SAP AI & JOULE INSIGHTS

# SAP Joule and AI Agents: 7 Shifts Reshaping the SAP Landscape

SAP is building what it calls an autonomous enterprise. Joule, AI agents and a new AI platform are changing how SAP is bought, run and staffed. Some of it is real today, some of it is still a promise, and all of it calls for a plan.




**In short:** SAP Joule is SAP's generative AI assistant. It has grown from a 2023 copilot into a family of assistants, AI agents, a workspace and an agent builder that SAP says will automate finance, spend, supply chain, HR and customer processes [1], [2]. It is designed for the cloud, and ECC and other on-premise customers can enable its assistants only after moving at least half of their maintenance spending to cloud services [3].

SAP's numbers say customers are buying the vision. In the quarter ended September 30, 2026, SAP's cloud revenue rose 26 percent to €6.67 billion and its current cloud backlog reached €24.1 billion [4]. SAP also reports that about 45,000 cloud customers now use its AI solutions [5].

The wider market is moving the same way, but less smoothly. Gartner expects 33 percent of enterprise software applications to include agentic AI by 2028 and 15 percent of day-to-day work decisions to be made autonomously, yet it also expects more than 40 percent of agentic AI projects to be canceled by the end of 2027 [6]. McKinsey found 88 percent of organizations using AI but only 23 percent scaling an agentic AI system anywhere [7] (Figure 1).

Orpington Technologies advises organizations on ERP strategy and delivery, including SAP, and approaches AI as it approaches any large SAP decision: with independent review and evidence before commitment.

## Key takeaways

**What it is.** Joule has grown from a 2023 copilot into assistants, agents, a workspace and a studio for building agents.

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**What is new.** SAP's Autonomous Suite promises more than 50 assistants backed by more than 200 specialized agents across finance, spend, supply chain, HR and customer experience.

**The catch.** Joule is designed for the cloud. On-premise and ECC customers can enable assistants only after moving at least 50 percent of their maintenance spending to the cloud.

**The risk.** Gartner expects over 40 percent of agentic AI projects to be canceled by the end of 2027, and much of SAP's roadmap, as announced at Sapphire 2026, is still planned rather than shipped.

**The move.** Fix data, ownership and skills first, then pilot agents on one measurable process, with independent review before scaling.

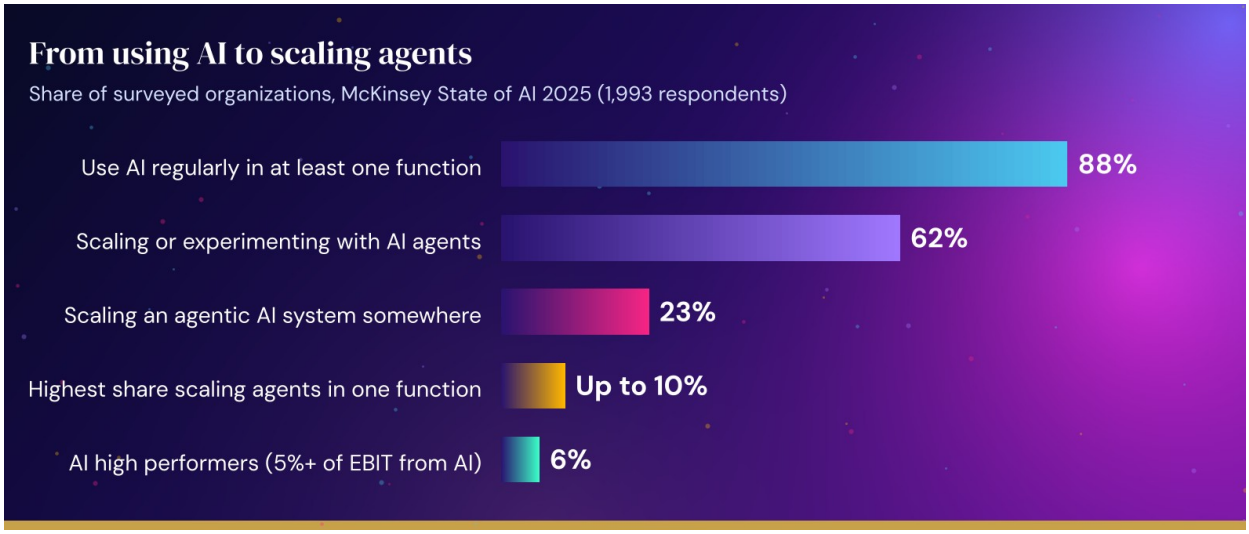



**Figure 1.** The distance between using AI and scaling AI agents. Source: McKinsey, The state of AI in 2025 [7]. "Up to 10%" reflects McKinsey's finding that in any single business function no more than 10 percent of organizations report scaling agents.

## 1. What is SAP Joule, and why does it matter now?

SAP launched Joule in September 2023 as a generative AI copilot to be embedded throughout its cloud applications, starting with SAP SuccessFactors and SAP Start [1]. Today the name covers four layers. A useful test for any AI proposal, and one Orpington Technologies recommends, is to ask which layer it actually touches.

**Joule Assistants.** Domain helpers for finance, spend, supply chain, HR and customer experience that coordinate groups of agents. SAP's financial closing assistant, for example, uses seven agents [5].

**Joule Agents.** Specialized AI workers that perform defined steps of a process, such as accounts receivable or tax compliance [5].

**Joule Work.** An intent-driven workspace that interprets what a person wants and coordinates assistants and agents across SAP and non-SAP systems [8].

**Joule Studio.** The tool for designing, building and managing custom agents, with no-code and pro-code options [9].

At Sapphire in May 2026, SAP had said its Autonomous Suite would draw on more than 200 specialized agents to power more than 50 assistants, backed by a new SAP Business AI Platform and a €100 million partner fund [2].

Money is following the message. In the third quarter of 2026, the Cloud ERP Suite grew 29 percent while software support revenue fell about 5 percent (Figure 2) [4], [10]. Customers are shifting from maintaining ECC to subscribing to cloud ERP, and AI is now part of the pitch.

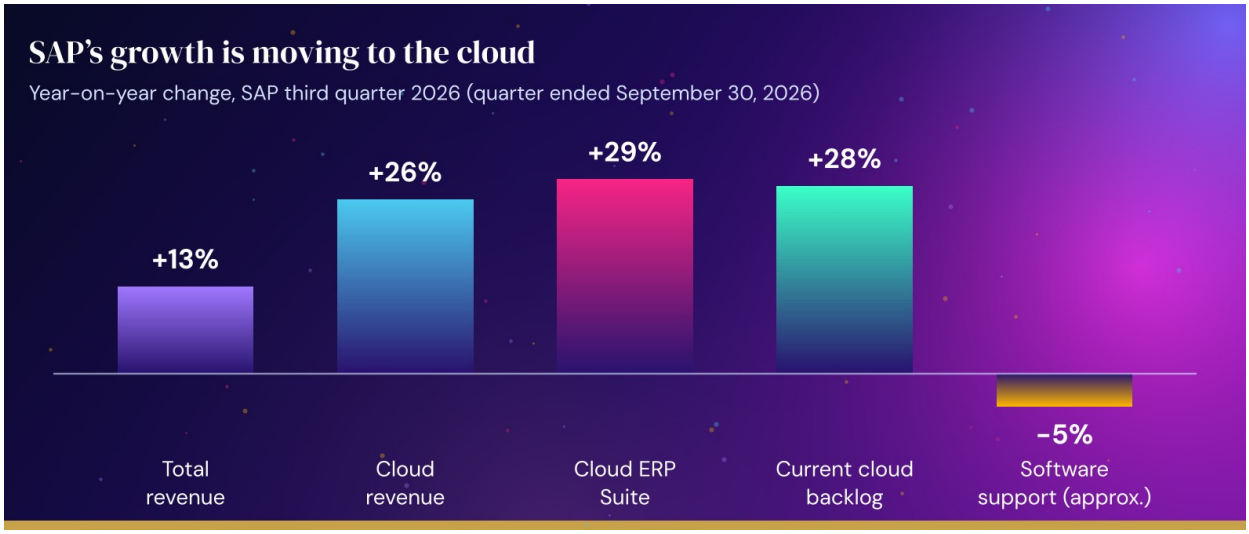



**Figure 2.** Year-on-year change in SAP's third quarter of 2026. Revenue, Cloud ERP Suite and backlog figures from SAP's quarterly statement [4]; the software support decline is approximate and reported by Tech Times [10]. The statement notes that one-time catch-up effects helped cloud growth.

## 2. Seven shifts reshaping the SAP landscape

The shifts draw on SAP's own announcements, its third-quarter 2026 results and independent analysis. Customer results reported by SAP are vendor claims, not audited benchmarks.

### Shift 1: From screens and transactions to intent

Joule Work is built around intent. A person states what they want, and the system coordinates assistants and agents to do it across SAP and non-SAP systems, on desktop, mobile and by voice. The mobile app is generally available, while desktop and agent-to-agent capabilities are planned for later in 2026 [8]. Reinhausen says a task that took up to an hour now takes seconds, and KNAPP reports about 90 percent faster issue resolution [5]. The SAP user interface is shifting from menus to conversation.

### Shift 2: From modules to autonomous process domains

SAP's Autonomous Suite groups agents by domain. In finance alone, SAP lists assistants for financial closing, accounts receivable, accounts payable, billing, treasury, tax compliance and international trade, each backed by several agents [5]. SAP describes its Autonomous Close Assistant as designed to compress the financial close from weeks to days, which is a goal rather than a measured result [2]. The suite is built under an ISO-certified process designed for SOX audit compatibility [11]. For finance leaders, Orpington Technologies' practical advice is to treat each agent as a new control owner: someone must be named accountable for what it does.

### Shift 3: From custom code to AI-built extensions

Joule Studio lets users describe a goal in natural language and generates requirements, specifications, code scaffolding and tests, which developers can extend in tools such as VS Code and Cursor. Sony reports that it produced an end-to-end solution in 10 to 15 minutes in place of three to four days of manual work [9]. The tooling also targets the people who deliver SAP projects: Joule for Consultants cites up to 19 percent higher productivity and a 50

percent cut in design iterations and rework, and Wipro reports a 40 percent reduction in development effort [5]. SAP's migration platform targets up to 50 percent less migration effort [11]. These are estimates and early claims.

In Orpington Technologies' view, clean-core discipline matters more, not less, when code can be generated this quickly. Without it, AI-built extensions simply create technical debt faster.

### Shift 4: From data silos to a shared business context

Agents are only as good as the context they are given. SAP's answer is the SAP Business AI Platform, which combines the AI foundation, SAP Business Data Cloud and SAP Business Technology Platform around a context layer built on the SAP Knowledge Graph. A further layer, Company Memory, learns from policy documents, process models and team communications, and Joule supports the Model Context Protocol and Agent-to-Agent protocols so agents can work with non-SAP systems [11]. SAP names Anthropic as the primary reasoning model for Joule agents and also works with Mistral AI, Cohere and the major clouds [2].

Data quality becomes the gating factor. Orpington Technologies' migration-readiness guidance applies equally to AI readiness: duplicate customer and vendor records, undocumented custom code and unowned processes confuse an agent exactly as they confuse a new hire.

### Shift 5: From a cloud choice to an AI-gated modernization decision

SAP's position is that Joule is designed for the cloud. Joule base comes at no extra charge with an active subscription to a supported SAP cloud solution [12], and customers on SAP's Cloud ERP Private offering get up to three Joule Assistants at no additional cost [3]. SAP has also committed to activating three Joule assistants in year one under its RISE with SAP and GROW with SAP offerings [11]. At Sapphire 2026, SAP offered on-premise and ECC customers a route to Joule assistants, on one condition: they must first move at least 50 percent of their maintenance spending to the cloud, which SAP confirmed [3].

Analysts see leverage in this. IDC's Mickey North Rizza called AI "the new carrot and stick," and an ASUG 2026 survey found S/4HANA migration is members' biggest challenge, citing budget constraints (61 percent) and integration struggles (48 percent) [3]. This is where an independent view helps. Orpington Technologies can lead an S/4HANA migration as the accountable delivery partner or oversee an integrator already chosen, and in both cases AI access should be one input to the timeline, not the whole reason for it [13].

### Shift 6: From project teams to human and agent teams

As agents take on process steps, governance becomes a design task. SAP's AI Agent Hub, housed in SAP LeanIX, extends governance to SAP and non-SAP agents [11]. McKinsey found only about 6 percent of organizations qualify as AI high performers, and most have not embedded AI deeply enough in their workflows and processes [7]. Gartner adds a warning on vendor claims: of the thousands of agentic AI vendors, it estimates only about 130 are real, the rest being "agent washing" [6].

The scarce resource is people who understand both the process and the platform. Orpington Technologies' **ERP staff augmentation** supplies three matched, credentialed candidates roughly four weeks after the engagement fee is confirmed, working remotely under the client's project lead [14]. That is the practical answer to the skills gap as agents arrive.

### Shift 7: From licenses to consumption

SAP prices AI in two tiers. Base AI, including Joule base, is included in standard cloud subscriptions. Premium AI runs on AI Units, prepaid credits that expire after 12 months if unused, priced per user per month or by consumption. Joule Premium packages use volume tiers from 8 down to 1 AI Unit per user per month, and Document Grounding consumes 0.005 AI Units per record [12]. The Joule Studio agent builder is free until December 2026 and becomes a premium feature afterward [5]. AI becomes a variable cost line that finance should forecast before pilots scale.

The same principle sits behind Orpington Technologies' fixed fee per stage: the cost of each decision is known before it is made [13].

## 3. Reality check: what is available and what is only planned

Announcements are not deployments. SAP's own roadmap shows how much of the autonomous enterprise is still ahead. Timing is as stated by SAP at Sapphire in May 2026 and in its October 2026 release notes. It may have moved since, so confirm current status before planning around any date.

### Table 1. Selected Joule and Business AI capabilities, by SAP's stated timing

| Capability | What it does | SAP's stated timing |
|---|---|---|
| **Joule Studio** | Builds agents and skills, no-code and pro-code | Announced May 2026; free design-time access through 2026 [9] |
| **Joule Work (mobile)** | Intent-driven workspace across SAP and non-SAP systems | Generally available [8] |
| **Joule Work (desktop)** | Same workspace on desktop | General availability planned for the second half of 2026 [8] |
| **Agent-to-agent (A2A)** | Lets agents work across systems | General availability planned for Q4 2026 [8] |
| **Autonomous HCM** | Assistants for payroll, hiring and HR workflows | Planned for November 2026 [2] |
| **AI Agent Hub** | Governance for SAP and non-SAP agents | Registry available; observability and identity planned for Q3 2026 [8] |
| **Mistral models** | Run on the SAP Business AI Platform | Available; fully sovereign version planned for early 2027 [5] |

Two independent data points add caution. Gartner expects more than 40 percent of agentic AI projects to be canceled by the end of 2027, citing escalating costs, unclear business value and inadequate risk controls [6]. McKinsey found that only 39 percent of respondents attribute any enterprise-level EBIT impact to AI [7]. The lesson is to buy outcomes, not announcements.

## 4. Your first 90 days with SAP AI

### Days 1 to 30: map the starting point

Confirm which SAP edition and cloud subscriptions you hold and which Joule entitlements already come with them [12]. List three candidate processes, such as financial close, accounts payable or procurement, and test their data for duplicates, undocumented custom code and unclear ownership. Decide where your current ERP landscape fits in the move to the cloud. Orpington Technologies' free **Implementation Confidence Diagnostic** offers a 15-minute first look at implementation risk [15].

### Days 31 to 60: pilot one process

Choose one process with a measurable result, name an accountable owner for every agent, and define guardrails and escalation rules before go-live. Budget AI Units and design-time costs up front, since pricing moves from free to premium for some tools after 2026 [5].

### Days 61 to 90: decide with evidence

Stop pilots that cannot show value, because cost, unclear value and weak risk controls are the reasons Gartner expects projects to be canceled [6]. Plan the skills for the next phase and align the AI roadmap with the migration timeline. Have someone with no stake in the outcome review the plan before more money is committed.

## 5. How Orpington Technologies helps SAP leaders prepare for AI

**An independent first look.** The free Implementation Confidence Diagnostic takes about 15 minutes with no sign-up and returns a confidence score with the top three risk flags [15].

**Evidence, not opinion.** The Full ERP Diagnostic Report checks every self-reported answer against real evidence, and a certified platform expert reviews the result [13].

**Delivery or oversight.** The Full ERP Implementation Partnership provides independent oversight from platform selection through hypercare, and Orpington can lead the migration as the accountable delivery partner [13].

**Skills on demand.** Credentialed candidates join through **ERP staff augmentation**, backed by a 90-day replacement guarantee and a single monthly invoice [14].

For an organization planning around AI, the sensible first step is a conversation grounded in evidence, and the diagnostic is the quickest way to start [15].

## 6. Frequently asked questions about SAP Joule and AI

### What is SAP Joule?

SAP Joule is SAP's generative AI assistant, launched in 2023 and now a family of assistants, agents, a workspace (Joule Work) and an agent builder (Joule Studio) [1], [8].

### Is SAP Joule free?

Joule base is included at no extra charge in standard SAP cloud subscriptions. Premium capabilities use AI Units, priced per user per month or by consumption [12].

### Does SAP Joule work with SAP ECC?

Joule is designed for the cloud. SAP said at Sapphire 2026 it would enable many assistants and agents to work with on-premise S/4HANA and ECC for customers committed to transformation [11], and it confirmed they must first move at least 50 percent of maintenance spending to the cloud [3].

### What are Joule agents?

Joule agents are specialized AI workers that perform steps of a business process. SAP says more than 200 of them sit behind more than 50 Joule assistants in its Autonomous Suite [2].

### What is the SAP Business AI Platform?

It combines SAP's AI foundation, SAP Business Data Cloud and SAP Business Technology Platform around the SAP Knowledge Graph, to build, deploy and govern agents [2], [11].

### Will AI replace SAP consultants?

SAP's own figures point to augmentation: Joule for Consultants cites up to 19 percent higher productivity [5], and Gartner expects 15 percent of day-to-day work decisions, not all of them, to be autonomous by 2028 [6]. Orpington Technologies' view is that value shifts toward practitioners who can judge what an agent proposes.

### Is agentic AI ready for SAP production use?

Partly. Some assistants are generally available, others are planned, and McKinsey found only 23 percent of organizations scaling agents anywhere [7]. Start with one measurable process.

## Sources & Further Reading

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