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RESEARCH REPORT

Enterprise Data and Analytics in the Era of AI

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Digital business generates more data than traditional business, and that information is foundational to supporting innovation and realizing desired business outcomes such as improved forecasting accuracy, faster and better decision-making, enhanced customer and user experiences, and setting up the basis for AI adoption and innovation. Companies that have invested in modernizing their data and analytics strategies and technologies are seeing results, both in the outcomes mentioned as well as many Key Performance Indicators (KPIs).

Data and analytics are essential in the era of digital business and AI. Those that are maturing their data capabilities are reaping the benefits, while those that are not progressing are at risk of falling behind in their markets.

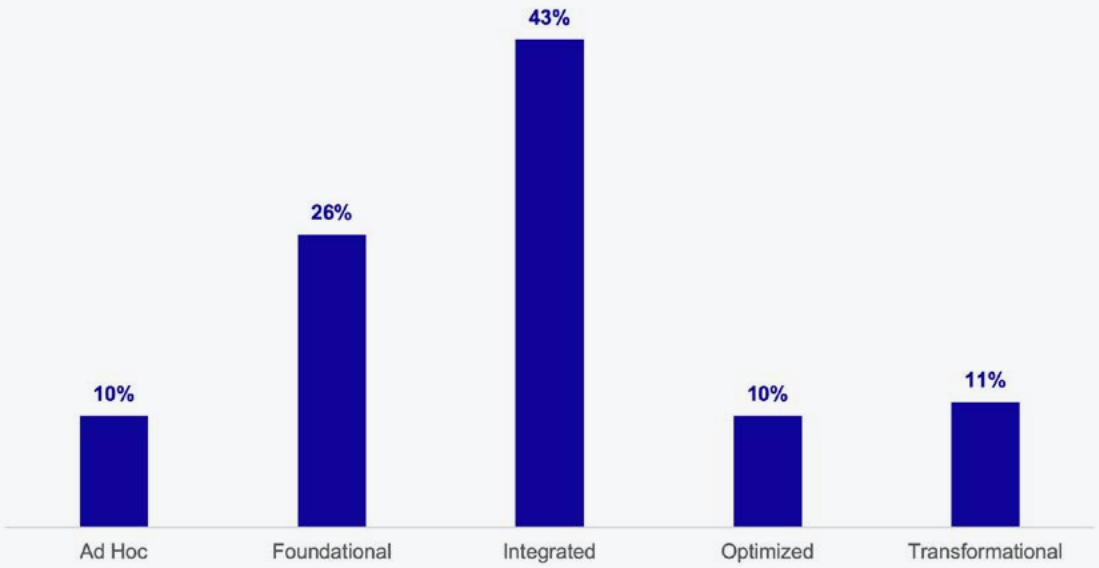
In this SAPinsider benchmark report, we surveyed members of our community to find out the strategies and technologies making up their data and analytics capabilities, as well as the forces driving their movement in the space, and the requirements they expect out of data and analytics investment. Maturity was scored in important data and analytics areas and measured against the business outcomes respondent organizations are achieving and the changes in KPIs they are measuring. This maturity analysis aims to quantify the value of data and analytics, and the areas in which leaders are investing.

There is plenty of room for growth among respondents when it comes to getting the most value out of the information flowing through their systems. Just 11% of respondent' organizations have achieved transformational data and analytics capabilities, featuring a data-driven culture with automated, AI-enabled insights embedded into business processes. Another 10% are at the optimized level with predictive analytics and proactive decision-making in place.

A plurality of our respondents identify as reaching the integrated stage with enterprise-wide reporting and some real-time capabilities. Just over a quarter are foundational, meaning they have basic reporting and dashboards with limited governance. The remaining 10% are still ad hoc with their data and analytics capabilities, relying on manual, spreadsheet-based reporting.

FIGURE 1

Which best describes your organization's data and analytics capabilities?



Most respondents have at the very least begun to approach data and analytics at an enterprise-wide level through reporting. The largest segment of respondents is still seeking to make more proactive data-driven decisions and even more have yet to embed analytics into their processes and technologies.

When it comes to data governance, just about a third of respondents (20%) indicated having enterprise-wide data governance practices at their organizations, with 12% going a step further by having governance embedded across the data lifecycle with automation and business accountability.

A quarter (25%) of respondents indicate having data quality standards and stewardship roles, while more than a third have basic data ownership and data policies. Just 9% of respondents' organization have no formal data governance.

25%

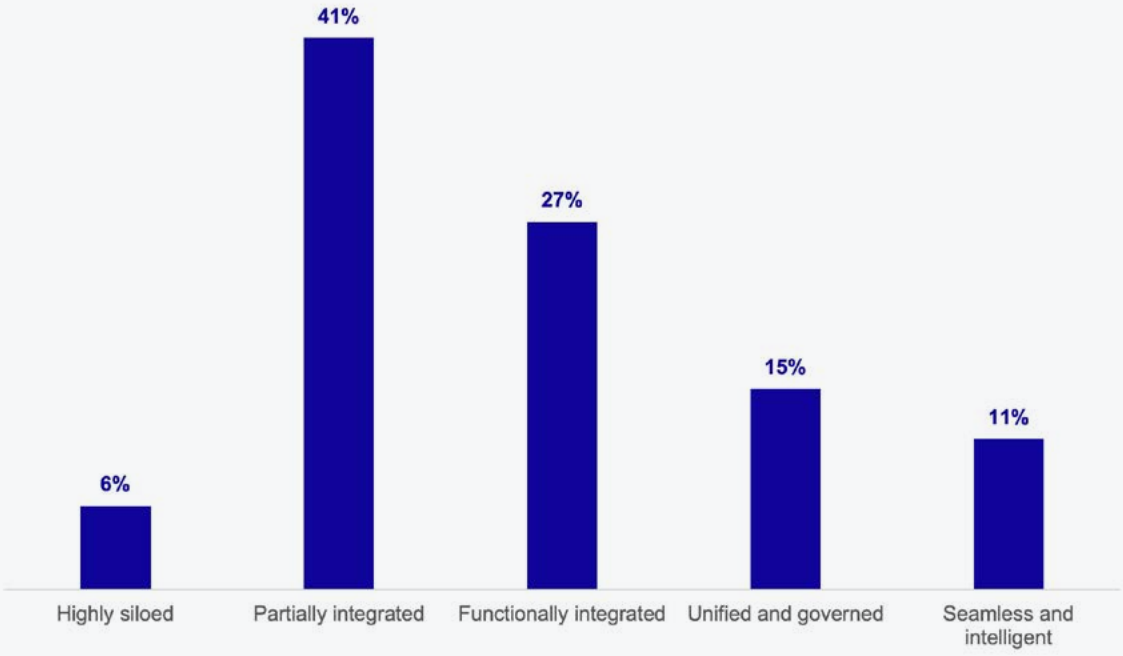
of respondents indicate having data quality standards and stewardship roles

Data governance exists at some level at the vast majority or organizations we surveyed, but there is still room for more standardization and automation. Data governance is critical in developing trustworthy data that delivers reliable insights, and those practices are best suited for company-wide endeavors to ensure consistency.

That consistency in data governance can lead to better adoption of analytics as a decision-making tool. Most respondents surveyed indicated frequent use of data analytics in decision-making across their organizations. Just 3% are using data and analytics only occasionally or rarely. On the other end, only 7% are making data-informed decisions pervasively, with most respondents indicating that data and analytics decision-making is embedded at a frequent or consistent level.

FIGURE 2

SAP and non-SAP data availability and accessibility



Of course, data-driven decisions are best made when context from all the company's systems can be included, beyond just SAP applications and including information from best-of-breed line-of-business applications, procurement systems, and more.

That means dataflows matching workflows between systems is vital, and decision-makers need to be able to access the data they need no matter where it originates. To that end, more than 40% of respondents indicated only having partially integrated data across SAP and non-SAP systems (**Figure 2**), nearly four times as many respondents that have seamless and intelligent data availability in their larger data footprint.

15%

of respondents indicate unified and governed data availability

There is functional integration at more than a quarter of respondents' organizations, while 15% indicate unified and governed data availability.

Without full access to a company's data, analysts and scientists are unable to generate the best insights for decision-making. Working with siloed information only paints part of the picture. Those that are building unified and governed dataflows and access are enabling their employees and decision-makers to be as informed as possible. Those that are making that process seamless and intelligent are expediting decision-making and allowing for greater agility in responding to the market.

There are many benefits from enhancing data and analytics capabilities, and some those are often realized early in the maturity journey.

CHAPTER 1

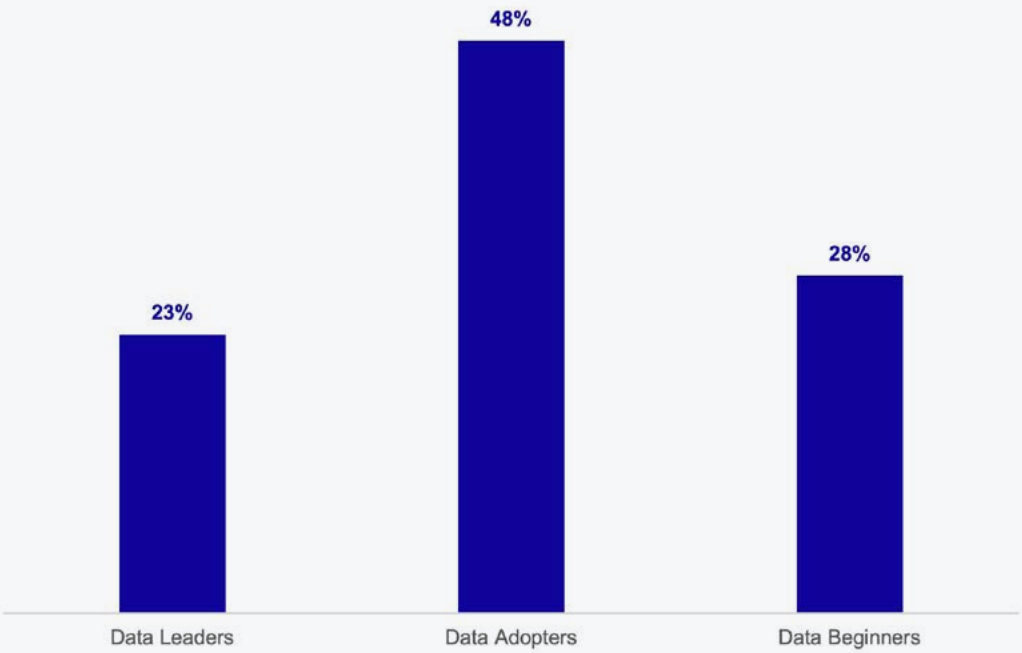
Data and Analytics Maturity Analysis

As part of our analysis, SAPinsider scored each respondent on their data and analytics maturity level and sought to find characteristics at each level of maturity, which we determined to be Data Leaders, Adopters, and Data Beginners (**Figure 3**). Maturity was determined by a score that combined answers to specific questions around strategies and abilities, as well as the level of technology adoption.

The groups were segmented by score out of 100, with Data Leaders at 71-100, Adopters at 50 to 70, and Data Beginners at 0 to 49. Nearly half of respondents were categorized as Adopters.

FIGURE 3

Data and Analytics Maturity Distribution



Data Maturity Characteristics

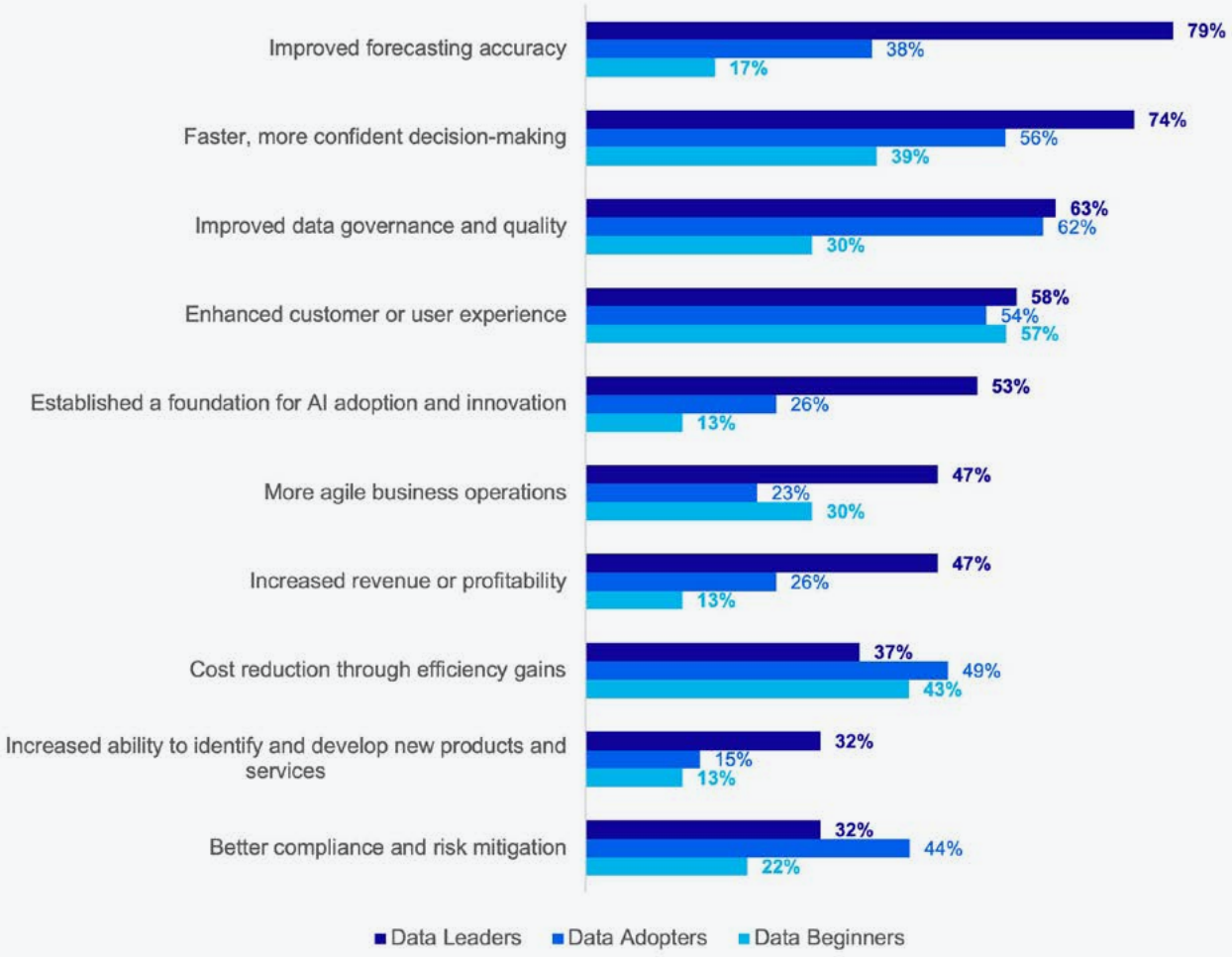
DATA BEGINNERS	DATA ADOPTERS	DATA LEADERS
• Have adopted primarily end-user driven analytics technologies such as Microsoft Power Platform and Salesforce Tableau	• Largely reliant on SAP and Microsoft tools, with some increased adoption of other non-SAP offerings	• More common use of non-SAP analytics technologies beyond Microsoft alongside SAP offerings
• Primarily using on-premise relational databases such as Oracle and Microsoft SQL Server.	• Most commonly using Microsoft tools such as Azure and SQL Server for database and data management, looking to cloud offerings to accelerate strategy	• Greater use of SAP HANA and AWS in data management
• Lacking centralized leadership or vision for data strategy	• Technology leaders (CIO, CTO) leading data strategy	• Data and/or analytics leaders driving data strategy
• Minimal to no adoption of emerging technologies	• Some adoption of emerging technologies, particularly GenAI.	• Higher adoption of emerging technologies such as Agentic AI
• Seeing one positive outcome in better experiences but almost no improvement in key KPIs.	• Incremental increases in data and analytics investment expected as immediate return on KPIs from initial investments has been significant.	• Singificant increases in data and analytics going forward, driven by positive business outcomes in many areas.
• Expect maintained or increased investment in data and analytics.	• Change management and user adoption becoming a bigger issue.	• As data and analytics have transformed, change management is top challenge.

The most significant trend as organizations mature their data and analytics capabilities is that they begin to see business outcomes that are coming directly from that maturation. Even Data Beginners are finding that even the smallest investment isproviding returns in areas such as customer and user experience, cost reduction, faster decision-making, and improved governance. Those outcomes expand to better compliance and risk mitigation and increased revenue and profitability,

In addition to the benefits that the lower maturity groups are seeing, Data Leaders are realizing business outcomes in improved forecast accuracy and establishing a foundation for AI adoption and innovation.

FIGURE 4

Data and Analytics Business Outcomes



That foundation for AI adoption and innovation has led to a higher rate of implementing and using emerging technologies as part of data and analytics initiatives. Data Leaders are twice as likely to be using Agentic AI than Data Adopters, more than twice as likely to use natural language queries for search-based BI and seven times more likely to be using synthetic data or digital twin modeling.

Building a data foundation enables innovation and the ability to adopt the latest technologies, finding efficiencies and insights where competitors falling behind may not.

Top Data and Analytics Technology Vendors

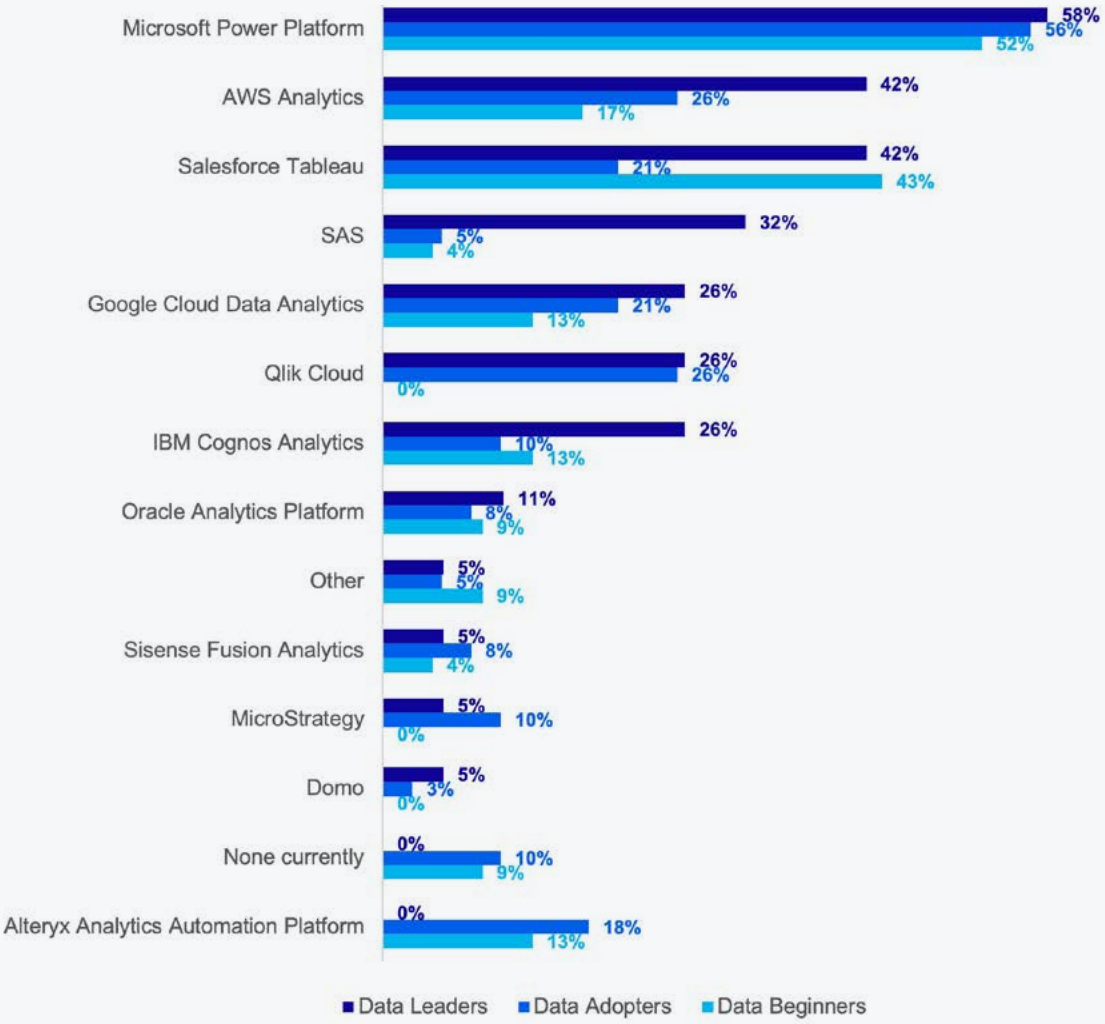
When it comes to SAP data and analytics tools, SAP Business Warehouse (SAP BW) is still the top technology in use overall (36%), but is most common among Data Adopters (44%) and Data Beginners (35%). SAP BW's usage drops among Data Leaders (21%), with more utilizing SAP BW/4HANA (42%) as well as SAP Datasphere, SAP's modern SAP BW alternative that allows for more blending of multiple sources of information for analysis.

SAP Datasphere is also part of SAP's new data and analytics offering that aligns with the vendor's overall strategy of data centralization, SAP Business Data Cloud (BDC). SAP BDC is seeing 37% adoption among the Data Leaders we surveyed, compared to 15% of Data Beginners and 17% of Data Adopters. Interestingly, Data Beginners are leading in SAP Business Technology Platform (SAP BTP) adoption (35)%. As they look to catch up in the data and analytics space, they may be looking to SAP's more modern offerings as a shortcut past some of the legacy tools.

When it comes to non-SAP data and analytics tools, Microsoft Power Platform is the clear leader, in use at more than half of respondents in all maturity groups.

FIGURE 5

Non-SAP Data and Analytics Tools in Use



As companies mature, they are more likely to adopt analytics tools such as AWS Analytics, SAS, Google Cloud Data Analytics, and IBM Cognos Analytics as they look to a variety of solutions to utilize depending on the scenario.

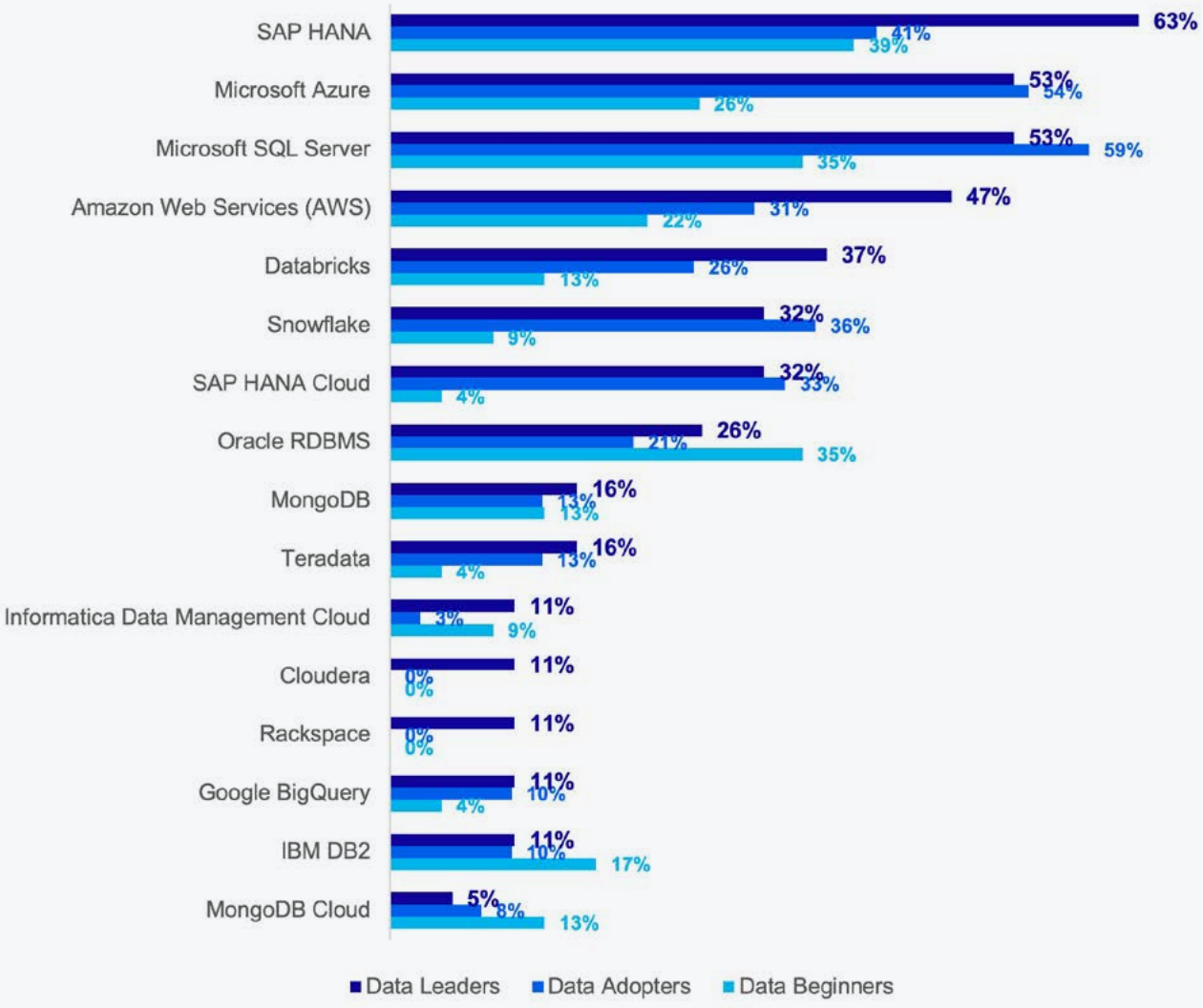
Data Beginners are using Salesforce Tableau at the highest rate of any maturity group. Tableau has made its way into many companies on an individual base and can be seen as somewhat of a shadow IT tool until an enterprise agreement is reached with the data visualization provider. End users at companies that don't yet have advanced company-wide data capabilities set up will often adopt Tableau to bring some sophistication and design to their reporting without a large-scale project.

When it comes to databases and database management, as organizations mature from Data Beginners into Data Adopters, they look to Microsoft products such as Azure and SQL Server to help them manage their data. As they grow into Data Leaders, they are adopting SAP HANA, AWS, and Databricks at a higher rate.

Adopters are looking at utilizing cloud-based options such as SAP HANA Cloud, and Snowflakeat the same or greater rate than Data Leaders. As these organizations attempt to modernize their data and analytics capabilities, they are bypassing on-premise solutions and utilizing the latest cloud options. However, multi-cloud and hybrid tools such as Rackspace and Cloudera are exclusively used by the Data Leaders in our survey.

FIGURE 6

Database and Data Management Tools in Use

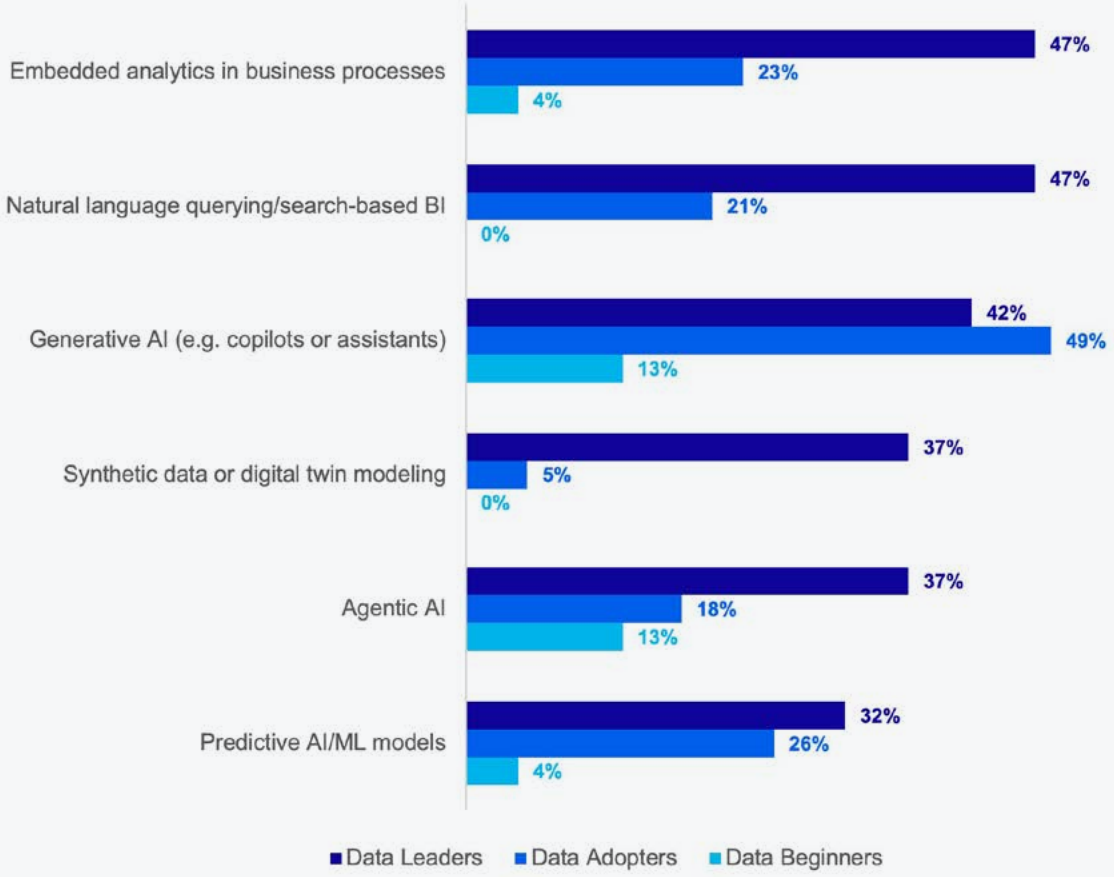


As companies mature, they are moving towards cloud-based and hybrid database and database management options, as well as diversifying the vendors they are seeking to implement. This is often the product of more forward-thinking, innovative data cultures as they strive to make more intelligent and fact-based decisions.

The actions that Data Leaders are taking are enabling them to adopt emerging technologies at higher rates in order to support their data and analytics goals.

FIGURE 7

Emerging Technologies Adoption



Data Leaders have built a better foundation of policies, governance, and technologies to allow them to adopt emerging technologies that can advance their data and analytics strategies.

Embedded analytics, natural language querying for BI, synthetic data, and agentic AI are all examples of where Data Leaders have more than double the adoption rate over Adopters. Generative AI tools such as copilots and digital assistants appear to be the first step into emerging technologies for many Adopters.

Leadership, Investment, and Adoption

For Data Leaders, it is common to have analytics-focused leadership driving data strategy , with more than half having either a data and analytics center of excellence, a head of analytics or BI, or a Chief Data Officer in charge. About a third of Adopters are doing the same, but they are more likely to have a tech-focused leader such as the CIO or CTO heading up data and analytics strategy. As for Data Beginners, 30% have no clear ownership and leadership is less likely to come from any sort of centralized position or department.

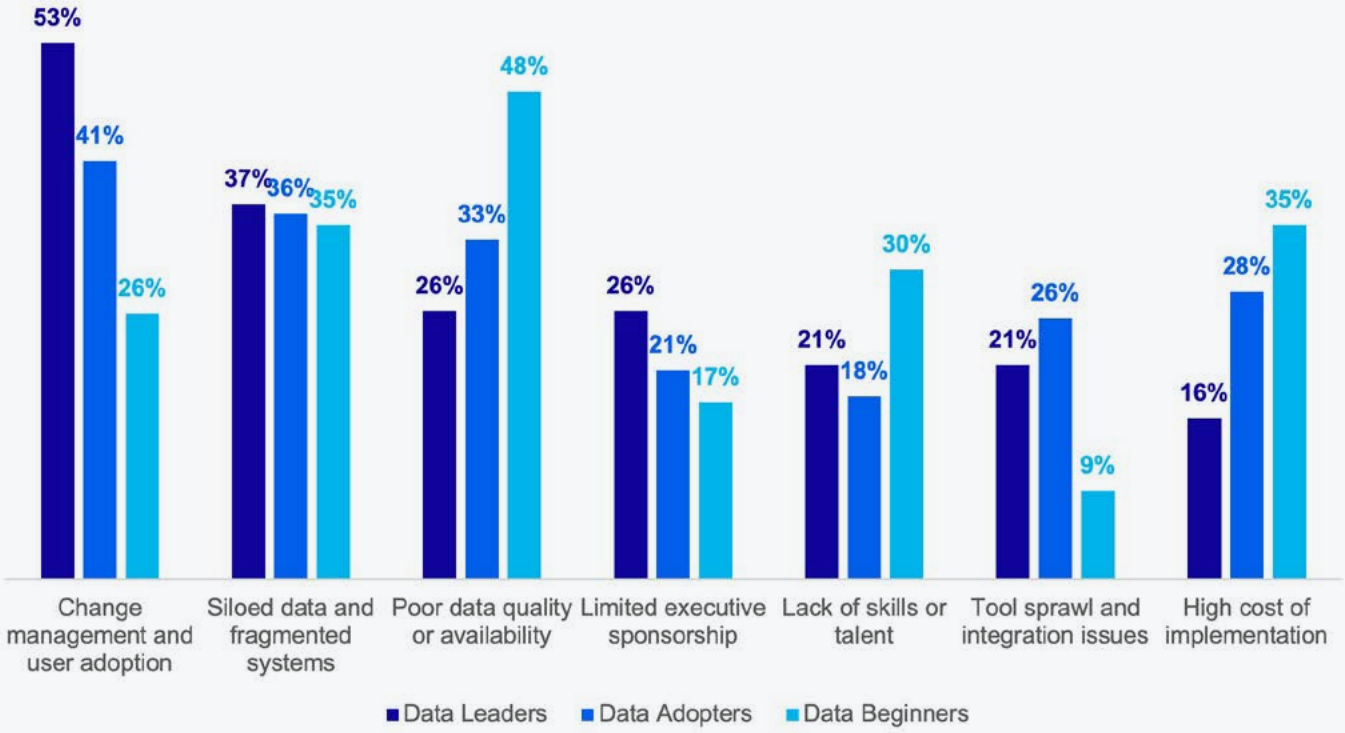
That lack of centralization is likely contributing to some data quality issues and lack of data availability for many Data Beginners. The challenges change as companies mature, with user adoption and change management increasingly becoming the focus as companies begin implementing new technologies and updated processes.

30%

of Data Beginners have no clear ownership and leadership is less likely to come from any sort of centralized position or department.

FIGURE 8

Barriers to Data and Analytics Maturity



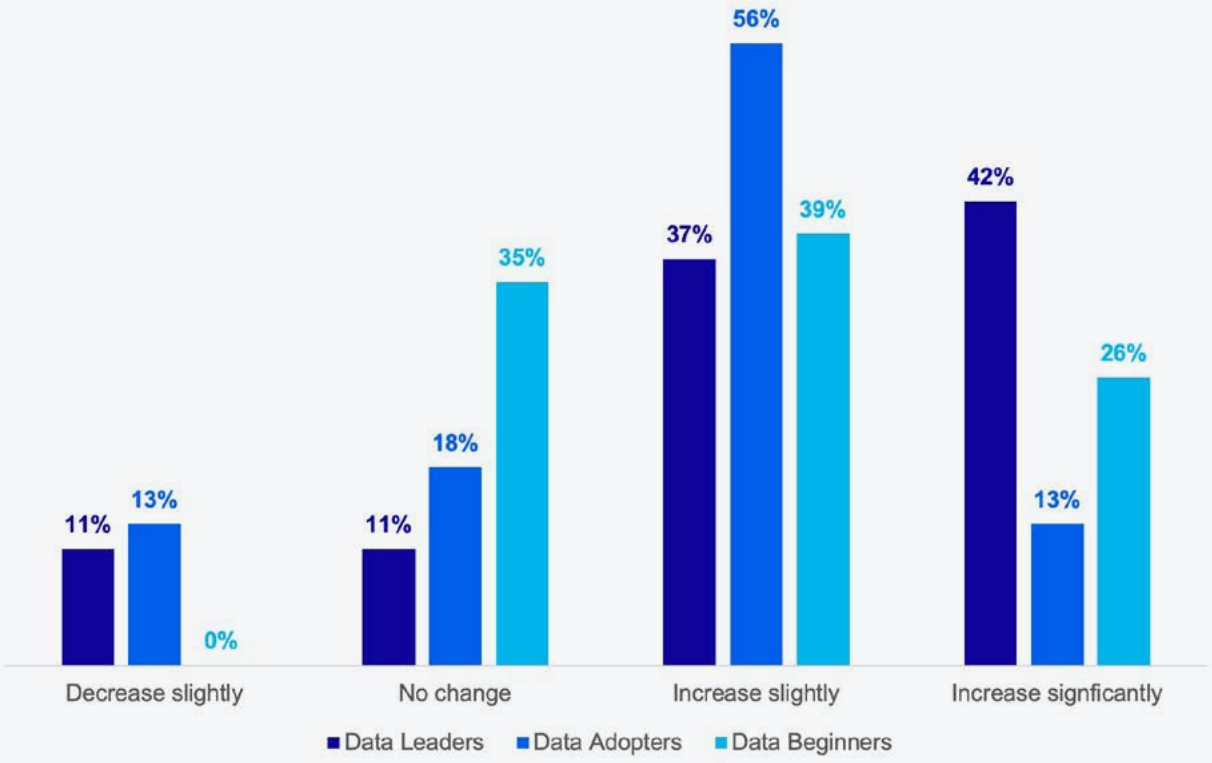
Siloed data remains a steady challenge as companies mature, which points to the need for deeper integrations and modern data offerings such as SAP Datasphere that are able to bring together multiple data sources for analysis.

While Data Leaders are facing challenges around change management and user adoption, they are hitting that challenge head-on. Just 11% report low or very low data and analytics end-user adoption, nearly three times less than Data Beginners. Conversely, Data Leaders are more than 3.5 times more likely than Data Beginners to see high or very high end-user adoption.

With strategies and technologies leading to desired business outcomes, Data Leaders are expecting continued investment in data and analytics.

FIGURE 9

Change in Data and Analytics Investment



Data Leaders are recognizing the value of their investment in data and analytics, with42% expecting to increase that investment significantly over the next 12 months and another 37% looking to increase it slightly.

That means Data Beginners looking to not change their data analytics investment, and Adopters looking to only increase investment slightly are at risk of falling even further behind Data Leaders.

Data and analytics maturity has clear value and companies that invest in that area will see business results.

CHAPTER 2

Factors Impacting Data and Analytics Strategy

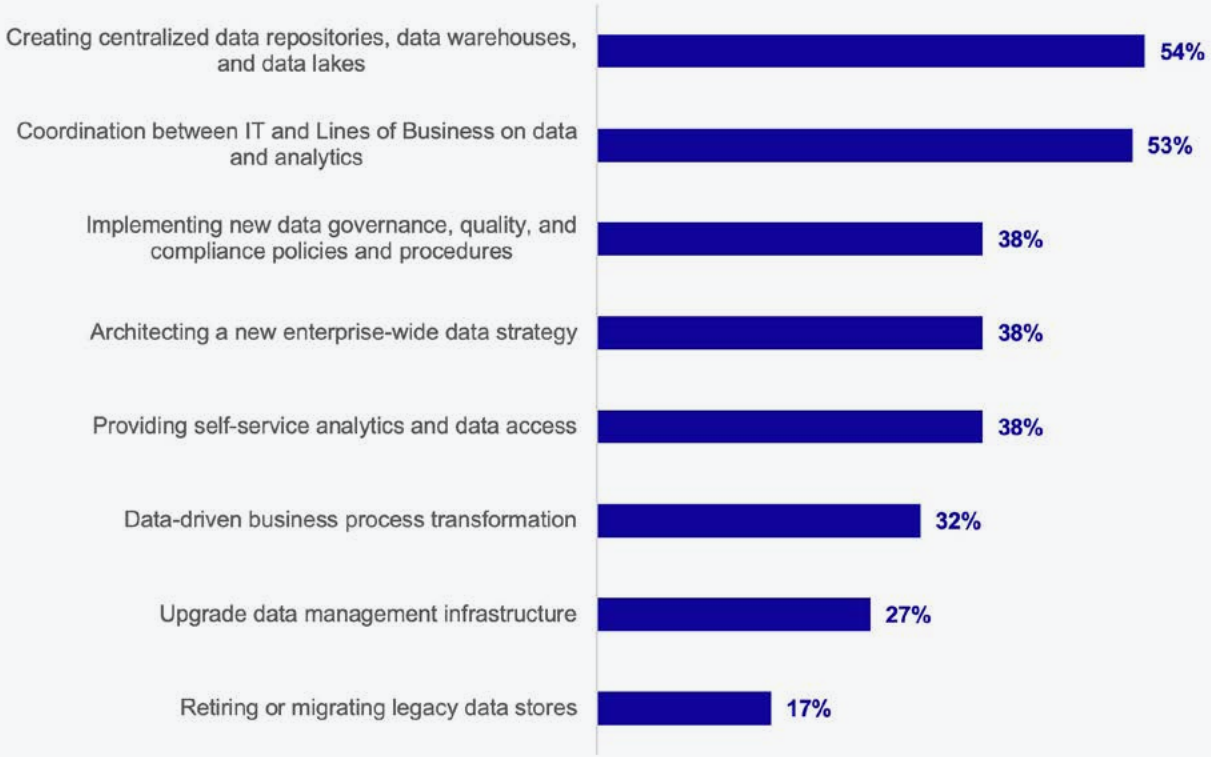
There is no dominant driver for organizations when it comes to data and analytics strategy, but digitization is playing a major role when it comes to setting those data plans in motion.

Building more resilient supply chains is also a leading driver. Organizations are seeking to unlock value from internal and external supply chain data to make their business run smoother and more reliably.

The rise of AI is also a top driver, as companies look to establish data foundations that will enable the successful deployment of AI and automation.

FIGURE 10

Top Data and Analytics Strategy Drivers



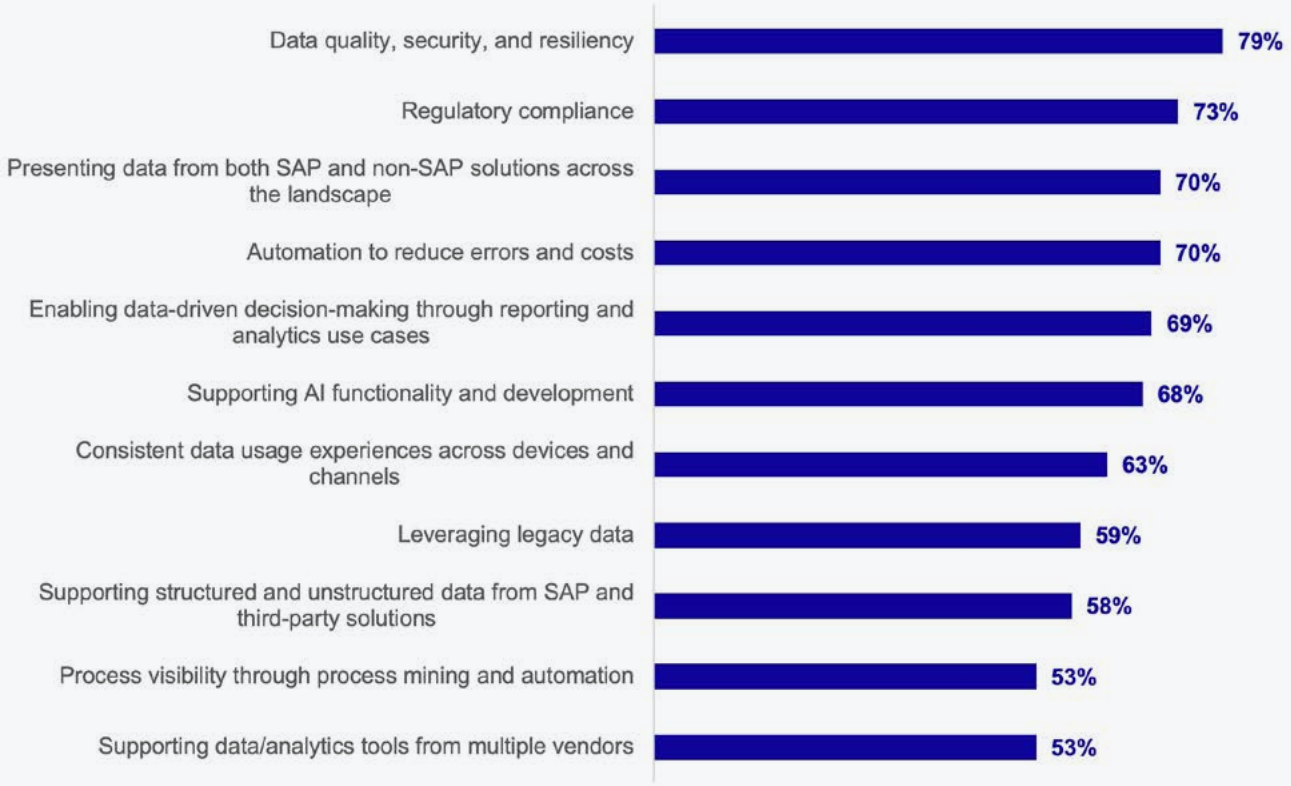
Finally, many leaders are mandating data-driven decisions, which are increasingly becoming the norm among top organizations.

With those drivers in mind, the top action being taken by respondents to support their data and analytics needs is that of centralizing their data, an important step for corralling the larger and diverse sets of data brought on by digitization and enabling advanced analytics and AI adoption.

More than half of respondents' organizations are also coordinating IT and lines of business on data and analytics, which enables companies to better align data insights with business processes and decisions that they are expected to support.

FIGURE 11

Actions Supporting Data and Analytics Strategies

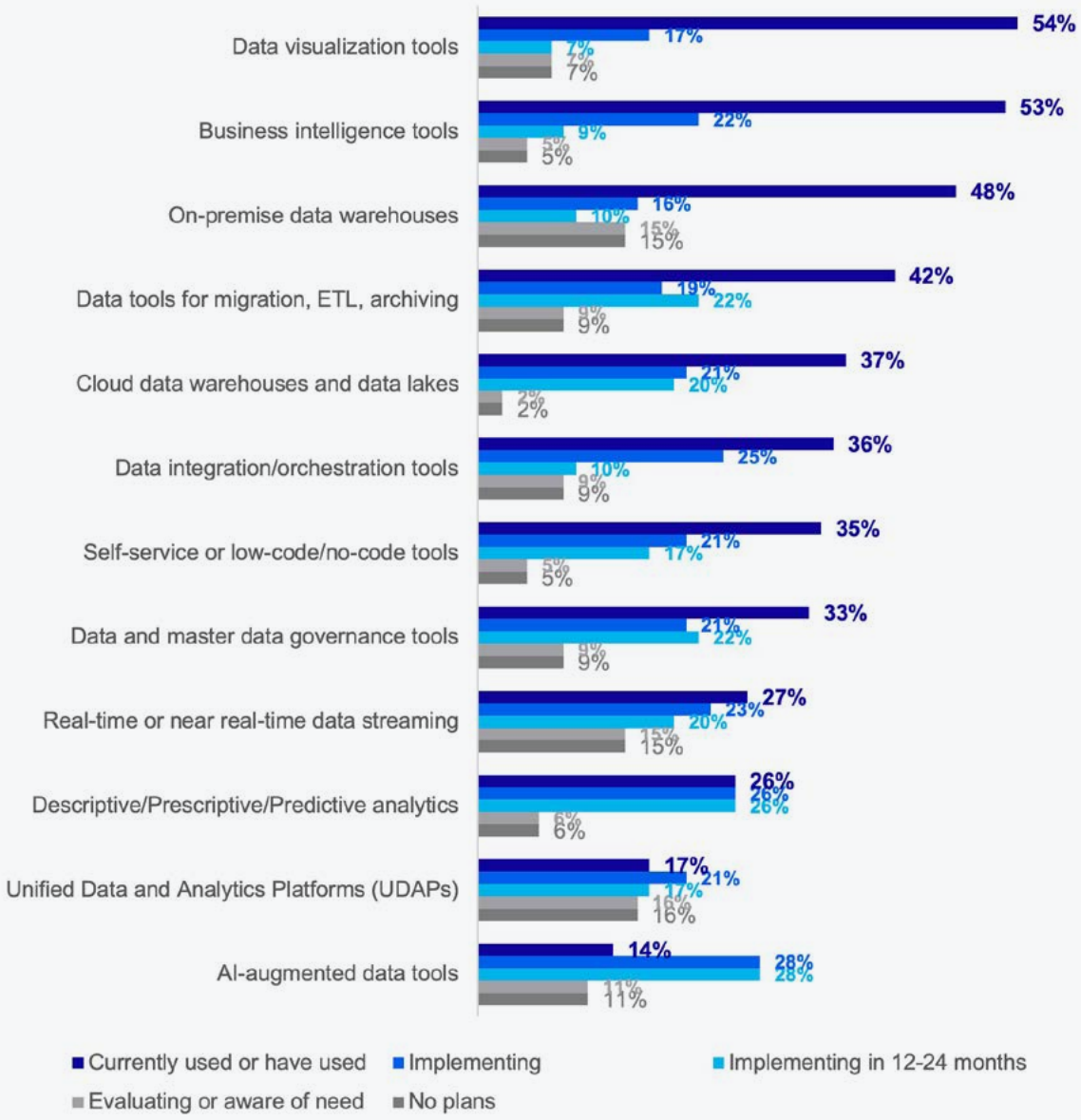


As respondent organizations implement their strategies for data and analytics, ensuring data quality, security, and resiliency is the top requirement behind those actions. This is closely followed by regulatory compliance.

Presenting data from SAP and non-SAP systems is also important, as is supporting automation, supporting data-driven decision-making, and enabling AI functionality and development. This need for unified data consumption capabilities across the enterprise means that organizations must have a way to bring that data together. While organizations likely want to avoid unnecessary data duplication, the ability to present data from systems across the enterprise is vital for effective decision making.

FIGURE 12

Requirements for Data and Analytics Strategies

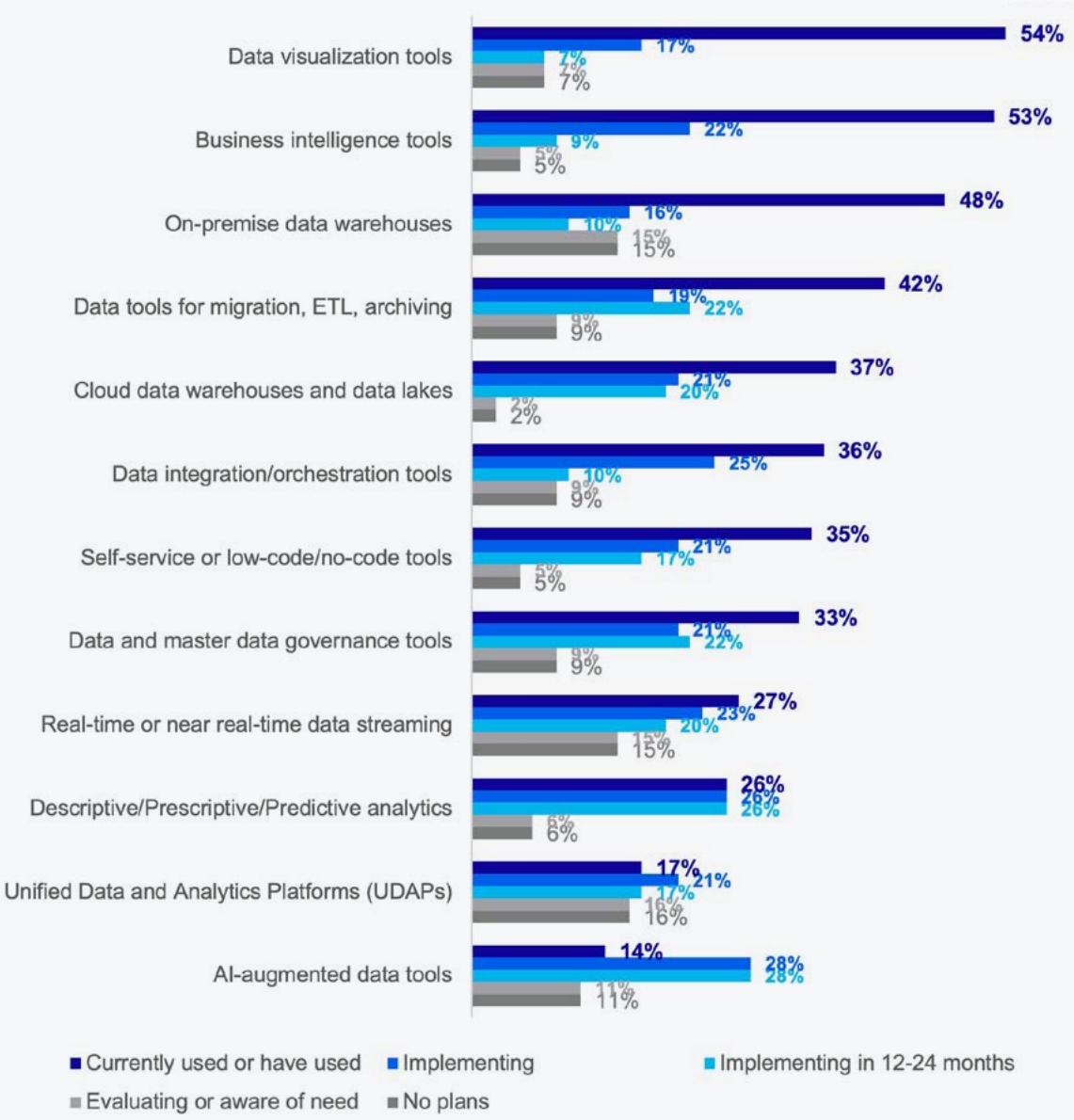


As companies seek to fulfill their data and analytics requirements, data visualization and Business Intelligence tools are the most common data and analytics technologies in use among our respondents, while nearly half are continue to use on-premise data warehouses.

Those are more common that cloud warehouses or data lakes, which 37% of respondents indicate they are using or have used. AI-augmented data tools are still at a low adoption rate, but more than half or respondents expect to implement them in the next 24 months.

FIGURE 13

Most Common Data and Analytics Technologies In Use



Key Takeaways

When it comes to equipping organizations with the capabilities to support data and analytics effectively, consider the following:

- **Data is foundational to digital business and AI adoption.** Many companies are driven to mature their data and analytics capabilities in order to support digital business and AI goals. That is the right approach. Digital businesses are inherently data-driven and AI cannot function properly without quality, accessible information.
- **Data security should be considered every step of the way**. The security of your data is essential to a leading data and analytics strategy. This needs to be considered at every level from infrastructure to database and data management up to the user level with data access and the products developed by analysis and visualization tools.
- **Bring lines of business and IT together to build data and analytics strategies**. To match capabilities to process requirements, it is important that collaboration is happening between the back and front offices both during implementation and throughout the lifecycle of your data and analytics approach.

CHAPTER 3

Recommendations and Required Actions

Data is a foundational element to any innovation a company wants to achieve while analytics support fact-based decision-making that leads to successful business outcomes and better KPI performance.

With the average company sitting in the category of data adopter, many organizations are realizing the benefits of data and analytics maturity. However, to achieve the digitization and AI adoption that is driving these companies to invest, they have to take the approach of digital leaders.

Required Actions

To achieve the best outcomes from their data and analytics strategy, organizations should take the following actions:

Put a data and analytics focused leader or center of excellence in place to drive strategy. Leading data and analytics organizations are moving towards having data and analytics centers of excellence, or leadership positions such as the Chief Data Officer, in charge of pushing data maturity forward. While this may seem subsidiary to groups lead by other technology leaders, a data-focused center or excellence can consistently prioritize data quality, security, and access in a way that cannot be maintained by other organizations.

Build AI and other emerging technology enablement into your data and analytics strategy. Companies that are leading are also innovating, and their data and analytics capabilities are supporting that. The adoption of AI and other emerging technologies can act as a catalyst that builds support from executives to invest in data and analytics. It is also important to ensure that internal teams are adequately trained and enabled on new technologies that are being implemented to help ensure optimal implementation and use.

Explore tools beyond your comfort zone to optimize your data and analytics capabilities. While Data Leaders are still using tools such as SAP BW and Microsoft offerings, they are exploring offerings from other vendors in both analytics and in data management. This more agnostic approach to data allows them the greater ability to find what fits their needs and capitalize on the latest advancements in cloud technologies. It also ensure that they can bring the best tool to a given situation, even if that means embracing something that is more scenario specific.

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