

BENCHMARK REPORT  
EXECUTIVE SUMMARY

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# DATA MANAGEMENT STRATEGIES



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## Insider Perspective

“Larger data platforms within different business areas are now reconsidering using the centralized group data platform instead of recreating data independently. This shift towards centralization is happening and it will gradually lead to quantifiable benefits and improvements over time. One of the biggest issues it will address is the current problem of people not knowing where to find the data they need within the organization.”

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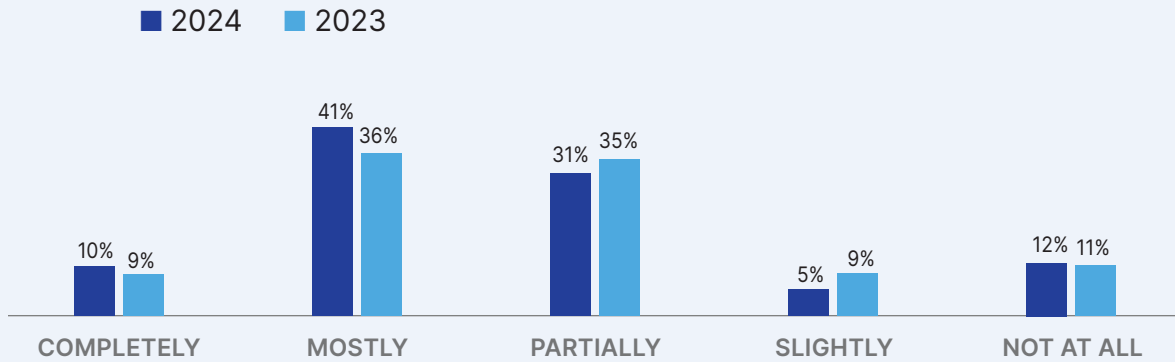
**A DATA STRATEGY** is a long-term plan that specifies how an organization should collect, store, manage, share, and utilize data, aligning closely with its overarching business objectives. As SAP organizations pursue ever-rising goals across growth, productivity, efficiency, customer experience, sustainability and other pillars, becoming a data-driven enterprise is fundamental. Real-time access to crucial business data is increasingly seen as a cornerstone of genuine digital transformation. Businesses across all sectors are actively refining their data management strategies to fully leverage their data assets, thus driving innovation and securing competitive advantages.

The movement toward more accessible data modeling and analytics is transforming the way organizations utilize their data resources. A cohesive system that merges data management, analytics, and AI governance equips enterprises poised for the future with profound, actionable insights that catalyze innovation and promote long-term growth. However, despite these advancements, numerous organizations continue to face challenges with disconnected data environments, isolated systems, and dispersed insights, which hamper their ability to make well-informed decisions.

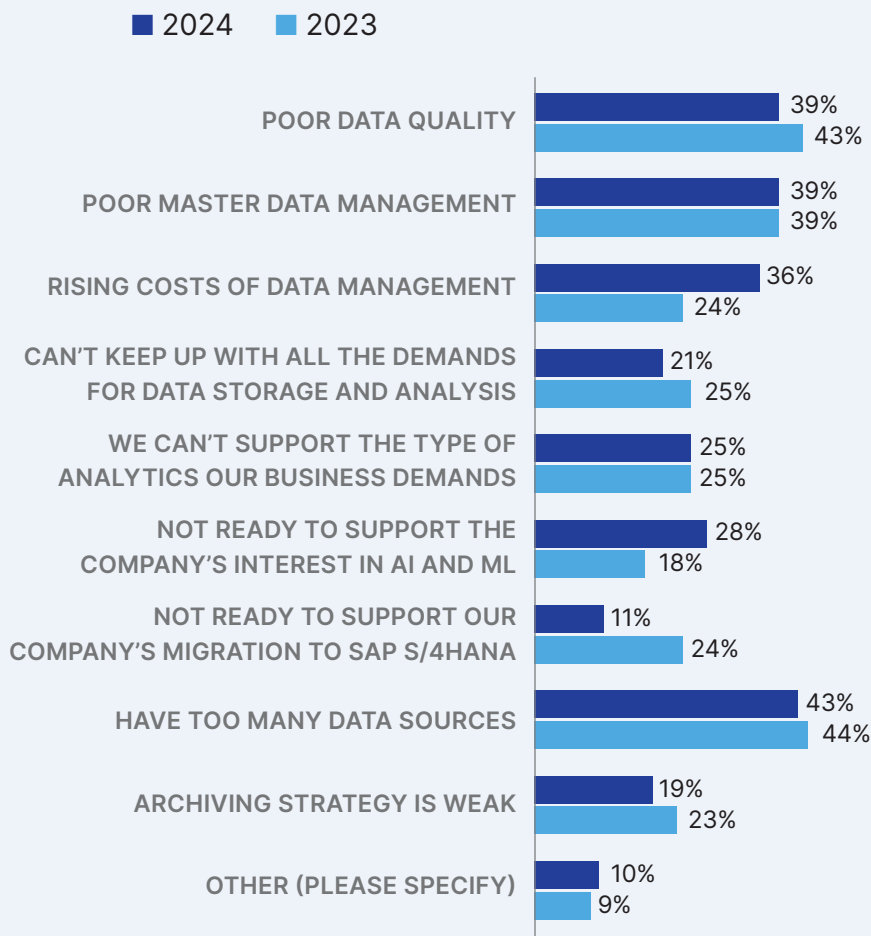
To provide insights and understanding related to SAP customers' data management practices, SAPinsider surveyed 171 data management professionals from January to April of 2024. SAPinsider also conducted several in-depth interviews with customers and partners specializing in data management to more deeply understand the issues and trends raised by the survey data.

The findings reveal that the drive towards integrating SAP and non-SAP data is a notable trend, with over half of the surveyed entities employing an enterprise-wide data strategy that encompasses both (53%). However, only 10% believe that their current strategies fully meet their organizational needs, suggesting ample room for improvement, however a slight improvement is noted in the perception of data strategies being completely effective, increasing from 9% to 10% from 2023 (**Figure 1**). For organiza-

**Figure 1: Organizational Data Strategy Not Effective in Meeting Data Access, Reporting, and Intelligence Requirements**



**Figure 2: Data Management Pain Points**



tions rating their data strategy as partially effective, there is a shift from 35% to 31%, suggesting an increasing number of companies are finding their strategies moderately successful.

Simultaneously, there is a 4% uptick in entities reporting their strategies to be slightly effective in 2024, indicating a reduced number of organizations at the lowest effectiveness level. Collectively, these changes imply a nuanced improvement in the full effectiveness of data strategies, while also reflecting a trend towards moderate satisfaction. Fewer organizations are positioned at the extremes of complete satisfaction or dissatisfaction with their data strategies in 2024, pointing to a convergence towards more balanced views on data strategy effectiveness.

One of the primary observations from the survey is the widespread acknowledgment of the challenges posed by managing a diverse array of data sources (**Figure 2**). About 43% of respondents identified the proliferation of data sources as a major hurdle, while poor data quality was cited by 39% as a critical issue. Poor data quality remains the most significant challenge, with a minor improvement, decreasing from 43% in 2023 to 39% in 2024. Poor master data management also saw a slight decrease from 39% to 36%, indicating incremental progress in this area. While the rising cost of data management increased from 24% to 36%, challenges in keeping up with the demand for data storage and analysis have reduced slightly from 25% to 21%, suggesting better handling or resources in this domain. Additionally, concerns about master data management were equally prevalent, underscoring the complexities involved in maintaining data consistency across different systems.

However, not being ready to support AI and ML has become a growing issue, rising from 18% to 28%, likely pointing to the increasing relevance of these technologies. Overall, while some areas show slight improvements, new challenges, particularly the readiness for AI and ML and the management of multiple data sources, have become more pronounced.

**Figure 3** details the primary factors influencing data management strategies for the years 2024 and 2023. The leading driver in both years is the increasing demand to provide fast, real-time data, although it saw a slight decrease from 48% in 2023 to 47% in 2024. The organizational focus on a cloud-first strategy saw a significant decrease of 10 percentage points, falling to 18% in 2024 from 28% in 2023.

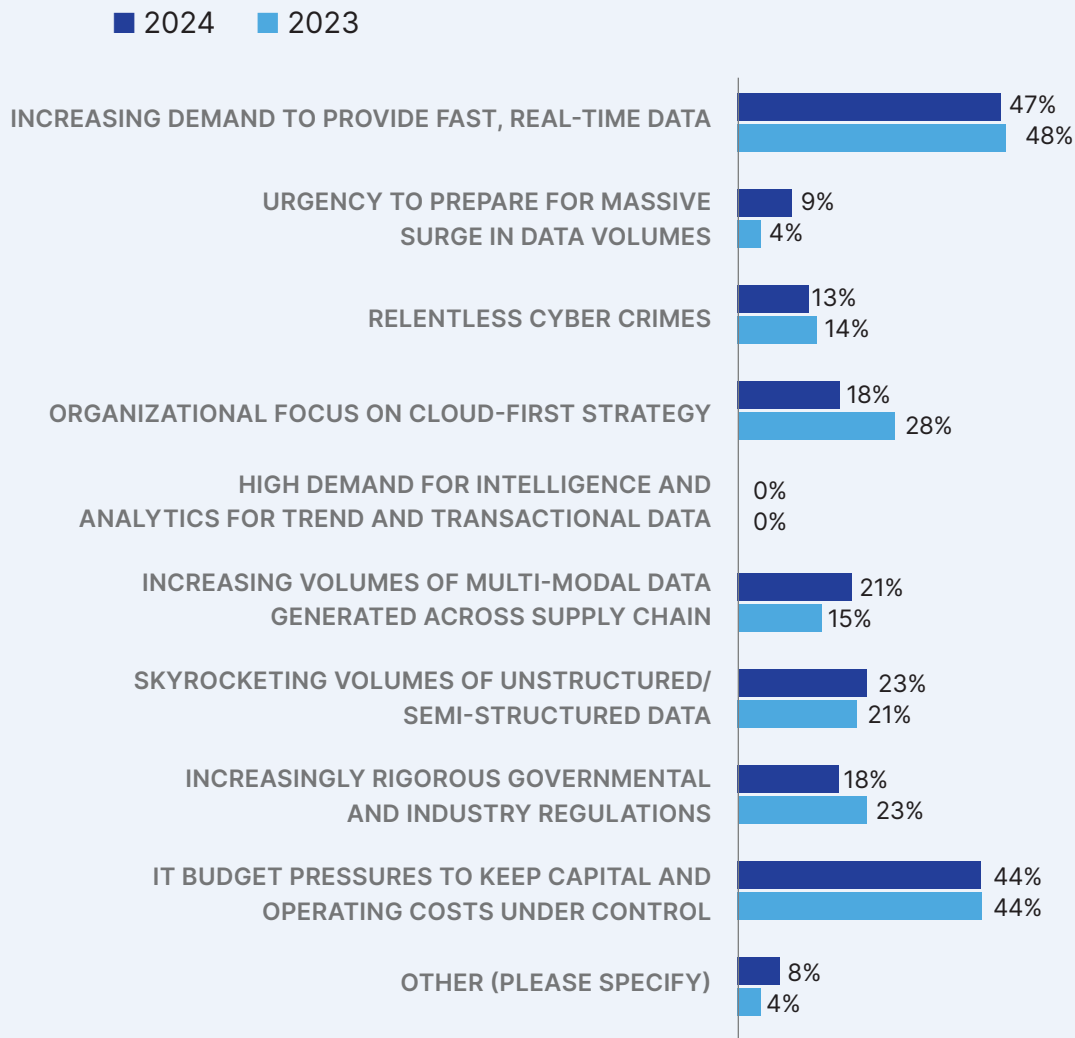
Interestingly, there was a significant increase in the number of respondents who identified increasing volumes of multi-modal data as a key driver, increasing from 15% in 2023 to 21% in 2024. Budget pressures related to keeping capital and operational costs under control remain a steady influence at 44% both years, emphasizing the ongoing challenge of managing financial resources in data management. This also suggests a growing emphasis on agility and responsiveness in leveraging data for decision-making and how budget constraints influence decisions regard-

## Insider Perspective

**“The true value lies in implementing a generative AI interface that can seamlessly communicate with the underlying data platform, enabling users to pose queries in natural language. Imagine a sales engineer asking, ‘How is my data performing?’ or ‘I need this specific information for my role,’ and the system intelligently generates tailored reports catering to their precise needs. Such investments in AI-driven data accessibility are an inevitable global trend that our organization must embrace in the coming months and years to remain competitive and empower our workforce with efficient data utilization.”**

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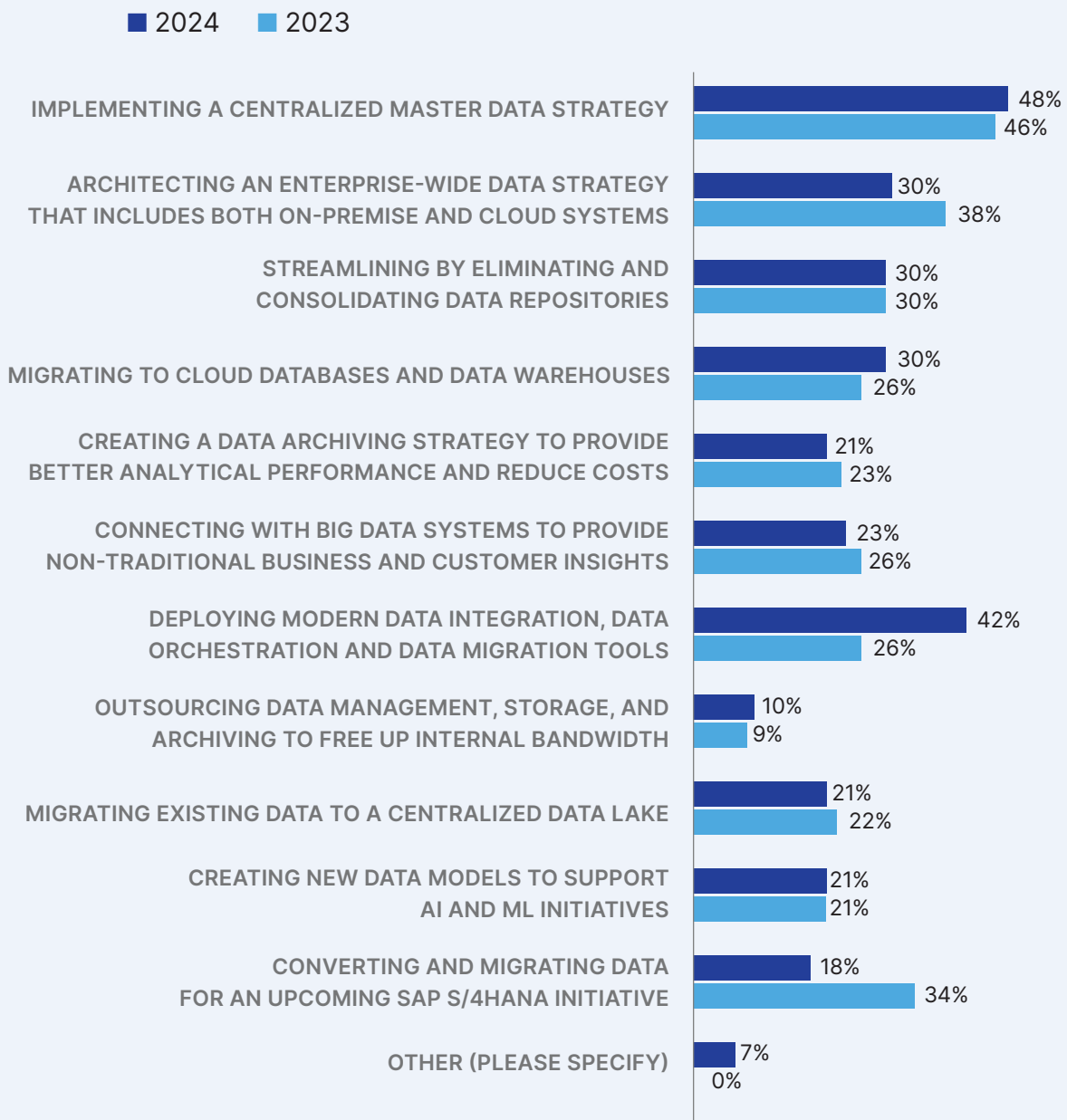
**Figure 3: Top Factors Driving Data Management Strategies**



ing technology investments, including adoption of solutions like SAP Datasphere. SAP Datasphere, formerly known as SAP Data Warehouse Cloud, is designed to unify data management across an organization by integrating data from various sources into a single, cloud-based solution. The initial cost of adopting SAP Datasphere can be a significant barrier, especially for small to medium-sized enterprises. The expenses include subscription fees, data migration costs, training, and potential upgrades of related systems to ensure compatibility. While factors such as organizational focus on cloud-first strategy, relentless cybercrimes, and increasing volumes of multi-modal data across the supply chain also received notable percentages, they were not as strongly emphasized as the top two drivers.

Organizations are increasingly focusing on strategic improvements in data governance, integration, agility, and scalability to meet their data management needs and propel their wider business goals (**Figure 4**). A centralized master data strategy is now a leading approach, adopted by 48% of organizations, which underscores the critical role of a unified method in managing master data with efficiency.

**Figure 4: Data Strategies to Support Data Management Drivers**



This emphasizes a marked shift towards centralization in data management practices and is indicative of organizations valuing a singular source of truth for data to enhance accuracy and efficiency. By reducing the time and resources spent on correcting data errors and discrepancies, Master Data Management (MDM) can significantly enhance operational efficiency. This is particularly beneficial in SAP environments where business processes are highly integrated.

Following closely, 42% of organizations are investing in advanced data integration, orchestration, and migration tools, marking a significant shift towards cloud-based infrastructures and reflecting a sub-

## Insider Perspective

“While the vision of consolidating data into a centralized, accessible repository holds tremendous value, the journey to convince stakeholders and garner their support will be an arduous one. People will gradually recognize the merits of having data available through a unified access point, even if it is not physically stored in one location. However, aligning the right individuals and persuading them of this compelling message will require substantial effort and perseverance.”

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stantial 16% growth from the previous year. This points to an increasing reliance on cloud technologies and a strategic focus on building infrastructures that support scalable and agile data operations. Further, for customers upgrading from SAP ECC to SAP S/4HANA or moving to the cloud, significant investments are being made in data migration tools and services from SAP and third-party service providers. And SAP’s Business Technology Platform (BTP) provides capabilities for integrating and managing data across diverse environments.

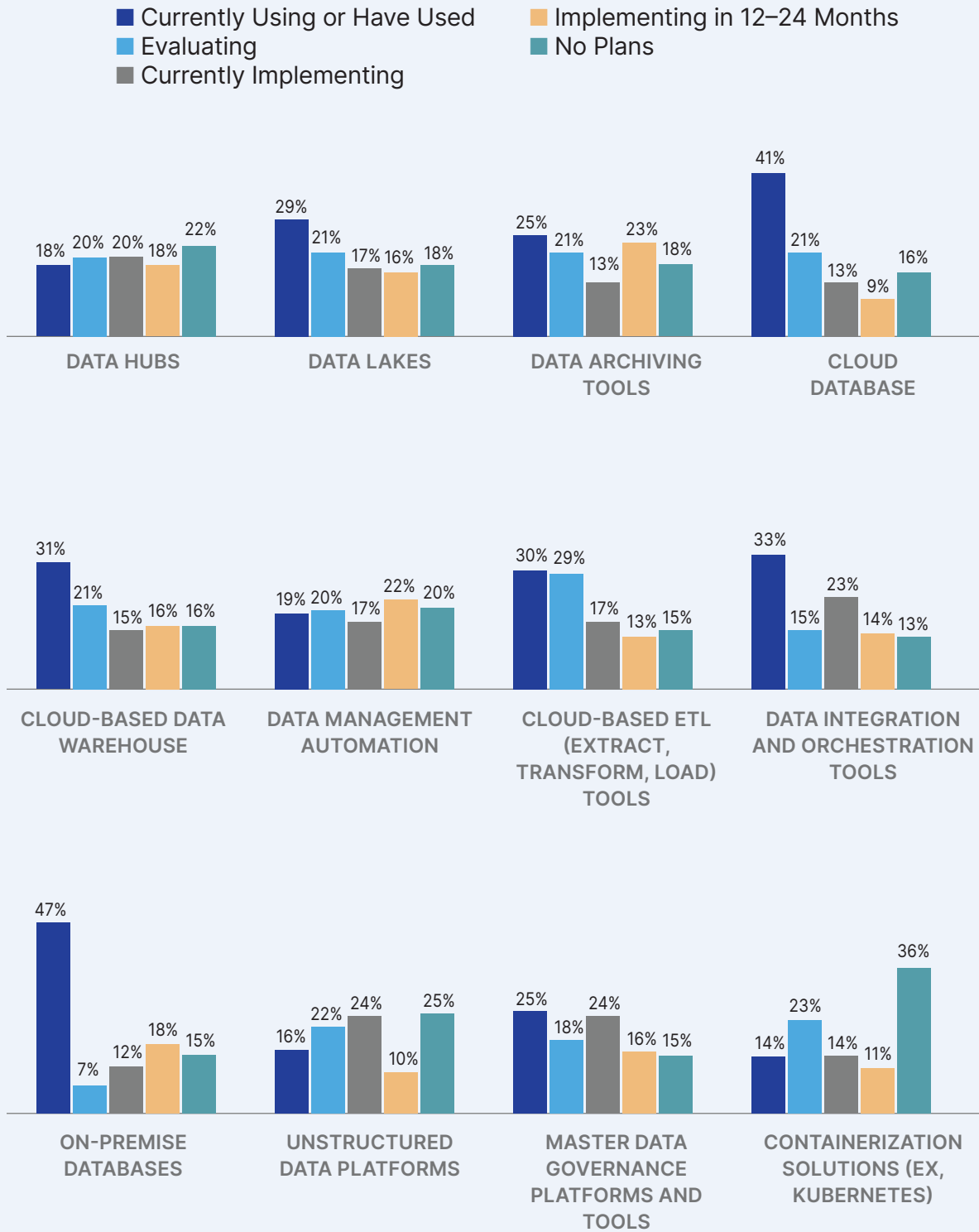
Other strategies such as creating cloud data warehouses, defining and enforcing data quality standards, and outsourcing data management saw modest increases, suggesting steady but more conservative growth in these areas. On the lower end of the spectrum, there is a minimal increase in the creation of new data models and hyper-automated data management, indicating these areas might be in the nascent stages or not the primary focus for most organizations currently.

The research also suggests that while certain aspects like enterprise-wide system of record, support for predictive and advanced data analytics, IT cost reduction, compliance with regulations, and supporting diverse data sources are widely recognized as important or very important, others such as accessibility across devices and advanced analytics capabilities are seen as important by fewer respondents.

There is also an evolving technological terrain where businesses are exploring a spectrum of solutions to enhance their data management frameworks (**Figure 5**). There is a pronounced focus on embracing cloud-based platforms, sophisticated data



**Figure 5: Technologies Companies Currently Use or Plan to Use for Data Management**





integration tools, and contemporary data warehousing designs, reflecting the shift toward more scalable and flexible data strategies. While the trend leans heavily towards cloud adoption, a substantial portion of companies (47%) remain inclined to deploy or continue using on-premise databases, demonstrating a cautious approach or specific requirements that on-premises solutions better address. Concurrently, 41% of companies have already integrated cloud databases into their operations, indicating a robust momentum toward cloud environments, likely driven by the need for more agile and cost-effective data handling capabilities.

However, even though SAP Datasphere offers an expansive open data ecosystem, organizations continue to face critical concerns in cloud data storage and management. Foremost among these is data privacy, cited by 50% of organizations, reflecting apprehensions about the safeguarding of sensitive information in the cloud, although 7% decrease from last year (**Figure 6**). Compliance issues regarding the storage of private data in the cloud are also a significant concern for 38% of organizations, highlighting the complexities of adhering to various regulations.

Additionally, 37% of organizations are wary of cloud costs and data egress fees, which points to budgetary constraints and the unpredictability of expenses as key considerations. Another 37% are troubled by issues pertaining to master data quality and governance, indicating the need for robust frameworks to ensure data accuracy and integrity. To fully capitalize on cloud computing's advantages, it is critical for organizations to address these issues head-on, ensuring that the benefits of cloud solutions are not undermined by the risks and challenges they pose.

There is still hesitation among various business sectors regarding the migration of data storage and management to the cloud within a given time frame. While certain functions display a robust propensity for transition, others exhibit caution or have resolved against migration. Notably, the supply chain (27%) and finance sectors (26%) stand out as the domains with the most concrete intentions to adopt cloud-based data solutions within the next year.

## REQUIRED ACTIONS

- **Implement a centralized master data strategy that incorporates data intelligence:** Organizations need to streamline decision-making by creating a cohesive, authoritative perspective of their business data. By building a centralizing master data management, organizations can ensure consistent enterprise-wide data, encompassing both SAP and non-SAP systems. Implementing a comprehensive data catalog and governance platform designed to automate governance tasks and provide a centralized access point for cross-functional teams streamlines the management of the data landscape, enhances the

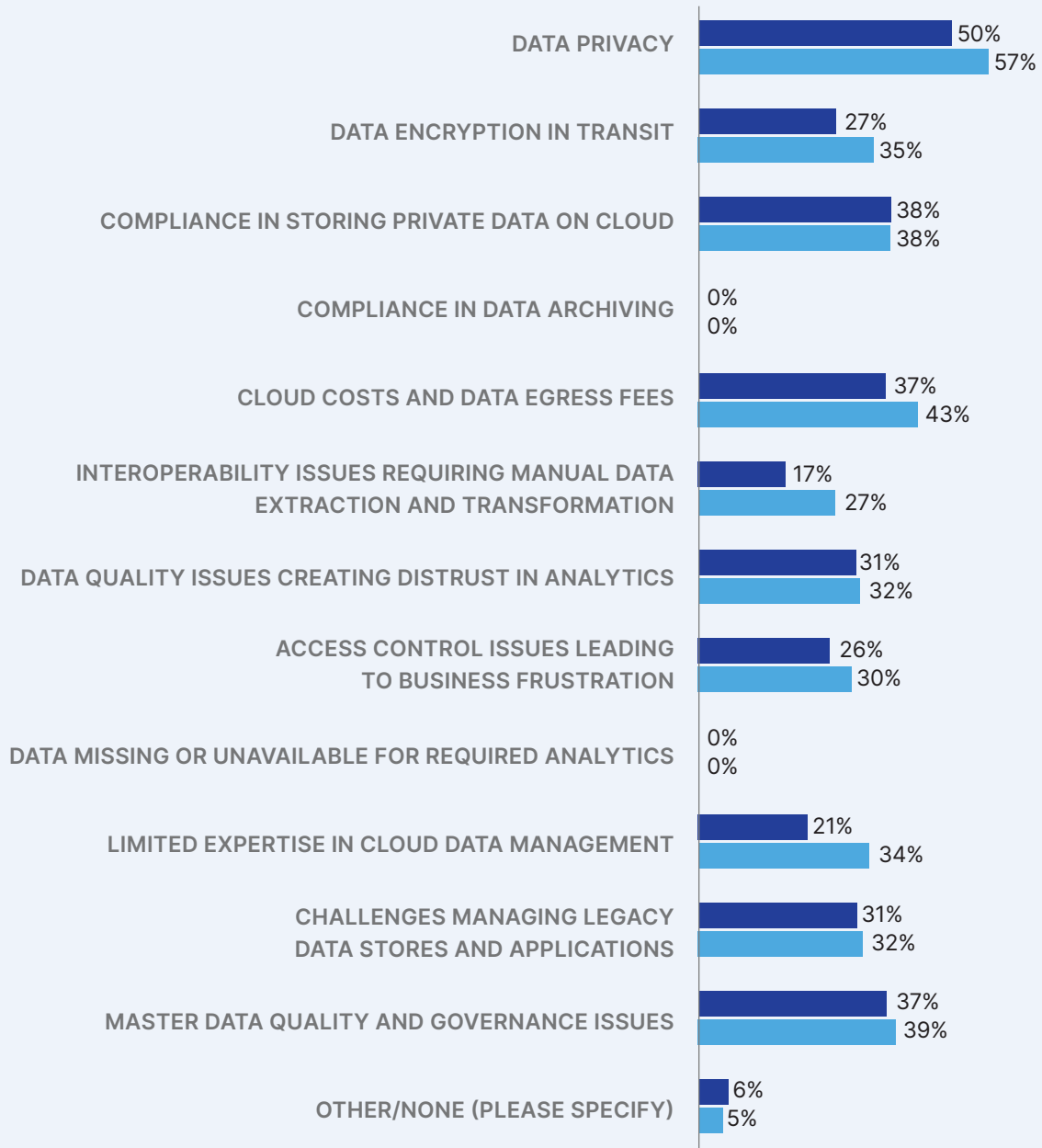
## Insider Perspective

**“Data fragmentation across organizational silos leads to confusion and inefficiency in data access and retrieval. By consolidating disparate data sources into a centralized platform, we can create a single, unified repository that empowers users to locate and retrieve the information they need effortlessly. This unified data platform can streamline data management processes, providing users with a clear, centralized source of truth that eliminates the need for time-consuming data searches across multiple systems.”**

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**Figure 6: Biggest Concerns with Storing and Managing Data in the Cloud**

■ 2024 ■ 2023



efficiency of operational processes, and reduces risks associated with data management and regulatory compliance. Companies that integrate SAP applications data with other operational sources like Salesforce, ServiceNow, and third-party data suppliers for insight generation must lay down a robust groundwork for their data fabric architecture.

- **Establish adaptive data and analytics governance:** Implementing a comprehensive data catalog and governance platform that streamlines governance operations through automation empowers cross-functional teams with access to all data in one place, enhancing control over the data environment, elevating operational efficiency, and minimizing data-related risks and compliance issues.
- **Deploy modern data integration, orchestration, and migration tools:** Effective data-driven digital transformations in today's landscape demand a contemporary approach to data integration. By choosing an apt data integration solution, unifying, governing, and sharing data becomes a seamless process. Businesses require cutting-edge analytical and operational systems that can supply dependable frameworks and processes, tailored to their unique data landscapes. Modern data integration, orchestration, and migration tools provide comprehensive solutions to both operational and analytical challenges.
- **Architect an enterprise-wide data strategy for on-premise and cloud systems:** Organizations should focus on developing a concrete data architecture and roadmap that harmonizes their on-premises and cloud data environments. This comprehensive approach involves conducting a thorough data inventory and mapping data flows across systems to identify silos, redundancies, and gaps. It necessitates defining clear data governance policies and processes for data quality, security, privacy, and lifecycle management across hybrid environments. Moreover, it entails evaluating existing on-premises and cloud data platforms and tools, and planning an integrated, modernized stack that leverages cloud scalability and analytics capabilities. Establishing processes for streaming data integration and replication between on-premises and cloud environments is crucial to enable real-time analytics and minimize silos. Implementing a cloud data lake as a centralized data repository fed by on-premises and cloud sources is also a key component of this approach. The key is moving from a high-level strategy to a tangible execution plan tailored to integrating and optimizing an organization's specific on-premises and cloud data landscape. Developing a data management strategy that effectively encompasses both on-premise and cloud environments is crucial for organizations looking to optimize their IT infrastructure and data handling capabilities. Such a strategy should address the integration, governance, security, and operational aspects of data management across diverse platforms. Design a hybrid infrastructure that leverages the strengths of both on-premise and cloud environments. Identify which data and applications are best suited for the cloud (e.g., those requiring scalability and accessibility) and which should remain on-premise (e.g., sensitive data requiring stringent security measures).
- **Manage complexity through AI-driven integration:** To safeguard their data strategy for the future, organizations should invest in a strong AI framework that simplifies operations, accelerates decision-making, and yields actionable insights. By fusing machine learning with human insight, companies can deepen their comprehension and application of data assets, while automation ensures that data governance evolves in step with the business's growth. For instance, AI can automate the cleansing, deduplication, and enrichment of data, which are critical for maintaining high data quality. Machine learning algorithms can identify inconsistencies, incomplete entries, and errors that might not be evident through manual checks. And AI can support data governance by automating the enforcement of rules and policies. For example, it can ensure that data usage complies with regulatory requirements by automatically controlling who can access certain types of data based on their roles and the data's sensitivity.



### DRIVERS

- Increasing demand to provide real-time data fast to internal users, partners and customers (47%)
- IT budget pressures to keep capital and operating costs under control (44%)
- Skyrocketing volumes of unstructured/semi-structured data to analyze and drive business process (23%)
- Increasingly rigorous governmental and industry regulations (18%)
- Organizational focus on cloud-first strategy to rollout new applications and infrastructure (18%)
- Increasing volumes of multi-modal data generated across supply chain (21%)
- Relentless cybercrime causing data loss, downtime and lost brand reputation (13%)
- Urgency to prepare for massive surge in data volumes due to 5G rollout and IoT growth (9%)



### ACTIONS

- Implementing a centralized master data strategy (48%)
- Deploying modern data integration, data orchestration and data migration tools (42%)
- Architecting an enterprise-wide data strategy for on-premise and cloud systems (30%)
- Eliminating and consolidating data repositories (30%)
- Migrating to cloud databases and data warehouses (30%)
- Connecting with big data systems (23%)
- Migrating existing data to a centralized data lake (21%)
- Creating new data models to support AI and ML initiatives (21%)
- Creating a data archiving strategy (21%)
- Converting and migrating data for SAP S/4HANA initiative (18%)
- Outsourcing data management, storage, archiving (10%)



### REQUIREMENTS

- Meeting governmental and industry- specific regulations (42%)
- Supporting both SAP and non-SAP data sources (39%)
- Supporting both transactional and non- transactional data (38%)
- Reduction in cost of IT(35%)
- Ease of data integration with various analytics tools (34%)
- Enterprise-wide system of record (28%)
- Data archiving policy and procedures (23%)
- Support predictive and advanced analytics (22%)
- Supporting AI and Machine Learning capabilities (20%)
- Streamlined access to data from any device (18%)



### TECHNOLOGIES

- On-premise databases (47%)
- Cloud Database (41%)
- Data integration and orchestration tools (33%)
- Cloud- based Data Warehouse (31%)
- Cloud-based ETL (Extract, Transform, Load) tools (30%)
- Data lakes (29%)
- Data archiving tools (25%)
- Master Data governance platforms and tools (25%)
- Data management automation (19%)
- Datahubs (18%)
- Unstructured data platforms (16%)
- Containerization solutions (ex, Kubernetes) (14%)

# 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.

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**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.

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**REQUIREMENTS** These are business and process-level requirements that support the strategies. These tend to be end-to-end for a business process.

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**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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count some of the biggest names in the industry as customers including many fortune 500 companies. We have won several data management leadership awards and recognitions which along with our customer wins are a great testimony to the impact our products are having on enterprises across the world.

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