SAPinsider

BENCHMARK REPORT

by Robert Holland July 2023

DEPLOYMENT APPROACHES TO SAP S/4HANA

RESEARCH PARTNER

SAP

SPONSORED BY

Microsoft Azure Red Hat one software SUSE T Systems

Insider Perspective

"We are exploring a greenfield approach for multiple reasons. It gives us time to set up a system and build our internal knowledge. Our current system is completely customized from order to cash. We can adapt and move one country at a time to assist with cultural change. And we need to take advantage of automation and analytic activities."

— MANAGER, SAP TEAM MANUFACTURING COMPANY

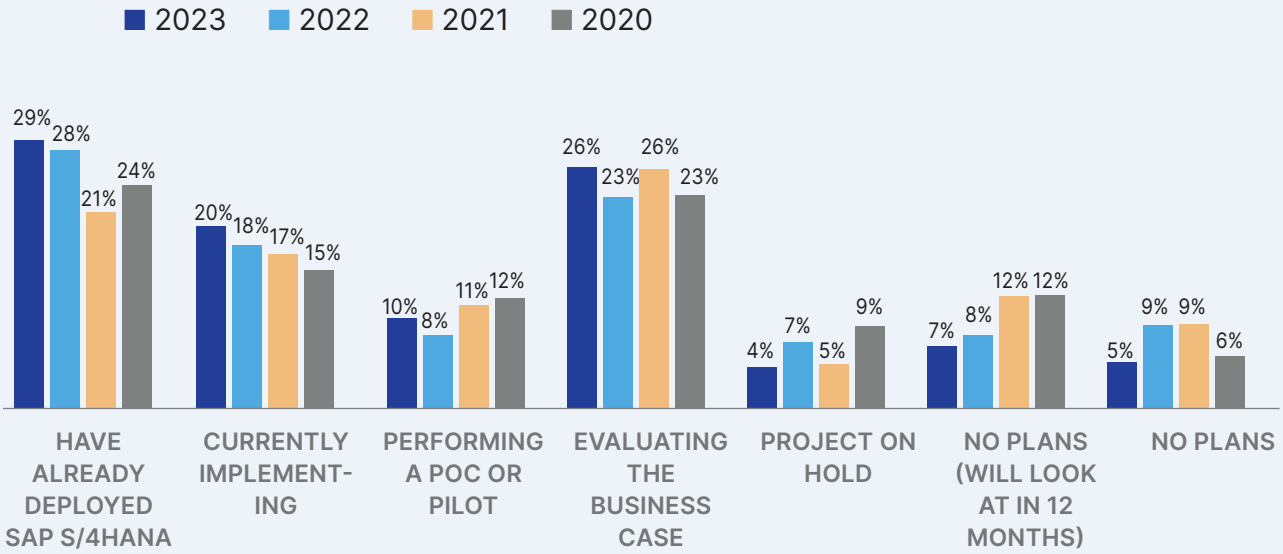
FOR THE LAST THREE YEARS, SAPinsider tracked how organizations deploy SAP S/4HANA. During that time, adoption of the solution grew steadily, although a significant proportion of respondents either still have no plans for SAP S/4HANA or are only at the point of evaluating the business case. The most likely deployment model for these organizations continues to be a system conversion or brownfield implementation with a new implementation being second. However, over the last two years, a greater proportion of respondents indicated that a selective data transition is an option as existing SAP ERP users with complex implementations have started to move to SAP S/4HANA.

To provide insight into this year's trends, SAPinsider surveyed 168 members of its community between May and July 2023. The survey started by questioning respondents on their current SAP S/4HANA adoption status **(Figure 1).** The proportion of respondent organizations that have already deployed SAP S/4HANA increased slightly, largely because of a small growth in those who reported having deployed SAP S/4HANA Cloud or RISE with SAP.

Beyond those that have already deployed SAP S/4HANA, there was also growth in the number of respondents that are currently implementing it, performing a proof of concept or pilot, and those that are evaluating the business case. There was also a reduction in those reporting that their project was on hold, those that have no plans today but plan to re-evaluate in 12 months, and in those with no plans at all. This reflects the fact that the approaching 2027 deadline is finally motivating those that have put off their plans for SAP S/4HANA to start addressing that need.

Looking at how the size of the organization impacts these numbers, those reporting that their organization had an annual revenue of less than $2 billion deployed SAP S/4HANA more frequently (25%) than those with annual revenues over $2 billion (20%). However, larger organizations were more than twice as likely to be in the process of implementing SAP S/4HANA (33%) than smaller organizations (15%).

Figure 1: SAP S/4HANA Adoption Status



Although 29% of respondents reported that they completed an SAP S/4HANA deployment, slightly less (27%) reported that their organization had already switched to using the system **(Figure 2).** The numbers collected also suggest that, while a proportion of respondents reported that they planned to switch during the current year, those projects are not always being completed. For example, in 2022, 5% of respondents reported their organizations planned to switch to SAP S/4HANA, however, the number of those reporting they had switched only increased by two percentage points. Notably, there was also a decline in those reporting that they had no plans to switch, although there was an increase in those planning to switch after 2027.

Exploring the versions of SAP S/4HANA that are currently in use, what is notable is how rapidly newer releases of the software are being adopted. For example, a quarter of respondents (26%) reported that they are already running or implementing SAP S/4HANA 2022 despite the fact that the version was only released in October of 2022. There was also an increase in how many respondents indicated that their organization was running or implementing SAP S/4HANA Cloud or RISE with SAP S/4HANA Cloud — from 16% in 2022 to 24% in 2023. Although only a small proportion of respondents said that they had completed a deployment of SAP S/4HANA Cloud, a significant number of organizations are implementing the cloud ERP offering.

Moving from when organizations plan to move to SAP S/4HANA to the deployment models they are using, there is continued growth in those who used or plan to use a selective data transition **(Figure 3).** While this is still the least-used deployment model for SAP S/4HANA, this may be the best option for large organizations with a complex existing data landscape and significant customizations, which are the two biggest factors impacting the deployment timeline.

Supporting this premise, 29% of respondents from large organizations indicated that they were considering or had used a selective data transition when deploying SAP S/4HANA, compared to just 11% of respondents from small organizations. Conversely, small organizations were more likely to use a new implementation (41%) than large organizations (29%).

Figure 2: Timeframe for Switching to SAP S/4HANA

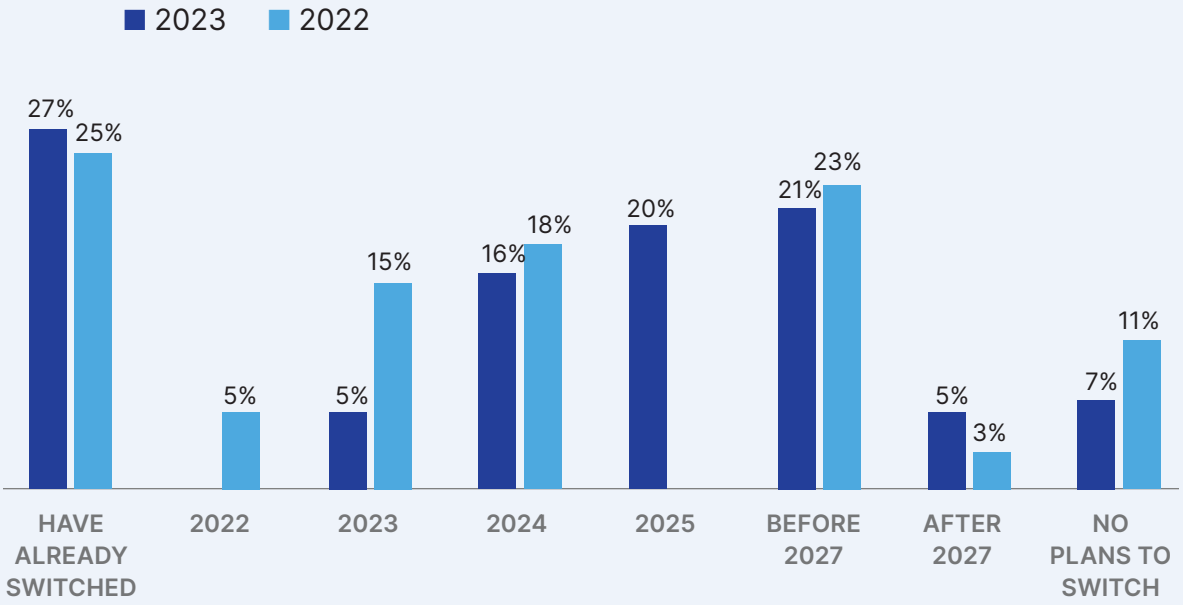


Figure 3: Deployment Model for SAP S/4HANA

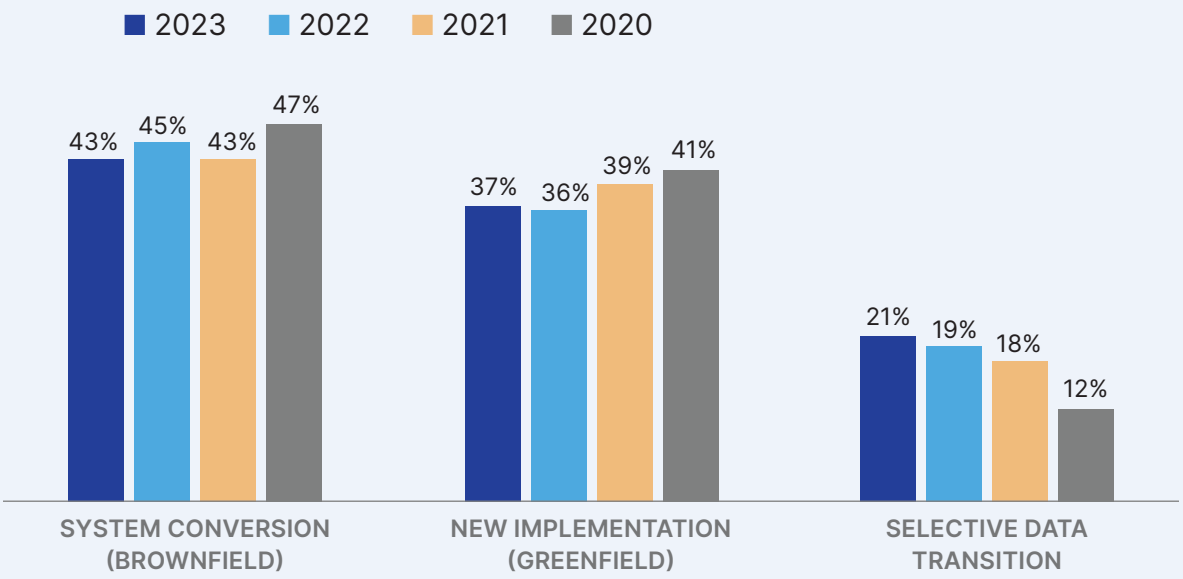
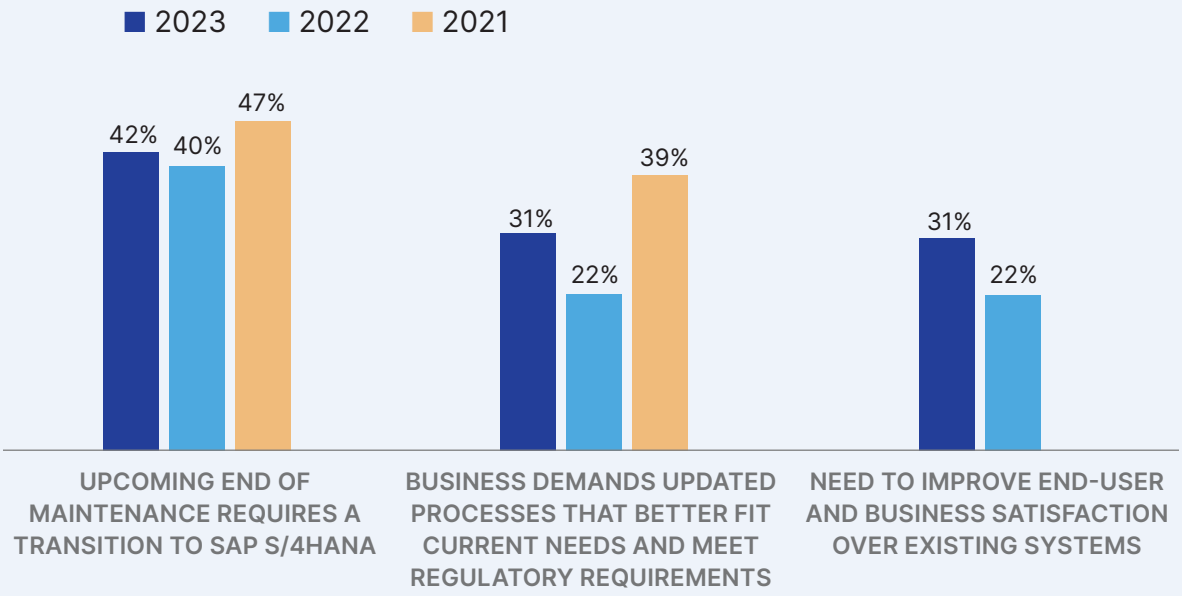


Figure 4: Top Drivers for SAP S/4HANA Deployment



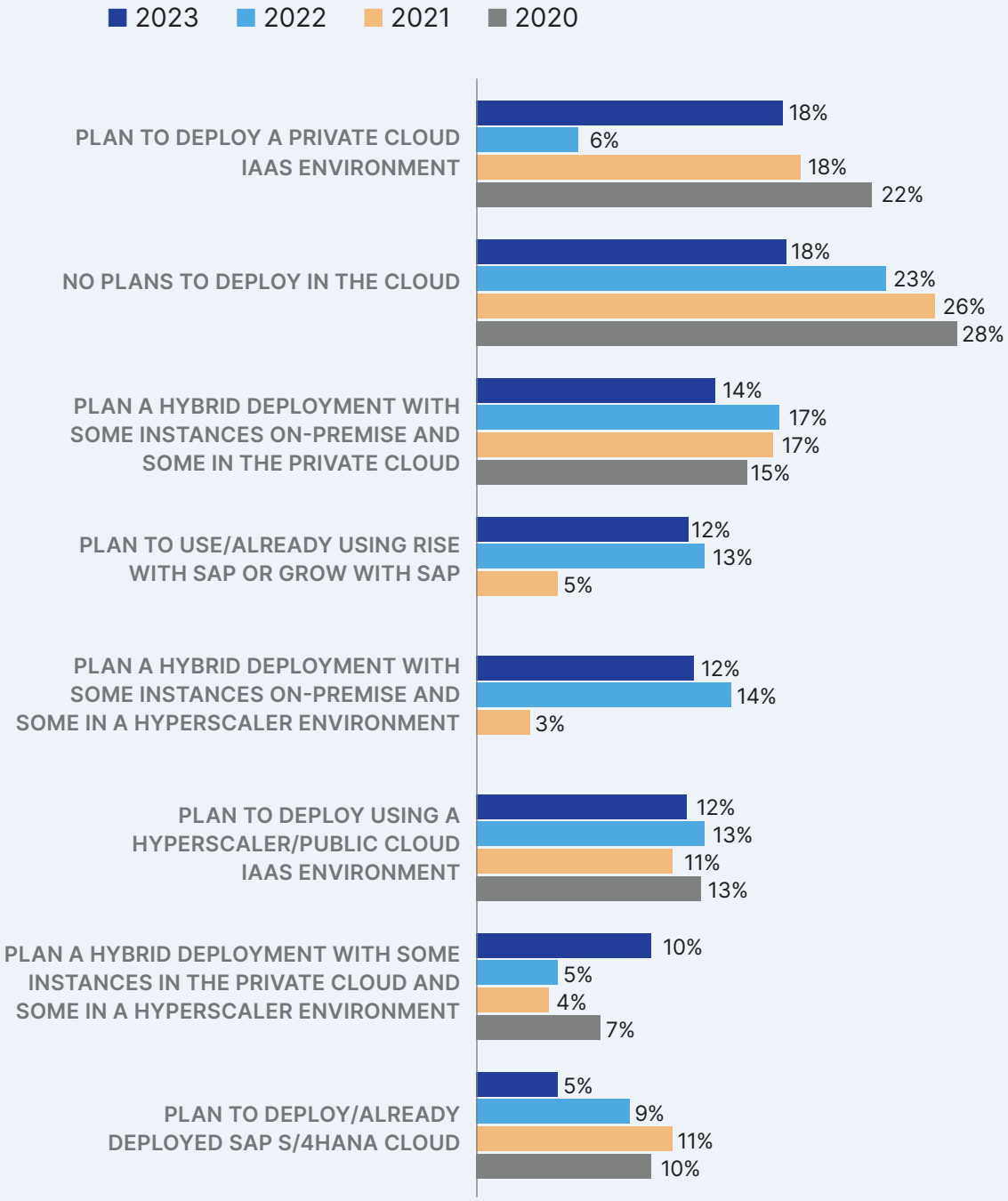
As was the case last year, a plurality of respondents (35%) indicated that they expected their transition to SAP S/4HANA to take between 12 and 18 months. Although this seems like a significant increase from the 26% that reported this was the case in 2022, the numbers actually indicate the respondents expect their move to SAP S/4HANA to be faster than in the past. Nearly a quarter (22%) reported that they thought their transition would take between 6 and 12 months, an increase from last year (18%). There were declines in those expecting their transition to take between 18 months and 2 years (down from 25% to 20%) and those expecting it to take more than 2 years (down from 18% to 13%).

The upcoming end of maintenance (42%) is still the most important factor behind the move to SAP S/4HANA **(Figure 4).** This is followed by a need for updated processes that better fit current needs and meet regulatory requirements (31%) and the need to improve end-user and business satisfaction over existing systems (31%). However, the pressure to digitally transform existing ERP solutions to create a harmonized and centralized model and structure (30%) and pressure to reduce costs in existing systems and infrastructure and provide additional flexibility and scalability (30%), both in the top four last year, were only slightly less important factors.

Comparing the size of the organization to these responses, the pressure to reduce costs in existing infrastructure was a much bigger factor for large organizations (43%) than small organizations (24%). Large organizations were also more likely to need updated processes that better fit current needs (39%) than small organizations (23%). However, small organizations were under greater pressure to digitally transform existing ERP solutions to create a harmonized and centralized model and structure (36%) than large organizations (26%). This is possibly because large organizations have already moved to create this centralized structure.

The last major piece of information that is crucial to SAP S/4HANA deployment is the infrastructure that will be used. What is notable this year is that those with no plans to deploy in the cloud are no longer the largest respondent group. This continues the trend of the move to the cloud, although that cloud environment could be either private cloud or a hyperscaler.

Figure 5: Cloud Strategy for SAP S/4HANA



Insider Perspective

"We have been running SAP S/4HANA for more than six years and were one of the first customers to run the project using SAP Activate. We used a brownfield model as we were coming from another ERP system and had lots of assistance from the SAP team and our implementation partner in order to make our deployment successful. All our recent implementations have been based on SAP Activate and have been based on upgrades or conversions and have also used the brownfield model."

— INFRASTRUCTURE MANAGER, HEALTHCARE COMPANY

Unsurprisingly, large organizations were much more likely to use a private cloud infrastructure-as-a-service environment (27%) than small organizations (15%) and were also more likely to have no plans to deploy in the cloud (20%) than small organizations (14%). Small organizations were slightly more likely to consider public cloud infrastructure and were also more likely to use hybrid environments. Small organizations were also more likely to use RISE with SAP, GROW with SAP, or SAP S/4HANA Cloud (17%) than large organizations (14%).

This year's survey also revealed the following trends:

- Two thirds (64%) of those deploying SAP S/4HANA reported that they are doing so as part of broader transformation within their organization. This difference is much more pronounced in large organizations, where 75% report the move to SAP S/4HANA is part of a broader transformation compared to only 59% of small organizations.
- Of those respondents planning to use hyperscalers as part of their infrastructure for SAP S/4HANA or as the service provider for SAP S/4HANA Cloud, the most likely choice is Microsoft Azure (33%). This was followed by Amazon Web Services (22%), RISE with SAP (15%), and Google Cloud Platform (12%).
- The factors most impacting the deployment timeline for SAP S/4HANA were the complexity of the existing data landscape (67%) and customized code that needs to be replaced or re-engineered (54%). Another a significant factor is the need to secure budget approval (42%).

REQUIRED ACTIONS

Based on the survey responses, organizations should make the following plans around their strategies for plans for SAP S/4HANA deployment:

- **Begin preparations now to ensure readiness for future ERP decisions.** The two biggest factors impacting the length of an SAP S/4HANA deployment are the complexity of the existing data landscape and customized code that needs to be replaced or re-engineered. One of the biggest challenges that

needed to be resolved as part of an SAP S/4HANA deployment is analyzing and migrating custom code. No matter whether or not plans exist to move to SAP S/4HANA, starting to harmonize the data landscape and understand which customizations are in use and required is important. The sooner any organization starts planning to address these challenges the better prepared they will be for their ERP future.

- **Understand that the timeline for deploying SAP S/4HANA is typically years, not months.** The deadline for the end of maintenance for business suite core components is just four and a half years away. That is the factor most responsible for SAP S/4HANA deployment strategy. This deadline is even closer for organizations not running EHP 6, 7, or 8. At the same time, the average duration of an SAP S/4HNA deployment is 12-18 months, not including building the business case. That may take a year or more depending on the organization. For organizations that are early on the path to SAP S/4HANA, it is vital to start planning today as those four years will pass very quickly.
- **Evaluate and implement the infrastructure options that will be best for the long-term.** Many existing SAP ERP customers have been running their systems for a decade or more. With SAP supporting SAP S/4HANA until at least 2040, it is highly likely that there will be a similar statistic for that solution. Given the longevity of ERP environments, it is vital that optimal infrastructure choices are made at the start of the project to avoid infrastructure-based constraints in the future. This could be a decision for SAP S/4HANA Cloud where SAP manages the infrastructure and it is continually updated, an infrastructure-as-a-service environment in a hyperscaler or private cloud, or even a managed environment in a local data center. All offer a means to ensure hardware is updated on a regular basis without any additional cost to the consumer, something that can help avoid future hardware limitations.
- **Dedicate time to determining which SAP S/4HANA deployment model is most appropriate.** Respondents reported that the biggest challenge their organization had to resolve as part of the move to SAP S/4HANA was deciding about their deployment model. Each deployment model offers advantages that must be thoroughly evaluated. For example, just because an organization is large does not mean that a new implementation may not be the best deployment model for them because it offers a clean core and starting point. But for another organization, a system conversion or selective data transition might be the best choice. Whatever the final deployment model, allocating time to thoroughly evaluate all the alternatives is crucial.

Insider Perspective

"We are a legacy SAP customer with a solution that has been heavily customized over the last 25 years. We have been reticent to move to SAP S/4HANA, especially if means a significant change in our license model. Even with the end of maintenance approaching in 2027, we haven't seen a compelling reason to move to SAP S/4HANA. The longer we wait to move, the more experience consultants will have with migrating customers and the more migration tools will be available to help us complete the process more efficiently."

— BUSINESS ANALYST, MANUFACTURING COMPANY

DART
MODEL FRAMEWORK

Deployment Approaches for SAP S/4HANA

DRIVERS

- Upcoming end of maintenance requires a transition to SAP S/4HANA (42%)
- Business demands updated processes that better fit current needs and meet regulatory requirements (31%)
- Need to improve end-user and business satisfaction over existing systems (31%)

ACTIONS

- Deploying SAP S/4HANA using an approach that minimizes cost (47%)
- Implementing standardized end-to-end processes for core ERP users (47%)
- Centralizing and automating financial planning, accounting, and reconciliation activities on a global scale (40%)
- Implementing automation and process discovery to gain a better understanding of my existing ERP environment (36%)
- Integrating SAP and non-SAP front-end systems and innovations with the core ERP (35%)

REQUIREMENTS

- High performing and secure infrastructure and OS (83%)
- A proven partner with experience implementing SAP S/4HANA (74%)
- Deep integration between SAP S/4HANA and other enterprise systems (73%)
- Capability to automatically migrate data to new systems (70%)
- Educating business users and executives on SAP S/4HANA features and benefits (68%)
- Flexibility in moving customizations to the new system (67%)

TECHNOLOGIES

- Hardware and operating systems optimized for SAP HANA (30%)
- Infrastructure-as-a-Service (27%)
- Platform-as-a-Service (27%)
- Virtualization and hyper-converged infrastructure (27%)
- Code analysis tools (25%)
- Open-source technologies (Linux and Kubernetes) (25%)
- Managed infrastructure solutions (23%)
- Automated testing and test management solutions (18%)
- Cloud ERP (17%)
- Business Process Modeling tools (16%)
- Impact analysis tools (13%)
- Automated deployment and configuration tools (13%)
- Auto code remediation tools (10%)

Appendix: The Dart™ Methodology

SAPinsider has rewritten the rules of research to provide actionable deliverables from its fact-based approach. The DART methodology serves as the very foundation on which SAPinsider educates end users to act, creates market awareness, drives demand, empowers sales forces, and validates return on investments. It is no wonder that organizations worldwide turn to SAPinsider for research with results.

THE DART METHODOLOGY PROVIDES PRACTICAL INSIGHTS, INCLUDING:

DRIVERS	These are macro-level events that are affecting an organization. They can be both external and internal, and they require the implementation of strategic plans, people, processes, and systems.
ACTIONS	These are strategies that companies can implement to address the effects of drivers on the business. These are the integration of people, processes, and technology. These should be business-based actions first, but they should fully leverage technology-enabled solutions to be relevant for our focus.
REQUIREMENTS	These are business and process-level requirements that support the strategies. These tend to be end-to-end for a business process.
TECHNOLOGY	These are technology and systems-related requirements that enable the business requirements and support the company's overall strategies. The requirements must consider the current technology architecture and provide for the adoption of new and innovative technology-enabled capabilities.

Report Sponsors

Research Partner

SAP's strategy is to help every business run as an intelligent, sustainable enterprise. As a market leader in enterprise application software, we help companies of all sizes and in all industries run at their best: SAP customers generate 87% of total global commerce. Our machine learning, Internet of Things (IoT), and advanced analytics technologies help turn customers' businesses into intelligent enterprises. SAP helps give people and organizations deep business insight and fosters collaboration that helps them stay ahead of their competition. We simplify technology for companies so they can consume our software the way they want — without disruption. Our end-to-end suite of applications and services enables business and public customers across 25 industries globally to operate profitably, adapt continuously, and make a difference. With a global network of customers, partners, employees, and thought leaders, SAP helps the world run better and improve people's lives.

For more information, visit www.sap.com

Report Sponsors

Microsoft enables digital transformation for the era of an intelligent cloud and an intelligent edge. It partners closely with SAP to help joint customers accelerate their cloud journey on Azure. Microsoft's cloud platform is optimized for enterprises to run mission-critical SAP applications with unmatched security and reliability, and is the market leader with the most compliance and industry certifications. Customers trust the Microsoft Cloud to leverage data analytics and gain intelligent insights to democratize decision-making, accelerate innovation, and build an intelligent enterprise.

For more information, visit https://azure.microsoft.com

Red Hat helps SAP enterprises standardize on a single, open platform and build on a foundation that sets them up for a future of innovation with a rich portfolio of flexible solutions. From standards-based solutions for automation, management, and integration to app containerization and open hybrid cloud, Red Hat's SAP portfolio supports any on-premise or cloud environment with freedom from vendor lock-in. Not just an operating system, Red Hat® solutions are driving intelligent enterprises through optimized stability, scalability, and security for SAP deployments. Red Hat is a market leader in Linux®, multi-cloud container development, and infrastructure automation, with a rich history in the open-source community. With more than two decades of strategic collaboration with SAP, the support of IBM, and joint solutions from our global partner ecosystem, Red Hat offers an end-to-end portfolio of open-source solutions for organizations looking to build an intelligent enterprise throughout their cloud journey. Red Hat for SAP. Open. For transformation.

For more information, visit https://www.redhat.com/sap

SoftwareONE is a leading global provider of software and cloud technology solutions located in 90 countries. With an IP and technology-driven services portfolio, it enables companies to develop and implement their commercial, technology, and digital transformation strategies. As a proven SAP and public cloud partner, it helps companies optimize their SAP landscape in the cloud and has delivered 200+ projects from business, technology, commercial, and licensing advisory to full technology implementations and managed services. Migrating SAP applications to the cloud includes SAP ERP to SAP S/4HANA conversations and SAP solutions on cloud-managed services.

For more information, please visit http://www.softwareone.com

---

SUSE is a global leader in innovative, reliable, and secure enter-prise-grade open source solutions, relied upon by more than 60% of the Fortune 500 to power their mission-critical workloads. For over 20 years, SAP and SUSE have delivered innovative business-critical solutions on open-source platforms, enabling organizations to improve operations, anticipate requirements, and become industry leaders. Today, the vast majority of SAP customers run their SAP and SAP S/4HANA environments on SUSE. SUSE is an SAP platinum partner offering the following Endorsed App to SAP software: SUSE Linux Enterprise Server for SAP applications.

For more information, visit http://www.suse.com or http://www.suse.com/unlock-excellence

---

T-Systems is your partner for a successful SAP S/4HANA transformation. With around 27,000 employees in more than 20 countries and annual revenues of EUR 4 billion (2022), T-Systems is one of the leading providers of digital services in Europe. Our 4000+ SAP certified experts will guide you and take care of your current SAP landscape migration. We also offer transformation packages based on multi-cloud landscapes in support of RISE with SAP to ensure your business takes the leap forward to becoming an intelligent and sustainable enterprise.

For more information, visit
https://www.t-systems.com/de/en/partners/sap

SAPinsider comprises the largest and fastest-growing SAP membership group worldwide. It provides SAP professionals with invaluable information, strategic guidance, and road-tested advice through events, magazine articles, blogs, podcasts, interactive Q&As, white papers, and webinars. SAPinsider is committed to delivering the latest and most useful content to help SAP users maximize their investment and leading the global discussion on optimizing technology.

For more information, visit SAPinsider.org.