

The state of cloud computing in Europe: Increasing adoption, low returns, huge potential

Overcoming the challenges to capturing cloud value, particularly those that are unique to European companies, requires a five-pronged strategy.

by Bernardo Betley, Hana Dib, Bjørnar Jensen, and Bernhard Mühlreiter



On the surface, the cloud journey for many European companies is an impressive story. A stunning 95 percent of European companies in our recent survey say they're capturing value from cloud, and more than one in three say they intend to have more than half of their workloads on cloud.

But scratch below the surface, and the story is a little less rosy. The vast majority of the value companies have captured, for example, remains in isolated pockets and at subscale.

European companies are by no means alone in struggling to capture full value from cloud; their corporate cousins in North America and Asia have experienced similar growth pains. But in some specific ways, European companies are behind. The focus of their cloud efforts, for example, has been disproportionately on improvements to IT, which generate lower rates of value than improvements to business operations. A shift to higher-value cloud use cases in business operations would create significantly more value.

It is critical for European companies to accelerate their cloud ambitions and activities. Up to \$3 trillion is up for grabs for Forbes Global 2000

companies that go beyond cloud adoption and venture into innovation and pioneering.¹ The ability to take advantage of new technologies, particularly generative AI (gen AI), will depend on how well companies can establish and scale their cloud programs. It is not much of an exaggeration to say that Europe's growth ambitions will hinge on its success in cloud. Companies that effectively integrate gen AI in their transformations may achieve up to seven times the ROI of their peers for each migrated business domain.² Such potential makes incorporating gen AI into cloud adoption a "must-explore" action for successful cloud journeys.

We surveyed dozens of C-level executives and cloud leaders across multiple sectors in Europe to better understand their aspirations for cloud, what has worked, and what they've learned (see sidebar "About the survey" for methodology). While the sample size is relatively modest, the results, along with our own experience working with dozens of large European companies on large-scale cloud transformations, pinpoint interesting indicators of Europe's experience with cloud and suggest the path forward to value generation.

¹ "Projecting the global value of cloud: \$3 trillion is up for grabs for companies that go beyond adoption," McKinsey, November 28, 2022.

² Chhavi Arora, Will Forrest, Mark Gu, and James Kaplan, "In search of cloud value: Can generative AI transform cloud ROI?" McKinsey, November 15, 2023.

About the survey

From June to November 2023, we surveyed around 50 European cloud leaders (80 percent C-suite executives and 20 percent vice president—level directors) from 11 different countries on their cloud adoption journey. Some of them were additionally selected to hold more detailed discussions on cloud, including in-person events (such as the McKinsey Cloud Leadership Forum).

These leaders are decision makers for their cloud transformation journeys, to ensure answers came from individuals actively shaping and overseeing their company's cloud strategy. Companies of all sizes, from under €100 million to over €5 billion, are represented.

The survey focused around 15 key questions on their motivations, challenges, and outcomes, while other conversations sought to provide further insight on individual journeys.

The good news for cloud in Europe

In Europe, cloud is seen as a pivotal factor for operational efficiency and overall transformation, with more than 90 percent of European companies ranking their cloud programs a priority and more than a third regularly discussing progress at the executive-committee level.

While our survey results indicate that less than one-third of enterprises have 50 percent of their workloads on cloud, aspirations are increasing. Almost two out of three companies already have a cloud foundation (with more than 20 percent of workloads on cloud), and one in two say they are either conducting a large-scale migration to or building new applications and capabilities on cloud. Of the companies that already have a foundation, about 65 percent have more than 20 percent of their workloads on cloud (Exhibit 1). There are two points to particularly note in these findings. One is that the thresholds to determine the scale of cloud adoption vary by sector: retail companies will generally require

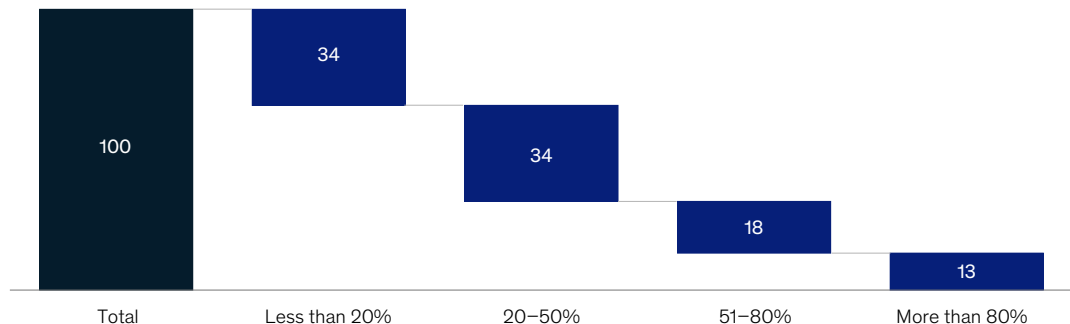
more workloads on cloud to be at scale than will banks. The second is that even while companies are adopting cloud, a significant and important portion of their technology estate will remain on-premises. Almost two-thirds of companies with cloud adoption that exceeds 50 percent of their workloads, for example, still keep more than 20 percent of their activity on-premises.

European companies are already capturing value from their cloud programs. Four times more companies (55 percent) report being satisfied with their cloud investments than those that say returns are insufficient (13 percent). Some 95 percent of all surveyed companies have captured some degree of operational improvements, such as security and quality, and 75 percent have realized either IT cost savings or productivity increases. Moreover, more than 50 percent have been able to generate new revenue from their cloud program, and one-third have seen cost savings beyond IT.

Exhibit 1

European companies vary widely in their level of workload migration to cloud.

Share of cloud workloads on cloud, % of European organizations (n = 38)



Note: Figures do not sum to 100%, because of rounding.

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Like their US counterparts, European players show great interest in automating code deployment and security controls (50 percent versus 66 percent for EU and US players, respectively).³ They are also looking to enhance developer productivity, a notably difficult task. (Half of the US companies that report such improvement are unable to quantify it.⁴) Success in this endeavor is closely tied to the operating model, with agile companies reporting notably higher quantified outcomes (41 percent of agile US companies report improvements of more than 20 percent in developer productivity versus 9 percent of nonagile US companies).

Room for growth on Europe's cloud journey

While almost all European companies have captured the most obvious benefits from their cloud programs, 82 percent recognize that this impact is either limited to specific areas of the business, only partially realized, or still in early stages.

Part of the reason for this shortfall is due to the way European companies measure cloud impact. Most companies (71 percent) measure it in IT operational improvements, 66 percent in IT cost savings, and 63 percent in number of applications on cloud. Only about one in three European companies, however, monitors non-IT outcomes, such as cost savings outside IT (37 percent) or new revenue generation (32 percent).

Compared to US companies, about five times more European companies are still pursuing an IT-led cloud migration, with significant emphasis on lifting and shifting existing workloads.⁵ The focus on IT benefits is concerning for European companies looking to generate revenues. Our research and experience are clear that about two-thirds of the potential value of cloud comes

from revenue uplift and cost savings in business operations.⁶ European companies that do measure results beyond IT consistently capture more value from cloud than those that do not (29 percent versus 13 percent).

Not surprisingly, FinOps adoption rates vary as well, with 63 percent of European players reporting some degree of adoption compared to 87 percent among US companies. This gap is likely a result of differences in cloud spending and should decrease as European companies' cloud capabilities mature.

How European companies can move ahead with cloud

In our experience, companies that get value from cloud put business value at the core of the transformation, modernizing the IT operating model and building strong foundations (for more, read "In search of cloud value" on McKinsey.com).

European companies should follow this proven blueprint, but there are some elements that are specific to the region as well (Exhibit 2).

The unique features of European cloud journeys result in five strategic priorities for players looking to adopt cloud at scale.

1. Develop relationships with CSPs and SIs into true partnerships

Our survey reveals that cloud service providers (CSPs) and system integrators (SIs) are important partners for European companies on their cloud journey. European companies should go beyond "traditional" supplier relationships to capture business value, build capabilities, and accelerate transformations. This includes aligning with CSPs and SIs on the business's transformation goals (for example, support in capability building, talent attraction, and product development)

³ US companies with more than 50 percent automation in code pipelines or security controls, October 2023 Cloud Leadership Forum (CloudSights).

⁴ Reported improvements in developer productivity for cloud, October 2023 Cloud Leadership Forum (CloudSights).

⁵ McKinsey analysis based on comparison to US trends; see Exhibit 16 in "In search of cloud value," November 15, 2023.

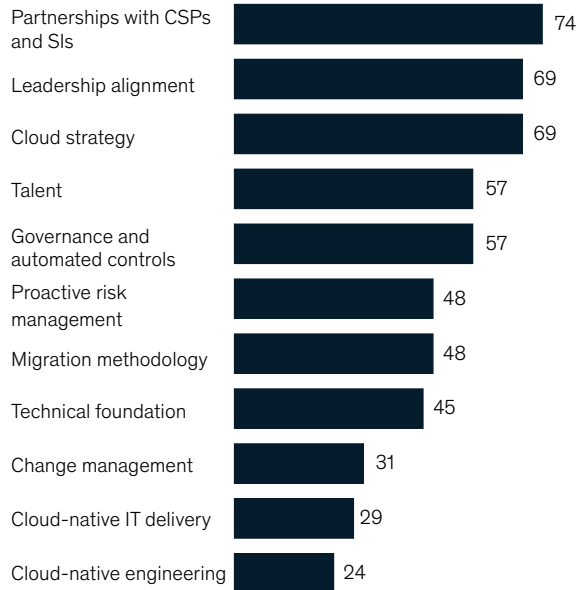
⁶ "Projecting the global value of cloud," November 28, 2022.

Exhibit 2

There are 11 main drives of—and challenges to—major cloud migrations in Europe.

Cloud transformation drivers

% of European organizations, n = 38



Cloud transformation challenges

% of European organizations, n = 38



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and structuring the partnerships to build the companies' own capabilities and to train their technical people. These strategic partnerships are typically structured around four dimensions:

- **New business opportunities:** joint design of a portfolio of cloud-based services and products
- **Migration funding:** financial commitment to support the migration effort and offset temporary inefficiencies (such as additional discounts during the migration period)
- **Capability building:** support in launching upskilling/reskilling programs, knowledge transfer, and joint external marketing

to attract talent (such as press, online campaigns)

- **Operating model:** definition of steering and governance for the cloud program

A large European multinational company forged a strategic partnership with one CSP, which provided investment help to accelerate the early phase of the migration. It also worked with the CSP, its own in-house people, and multiple SIs to create a more than 100-person digital factory that migrated the most valuable applications (such as those related to e-commerce to accelerate a delivery cycle from multiple months to a couple of weeks) or those that could easily benefit from modernization (such as moving

from obsolete proprietary databases to open-source options). The company further invested in automating infrastructure and operations, which helped to reduce full-time employees by 20 percent. The cloud migration led to more than €20 million in cost savings per year in addition to accelerated development, which created value worth many millions of euros.

2. Modernize the way you work to take advantage of cloud's capabilities

In practice, companies need to focus on three mutually reinforcing elements of effective cloud operations: business value, working in small cross-functional teams to move quickly, and building sufficient foundations.⁷ Given the importance of working with CSPs and SIs, companies will need to be deliberate in treating them as partners and integrating them into the operating model. That means developing a clear view of their capabilities, such as regulatory compliance, code migration, and tool use, and connecting them with relevant teams. Success will depend on how well contracts are structured so that CSPs and SIs have long-term incentives to deliver good outcomes and easy-to-maintain code.

One Central European life sciences company embarking on a billion-dollar transformation adopted a new business–IT operating model and cloud-native IT delivery processes. In addition, it partnered with three CSPs to incorporate AI capabilities in product development and build a portfolio of cloud services. Today, the company runs more than 50 percent of its workloads on cloud and has managed to capture sizeable impact in cost savings, operational improvements, and new revenue streams.

3. Implement FinOps to optimize cloud spend and monitor the impact of cloud

One lesson European companies can take from their US counterparts is the importance of investing early in a spend-management capability (FinOps). Many companies tend to shortchange FinOps in the early stages of a cloud migration program but come to regret it because costs can

quickly add up. Other important lessons include establishing influencing mechanisms—such as messaging from leadership, getting buy-in from stakeholders who can enable value capture, educating engineers on ways of working on cloud, and delivering FinOps via automation wherever possible—to take action on optimization opportunities. The organizations that have most effectively implemented FinOps make it part of engineering best practices, not a separate activity administered by a different team.

4. Be clear about ROI trade-offs when scaling cloud capabilities

Value in cloud comes from focusing on business operations and getting to scale. But using cloud at scale should be more focused on ROI than on the number of workloads on cloud. ROI breakeven points for migrated workloads vary and should be evaluated on a case-by-case basis to decide the right target level for workload adoption. Increases in adoption beyond the target level yield diminishing returns, eventually reducing ROI when adoption rates are too high. The analysis of a Forbes Global 2000 pharma company showed, for example, that 40 percent adoption was required to achieve positive eight-year ROI, while adoption beyond 80 percent yielded more costs than benefits.

A Southern European bank was able to capture significant benefits with less than 20 percent of its workloads on cloud by adopting cloud-native engineering practices and partnering with CSPs and SIs.

5. Bridge existing compliance capabilities with those from CSPs and SIs to manage the fast-changing regulatory environment

Given the range and variety of regulations at the country and regional level, many companies in Europe have advanced capabilities in this area. But evolving regulations about new and emerging technologies, such as cloud or generative AI, are straining companies' existing processes (see sidebar "European regulatory landscape for cloud"). CSPs and SIs often have strong and

⁷"The cloud transformation engine," McKinsey, August 9, 2021.

European regulatory landscape for cloud

In the past few years, European regulatory trends in cloud have focused on three aspects of data security:

- **Protecting data** in compliance with GDPR and additional regulation for sensitive data, such as Health Data Hosting (HDS) in France. In 2021, the Schrems II decision posed several challenges for CSPs and businesses by prohibiting EU–US data transfers. The Data Protection Framework (DPF), approved by the European Commission in July 2023, provides a renewed legal framework for these data transfers.
- **Securing critical national infrastructure (CNI)** through specific obligations to protect critical systems defined at the European and national levels. For example, France determines IT security obligations covering account management, flow management, partitioning of critical information systems, and reporting practices for 11 industries considered CNI.
- **Promoting cloud sovereignty** through the creation of cloud labels to certify standards for cloud providers at a national level—for example, SecNumCloud in France, Cloud Computing Compliance Controls Catalog (C5) in Germany, National Security Framework (ENS) in Spain—with an ongoing effort to create a common European framework (European Union Cybersecurity Certification Scheme, or EUCS).¹

¹ Other EU organizations and initiatives pushing for cloud regulation also exist, such as Gaia-X, Cloud Infrastructure Services Providers in Europe (CISPE), and EuroCloud.

dedicated capabilities in this area and can provide documentation, for example, and experience with technology-level compliance. Technology leadership will need to not only thoughtfully integrate those capabilities into their own processes (such as data and access management) but also ensure clear communications between regulatory experts at CSPs and SIs and those within their own companies (such as around regulatory implications on the technology estate).

All paths to growth and productivity for European companies will ultimately need to go through cloud. By understanding how to avoid the obstacles, developing a clear view on where the value is, and investing in capabilities to capture that value, European companies can take a big step toward fulfilling their growth ambitions.

Bernardo Betley is an associate partner in McKinsey's Madrid office, **Hana Dib** is an associate partner in the Dubai office, **Bjørnar Jensen** is a senior partner in the Zurich office, and **Bernhard Mühlreiter** is a partner in the Vienna office.

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