



Do what matters

A manufacturer's guide to giving SAP ERP a new lease of life

Add Power Platform to SAP for better innovation and agility

How can manufacturers get the most out of SAP?

Every manufacturing business wants to meet rising customer expectations, stay ahead of the competition, and be more innovative, agile and secure. How it gets there depends on where it is now.

For many businesses, where they are now is with SAP as their ERP platform. But even organizations satisfied with their SAP deployment wonder if they're taking maximum advantage of its capabilities. Are they leaving untapped value locked within those investments? Do they have agile,

cost-effective roadmaps to the future, or are they increasingly traveling down a potential dead end?

Those questions are compounded as we begin to see how generative AI is transforming ERP in many organizations, enabling systems to write code, automate financial operations, and convert business logic into actions with less human effort. These AI advances make ERP more accessible and can bridge the talent gap in legacy systems.

Meanwhile, other pressing issues loom. SAP was born in an era when big tech budgets and large-scale capital spending on multiyear upgrades was the norm. That time is long gone. Now, budgets are pressed like never before and upgrades need

to be incremental and continuous to meet agility requirements. Innovative, effective solutions require increased collaboration and interoperability with non-SAP systems. Data security drives a need for comprehensive governance.

Even more concerning, SAP Business Suite 7, including Enterprise Central Component (ECC), will reach end-of-life in 2027. Gartner estimates that SAP is behind its own schedule for migrating customers off ECC¹.

No company wants the time, expense and risk of a major migration away from SAP, nor a write-down on their SAP investment. So, where do those companies go from here?

¹"SAP barely moving needle to migrate users off ECC before support ends," Lindsay Clark, The Register, October 11, 2023, www.theregister.com/2023/10/11/sap_ecc_migration_s4hana/

No-code/low-code is remaking ERP

Fortunately, there is an alternative to the massive, multi-year upgrades typically required for SAP systems. It's the no-code/low-code revolution that is remaking ERP systems at companies of all sizes.

No-code/low-code replaces traditional development methods with a visual approach to building apps and workflows. That approach democratizes software development by lowering the knowledge barriers to solving manufacturing business challenges with technology.

Business users become citizen developers who can quickly, directly and effectively address the challenges they face and work more collaboratively with their IT and development teams.

Meanwhile, all this decentralization of control doesn't lead to chaos because IT oversees highly automated governance that keeps citizen developers working within approved corporate guardrails. That governance also frees IT to focus on other work that delivers higher value.



Microsoft Power Platform: The popular choice for no-code/low-code

For manufacturers seeking a no-code/low-code technology, the popular choice is Microsoft Power Platform, with more than 33 million monthly active users, growing 50% year over year.²

For no-code users, it offers PowerPoint-like drag-and-drop experiences. Low-code users can do even more via Excel-like formulas. And code-first professional developers can use Power Platform across their enterprise environments.

²Citi's 2023 Global Technology Conference, September 7, 2023, www.microsoft.com/en-us/Investor/events/FY-2024/Citi-Global-Technology-Conference



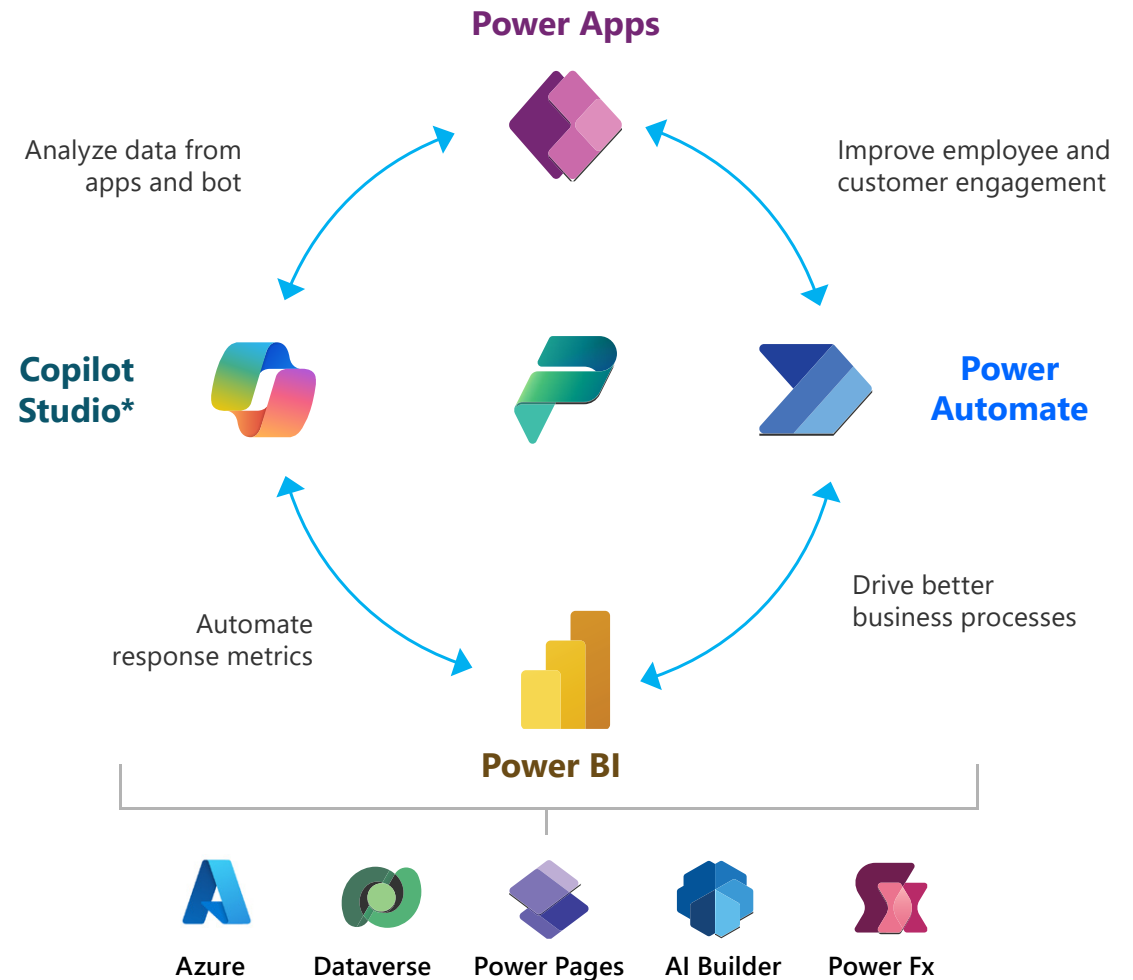
Platform

- **Power Apps:** Create applications and business processes
- **Power Automate:** Use automated workflows and approvals
- **Power BI:** Analyze and visualize data from multiple apps and bots
- **Power Pages:** Build low-code mobile apps and websites fast
- **Copilot Studio:** Use virtual assistants and intelligent chatbots

Benefits

- **Data availability:** Automated document data capture
- **Near real-time intelligence:** Better data flows between apps
- **Productivity:** Remove manual data entry and process steps
- **Simplicity:** Avoid app switching with tasks executed via Teams and Outlook
- **Clarity:** Improve employee and customer engagement

Power Platform: A transformation platform for everyone



*The capabilities and features of Power Virtual Agents are now part of [Microsoft Copilot Studio](#).

Top SAP and Power Platform use cases in manufacturing



Supply chain management

Forecast supply needs

Monitor and visualize real-time data from SAP (e.g., incoming orders, inventory levels). Create alerts when thresholds are reached (e.g., low stock, over-stocks, sudden spikes in demand).

Automate procurement

Create a standard in-app flow for procurement of spare parts, personal protective equipment (PPE) and other consumables.

AI-enable control towers

Collect structured and unstructured data from various sources (barcodes, IoT sensors, weather data, etc.). Use AI to run simulations, and perform what-if analyses on planning, sourcing, ordering, and fulfillment tasks.



Production management

Track production

Use an app to scan barcodes on components, workstations, and finished products across the assembly, testing and packaging process. Receive alerts about deviations from expected cycle times or quality standards and process bottlenecks.

Streamline material swaps

Create flexibility when the original materials are unavailable due to supply chain issues, cost, or other constraints by updating the Bill of Materials (BOM) from the factory floor.

Boost quality control

Monitor and manage defect rates, rework percentages and scrap levels. If defects exceed a threshold, an alert triggers for immediate action. Drive better component and product traceability.



Performance management

Enhance ESG reporting

Monitor and manage data from your offices, manufacturing plants, warehouses and retail outlets to reduce waste (energy, water, scrap, carbon emissions) as part of your Environmental Social Governance program.

Accelerate inspections and audits

Create dashboards for production settings and efficiency, machinery uptime, inventory levels, supplier performance.

Deliver better field services

Empower field service engineers with information on their schedule, work orders, and client details. Send customers automated updates on their ticket status.



People management

Better employee onboarding

Automate the capture of data from new joiner documents. Use AI to process information and set up automated workflows and approvals.

Optimize shift management

Schedule shifts, taking into account employee availability, shift preferences, and production needs. Provide real-time visibility to staff.

Empower frontline workers

Digitize, prioritize, and implement Lean and Kaizen continuous improvement suggestions using GenAI.

Beverage bottler and distributor automates order processing

One of the largest beverage bottlers and distributors in the US had experienced significant exponential growth. Manual processes that worked in earlier days were less efficient as the company expanded.

The company is now using Power Platform to process orders in seconds rather than hours. It can process ten times more forced shipment orders with better tracking, fewer errors, faster delivery times, and improved customer satisfaction. This better enables the firm to immediately dispatch products within tight deadlines under challenging circumstances to meet critical customer demand.

A field rep enters order details through a mobile app. Azure App Services then validates the order against inventory data in SAP, writes all details to a SQL database and sends to SAP for processing.

In addition, a supplier integration solution automate orders and servicing of beverage dispensers, doing the work of 10 full-time employees.

Citizen developers were brought alongside professional developers to accelerate innovation.



Electrical infrastructure manufacturer boosts customer helpdesk support

Smart chatbots, integrated into SAP, enabled the firm to streamline helpdesk functions supporting over 1.6 million global customers.

Service requests are processed via AI bots to categorize and match solutions to each service ticket rapidly. Automated data extraction and delivery gives dispatchers immediate data on the skills required to fix the issue and staff availability.

Field service engineers receive their schedule, work orders, and client details in one PowerApp interface, while customers get automated updates on their ticket status.

Tire manufacturers digitizes annual inventory checks and reporting

A manufacturer of high quality tires for cars, trucks and motorcycles in North America needed to count and report on its inventory at the end of each year.

It was reliant on a time consuming and error-prone legacy, paper-based process and manual data entry.

Using the new app, counters in seven warehouses are able to quickly and accurately tally over 12,000 tires and parts. The data automatically flows into ERP thanks to Power Automate.

Volvo Cars tackles sustainability challenges with reporting tool

Volvo Cars has set the ambitious target of becoming a climate neutral company by 2040. It is using a new Facilities Environmental Sustainability Tool to gather data from approximately 200 non-manufacturing facilities, 2,500 retailers and its factories.

We were able to integrate and translate data from multiple sources into actionable insights, in real time. This enables the firm to report its carbon footprint, including the impact of its heating systems and wastewater.

These insights can then be used to make decisions and take action to reduce the firm's environmental impact.

SAP + Power Platform > SAP alone

Enterprises are now using Power Platform's low-code tools together with Avanade's industry expertise to realize greater value and a faster ROI (Return on Investment) from their SAP deployments.

They add functionality when and as they want, without having to budget and wait for a massive SAP upgrade. They enable more collaboration around their SAP data with native Microsoft 365 integrations to Office, Teams and related applications. And they clear backlogs and better serve their business users by offloading collaborative apps to the low-code environment.

By wrapping Power Platform's ease-of-use around SAP functionality, organizations ensure that more citizen developers can create more no-code/low-code apps and processes. The ease and accessibility of those apps and processes drive up active use throughout the organization, generating more value from SAP than it can generate on its own. Power Platform can also help organizations begin to tap into the potential of AI, with new Copilot experiences and embedded automation tools. Meanwhile, comprehensive platform governance helps control the risk inherent in more broad and decentralized data access and use.

What about Fiori?

Power Platform isn't the only no-code/low-code option for extending SAP. Another is the ERP vendor's own SAP Fiori, which also enables the easier creation of business apps.

While your mileage may vary, as the automobile ads say, it's been our experience at Avanade that Power Platform generally offers lower total cost of ownership than SAP Fiori.

Saving money is good, but perhaps even more important is that only Power Platform is designed from the ground up to integrate with the Microsoft applications you'll want to use to extend SAP. That includes communications and collaboration apps such as Microsoft Outlook, SharePoint and Teams, as well as business productivity applications such as Word, Excel and PowerPoint.

As a result, SAP integration with the Microsoft ecosystem via Power Platform is faster, easier and more reliable than integrations via non-Microsoft technologies.



Power Platform/SAP connectivity: The options



Connectors

Microsoft offers a range of connectors to interoperate Power Platform with SAP – both SAP ECC and SAP S/4HANA.

At the level of the graphical user interface (GUI), Power Platform components, such as Power Automate and Power Apps, can call any SAP screen via a connector that uses robotic process automation to access the SAP GUI.

Working at the application level, Power Platform can use an SAP ERP connector to invoke standard business application programming interfaces (BAPIs) and custom remote function calls (RFCs) in SAP.

And at the data level, Power Platform components can use custom connectors to query and update SAP data via SAP Odata APIs.



Prebuilt Power Apps and templates for SAP

Manufacturers can use Power Platform connectors to SAP to create many different integrations, but they don't have to. Microsoft provides a range of pre-built Power Apps for SAP covering most business processes.

Businesses can take advantage of these pre-built Power Apps immediately and easily configure them to meet specific needs. These improvements also include new enhanced SSO integration, support for load balanced connections, and a Microsoft SAP OData connector in public preview.

Prebuilt Power Apps for SAP include the following:



Order to Cash – Quotes, Sales Orders, Deliveries, Customer Invoices, Customer Payments and Mass Pricing Updates



Procure to Pay – Requisitions, Purchase Orders, Goods Receipts, Vendor Invoices and Vendor Payments Updates



Record to Report – Financial Postings, GL Accounts, Cost Centers, Profit Centers, Cash Application and Mass Journal Entry Upload



Make to Stock/Make to Order – Production/process Orders, Materials, Goods Movements, Equipment, Work Orders and Shipments

Avanade accelerators and assets

- Equipment360™ for SAP
- Advantage Sales™ for SAP
- PO Verification for S4/HANA
- Employee Experience for SAP
- Manufacturing Sustainability App
- Material Swap App for Manufacturers

Available via Microsoft Appsource – please contact us to schedule a demo.

Why Avanade?

Avanade is the #1 strategic partner for Microsoft technologies, including Power Platform. We combine that with the in-depth expertise in SAP technologies of our parent Accenture with Microsoft ecosystem mastery and unrivalled manufacturing and supply chains expertise. Together, Avanade, Microsoft and Accenture can help you to extend SAP with Power Platform like no one else.

Our cross-functional, global talent and end-to-end services include:



6,000 Power Platform professionals and **3,700+** Power Platform certifications



Global **manufacturing** advisory practice to co-create and orchestrate practical strategies that drive outcomes faster



3,500 analytics professionals with deep knowledge of Power BI and over **3,500** manufacturing experts



Full-service Digital Innovation Studios and [experience design practice](#)



4,200 automation experts, 6,000+ successful automation programs 350+ clients



4,200 [automation](#) experts, 6,000+ successful automations for more than 350 clients



[Managed services](#) with 24x7 ongoing management and support, using a rigorous industrialized operating mode

Ready to get more out of SAP?

Learn more about how to extend your legacy SAP environment with Power Platform:

www.avanade.com/en-us/technologies/microsoft-power-platform



Do what matters

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Avanade is the leading provider of innovative digital, cloud and advisory services, industry solutions and design-led experiences across the Microsoft ecosystem. Every day, our 60,000 professionals in 26 countries make a genuine human impact for our clients, their employees and their customers. Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com

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