

Enterprise Resource Planning Technology Trends As We Move Toward 2025

November 22, 2024 | Forbes | Kevin Beasley

Business strategies are continuously influenced by changes in technology, and 2025 looks to be an incredible year for technical advances. As the business world prepares for the opportunities and challenges that lie ahead, enterprise resource planning (ERP) systems have had ever-greater advancements.

Utilizing capabilities that reduce manual labor, human error and costs, plus automate workflows that generate greater efficiency, structured and analyzed data, and advanced security measures, ERP systems will continue to transform industries and ultimately directly affect end users and consumers. Companies should keep a watchful eye on evolving industry challenges and remain vigilant to trends that can be handled and maintained by their ERP system, if they hope to remain competitive.

Here's a look at what some of these could be.

Industry-Specific Functionality

An ERP system is no longer a one-size-fits-all solution. Food, healthcare and manufacturing are just a few examples of the industries that need specific solutions to address their unique challenges. Industry-specific ERP is

necessary for the healthcare sector to manage patient data, ensure HIPAA compliance and simplify revenue cycle management. Inventory control and tracking are essential for food and beverage businesses to adhere to food safety laws. There are numerous moving parts in manufacturing since they must manage production, acquire supplies and complete orders. ERP serves as a single hub to link all these aspects of the company and thereby acts in service and betterment of whole industries.

An Integration With The Internet of Things

The Internet of Things (IoT) has many potential uses and is expected to become more significant in influencing our world as the number of devices linked to the internet rises by utilizing later technologies in existing 5G and future 6G telecommunications and changing the ways in which we work, live and communicate with one another.

According to IBM, IoT devices can be used in the transportation industry to monitor vehicle performance, optimize routes and track shipments. Sensors can be used to monitor the fuel efficiency of connected vehicles, reducing fuel costs and improving sustainability.

IoT devices are utilized to monitor machine performance, energy usage, temperature, humidity and air quality in addition to cargo monitoring. If this information is stored in a blockchain, this can give an end-to-end history of the conditions of the cargo.

Similarly, supply chain management may be optimized and inventory levels tracked in retail using IoT-enabled ERP systems. IoT and ERP integration, which work well together, are going to be quite popular as companies try to use data to make better decisions and run their operations more efficiently.

Powering Industrial ERP With AI

AI is expected to see an annual growth rate of 36.6% from 2023 to 2030, and it is inevitable that AI and machine learning will be integrated deep into ERP systems as they develop. AI-driven ERP deployments will completely transform how companies run in 2025 and beyond. These technologies facilitate enhanced decision-making processes, advanced predictive analytics and the automation of repetitive jobs by integrating robotics. The massive volumes of data produced by ERP systems today require data scientist expertise and can take a long

The Forbes logo is displayed in white serif font on a black rectangular background.

time to be analyzed. Using AI to analyze the data will yield insightful information that can enhance business results in dramatically reduced time.

AI has the potential to also automate tasks such as regulatory financial reporting and warehouse and supply chain operations. Furthermore, AI can improve user experiences by enabling customizations of interfaces according to user behavior and preferences. AI has many capabilities such as comprehending natural languages, which makes voice-activated ERP and automated customer support possible in an end user's primary language.

Cybersecurity

The realization that security is essential to tech-driven success will push businesses to aggressively fortify their cybersecurity posture. Partnerships with managed service providers will be essential in navigating this environment to develop and sustain resilience against cyber risks, particularly as the application of AI in operations continues to advance.

AI-driven cybersecurity solutions, able to anticipate and eliminate

cyber threats before they have a chance to inflict damage, will become standard. Proactive defense mechanisms will become the focus, with AI constantly learning and adjusting to new threats.

There are additional measures businesses can take to bolster protection against cybersecurity attacks, such as:

Ongoing investments in IT and all other departments to install and test security software.

Updating hardware frequently to meet regulatory requirements and prevent outdated components from causing network vulnerabilities.

Subscribing to CISA common vulnerabilities and exposure (CVE) and known exploited vulnerabilities (KEV) notifications to receive the latest news on cybersecurity risks and solutions.

Cloud ERP

A major driver in sustainable technology is cloud-based ERP, which is transforming management within the corporate world. Projected to be worth \$57.17 billion in 2024 and reach \$181.04 billion by 2032, according to Fortune Business Insights, cloud ERP

is exhibiting a CAGR of 15.5% during the forecast period.

Unlike traditional systems that are installed on on-premises servers and data centers, cloud ERP is provided online and shares power consumption, cooling requirements, security and operations functions with all the tenets of the cloud. This reduces each cloud tenet's carbon footprint by sharing these resources. Businesses can adapt to their evolving needs thanks to their nearly unlimited scalability and anytime, anywhere access. Cloud ERP also reduces expenses by eliminating upfront hardware purchases and IT maintenance. Rather, these companies receive a reliable subscription service that maintains the security and modernity of the system. All things considered, cloud ERP is a major development in modern business management since it offers businesses a scalable, cost-effective and secure alternative.

Modern ERP systems have many advantages that can help businesses prosper. These businesses should maximize their system's functionality, monitor and secure the safety of all data and stay ahead of trends and emerging technologies that can be integrated into their ERP.

The Forbes logo is displayed in white serif font on a black rectangular background.