refine their models and deployment strategies — turning past workflows into repeatable, scalable AI value.

Addressing Skepticism Around AI Governance, Responsibility, Accuracy, and Control

Business software buyers typically have two major concerns around AI: can the AI's accuracy and training data be trusted; and can its actions be properly controlled? SAP embeds governance and ethics throughout the stack: a Global AI Ethics Policy, a commitment to responsible AI, an AI Ethics Handbook, and practical tooling for use-case classification and risk mitigation. Those organizational and technical guardrails, as well as grounding via Business Data Cloud and knowledge graph, can significantly reduce hallucinations, enable human-in-the-loop decisioning, and provide traceability for audits.

SAP also recommends dataset curation and provenance controls, bias testing across demographic and business slices, human review gates for high-risk scenarios, synthetic data generation for balanced training sets, and continuous monitoring with clear remediation paths. These are operationalized in SAP's guidance materials and governance resources, which map ethical principles to developer and product planning checklists.

Conclusion

SAP embeds Business AI as intelligence embedded directly into its application portfolio so that AI-powered capabilities appear where decisions are made, generally inside S/4HANA, SuccessFactors, sales and service clouds, procurement, and other line-of-business applications.

What distinguishes enterprise AI that changes outcomes from AI that merely generates novelty is threefold: context, control, and orchestration. By grounding models in harmonized enterprise data and distributing capabilities through a single Joule-enabled interface and platform services, SAP enables AI that is contextual to business processes rather than an external bolt-on. This architecture reduces integration friction and lets organizations scale the same business logic and data models across functions. This approach ensures that organizations can deploy agentic, generative, and traditional AI capabilities where they create measurable business impact while maintaining governance, ethics, and enterprise control.

Case Studies

Finance Case Study: Western Sugar: Automating Invoice Processing with SAP Business AI

Western Sugar Cooperative, a century-old domestic sugar producer operating across Colorado, Nebraska, Wyoming, and Montana, faced tight margins and complex supplier payments. With more than 700 growers relying on timely payments to manage daily farm operations and loans, manual invoice processing became a bottleneck, causing delays, errors, and financial risk.

To streamline accounts payable, Western Sugar implemented SAP Ariba Central Invoice Management on SAP S/4HANA Cloud Public Edition, leveraging embedded AI to automate invoice capture, validation, and approval.

The results were immediate and measurable: 25% faster invoice processing, 40,000 supplier invoices processed without human intervention, and invoice processing costs reduced from $8 to $6 per invoice. These efficiencies freed the accounts payable team one week per month to focus on strategic initiatives, improving operational agility and business visibility.

Beyond speed and cost savings, AI enhanced accuracy and compliance, reducing payment delays and strengthening supplier relationships. By embedding AI into its finance workflows, Western Sugar not only accelerated operations but also created tangible value for growers, employees, and the broader cooperative ecosystem—turning automation into a strategic lever for stability and growth.

In the future, Western Sugar is exploring AI-driven insights on sugar content and molasses loss to help growers optimize harvest timing and maximize ROI.

Supply Chain Case Study: Blue Diamond Growers: Building a Data-Driven Almond Cooperative with SAP

Blue Diamond Growers, the world's largest almond cooperative, represents roughly 3,000 growers and exports to more than 100 countries. Managing $300 million in annual supply chain and logistics spend across diverse systems, spreadsheets, and manual processes created bottlenecks, slow scenario planning, and limited visibility, challenges that were magnified during COVID-19, resulting in freight lead times soaring from three weeks to five months.

To modernize, Blue Diamond deployed SAP S/4HANA, SAP Transportation Management, and SAP Business Network for Logistics, integrating SAP Analytics Cloud, SAP IBP, and project44's real-time transportation platform. The results were impactful, with a 20% reduction in supply on hand, US$1 million saved annually in transportation, 99% customer-order fill rate, and a 10% improvement in forecast accuracy. Scenario planning time dropped from six hours to 20 minutes, while manual workflows were consolidated or eliminated, freeing teams for strategic initiatives.

Embedded AI enabled dynamic demand, supply, manufacturing, and logistics planning, increasing resiliency, accelerating response times, and reducing shortages from supplier and ocean freight disruptions. Partnering with XpertMinds and project44, Blue Diamond created a single source of truth across operations, driving a more agile, collaborative, and automated cooperative.

By fully digitalizing its supply chain, Blue Diamond has strengthened grower value, operational excellence, and global competitiveness. Looking forward, generative AI will further streamline daily delivery-note processing and uncover new process efficiencies.

Service Case Study: Bosch Power Tools Transforms Service Operations with AI-Driven Automation

With millions of service tickets handled annually, Bosch faced a complex, slow, rule-heavy service ticket routing system that frustrated both customers and employees. By deploying a case classification AI agent in SAP Service Cloud, tickets are now analyzed in context and automatically routed to the appropriate team. This shift eliminates hundreds of workflow rules, improves first-touch accuracy, and ensures faster responses, higher first-time resolution rates, and consistent service quality.

As such, Bosch is enabling thousands of work hours to be saved annually and with significant cost optimization, while also enabling rapid adjustments for new products and services in minutes instead of weeks. Beyond service operations, Bosch is integrating SAP Business AI and Joule agents, leveraging both public and private cloud HANA environments, to explore embedded AI across core business solutions.

This AI-driven approach also fuels innovation. By showcasing capabilities on Bosch's experience platform, teams generate interest and accelerate rollout potential across the company.

Cross Lines of Business Case Study: Aspen Pumps Accelerates Growth Through AI-Driven Process Automation

Aspen Pumps Limited, a UK-based industrial manufacturer with a global footprint, faced a familiar challenge: rapid revenue growth that was doubling every four years without a proportional increase in headcount. To scale effectively, the company selected SAP Build Process Automation and SAP AI Core, leveraging automation bots to relieve employees from repetitive manual tasks.

Partnering with NTT DATA Business Solutions, Aspen deployed 12 bots across the UK, Europe, and Malaysia, automating a variety of workflows such as invoice processing, goods receipts, BOM compilation, and complex CAD data interpretation. The results were immediate: 10,000 hours saved annually, 80% reduction in manual invoice handling, and £45,000 in yearly cost savings.

Beyond efficiency, automation improved process quality, reduced human error, and freed staff to focus on strategic initiatives—enhancing customer engagement, supplier relationships, and operational innovation.

Aspen is now extending automation with generative AI, powering customer service agents with product recommendations and real-time insights, cutting call resolution time by two minutes per interaction, halving onboarding time, and enabling location-specific sales guidance.

Important Information About This Report

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SAP is a global enterprise software leader known for its integrated applications that support finance, supply chain, human resources, and customer experience. The company has increasingly focused on embedding business AI into its portfolio, enabling organizations to automate processes, enhance decision-making, and unlock new efficiencies. By combining data, cloud infrastructure, and AI-driven insights, SAP helps enterprises address both operational needs and long-term transformation goals. With a strong presence across industries and regions, SAP continues to position itself as a key partner for businesses navigating digital change.

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