OCTOBER 2025

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DETAILED FINDINGS

From The Benchmark Report:

Cloud Architecture for SAP

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RESEARCH PARTNER SAP | SPONSORED BY boomi lemongrass ONAPSIS Red Hat SUSE

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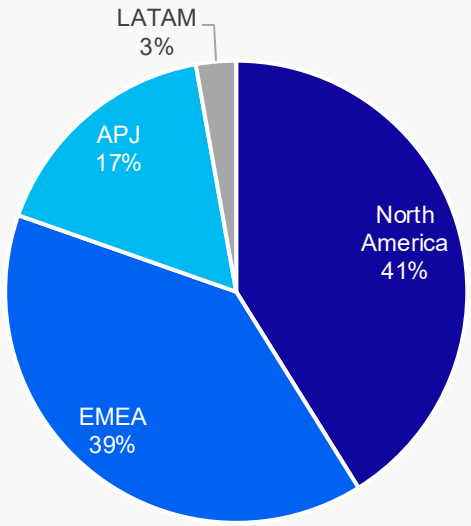
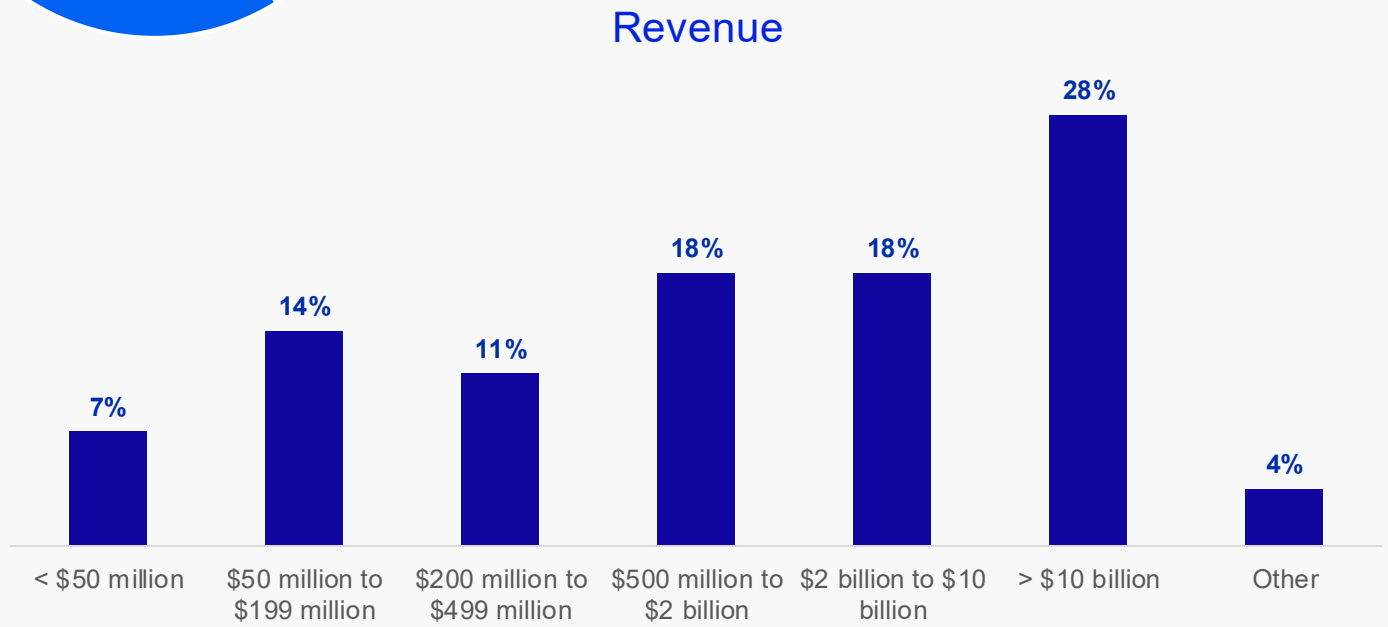
Between July and October 2025, SAPinsider surveyed 139 community members to gain deeper insights into their use of the cloud and their cloud architecture plans to support SAP workloads. The survey explored their current architecture, factors impacting their architecture strategy, platforms being used, architecture priorities, benefits experienced from adopting the cloud, technology partners, and challenges encountered in adopting cloud architectures.





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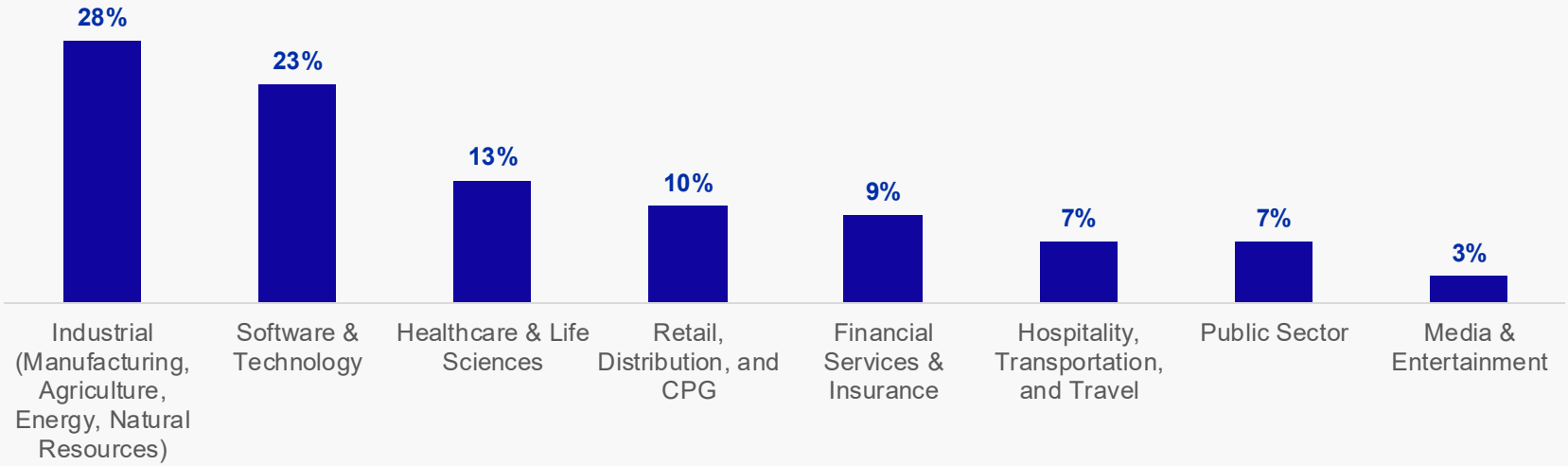
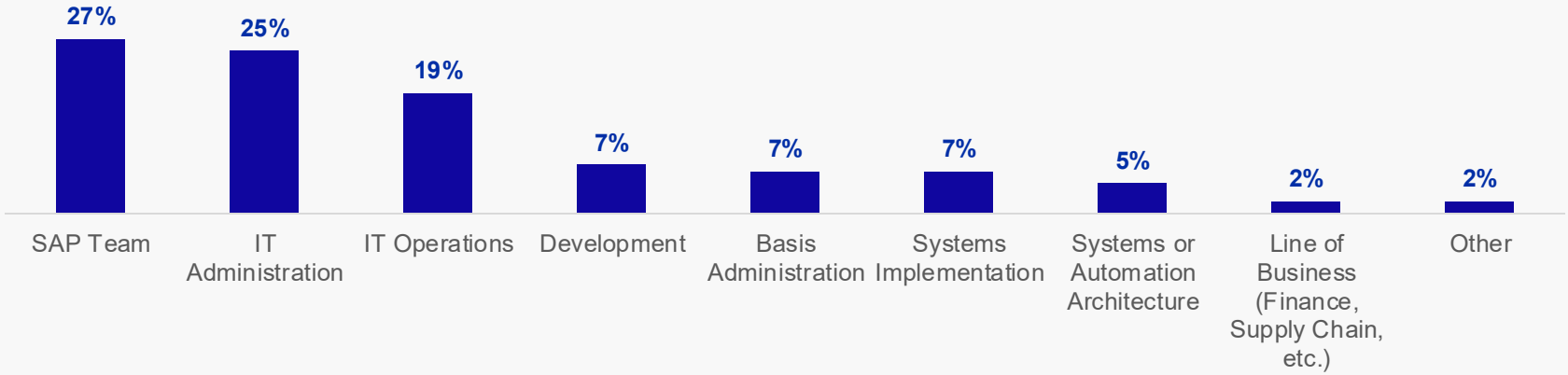
The participants were also asked about their organizational roles and the market sector in which their organizations operated.

Industry



Role



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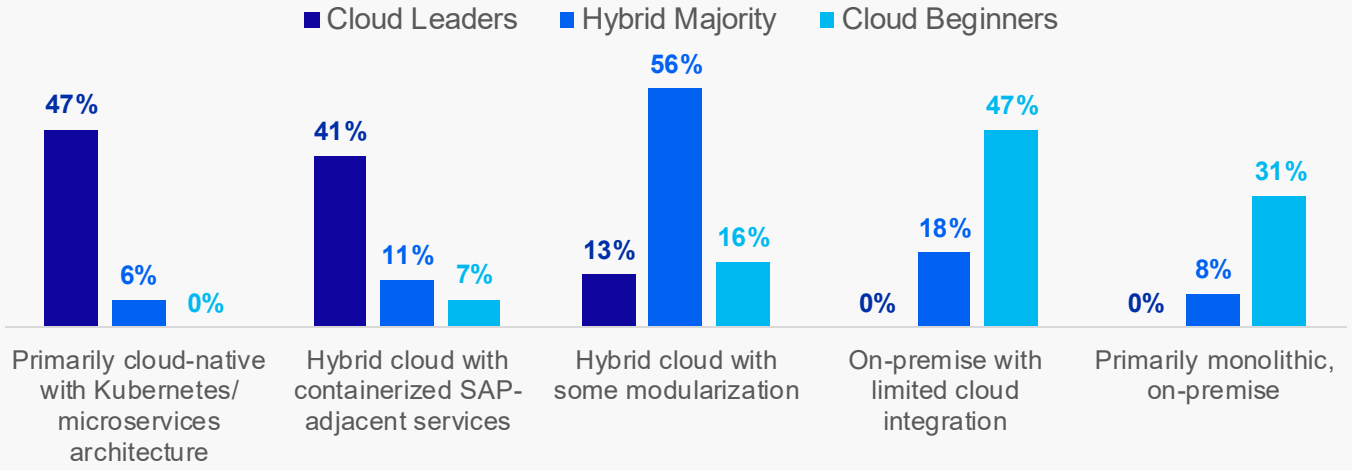
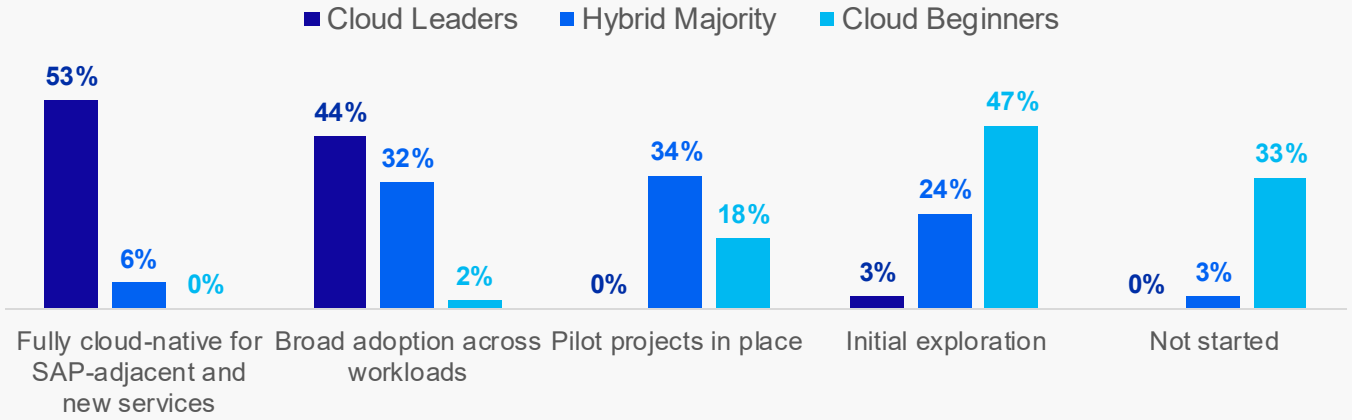
Respondents were assessed on the maturity of their adoption of cloud architecture for their SAP workloads by answering multiple questions. These included the current architecture of their SAP workloads, the extent that SAP-related architecture is adopting cloud-native principles such as containerization, microservices, and service mesh, the cloud-native tools and practices that are in use for their SAP or SAP-integrated workloads, and the level of architectural governance that exists for SAP-related cloud-native and hybrid cloud initiatives.

Current Architecture for SAP Workloads



Extent that SAP-Related Architecture is Adopting Cloud Principles



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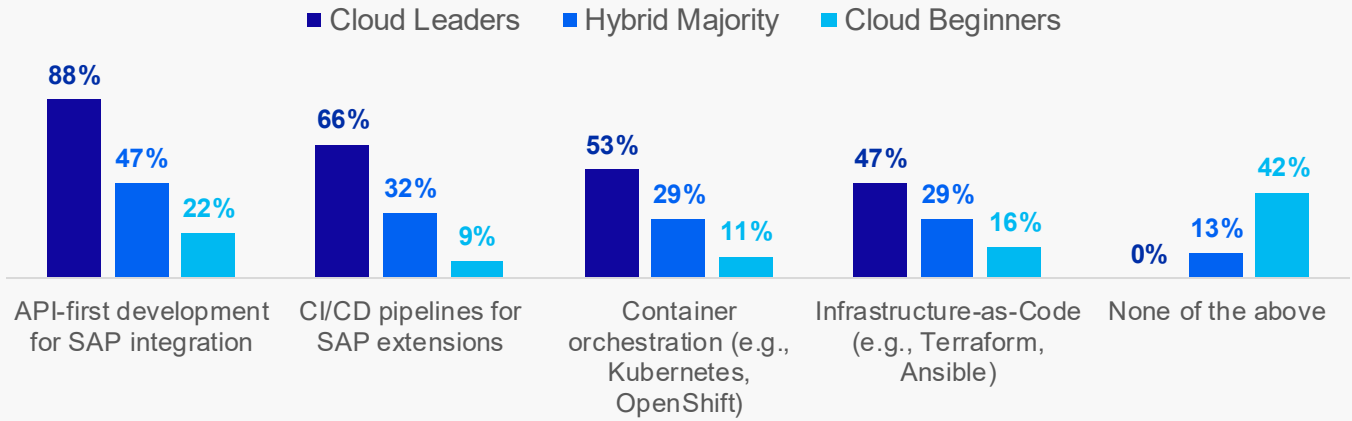
Responses to these questions were scored and assessed maturity was based on that score. Cloud leaders are those that are running a primarily cloud-native or hybrid cloud architecture for SAP workloads, are cloud-native for SAP adjacent solutions and services, have strong architectural governance for their SAP-related cloud-native and hybrid cloud initiatives, and are using the most cloud-native tools and practices. Leaders represent 23% of respondents.

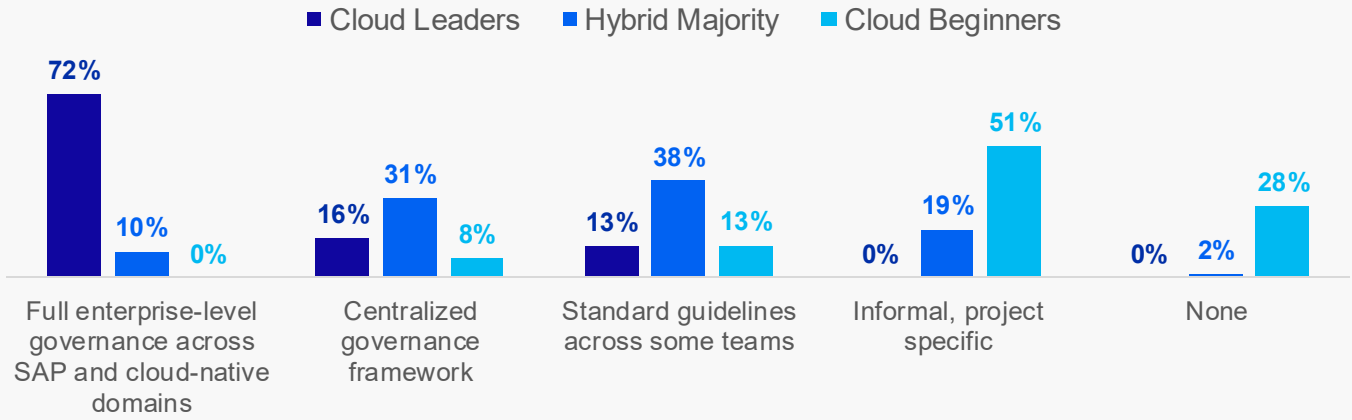
The hybrid majority are using a mixture of cloud and on-premise environments and are transitioning to a cloud-native architecture. These represent 45% of respondents.

Cloud beginners mostly use on-premise deployments and have minimal architectural governance of their SAP initiatives. These represent 32% of respondents.

Cloud Tools and Practices in Use for SAP or SAP-Integrated Workloads



Level of Architectural Governance that Exists for SAP-Related Cloud and Hybrid Cloud Initiatives



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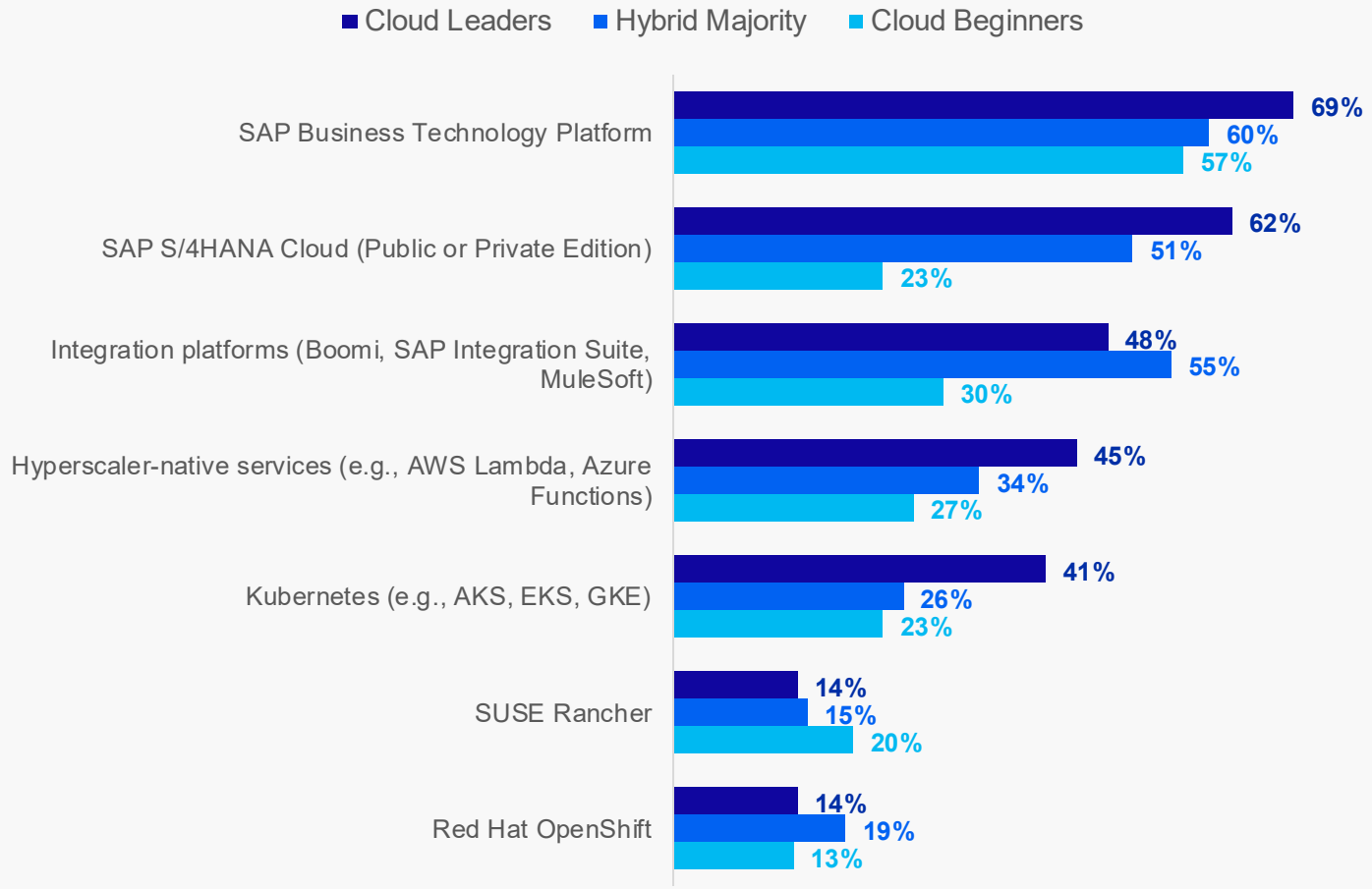
SAP Business Technology Platform is the most used platform by respondents regardless of cloud maturity. Given the approach taken by SAP and the fact that it works with both legacy ERP solutions as well as SAP S/4HANA.

Integration platforms are the next most heavily used technology by the hybrid majority and cloud beginners.

However, cloud leaders have been much faster to embrace SAP S/4HANA Cloud than either the hybrid majority or cloud beginners. Although the adoption of SAP S/4HANA Cloud does not automatically guarantee an increase in cloud maturity, it does signify that these organizations are adopting cloud-based solutions more rapidly.

Cloud or Hybrid Cloud Platforms Being Actively Used in SAP Environments



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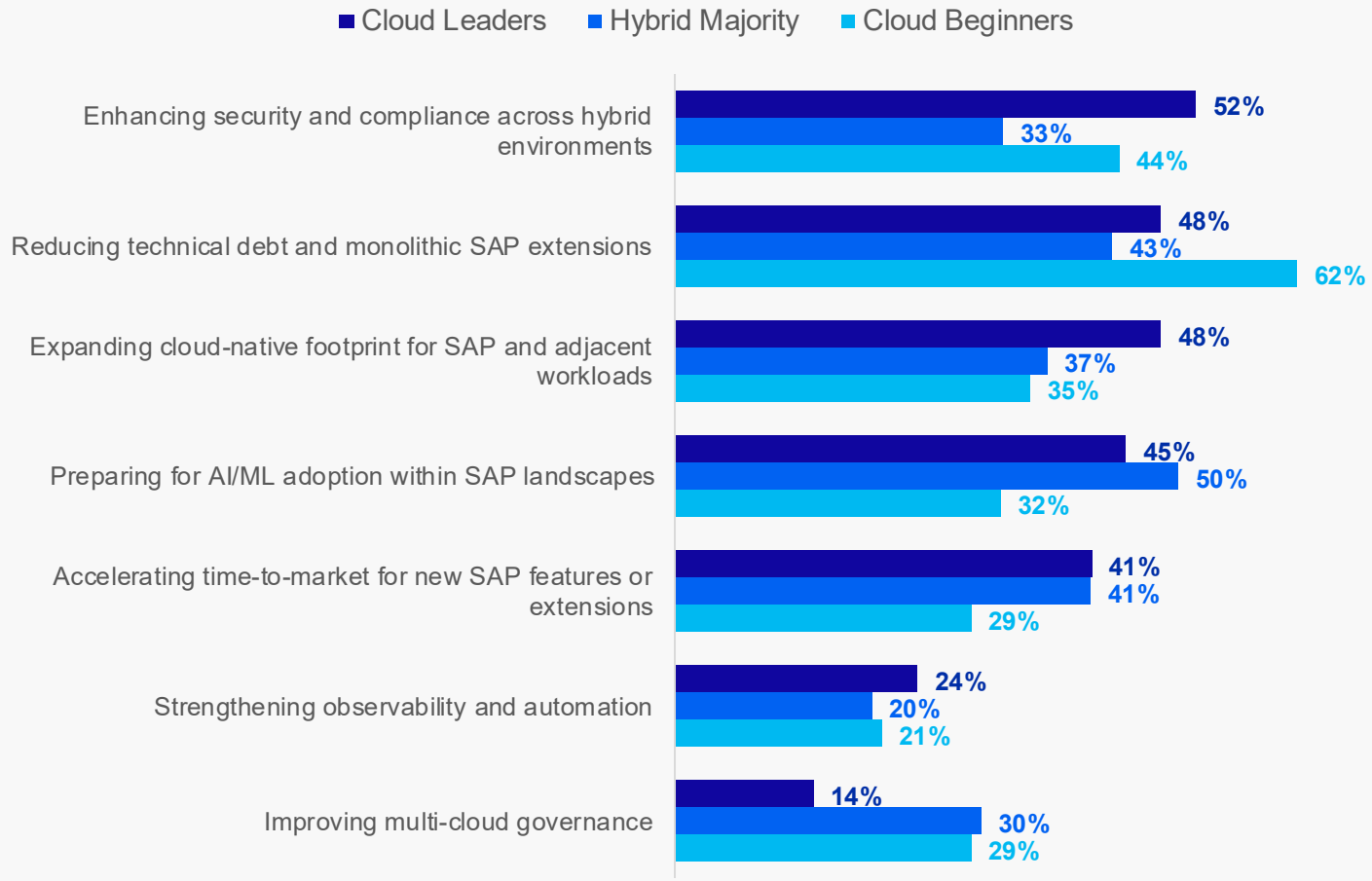
The focus of those with the greatest cloud maturity is on enhancing security and compliance across environments and expanding the cloud-native footprint for SAP and adjacent workloads. In these efforts they are significantly ahead of those who continue to run predominantly hybrid or on-premise landscapes.

Those with primarily on-premise landscapes are most concerned about reducing technical debt while those with hybrid environments are looking to prepare for AI/ML adoption within SAP landscapes.

Those that are less mature in their cloud adoption should ensure that they do not miss prioritizing tasks like enhancing the security of any cloud-based deployments.

Top Priorities for Evolving SAP Architecture Over the Next 12-24 Months



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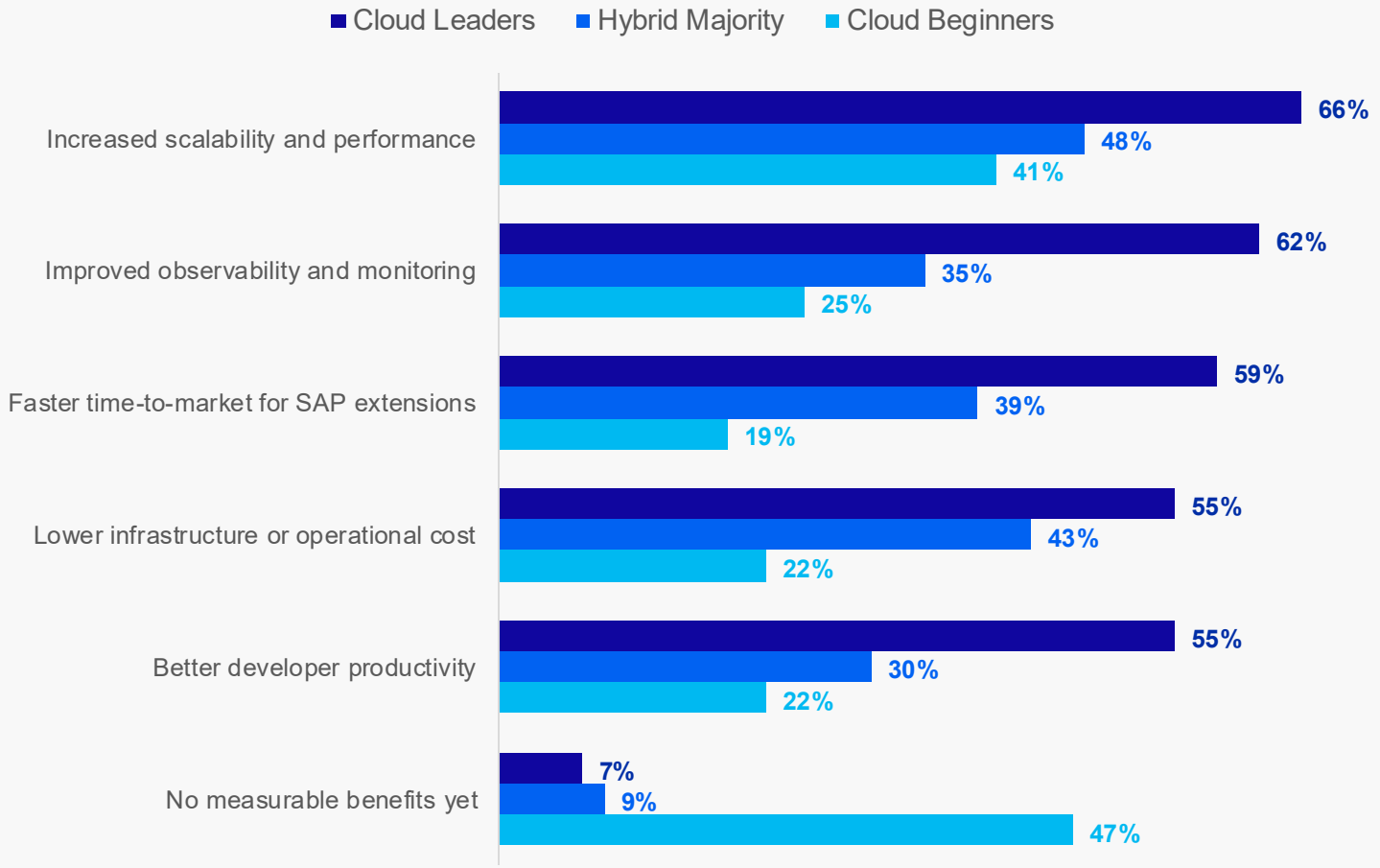
Those who have been faster to adopt cloud architecture are experiencing significant benefits from doing so. However, even those beginning their cloud journey can benefit quickly from increased scalability and performance. Over time additional benefits around monitoring, reduced deployment timelines, lower costs, and better productivity can also be expected, but even not all of these are as evident even with hybrid landscapes.

A priority for those on cloud journeys should be to focus on maximizing cloud maturity in one area at a time. This will allow for more significant benefits to be experienced in that area while the focus shifts to less mature areas.

Benefits Experienced from Adopting Cloud-Native or Hybrid Cloud Architecture for SAP or SAP-Adjacent Systems



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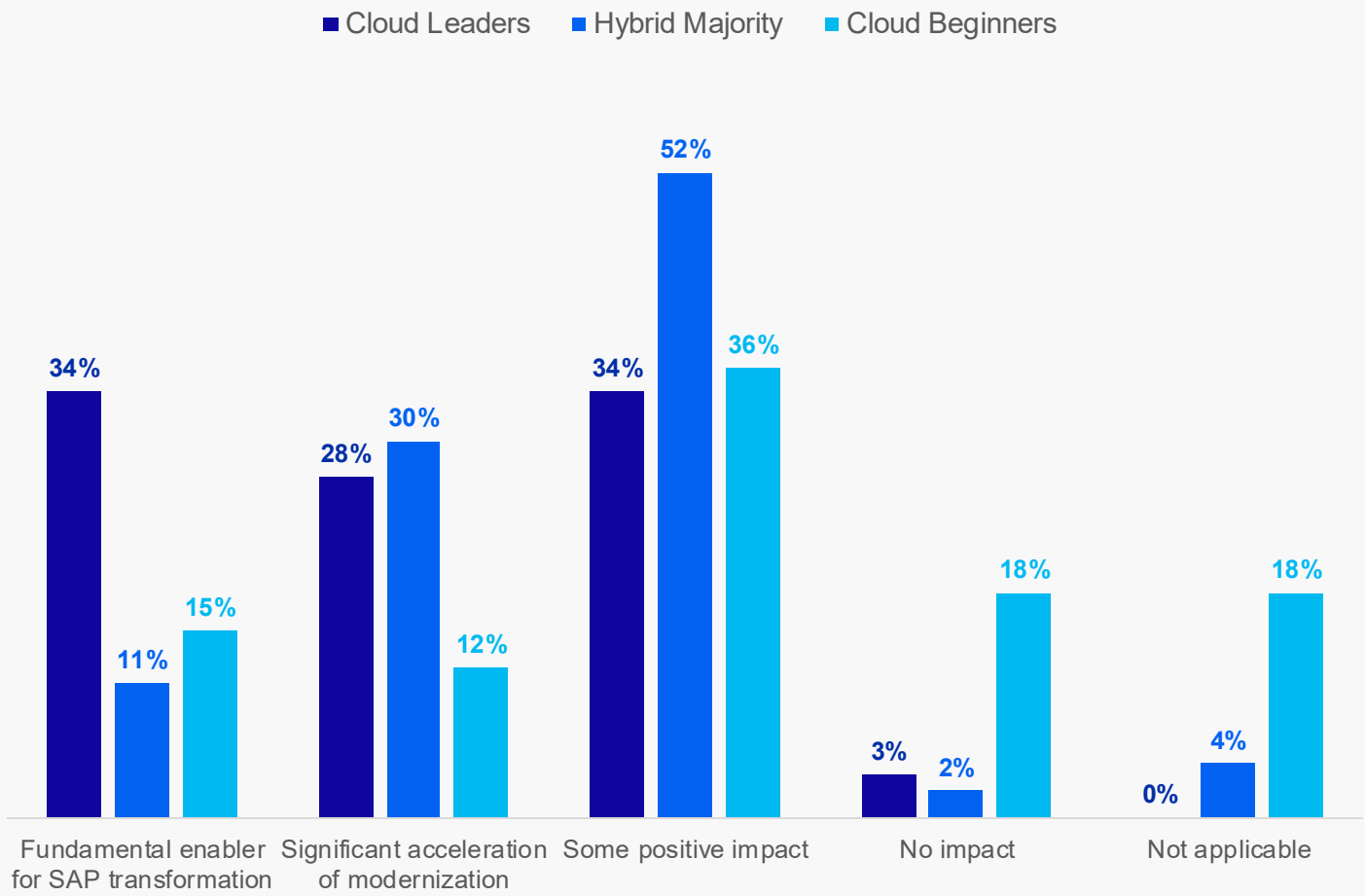
While not true across the board, the adoption of cloud-native architectures has been a significant enabler for transformation among cloud leaders. This is likely part of their ability to more rapidly deploy SAP S/4HANA Cloud and experience faster deployment cycles of SAP extensions. However, even among leaders, the impact split between those finding cloud architecture to be a fundamental enabler, an accelerator of modernization, or only producing some positive impact.

Although mixed, the impact has been mostly positive and those who are still in predominantly hybrid landscapes or only beginning their cloud journeys should look to accelerate their moves to the cloud.

Impact of Adopting Cloud or Hybrid Cloud Architecture in Transforming SAP Landscapes



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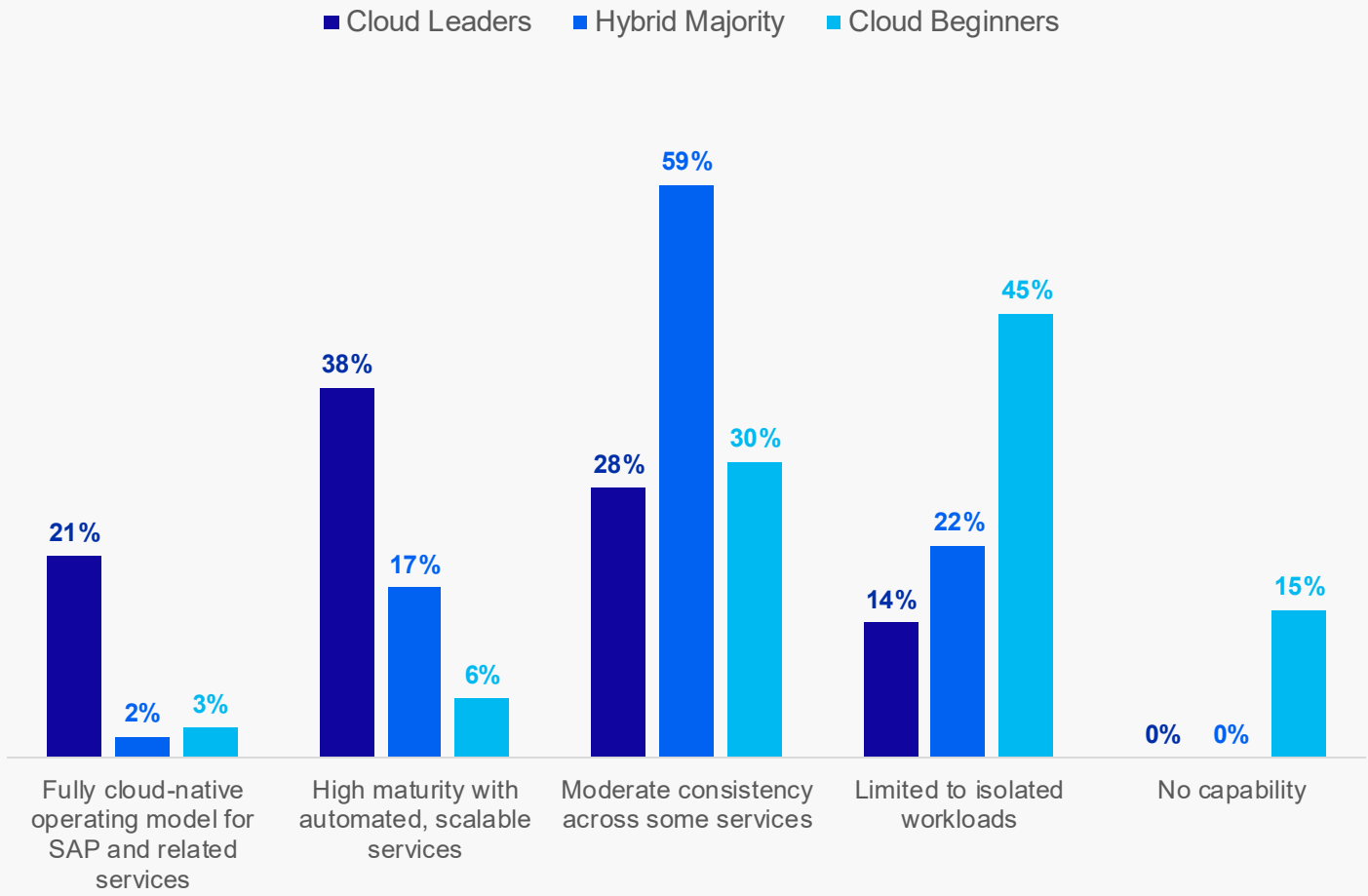
Cloud leaders have the greatest ability to deploy, scale, and manage SAP-integrated services using cloud-native infrastructure. Around a quarter are already using a fully cloud-native operating model for SAP and related services, with another 38% having highly mature environments with automated, scalable services.

Unsurprisingly, the hybrid majority have moderate consistency across some services, but are still working to achieve automated, scalable services.

Organizations moving to the cloud must add tools and capabilities that will allow them to effectively deploy, scale and manage their cloud deployments. Not having these capabilities limits the ability to effectively grow.

Ability to Deploy, Scale, and Manage SAP-Integrated Services Using Cloud-Native Infrastructure



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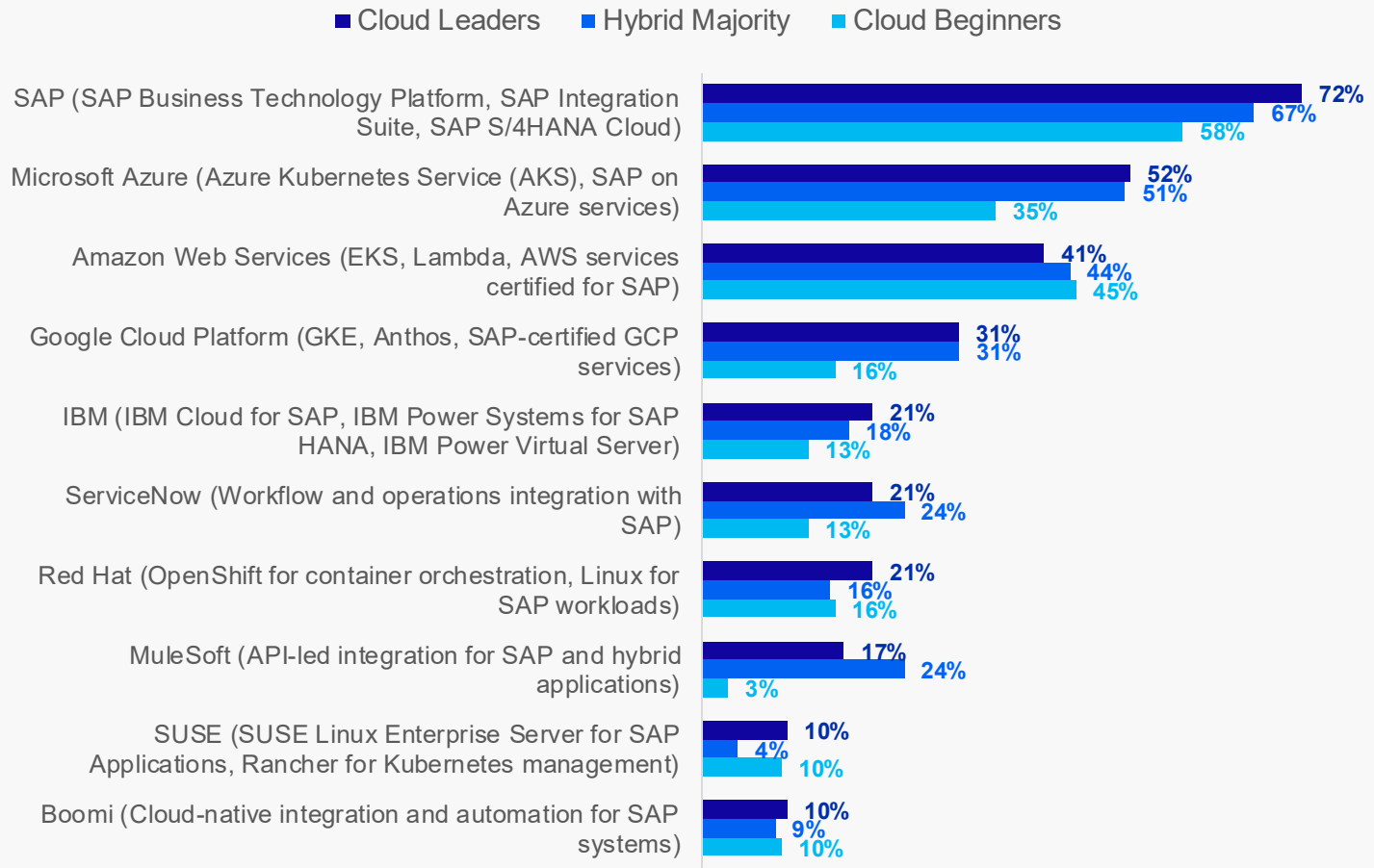
It is no surprise that SAP is the biggest technology partner regardless of respondent maturity given that the focus is on SAP workloads. However, each of the major cloud providers also plays a major role in supporting cloud-native or hybrid cloud architectures and deployments. This data also suggests that most respondents are utilizing capabilities from multiple partners, perhaps reflecting a desire to provide resilience when the impact of an outage with a provider can have major ramifications.

Technology Partners Being Used to Support Cloud-Native or Hybrid Cloud Architecture for SAP Workloads



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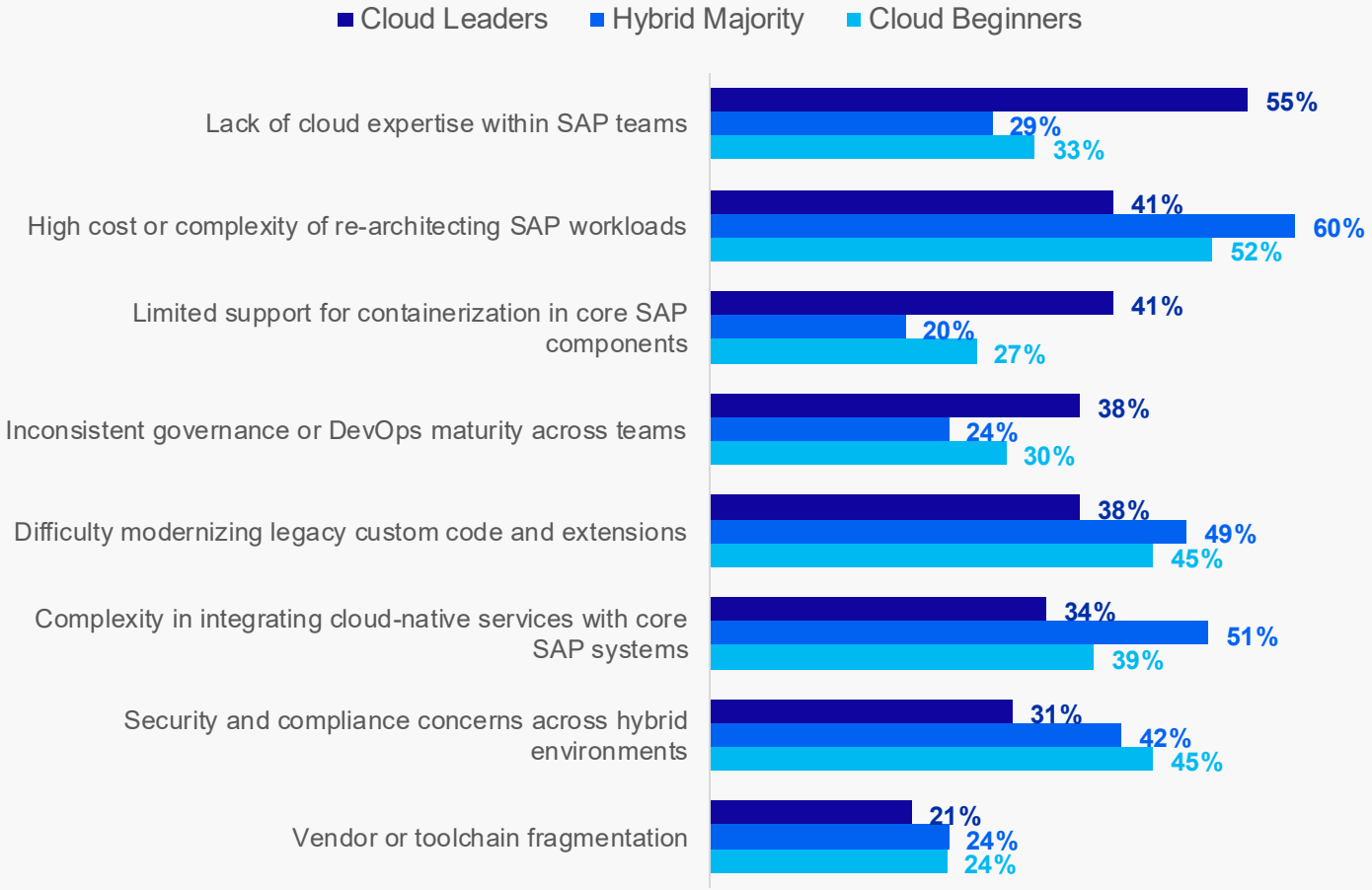
The challenges encountered by cloud leaders were quite different than those less mature in their cloud adoption. This is particularly reflected in the lack of cloud-native expertise in SAP teams and inconsistent governance or DevOps maturity across teams. This doesn't mean that the hybrid majority or cloud beginners didn't encounter these issues, more that they were struggling with challenges such as the cost of re-architecting and modernizing legacy code and extensions and had likely not run into challenges with cloud skills.

Educating internal teams on cloud skills and technologies will be vital to long-term success and the ability to reach a cloud-native architecture.

Challenges Encountered When Adopting Cloud or Hybrid Cloud Architectures for SAP Workloads



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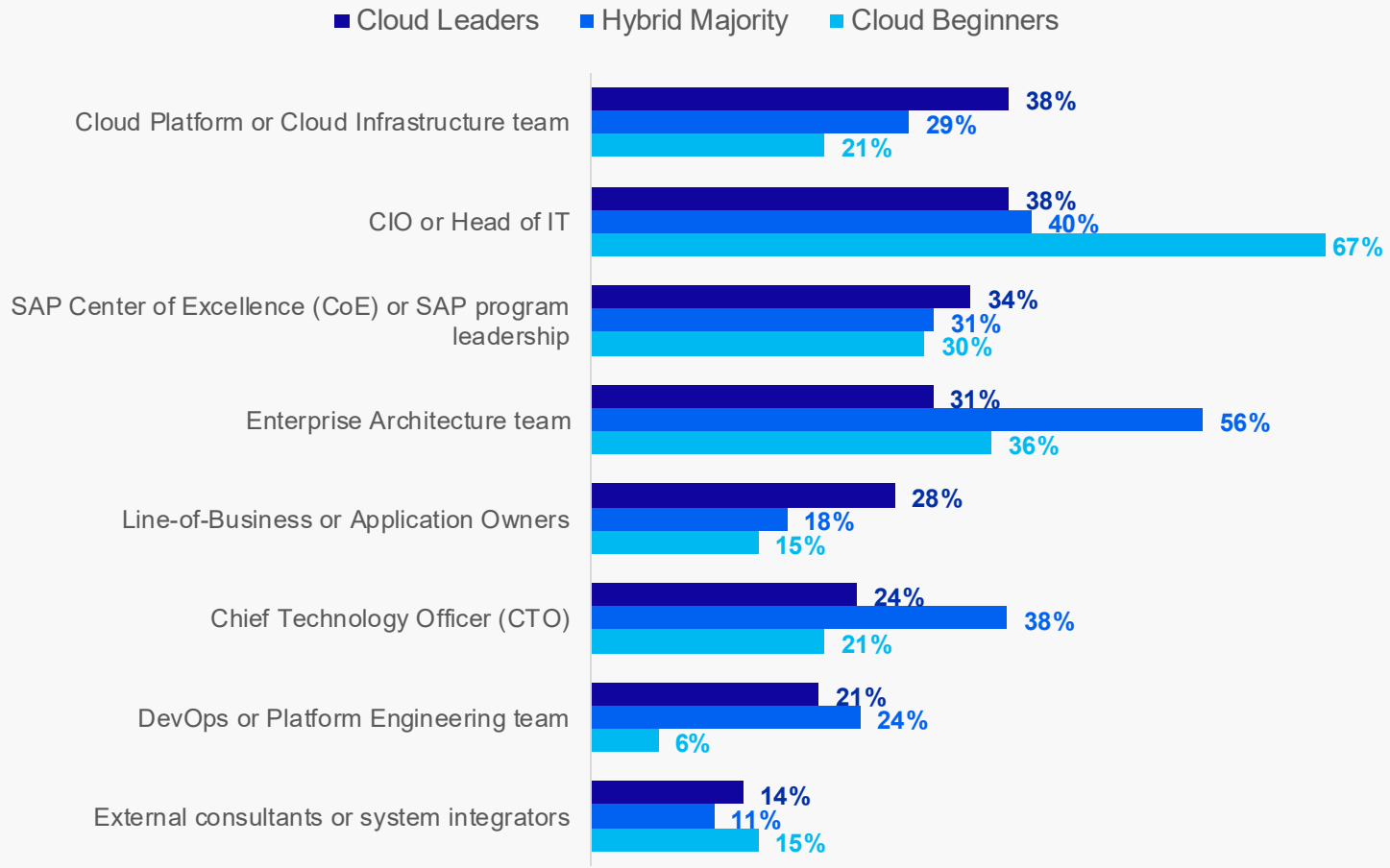
Cloud leaders were more likely to have a cloud platform or cloud infrastructure team and make this team responsible for owning cloud strategy than the hybrid majority or cloud beginners. Cloud beginners are still running cloud strategy from IT teams, while the hybrid majority are utilizing enterprise architects or the CTO. While this is an improvement over using IT teams, having a team dedicated to cloud management can help ensure that organizations are building internal cloud skills and allow enterprise architects to focus on managing the alignment of business goals with architecture and processes across the entire organization.

As cloud becomes increasingly important, develop dedicated teams that can focus on managing cloud strategy.

Owner of Cloud or Hybrid Cloud Strategy for SAP Workloads



DART
MODEL FRAMEWORK

Strategy and Needs for Cloud-Native and Hybrid Cloud Architecture for SAP

DRIVERS

- Need to modernize IT to support faster innovation and deployment of applications and systems (45%)
- Industry shift towards modular and composable ERP solutions that require cloud environments (32%)
- Need to eliminate technical debt from aging existing SAP systems and integrations (32%)
- Pressure to optimize infrastructure costs or consolidate or exit from existing on-premise data centers (32%)

ACTIONS

- Adopting SAP Business Technology Platform (SAP BTP) (55%)
- Transitioning to a cloud ERP solution like RISE with SAP/ SAP Cloud ERP Private (41%)
- Increasing use or hyperscaler/public cloud PaaS services (e.g. Azure Functions, AWS Lambda) (41%)
- Utilizing API-first and event-driven architecture development (34%)

REQUIREMENTS

- Upskilling internal teams in cloud-native technologies (86%)
- Cloud skills and training plans (83%)
- Agile or product-centric delivery models (79%)
- Executive-level sponsorship (79%)
- Centralized architecture and governance (76%)

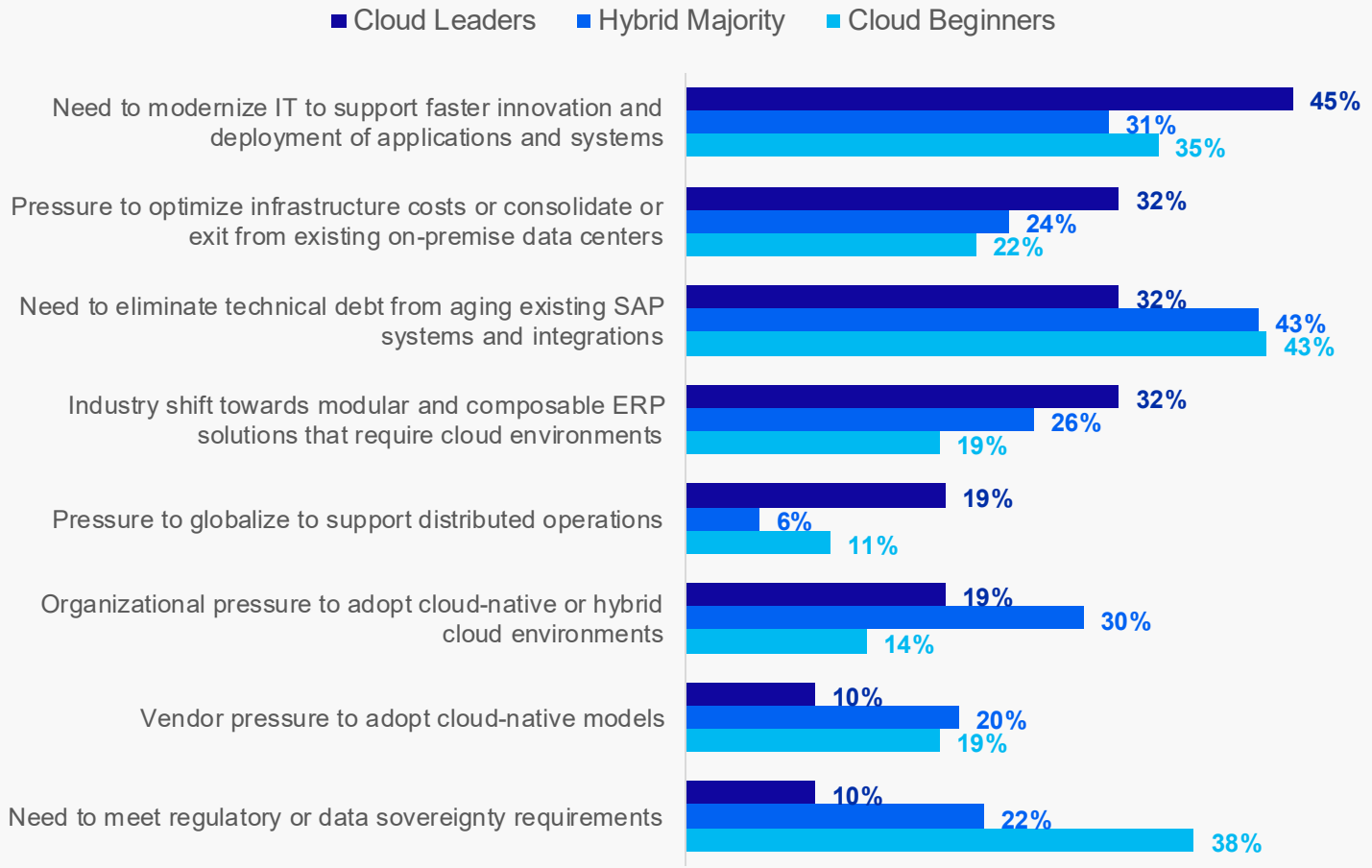
TECHNOLOGIES

- Cloud data lakes and data services (45%)
- Integration platforms (41%)
- Infrastructure-as-Code (41%)
- Data integration platforms or data mesh architecture (41%)
- Cloud-based AI and machine learning tools (38%)
- API management and event streaming (e.g., Kafka, Event Mesh) (34%)
- Centralized identity and access management (34%)
- Enterprise architecture management tools (34%)
- Kubernetes or OpenShift platforms (31%)
- Observability tools (31%)

The internal and external factors impacting cloud architecture and strategy for SAP workloads continue to be different for cloud leaders when compared to other respondents. Leaders are driven by a need to innovate more quickly and a shift towards more modular solutions. The hybrid majority is still eliminating technical debt while at the same time facing pressure to move more rapidly into the cloud. Cloud beginners are still looking to meet regulatory requirements while eliminating technical debt.

Those that are still moving towards cloud maturity must put in place the ability to effectively manage aging systems and technical debt so that they can accelerate their journey to the cloud.

Factors Impacting Cloud or Hybrid Cloud Architecture Strategy for SAP Workloads



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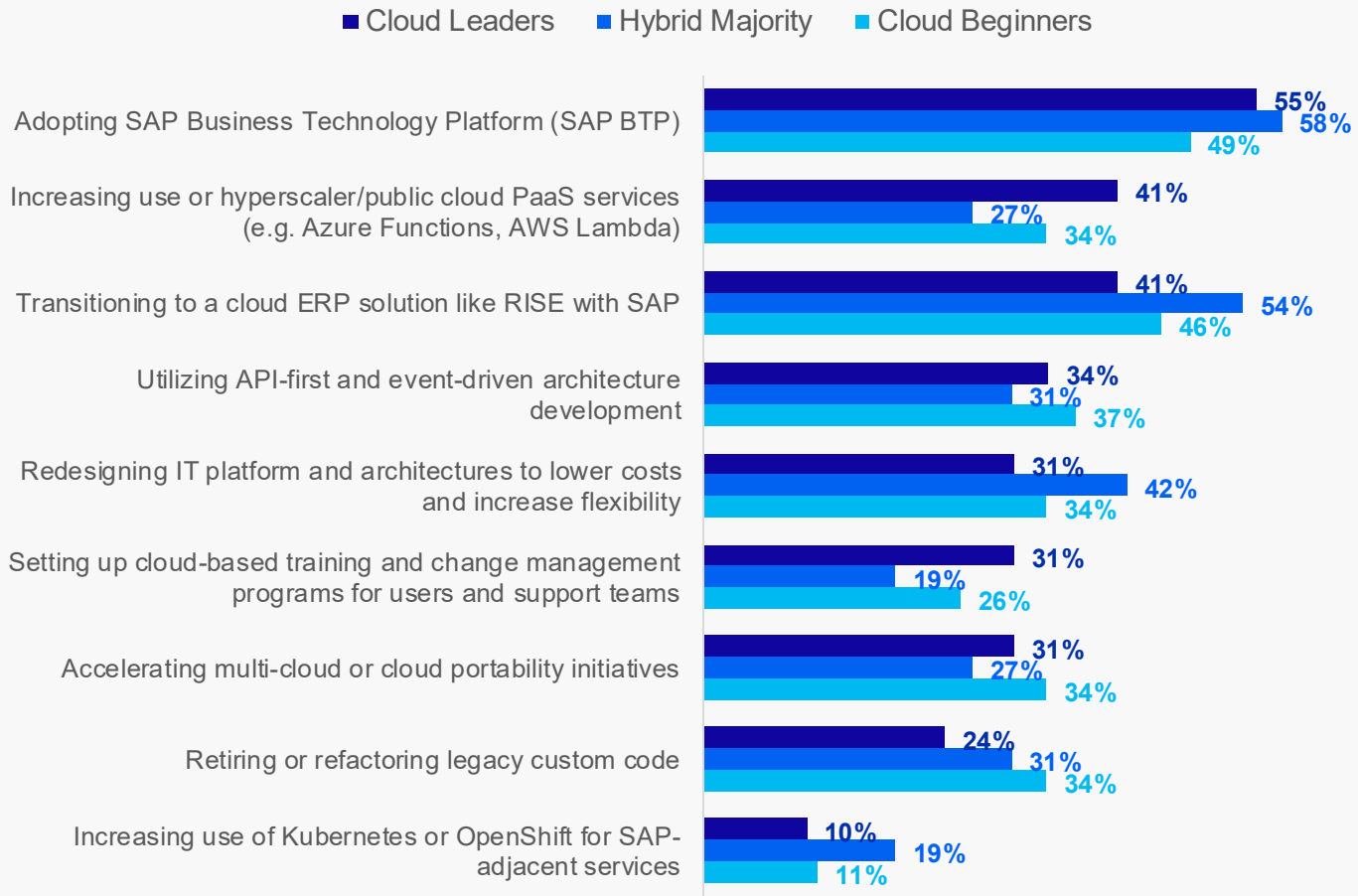
Cloud leaders differ from the hybrid majority or cloud beginners in their increasing use of public cloud PaaS services and that they are more likely to be setting up cloud-based training and change management programs. All respondents recognize the need to adopt BTP, but the hybrid majority is more likely to still be on the journey to SAP Cloud ERP and redesigning platforms to lower costs.

With the end of 2027 just over two years away, organizations must ensure that they have a plan in place for ERP transformation. Even if that does not involve SAP Cloud ERP Private or Public, getting past this step will allow the organization to focus on broader cloud strategy.

Actions Taken to Support Cloud or Hybrid Cloud Architecture Strategy for SAP Workloads



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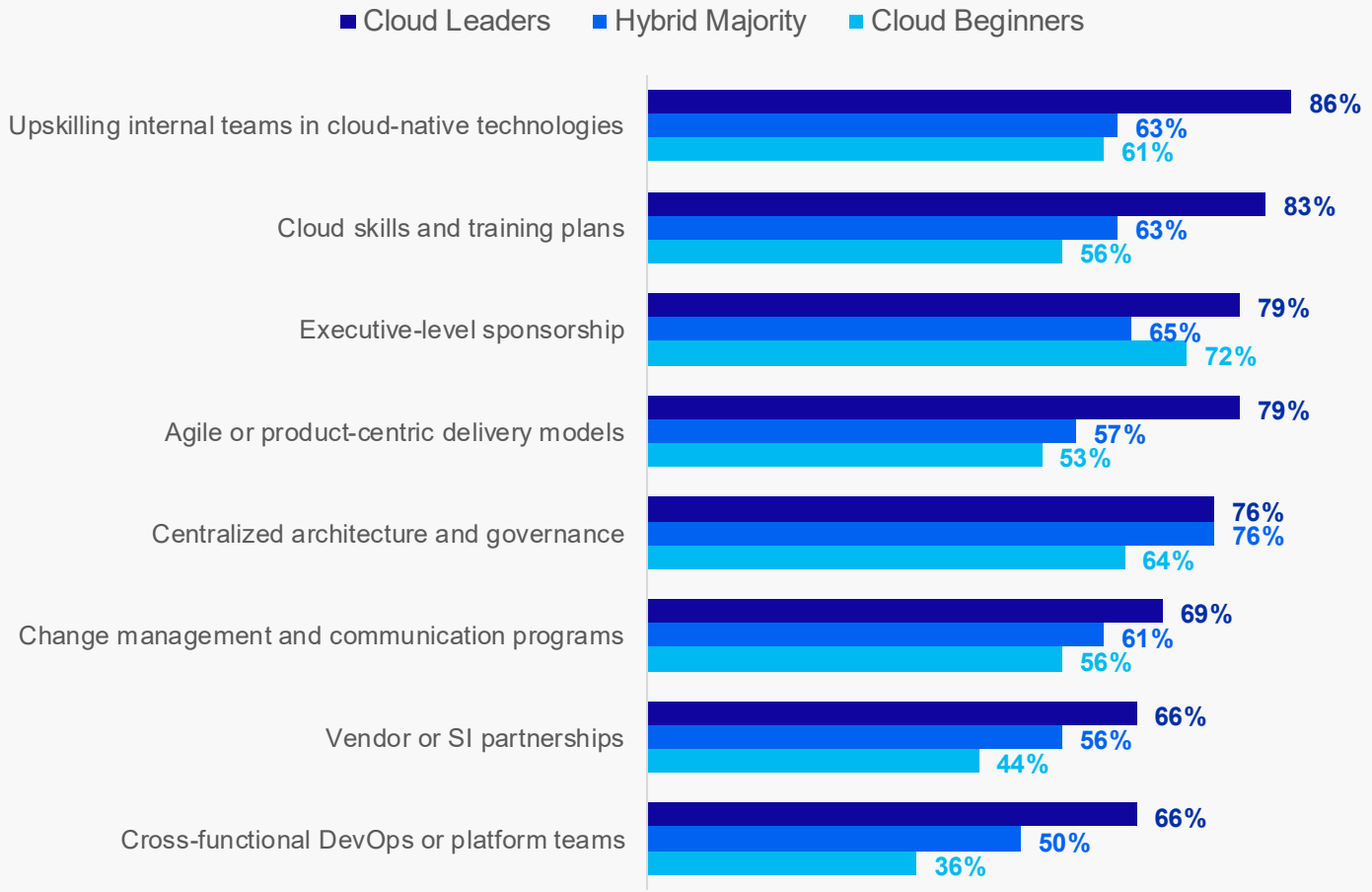
The requirements for cloud architecture strategy for cloud leaders continue the focus on skills and training plans. There is also a focus on executive sponsorship, something which can make or break a cloud project. Cloud leaders also rank agile or product-centric delivery models as significantly more important than those in the hybrid majority or cloud beginners.

These differences continue to reflect that cloud leaders are focused on the skills their teams need to drive future cloud success and the capabilities, or support in the case of executive sponsorship, needed for future projects. Anyone undertaking cloud projects should focus on building a team that will ensure these projects are a success.

Requirements for Cloud or Hybrid Cloud Architecture Strategy for SAP Workloads



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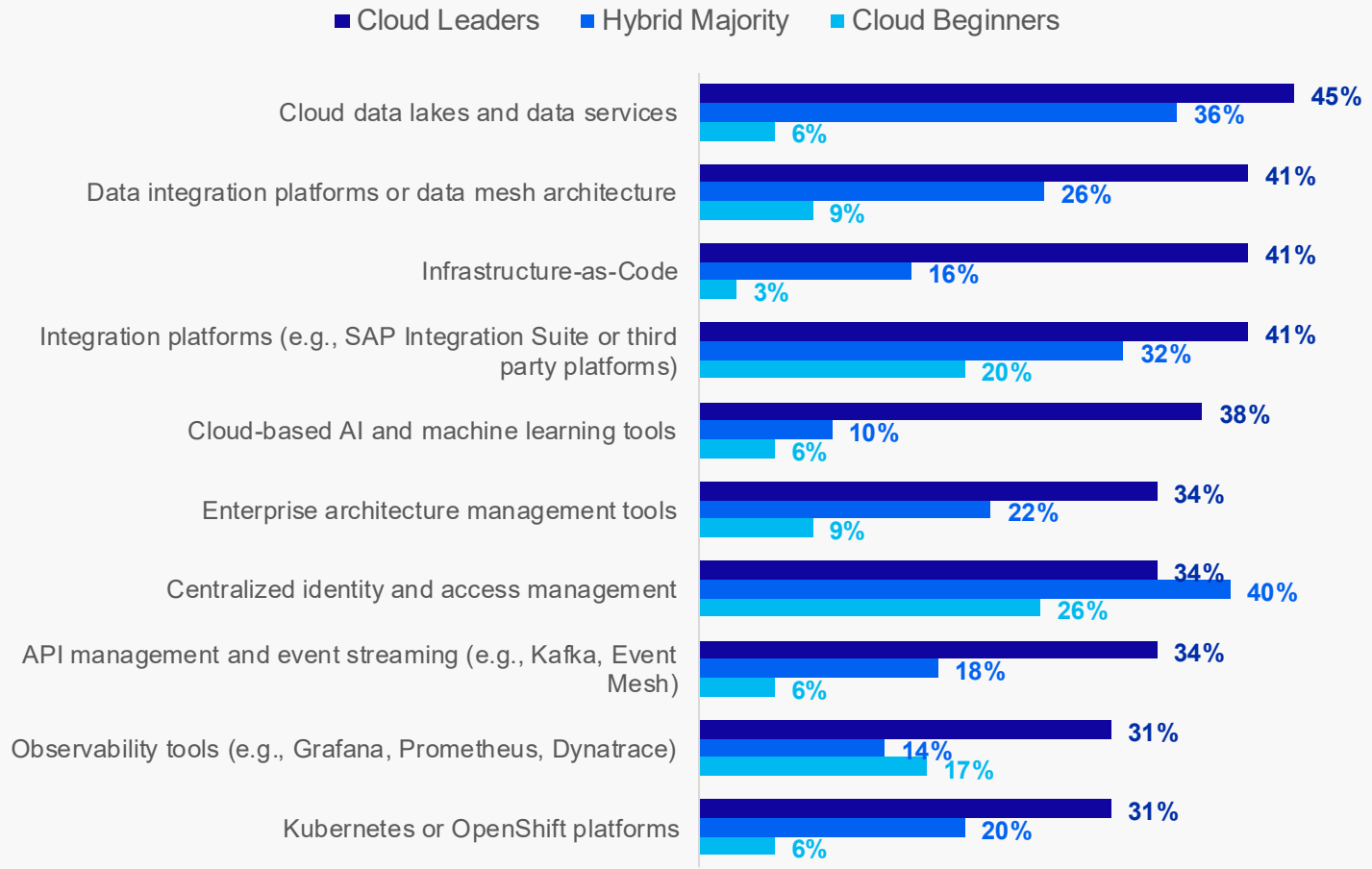
Cloud leaders are ahead of other respondents when it comes to adopting cloud technologies as they are generally more advanced in their cloud journey. The only instance where this is not the case is that of centralized identity and access management which sees a high adoption in the hybrid majority.

Those that are still in the early stages of cloud adoption need to put in place plans for how they will move to the cloud because, even those remaining on premise, are often shifting to subscription-based infrastructure that is co-located or running a local data center.

Technologies Being Used to Execute Cloud or Hybrid Cloud Architecture Strategy for SAP



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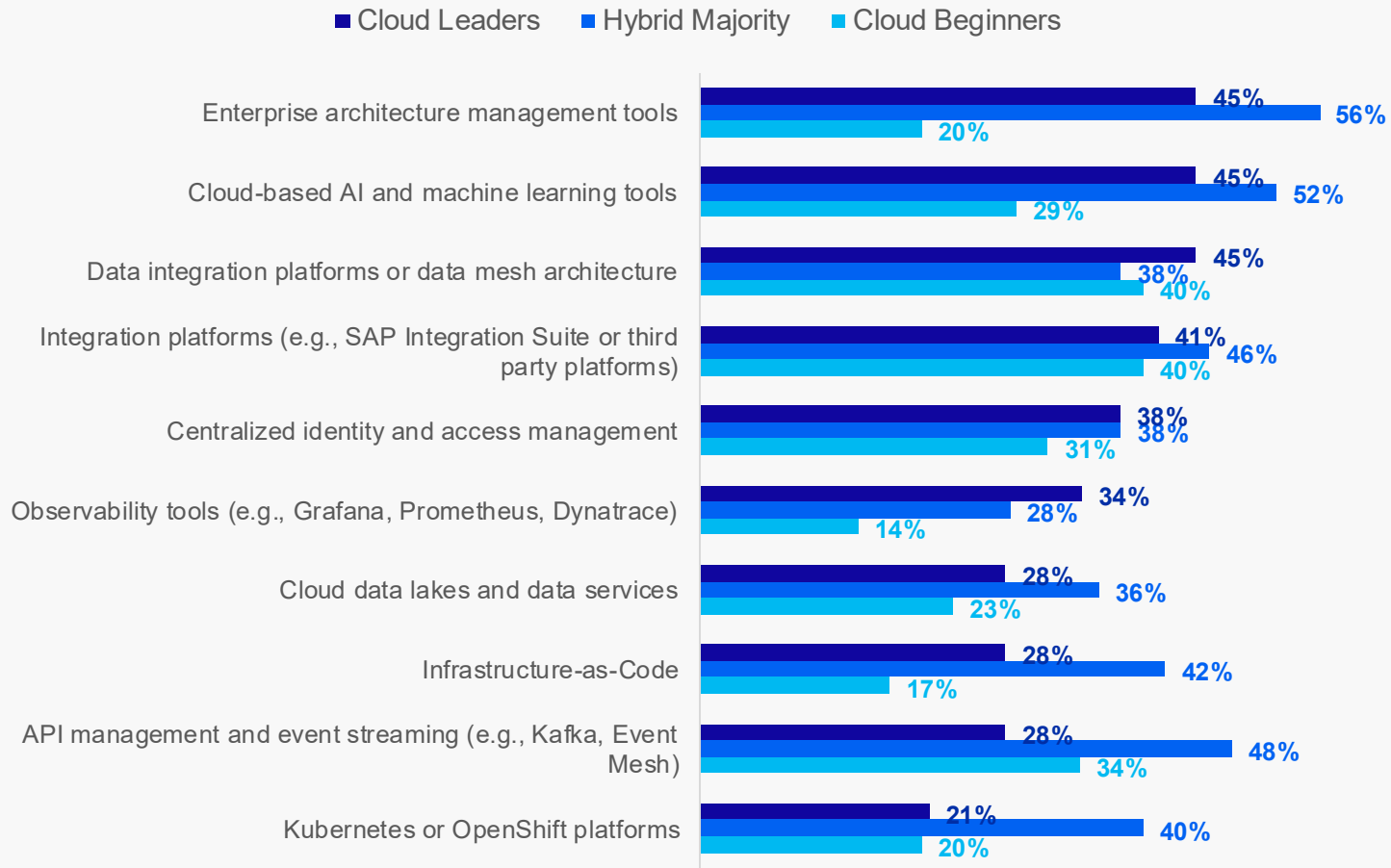
Unsurprisingly, those that are in the process of transforming from legacy environments to a cloud-native future are more likely to be deploying technologies in the next one to two years that will accelerate their cloud journey. Cloud leaders are also less likely to need to deploy some of these technologies as they are already much more likely to be using them.

While there are many technologies being deployed, the hybrid majority needs to focus on where they will prioritize their efforts because it takes time to upskill team members to effectively utilize these technologies.

Technologies Being Implemented to Execute Cloud or Hybrid Cloud Architecture Strategies for SAP



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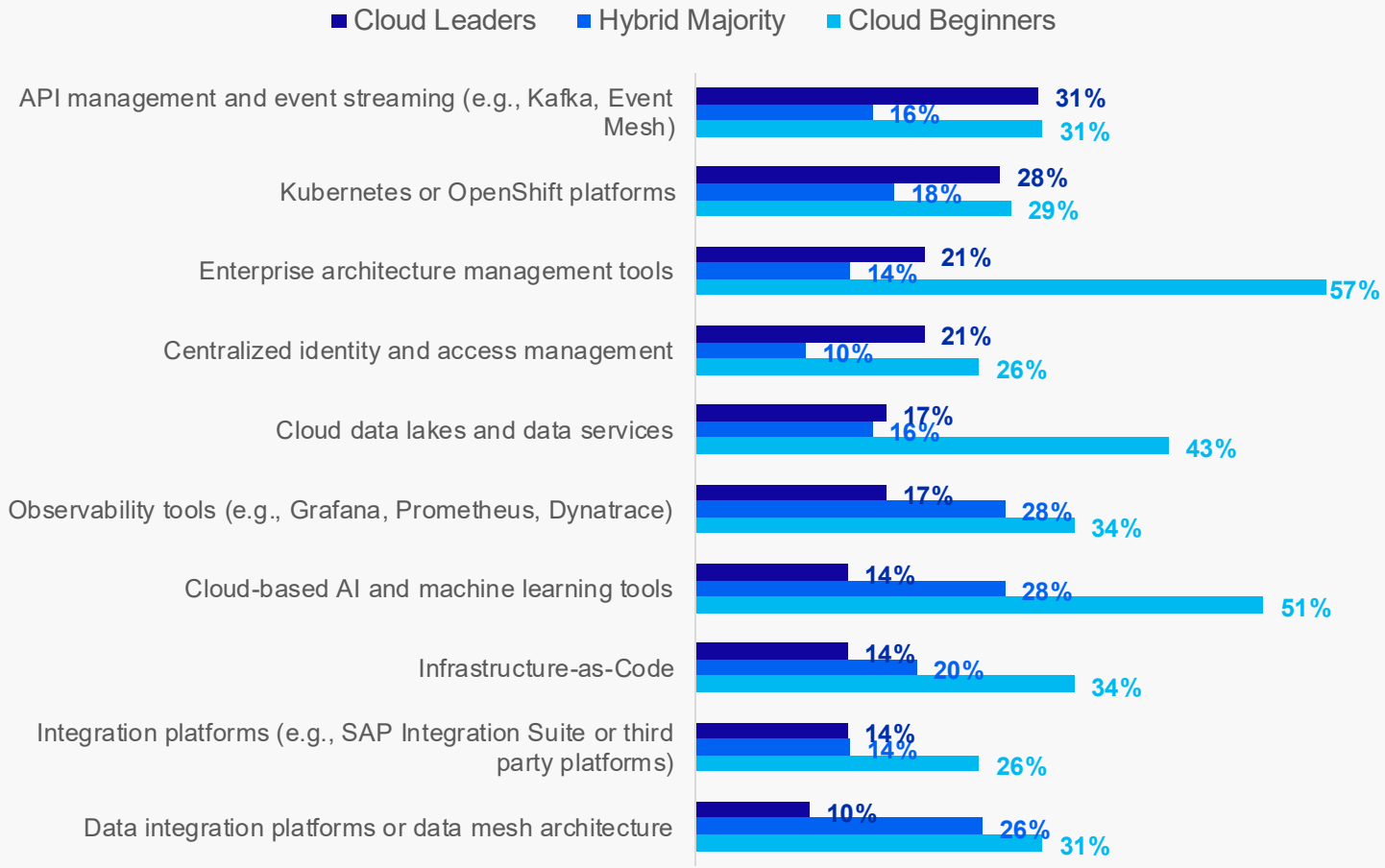
Given that they are less advanced in their cloud journeys, cloud beginners are more likely to be in the evaluation phase for cloud technologies. The two most important technologies they are considering is that of enterprise architecture management tools and cloud-based AI and machine learning. The latter is likely because of a business need to start utilizing these technologies.

Cloud beginners need to ensure that they have plans in place as to how they can accelerate their cloud journey to more effectively support the use of cloud-native technologies like AI so that they can make business teams and users more productive.

Technologies Being Evaluated for Use in Cloud or Hybrid Cloud Architecture Strategies for SAP



THANK YOU

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