

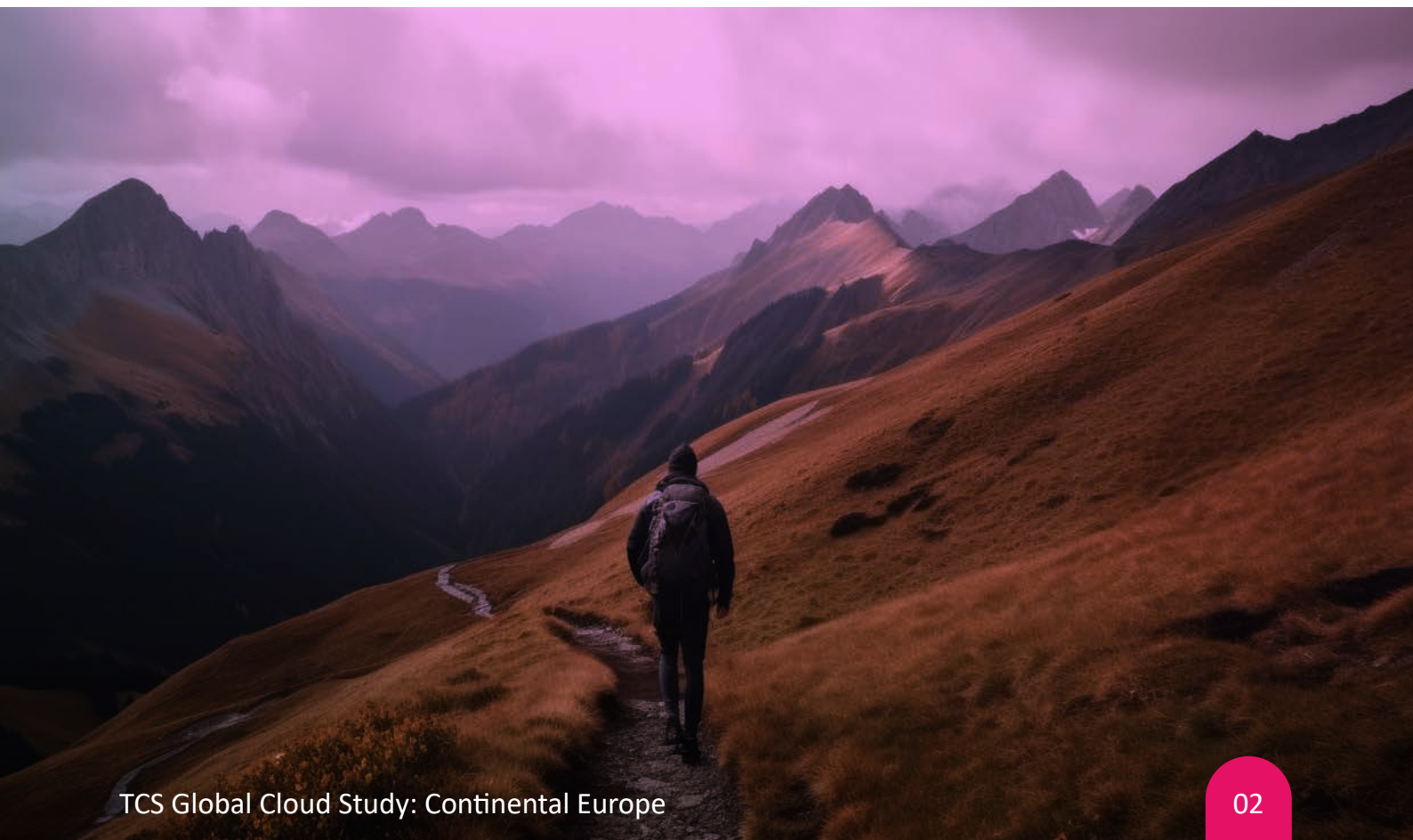
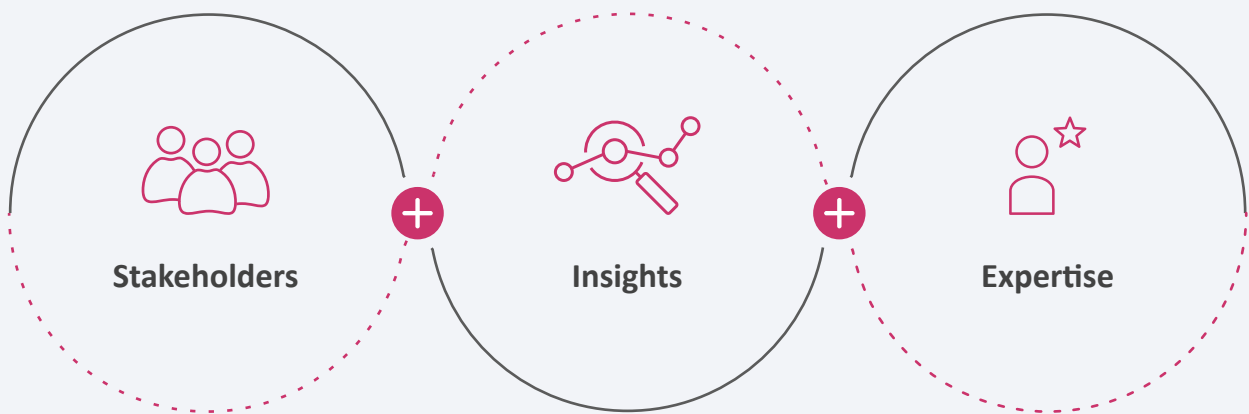
Connected future: How cloud drives business innovation

TCS Global Cloud Study:
Continental Europe



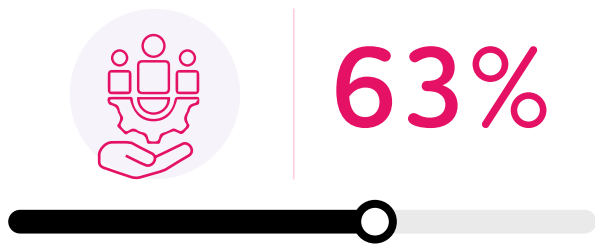
Once viewed primarily as a one-dimensional IT infrastructure, cloud has become both a strategy for business transformation and a catalyst for innovation. It provides the unifying digital fabric that forms the foundation for a connected future – one that continues to unfold with each technological advancement.

The global cloud study from TCS reveals that European companies have made some progress toward this goal, but have further to go. While they recognize the role cloud-enabled innovation can play toward new ways of connecting data, people, and knowledge, they have yet to fully realize its potential.

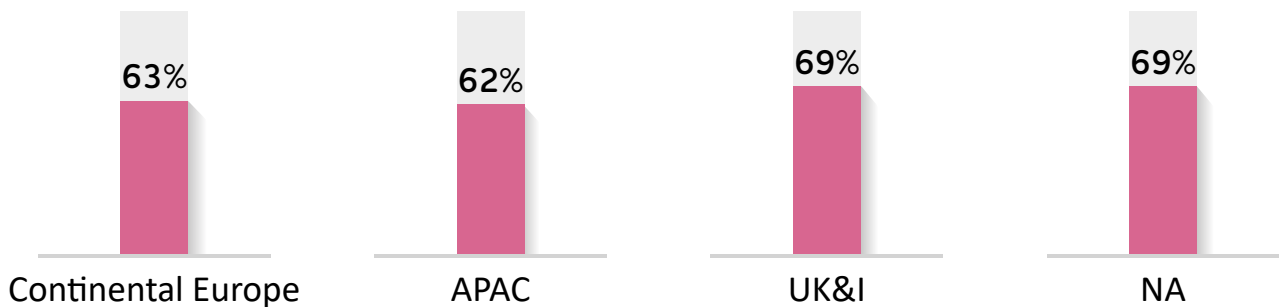


A foundation for purpose-driven innovation

The majority of Continental European respondents – like their counterparts in other regions – can point to an established culture for innovation at their companies.



Nearly two-thirds (63%) say they have succeeded in embedding innovation across their organization, from leadership to board level to employees, with no issues or only minor ones.

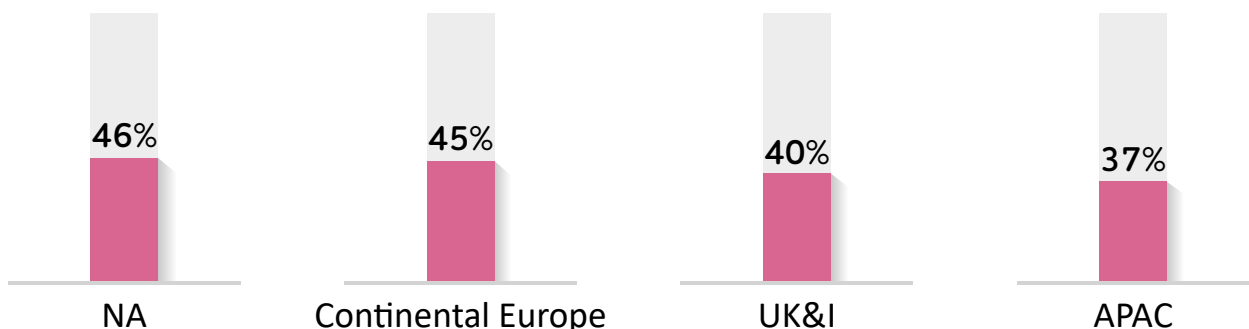


Percentage of respondents who say that they have established a culture of digital innovation, from leadership to board level to employees

But when it comes to the application of innovative solutions, European companies are slightly more conservative than other regions. Consensus-based decision-making, which is often the norm, can require longer lead times and slow the pace of change compared to organizations with a more top-down approach. Even within the European region, there are differences in the pace of adopting innovation, and wide variance between sectors, particularly those with heavy regulatory hurdles.

Innovation with a purpose

European companies take a broader view of cloud-driven innovation, making it a priority to embed purpose into business models. All four regions selected “new ways of aligning purpose with business strategies (e.g., sustainability efforts)” as one of the top goals for cloud-enabled innovation. North America and Europe lead the rest with roughly equivalent rankings.

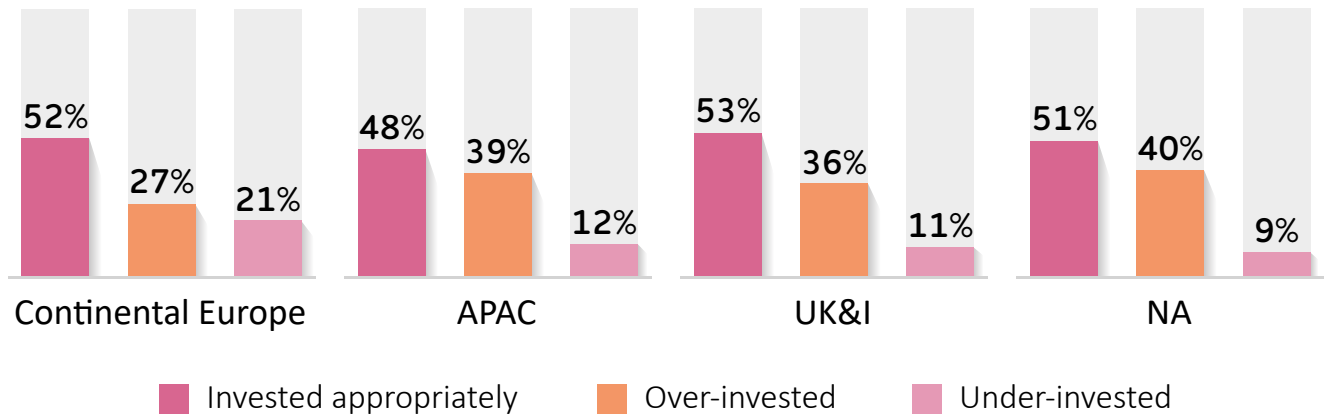


Percentage of respondents who selected “New ways of aligning purpose with business strategies (e.g., sustainability efforts)” as one of the top desired outcomes for cloud-enabled innovation

Caution ahead

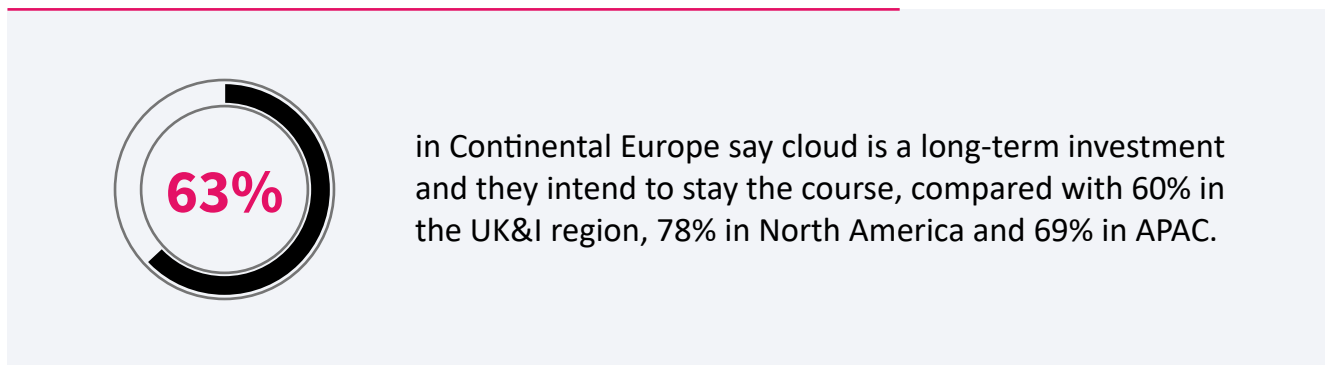
In the past few years, Europe has faced several headwinds with its desired innovation outcomes, including conflicting data residency regulations between regions and inflation. Overall, cost is the core factor, with European enterprises taking a more cautious approach to investments.

Interestingly, European respondents were the most likely to say they under-invested in cloud – and the least likely to say they over-invested.



Q. "Thinking back on the past 3 years, how would you describe your company's cloud investments?"

However, the majority of European respondents indicate confidence in the long-term potential of cloud.



But with ongoing economic uncertainties, there is more pressure to align investments with return in value.

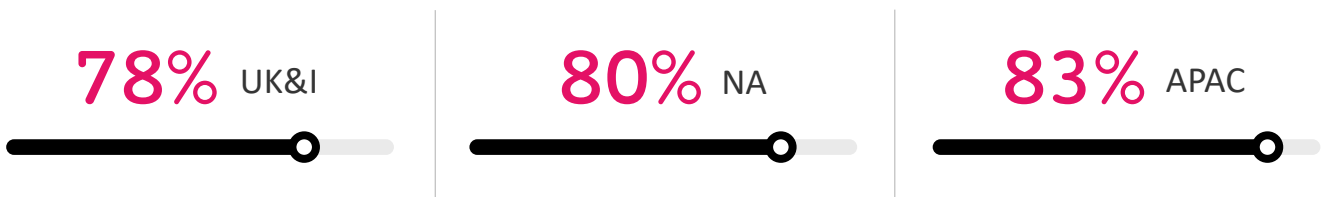


Already nearly a quarter (23%) of Continental Europe respondents say they have changed or are considering changing their cloud strategy due to insufficient return on cloud-related investments.

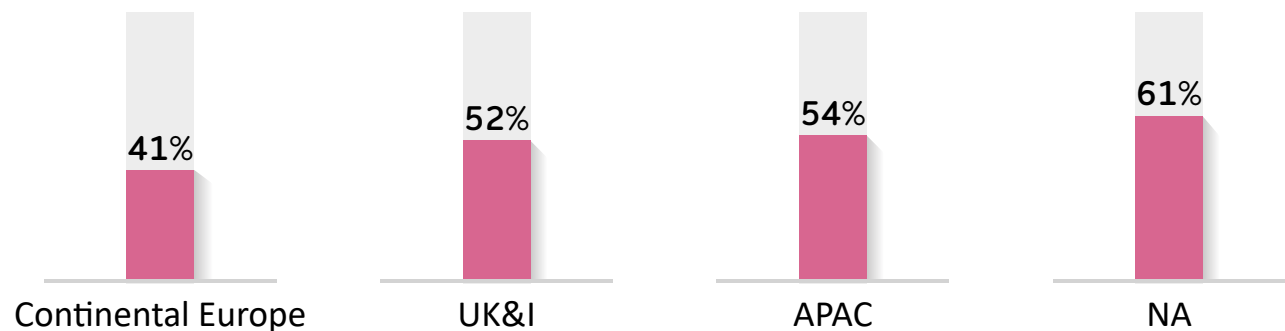
Investing for the future

Given how important it will be to invest in the right technologies, many respondents are prioritizing specific areas. Cloud has accelerated and advanced a wave of data-intensive technologies, and respondents across all regions are eager to exploit their potential.

European businesses maintain their conservative approach, with fewer plans for investments overall than the other regions. Even areas of relatively high investment, such as artificial intelligence and machine learning technologies, trail their counterparts.



Other areas, such as scenario modeling, demonstrate a wider gap in investments.



Percentage of respondents who say they plan to increase investments in scenario modeling in the next 1 – 2 years.

Missed connections

While there are many technology entry points to cloud, business priorities largely determine which technology to adopt, whether it's automation, edge computing or others. Connecting business and IT requirements for cloud – and the stakeholders of those – can lead to questions of decision making and ownership.

While absolute agreement is rare, the lack of alignment among European IT and business stakeholders is concerning.



For example, 66% in Continental Europe reported skills gaps with clearly defined cloud ownership (C-level, business, IT depts), compared to 38% of NA, 51% of UK&I, and 50% of APAC respondents.



For enterprise-wide cloud strategy based on business objectives, 56% report skills gaps vs 36% in NA, 45% in UK&I and 47% in APAC.

Unsurprisingly, respondents see room for improvement in the current division of responsibility for decision-making and ownership of cloud transformation.

Nearly two-thirds of respondents (63%) reported that cloud transformations at their organizations are led by IT only or mostly IT roles. Yet most disagree with this structure, preferring instead to see greater business involvement. (See Table 2.) When asked about who does and who should have the responsibility for cloud transformations, “evenly split between business and IT” more than doubled from the status quo.

	Roles who currently have the majority of the decision-making and ownership of cloud transformation	Roles that should have the majority of the decision-making and ownership of cloud transformation
IT only (including CIO, senior IT leaders)	22%	20%
Mostly IT, some business	41%	32%
50%-50% even split between business & IT leaders	19%	39%

Not shown: "Business only (including CEO, business unit heads)" and "Mostly business, some IT"

Critical skills come up short

When considering cloud transformation as a whole, organizations must first lay the foundation of a strong digital core, with cloud as the unifying digital fabric. With initial modernization efforts underway, organizations can begin unlocking innovation with business processes and models for greater insights and customer experiences. Eventually, organizations begin maturing into a cloud-native environment and participating in transformative partner ecosystems that truly maximize the value of cloud.

At each step, this journey requires deep skills and experience that are not easily won. Thus far, Europe trails the other regions across a range of capabilities.



in Continental Europe report proficiency challenges with skills and experience in FinOps, compared with 50% for UK&I, 50% for APAC, and 34% in NA.

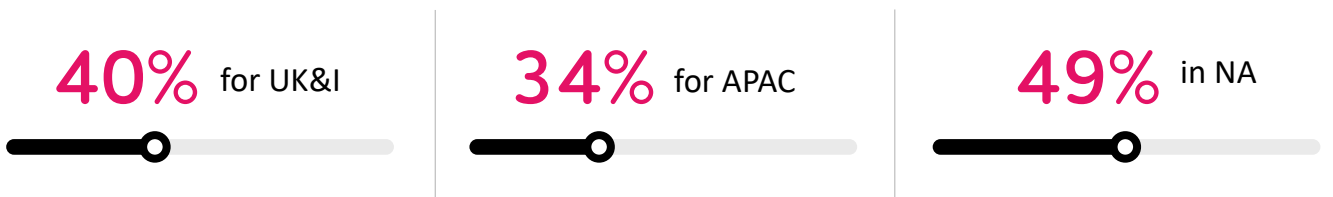


for Continental Europe report proficiency challenges with skills and experience in DevOps, compared with 43% for APAC, 53% for UK&I, and 36% in NA.

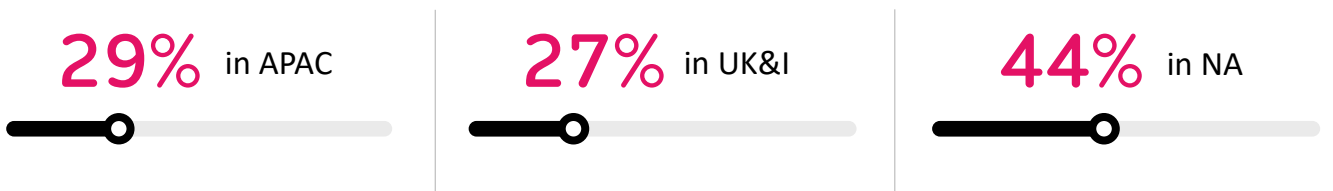
The gaps are narrower, but still notable, in cloud security and data governance, areas that are particularly critical.



compared with

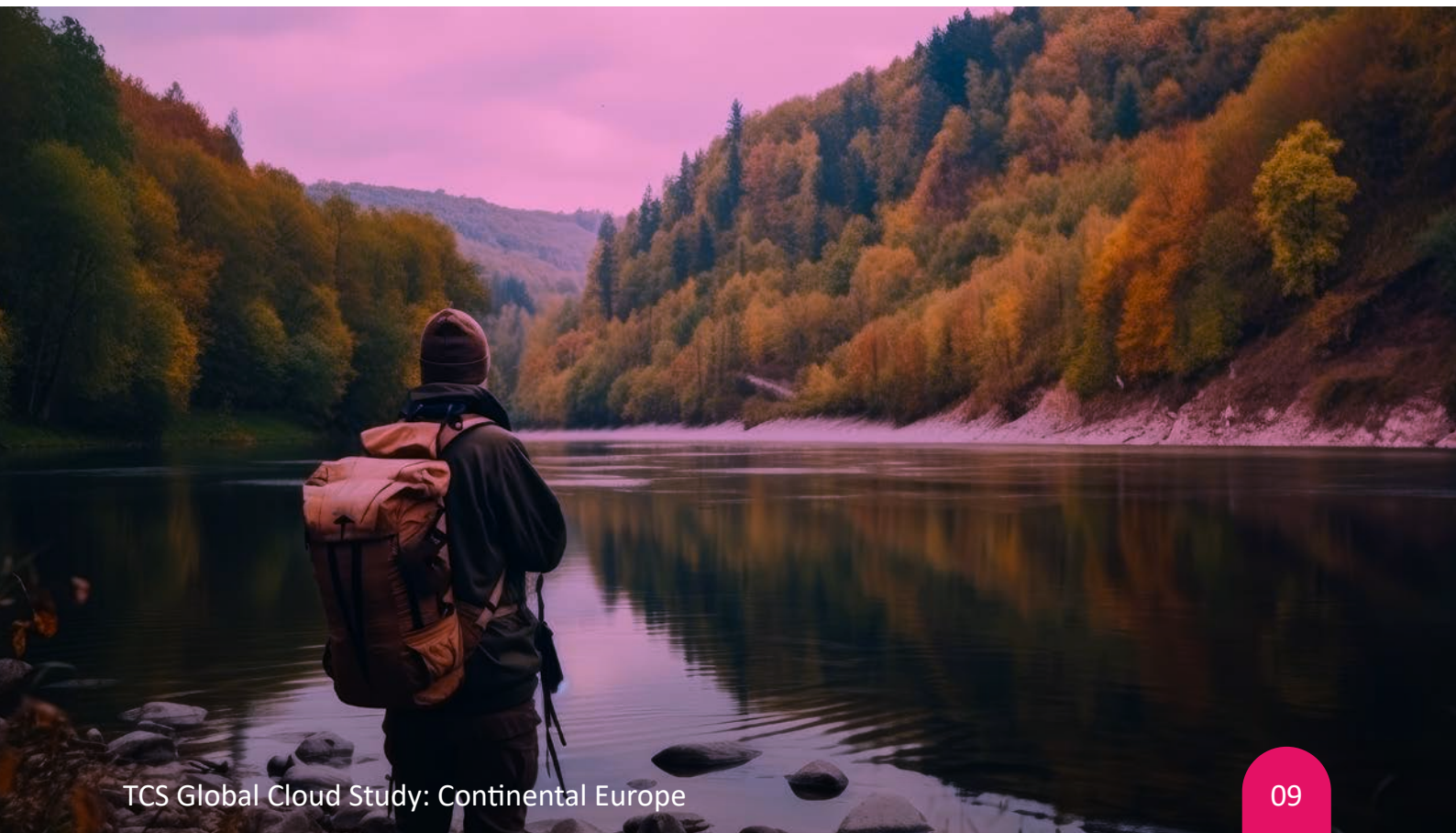


compared with



When it comes to the full ecosystem participation indicative of later-stage cloud maturity, Continental Europe – like the other regions – is largely in the initial stages.

	Total	NA	UK&I	Continental Europe	APAC
No plans to participate in ecosystems	15%	17%	17%	15%	13%
Initial stage: Assessing requirements and planning participation in ecosystems	47%	46%	43%	44%	53%
Early stage: Implementing industry, customer or partner ecosystems	19%	17%	28%	23%	16%
Middle stage: Initial participation in industry, customer or partner ecosystems	10%	12%	6%	9%	10%
Late stage: Firmly entrenched and participating in industry, customer and partner ecosystems	9%	9%	6%	9%	9%



Realizing the true promise of cloud-enabled innovation

Our research suggests that compared to other regions, many European businesses are less aggressively pursuing cloud-enabled innovation. They're also taking a more cautious approach to investments, leaving them vulnerable to their counterparts who are forging ahead. Of greatest concern, however, are lagging skills and capabilities, which could compromise their ability to compete.

To continue moving forward, European organizations must prioritize:



Developing a strategy for cost control

Improve transparency and understanding of cost factors for cloud initiatives. Connect business and IT requirements for cloud – including cost – to high-level objectives, with a focus on long-term gains.



Aligning business and IT stakeholders

Take an integrated approach to decision-making that makes cloud-enabled innovation the responsibility of all. Beyond the IT department, find application areas in the cloud through collaboration with individual business units.



Achieving and maintaining critical skills

Identify and overcome shortfalls in capabilities that could impact growth and transformation. Multi-cloud approaches will likely enhance the need for broader skills requirements. In addition, gaps in data governance and security could prove serious impediments to newer technologies.



Accelerating industry cloud adoption

Industry clouds, with baked-in subject matter expertise and best practices, are rapidly becoming a source of rapid transformation. More than a third (39%) of European organizations have already adopted industry cloud solutions or are currently doing so, and 37% say they are assessing requirements.



Investing in next-generation insights

Cloud technology can fuel the next level of edge computing, AI and the Internet of Things (IoT) to harness the power of these modern technologies for business innovation. As computation and storage get closer to data sources, there is enormous transformative potential for harnessing insights from data across multiple end points.

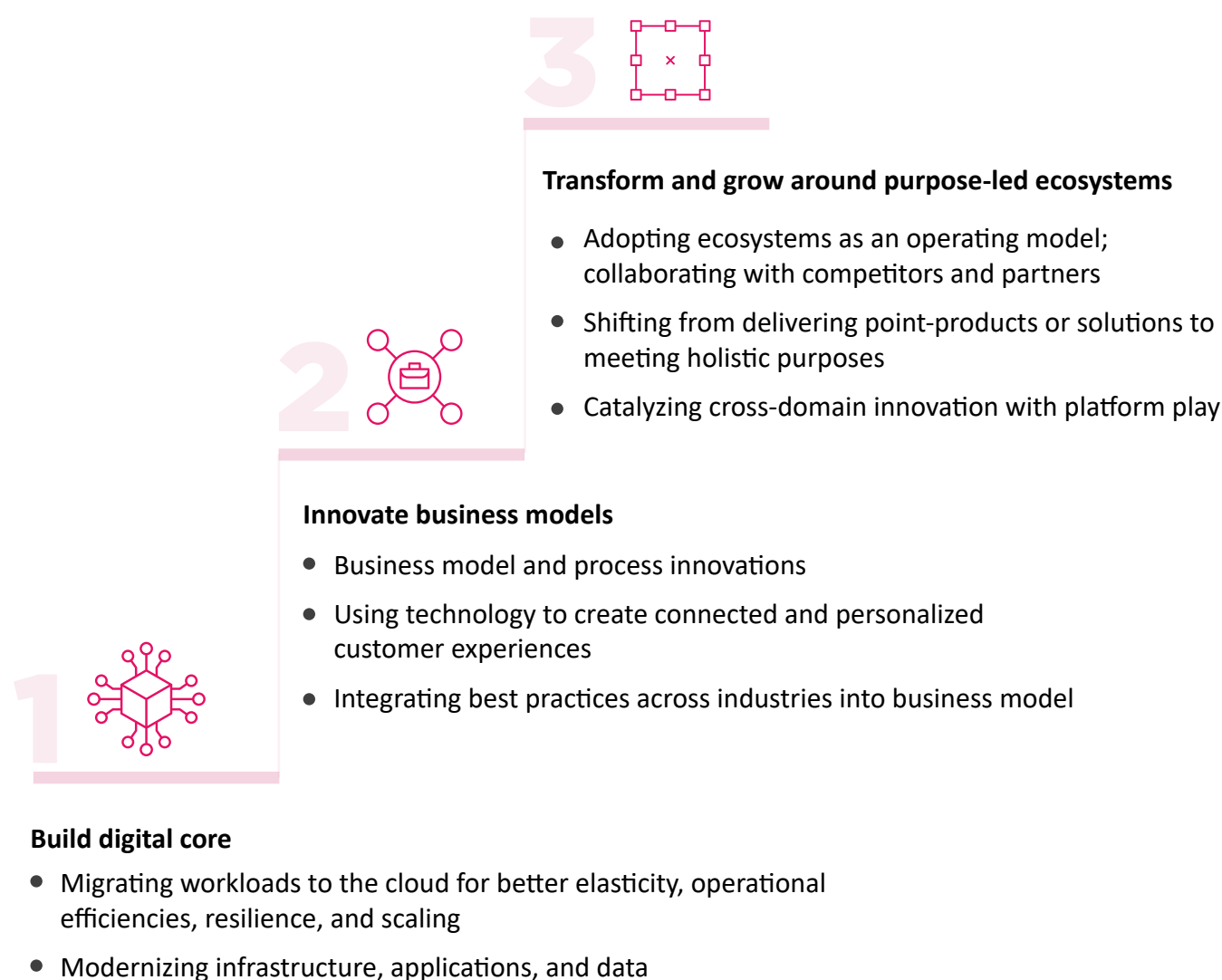
Read the Key Findings report to learn how organizations are moving toward cloud-enabled innovation.

The Cloud 2.0 transformation

If cloud was earlier seen as a way of future-proofing enterprises' technology infrastructure, today it's a means of future-proofing the business itself.

In Cloud 2.0, technology is not something to adopt, but a strategy for business transformation and growth itself.

Three horizons to building a connected future



About the study

Tata Consultancy Services (TCS) conducted a global cloud study from 6 January to 14 February 2023 on the theme of cloud-enabled innovation. TCS surveyed 972 C-suite and IT senior executives and decision makers from companies with +\$1 billion in annual revenue, across UK & Ireland, Continental Europe, North America, and APAC (India, Japan, Australia, NZ).

About the Thought Leadership Institute

Since 2009, the TCS Thought Leadership Institute has initiated conversations by and for executives to advance the purpose-driven enterprise. Through primary research, we deliver forward-looking and practical insights around key business issues to help organizations achieve long-term, sustainable growth. For more information, visit tcs.com/insights/globalstudies

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If you would like to have more information on the TCS Global Cloud Study, please visit on tcs.com/2023-global-cloud-study

For more information or any feedback, email the TCS Thought Leadership Institute at TL.Institute@tcs.com

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Tata Consultancy Services is an IT services, consulting and business solutions organization that has been partnering with many of the world's largest businesses in their transformation journeys for over 55 years. Its consulting-led, cognitive powered, portfolio of business, technology and engineering services and solutions is delivered through its unique Location Independent Agile™ delivery model, recognized as a benchmark of excellence in software development.

A part of the Tata group, India's largest multinational business group, TCS has over 614,000 of the world's best-trained consultants in 55 countries. The company generated consolidated revenues of US \$27.9 billion in the fiscal year ended March 31, 2023 and is listed on the BSE and the NSE in India. TCS' proactive stance on climate change and award-winning work with communities across the world have earned it a place in leading sustainability indices such as the MSCI Global Sustainability Index and the FTSE4Good Emerging Index. For more information, visit www.tcs.com