ENTERPRISE CLOUD — LANDSCAPE, TRANSFORMATION, AND INTEGRATION

Insider Perspective

"Moving SAP software to the cloud allows for updates such as security patches or application problem fixes to be applied at a faster pace. In the cloud, updates can be done monthly/quarterly and are not on hold within an organization. As business requirements change, you can readily expand cloud systems without the delays of a capital expense or scheduled hardware order. Moving to the cloud also enabled greater access to solutions by web enabling SAP. In our project we experienced benefits of increased cybersecurity, scalability, accessibility, and flexibility."

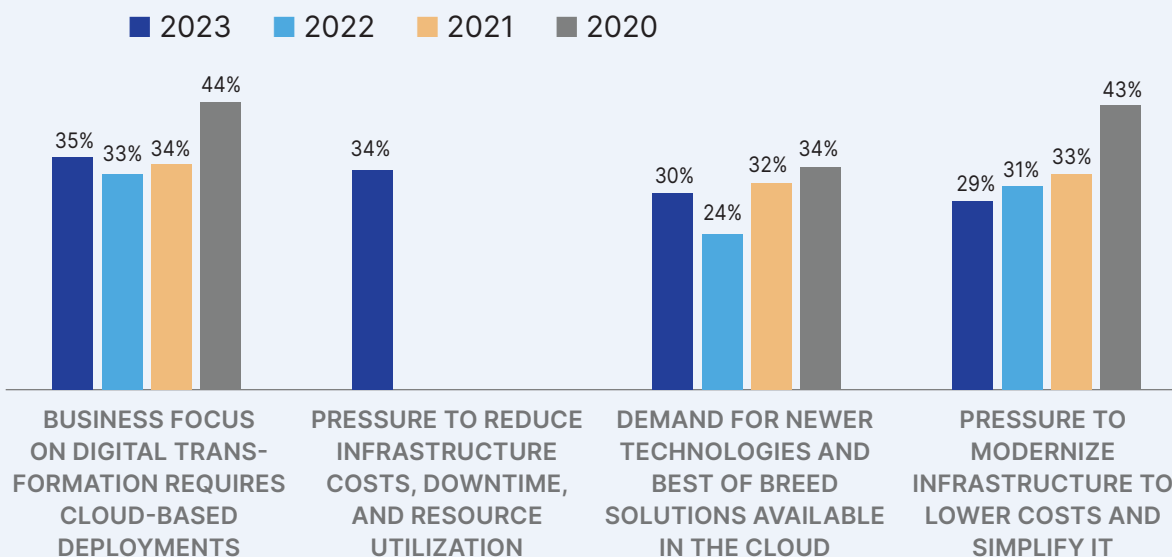– BUSINESS SYSTEMS CONSULTANT, TRANSPORTATION COMPANY.

CLOUD USAGE CONTINUES to increase across the enterprise landscape. SAP's push for cloud ERP and the adoption of the SAP Business Technology Platform (BTP) is partly responsible for this, but organizations are also moving data, as well as both SAP and non-SAP workloads to cloud environments. In the SAP space, many organizations are still running older systems on local infrastructure, while newer solutions are more likely to be running in the cloud. But a significant proportion of those workloads still running on local infrastructure are likely to move to the cloud over the next few years.

SAPinsider surveyed 170 members of its community between June and August 2023 to generate insights on the strategies organizations have for cloud landscape, cloud transformation, and integration with the cloud. The survey questioned the respondents on the factors most responsible for driving their organization's strategy and plans around moving to the cloud. A business focus on digital transformation that requires cloud-based deployments was the factor most responsible for organizations moving to the cloud, as it has been for the last three years **(Figure 1)**.

Cloud-based deployments can facilitate digital transformation because they provide flexibility that on-premise deployments lack, as well as offering scalability and innovation. This allows organizations to respond more quickly to changing needs and requirements. By offering these capabilities, cloud-based deployments are able to become a catalyst for change, accelerating the pace of transformation.

Another factor influencing moves to the cloud — almost as important to cloud deployments and new to this year's survey — is that of a pressure to reduce infrastructure costs, downtime, and resource utilization. Reduced operational costs are the most important way in which respondents planned to measure the success of their cloud initiatives for the last three years. Organizations moving to the cloud are doing so because they want to increase infrastructure flexibility and reduce deployment timelines, but also to reduce both infrastructure costs and the re-

Figure 1: Top Factors Driving Cloud Deployment Strategies

■ 2023   ■ 2022   ■ 2021   ■ 2020

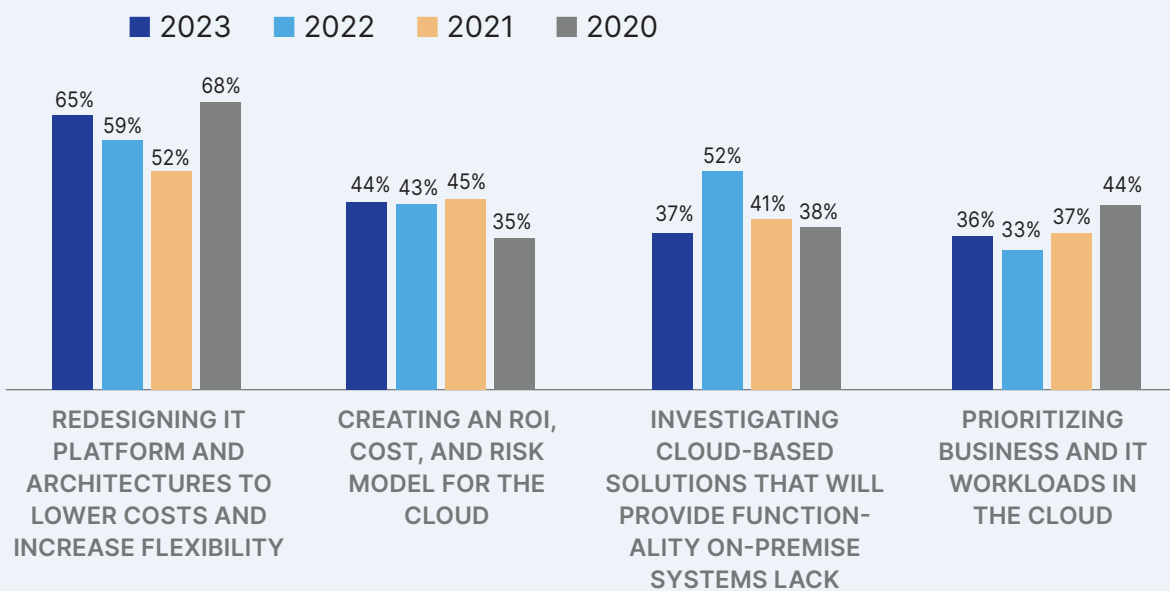| Factor	2023	2022	2021	2020
BUSINESS FOCUS ON DIGITAL TRANSFORMATION REQUIRES CLOUD-BASED DEPLOYMENTS	35%	33%	34%	44%
PRESSURE TO REDUCE INFRASTRUCTURE COSTS, DOWNTIME, AND RESOURCE UTILIZATION	34%			
DEMAND FOR NEWER TECHNOLOGIES AND BEST OF BREED SOLUTIONS AVAILABLE IN THE CLOUD	30%	24%	32%	34%
PRESSURE TO MODERNIZE INFRASTRUCTURE TO LOWER COSTS AND SIMPLIFY IT	29%	31%	33%	43%

sources needed to manage that infrastructure. Having more reliable infrastructure will also help reduce unplanned downtime, the other part of this driver.

Notably, organizations of different sizes have differing factors that drive their cloud deployment decisions. The top three drivers for large organizations, those with revenues over US $2 billion, are the business focus on digital transformation requiring cloud-based deployments (38%), a demand for newer technologies and best of breed solutions available in the cloud (32%), and the pressure to modernize infrastructure to lower costs and simplify IT (28%). Small to mid-sized organizations, with revenues under US $2 billion, were most impacted by pressure to reduce infrastructure costs, downtime, and resource utilization (36%), the business focus on digital transformation (34%), and the pressure to modernize infrastructure (29%).

Supporting this need to manage costs, nearly two-thirds (65%) of respondents are redesigning IT platform and architectures to lower costs and increase flexibility **(Figure 2).** The second-most common strategy is to create an ROI, cost, and risk model for the cloud, which demonstrates that organizations want to ensure that moving to the cloud will save money over both the short and long term. While moving to the cloud will save on capital expenditure, over the course of several years the cost of cloud-based environments do accumulate. It is clear that organizations want to effectively manage the costs of moving to the cloud.

While redesigning IT platforms to lower costs and increase flexibility is the most important strategy being implemented by organizations of all sizes, a cost focus was more important to respondents from small to mid-sized organizations. More than two thirds (67%) of respondents from smaller organizations indicated that they were redesigning IT platforms and architectures to lower costs and increase flexibility, and half (50%) were creating an ROI, cost, and risk model for the cloud. Further, 62% of large enterprises were actively redesigning IT, but the next most important strategies for these organizations were prioritizing business and IT workloads in the cloud (40%) and building a set of cloud-based innovation services (40%). As digital transformation requires cloud-based deployments, large organizations are under more pressure to move to the cloud.

Figure 2: Strategies Most Important to Enterprise Cloud Deployments

■ 2023 ■ 2022 ■ 2021 ■ 2020

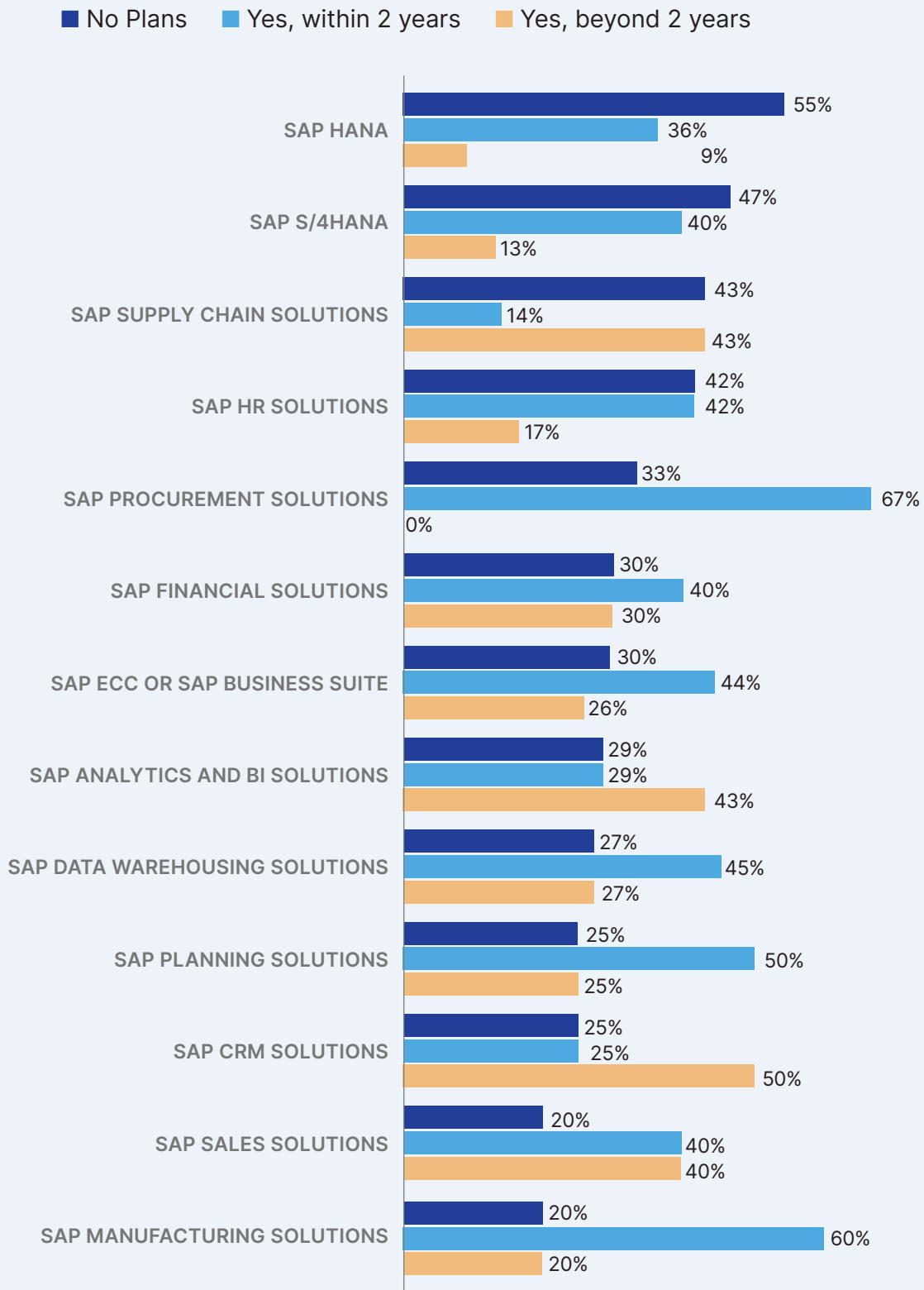|	2023	2022	2021	2020
REDESIGNING IT PLATFORM AND ARCHITECTURES TO LOWER COSTS AND INCREASE FLEXIBILITY	65%	59%	52%	68%
CREATING AN ROI, COST, AND RISK MODEL FOR THE CLOUD	44%	43%	45%	35%
INVESTIGATING CLOUD-BASED SOLUTIONS THAT WILL PROVIDE FUNCTIONALITY ON-PREMISE SYSTEMS LACK	37%	52%	41%	38%
PRIORITIZING BUSINESS AND IT WORKLOADS IN THE CLOUD	36%	33%	37%	44%

Investigating cloud-based solutions that provide the functionality that on-premise systems lack is connected to the driver of a demand for newer technologies and best of breed solutions available in the cloud. While solutions like SAP S/4HANA largely have feature parity between on-premise and cloud-based deployments, solutions like SAP SuccessFactors, SAP Concur, and SAP Ariba are not available on-premise. If organizations want to leverage these newer technologies, they will need to embrace cloud-based solutions. This will likely also be true as capabilities like generative AI require resources that are only available in the cloud.

For organizations that are still running SAP workloads in the cloud, a significant proportion plan to move to the cloud **(Figure 3).** The biggest exception to this continues to be that organizations which have invested in new on-premise infrastructure for their SAP HANA and SAP S/4HANA deployments are the most likely to have no plans to move to the cloud. Procurement and manufacturing solutions are the most likely to move to the cloud in the next two years, with sales, planning, and CRM solutions taking slightly longer. While the timeframe for moving these SAP workloads varies, most will move to the cloud over the next two to five years.

While SAP workloads typically form the backbone of an organization's enterprise systems, most customers today have partner solutions that are connected to those SAP workloads. Moving those partner workloads to the cloud is often a necessary step after SAP workloads have transitioned, though the timing for that move varies. One in four (26%) of respondents say that they have no plans to move their connected partner solutions to the cloud, but 22% say they will move those solutions at the same time. Further, 28% plan to move within 12 months, 11% within two years, and 13% at some point in the future.

Larger organizations (28%) are more likely to move partner workloads to the cloud at the same time as SAP workloads, while smaller organizations (39%) are more likely to move to the cloud within 12 months. Although smaller organizations are less likely to move their partner solutions to the cloud at the same time as their SAP workloads, potentially because their IT teams are smaller, they will do so more quickly. Just 14% of small organizations plan to take more than 12 months to move partner solutions to the cloud, compared to 32% of large organizations.

Figure 3: Plans to Move On-Premise SAP Workloads to the Cloud

■ No Plans   ■ Yes, within 2 years   ■ Yes, beyond 2 years

SAP HANA
- No Plans: 55%
- Yes, within 2 years: 36%
- Yes, beyond 2 years: 9%

SAP S/4HANA
- No Plans: 47%
- Yes, within 2 years: 40%
- Yes, beyond 2 years: 13%

SAP SUPPLY CHAIN SOLUTIONS
- No Plans: 43%
- Yes, within 2 years: 14%
- Yes, beyond 2 years: 43%

SAP HR SOLUTIONS
- No Plans: 42%
- Yes, within 2 years: 42%
- Yes, beyond 2 years: 17%

SAP PROCUREMENT SOLUTIONS
- No Plans: 33%
- Yes, within 2 years: 67%
- Yes, beyond 2 years: 0%

SAP FINANCIAL SOLUTIONS
- No Plans: 30%
- Yes, within 2 years: 40%
- Yes, beyond 2 years: 30%

SAP ECC OR SAP BUSINESS SUITE
- No Plans: 30%
- Yes, within 2 years: 44%
- Yes, beyond 2 years: 26%

SAP ANALYTICS AND BI SOLUTIONS
- No Plans: 29%
- Yes, within 2 years: 29%
- Yes, beyond 2 years: 43%

SAP DATA WAREHOUSING SOLUTIONS
- No Plans: 27%
- Yes, within 2 years: 45%
- Yes, beyond 2 years: 27%

SAP PLANNING SOLUTIONS
- No Plans: 25%
- Yes, within 2 years: 50%
- Yes, beyond 2 years: 25%

SAP CRM SOLUTIONS
- No Plans: 25%
- Yes, within 2 years: 25%
- Yes, beyond 2 years: 50%

SAP SALES SOLUTIONS
- No Plans: 20%
- Yes, within 2 years: 40%
- Yes, beyond 2 years: 40%

SAP MANUFACTURING SOLUTIONS
- No Plans: 20%
- Yes, within 2 years: 60%
- Yes, beyond 2 years: 20%

When moving to the cloud, organizations must plan for how they will measure the success of this initiative. As has been the case for the last three years, reducing operational costs is the most important measurement factor (51%) **(Figure 4).** This is followed by increased flexibility (48%), faster deployment of applications (42%), reduced operational efficiencies (41%), and improved security (40%). While it is possible to start moving workloads to the cloud without setting specific measurement criteria in place, successful projects will likely determine these ahead of time.

Notably, there is little variation in these measurement factors between smaller and larger organizations. Reduced operational costs and increased flexibility and scalability are at the top of the list for all respondents. It is only after these top two criteria that there is a change. Larger organizations are more focused on a faster deployment of applications and improved security, while smaller organizations want reduced operational inefficiencies and then faster deployment of applications.

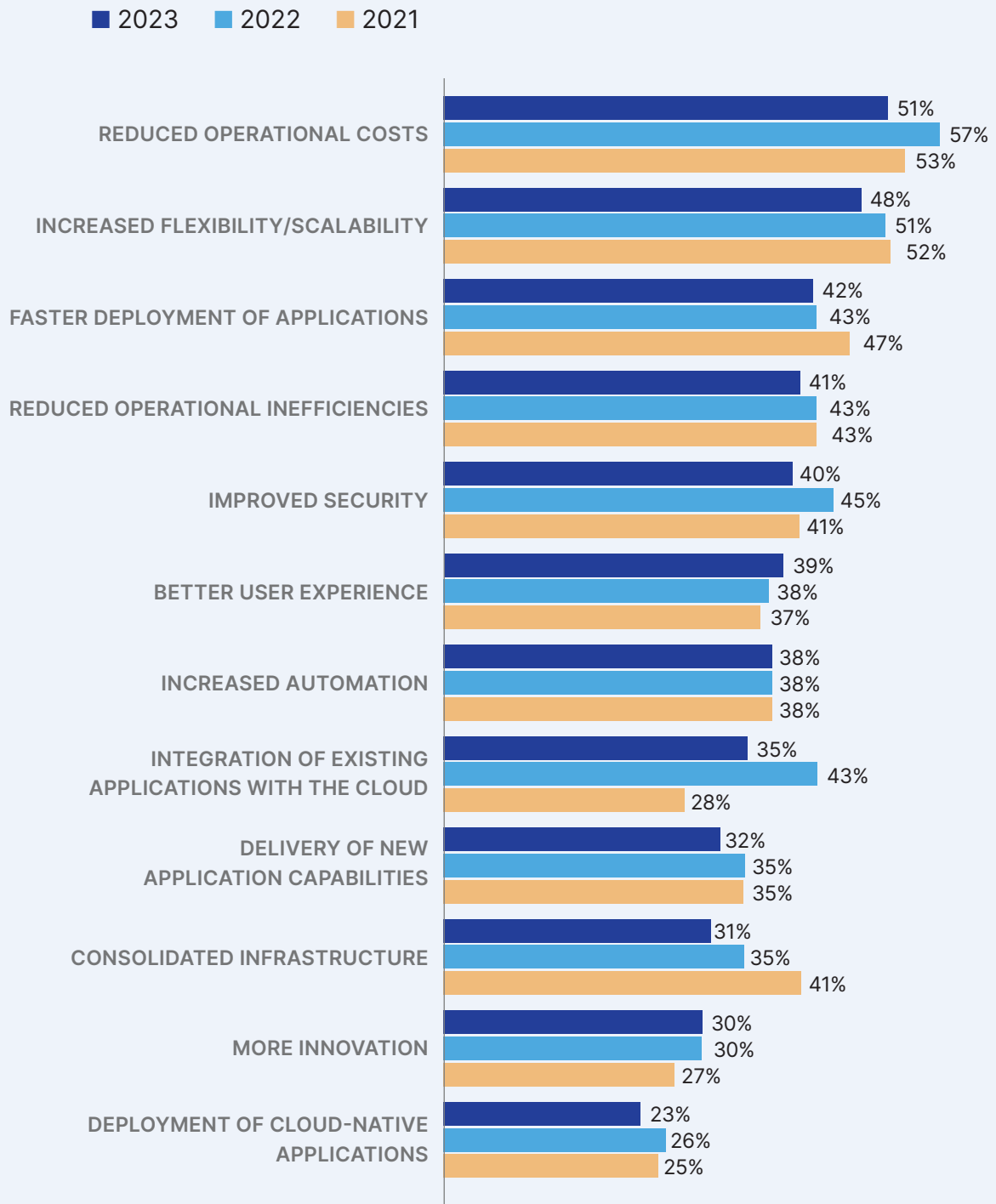This year's survey also revealed the following trends:

- Nearly three quarters (75%) of respondents indicated that one of their key integration scenarios is non-SAP to SAP integration, while only 54% are supporting SAP to SAP integration.

- Cloud to on-premise integration scenarios needed to be supported by 71% of respondents, demonstrating that on-premise deployments are not going away in the short term. Half (48%) the respondents had to perform cloud-to-cloud integration.

- Microsoft Azure (48%) remained the most likely hyperscaler to be selected by respondents followed by AWS (46%), SAP (31%), and Google Cloud (24%). However, large enterprises were much more likely to select Microsoft Azure (63%) compared to small to mid-size enterprises (36%). These smaller organizations were more likely to select AWS (45%) as their cloud provider for the SAP workloads they are moving to the cloud.

Insider Perspective

"The benefits of moving SAP workloads to the cloud are that cloud providers have more robust disaster recovery capabilities than a local environment. This is especially important for locations that are subject to natural disasters like hurricanes, earthquakes, and volcanic eruptions."

– DEVELOPER, LOCAL GOVERNMENT

Figure 4: **Factors for Measuring the Success of Cloud Initiatives**

■ 2023　■ 2022　■ 2021

REDUCED OPERATIONAL COSTS
- 51%
- 57%
- 53%

INCREASED FLEXIBILITY/SCALABILITY
- 48%
- 51%
- 52%

FASTER DEPLOYMENT OF APPLICATIONS
- 42%
- 43%
- 47%

REDUCED OPERATIONAL INEFFICIENCIES
- 41%
- 43%
- 43%

IMPROVED SECURITY
- 40%
- 45%
- 41%

BETTER USER EXPERIENCE
- 39%
- 38%
- 37%

INCREASED AUTOMATION
- 38%
- 38%
- 38%

INTEGRATION OF EXISTING APPLICATIONS WITH THE CLOUD
- 35%
- 43%
- 28%

DELIVERY OF NEW APPLICATION CAPABILITIES
- 32%
- 35%
- 35%

CONSOLIDATED INFRASTRUCTURE
- 31%
- 35%
- 41%

MORE INNOVATION
- 30%
- 30%
- 27%

DEPLOYMENT OF CLOUD-NATIVE APPLICATIONS
- 23%
- 26%
- 25%

Insider Perspective

"Security and compliance and innovation and integration are the two main benefits of moving SAP workloads to the cloud. Cloud providers invest heavily in security and compliance measures, often surpassing what individual organizations can achieve with on-premise environments. This helps organizations protect sensitive SAP data and ensure compliance with industry and regulatory standards. In addition, cloud providers offer a wide range of additional services such as AI/ML, analytics, and IoT which can enhance SAP functionality."

– AJ ATTAVAR, GLOBAL PROGRAM DIRECTOR, NPS, INC.

REQUIRED ACTIONS

Based on the survey responses, organizations should make the following plans around their strategies for moving to the cloud:

- **Plan for future SAP innovations to be focused on the cloud.** This year saw an explosion of interest in generative AI capabilities. While large software vendors such as SAP are still determining how these will be integrated into their core solutions, there have already been indications that these innovations will require cloud-based environments. Organizations must determine whether they need these capabilities, and whether they are willing to move to the cloud to access them. Even if SAP does not limit the latest innovations to cloud customers, all new product releases will be cloud-based, so accessing new products and the latest functionality will require a move to the cloud.

- **Fully assess the initial and ongoing costs of moving to the cloud.** Cloud environments offer the short-term benefit of not requiring a large capital expenditure outlay to secure infrastructure and software. However, while subscription-based solutions offer significant flexibility, organizations need to ensure that they understand the medium to long-term costs of cloud environments. With many organizations creating an ROI, cost, and risk model for the cloud, it is obvious that there is a need to understand longer-term costs. Making plans for this early in the process is crucial.

- **Understand the impact that moving SAP workloads to the cloud will have on integrated solutions.** One of the challenges that organizations moving to the cloud can encounter is in an unexpected impact on an integrated solution. It could be that the solution no longer works in a cloud environment, or that an update or upgrade is required. Taking the time to investigate how integrated solutions will perform when moving SAP workloads to the cloud is an extremely important part of cloud deployments. And with most organizations needing to support non-SAP to SAP scenarios, ensuring that integrated solutions will support new environments will be an important part of the success of cloud initiatives.

- **Start the planning for cloud deployments with how they will be secured.** The need for a more secure and resilient infrastructure was just outside the top four factors responsible for driving cloud deployment strategy, but security requirements were at the top of the list of requirements for making cloud strategies a reality. Data storage and protection requirements and a plan for cloud-based data encryption and protection were the two most important requirements for cloud deployment strategies. More security was the second most important factor behind the decision to move SAP workloads to the cloud, and the top criterion when selecting a cloud service provider. By making security decisions early in the process, projects can be streamlined and potential delays avoided.

DART
MODEL FRAMEWORK

ENTERPRISE CLOUD

DRIVERS

- Business focus on digital transformation requires cloud-based deployments (35%)
- Pressure to reduce infrastructure costs, downtime, and resource utilization (34%)
- Demand for newer technologies and best of breed solutions available in the cloud (30%)
- Pressure to modernize infrastructure to lower costs and simplify IT (29%)

ACTIONS

- Redesigning IT platform and architectures to lower costs and increase flexibility (65%)
- Creating an ROI, cost, and risk model for the cloud (44%)
- Investigating cloud-based solutions that will provide functionality on-premise systems lack (37%)
- Prioritizing business and IT workloads in the cloud (36%)

REQUIREMENTS

- Data storage and protection requirements (81%)
- Plan for cloud-based data encryption and protection (78%)
- Strategy for integrating cloud-based applications (76%)
- Strong SLAs with cloud partners (75%)
- Ability to scale flexibly and quickly (73%)
- Cleansed and harmonized data (72%)

TECHNOLOGIES

- Encrypted/secure connectivity (39%)
- Cloud backup and recovery (34%)
- Cloud database and data services (34%)
- Cloud-based integration tools (32%)
- Dedicated connections to cloud providers (31%)
- Virtualization and hyper-converged infrastructure (31%)
- Cloud development tools (30%)
- Data encryption tools (29%)
- Learning services (24%)
- Cloud data lakes (22%)
- Cloud AI and machine learning (15%)

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.

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For more information, visit enosix.com

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

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