TATA
CONSULTANCY
SERVICES

Building on belief

Connected future:
How cloud drives
business innovation

## TCS Global Cloud Study:
North America

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, including generative AI.

The global cloud study from TCS reveals that North American companies are racing toward cloud-enabled innovation and actively tapping its potential to connect data, people, and knowledge in new ways.

A future-oriented mindset

While respondents across all regions acknowledge cloud's role in innovation strategies, North American companies are more likely to view it as an essential component of their future.
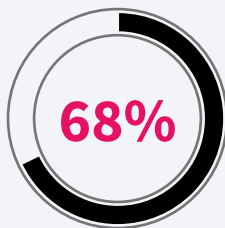
68% of the North American businesses we surveyed say cloud is crucial to their organization's future as a catalyst for innovation, compared with 63% for UK & Ireland (UK&I), 57% in Asia-Pacific (APAC) and 48% in Continental Europe

Nor are they narrowly focused solely on their own prospects. North American respondents take a broader view of cloud-driven innovation: They see it as a way to build sustainable, inclusive futures for all.

They are not alone. Organizations across all regions and industries have made it a priority to help create a better future and are embedding 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.

However, North American respondents ranked this goal slightly higher than the others.

NA	Continental Europe	UK&I	APAC
46%	45%	40%	37%
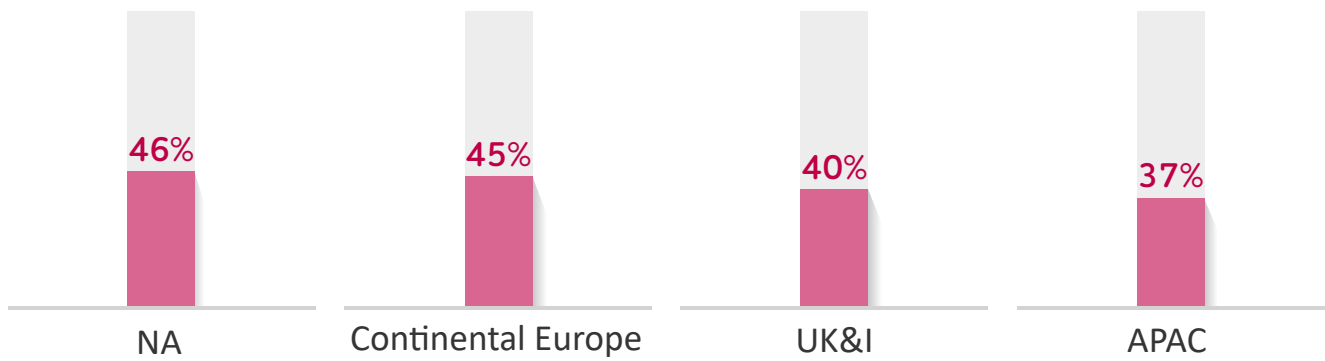
Percentage of respondents who selected "New ways of aligning purpose with business strategies (e.g., sustainability efforts)" as one of the top desired outcomes for cloud-enabled innovation
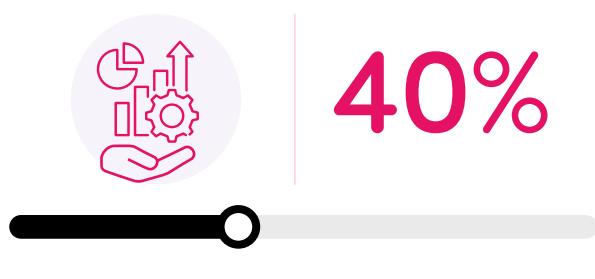
When it comes to purpose-driven decisions, efficient management of limited natural resources is an increasingly strategic goal. North American respondents see sustainability initiatives as another source of cloud's value: Nearly three-fourths cite cloud's success in helping them achieve these goals, with only the UK&I region just slightly ahead.
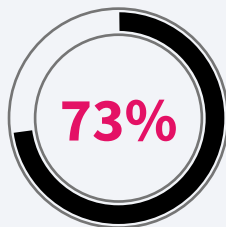
73% of respondents say cloud technologies have helped their organizations achieve sustainability goals, compared with 75% in UK&I, 66% in APAC and 58% in Continental Europe.

Investing for the future

North American respondents say their commitment to cloud remains strong. More than three-fourths take the long view of cloud investments and intend to push forward toward the realization of them.

78% say cloud is a long-term investment and they intend to stay the course

compared with

60% in UK&I

69% in APAC

63% in Continental Europe
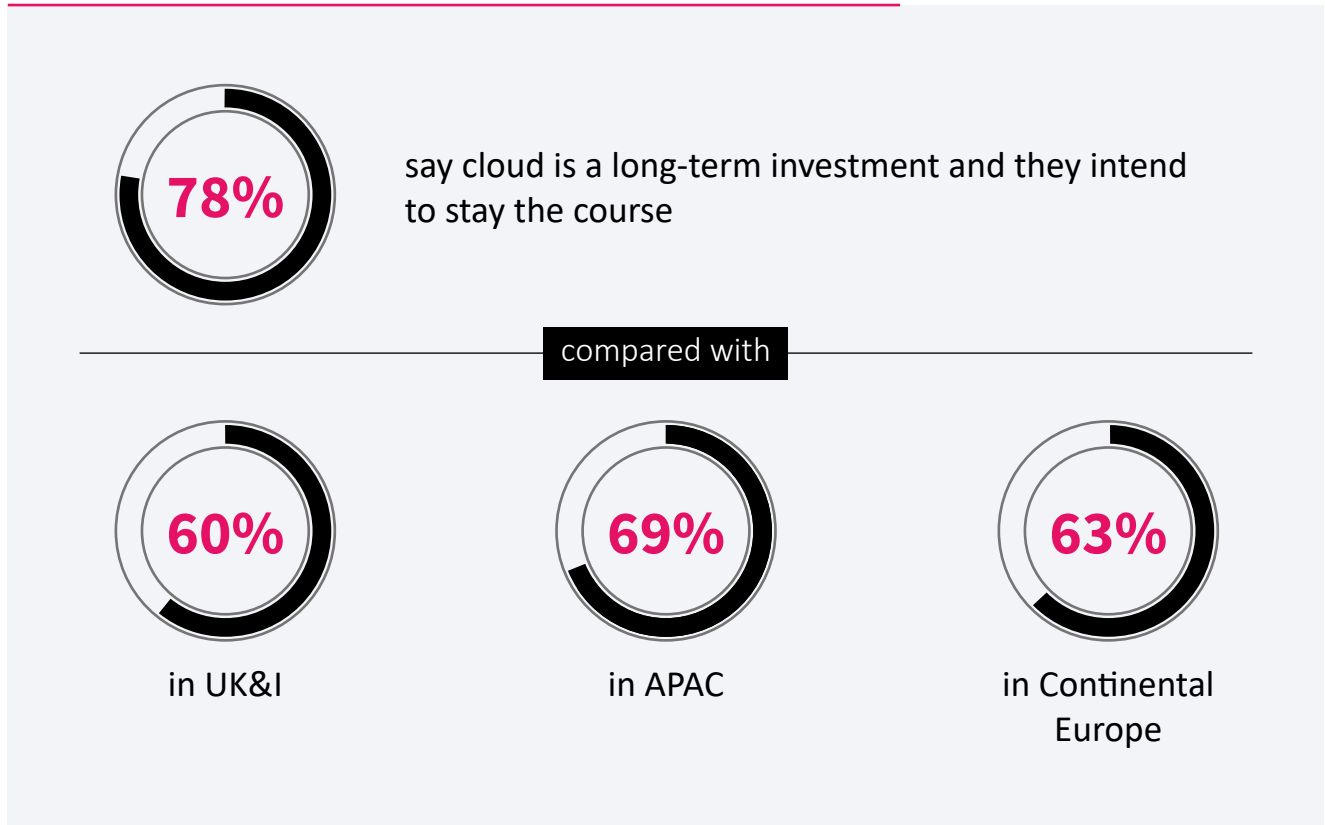
40% Yet a sizable number of respondents see room for improvement when it comes to aligning their cloud investments with their requirements. A full 40% say they over-invested in the past three years.
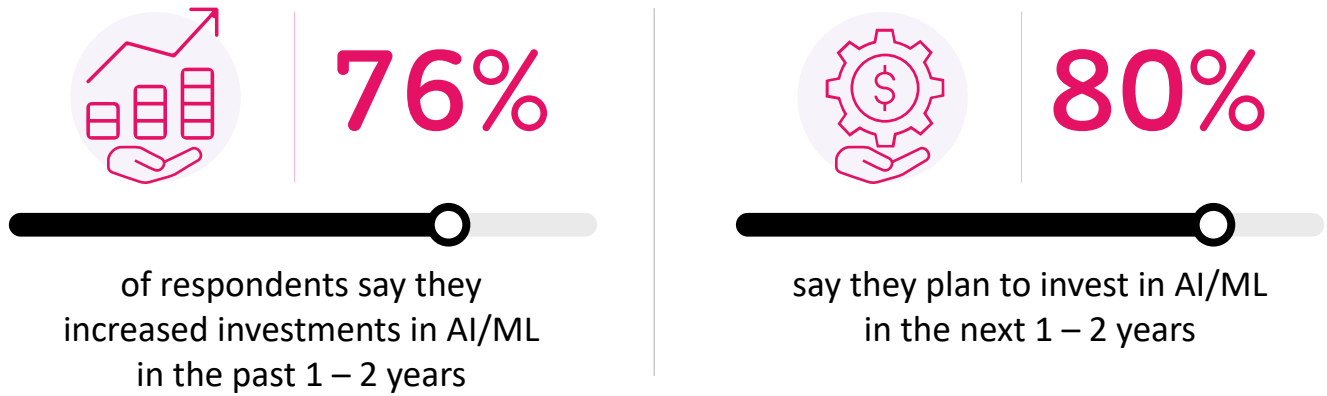
Q. "Thinking back on the past 3 years, how would you describe your company's cloud investments?"

Further, budgets have become more vulnerable to ongoing economic and geopolitical uncertainties.
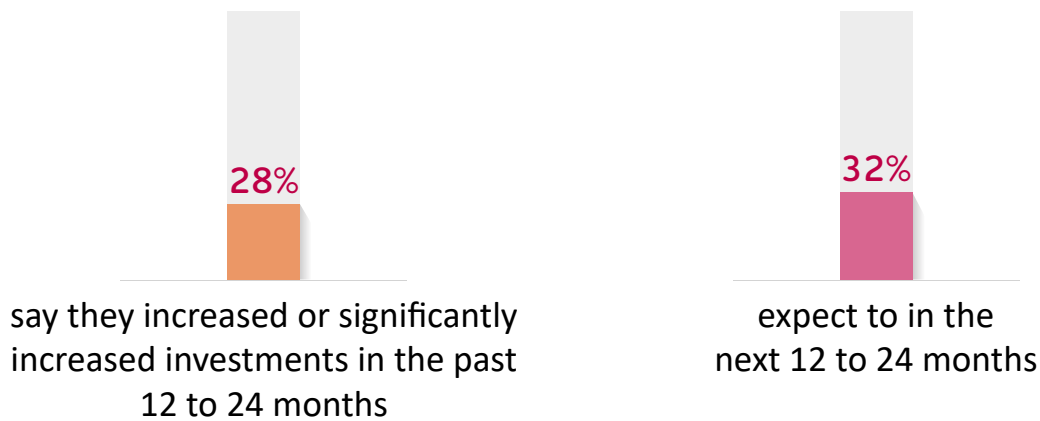
27% More than a quarter (27%) of North American respondents say they feel increasing pressure and scrutiny to justify their cloud investments.

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 there is a clear appetite to take advantage of them. Investments for North American companies are heavily slanted toward artificial intelligence and machine learning technologies, unsurprising given the backdrop of renewed urgency fueled by advances in generative AI.

76%

of respondents say they
increased investments in AI/ML
in the past 1 – 2 years

80%

say they plan to invest in AI/ML
in the next 1 – 2 years

North American organizations are also keenly aware of the potential of newer technologies.

Respondents in North America reported plans for greater investment in digital twins and threads

28%

say they increased or significantly
increased investments in the past
12 to 24 months

32%

expect to in the
next 12 to 24 months

Missed connections

As cloud adoptions have matured, stakeholders outside of the IT department
have steadily acquired a deeper role. 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.

In many ways, North American organizations have had more success integrating business and IT
imperatives than their counterparts in other regions.

38%

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

36%

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

Yet most respondents see areas that could benefit from additional business involvement in the current division of responsibility for decision-making and ownership for cloud transformation.

When asked about who does and who should have the responsibility for cloud transformations, only "evenly split between business and IT" gained adherents.

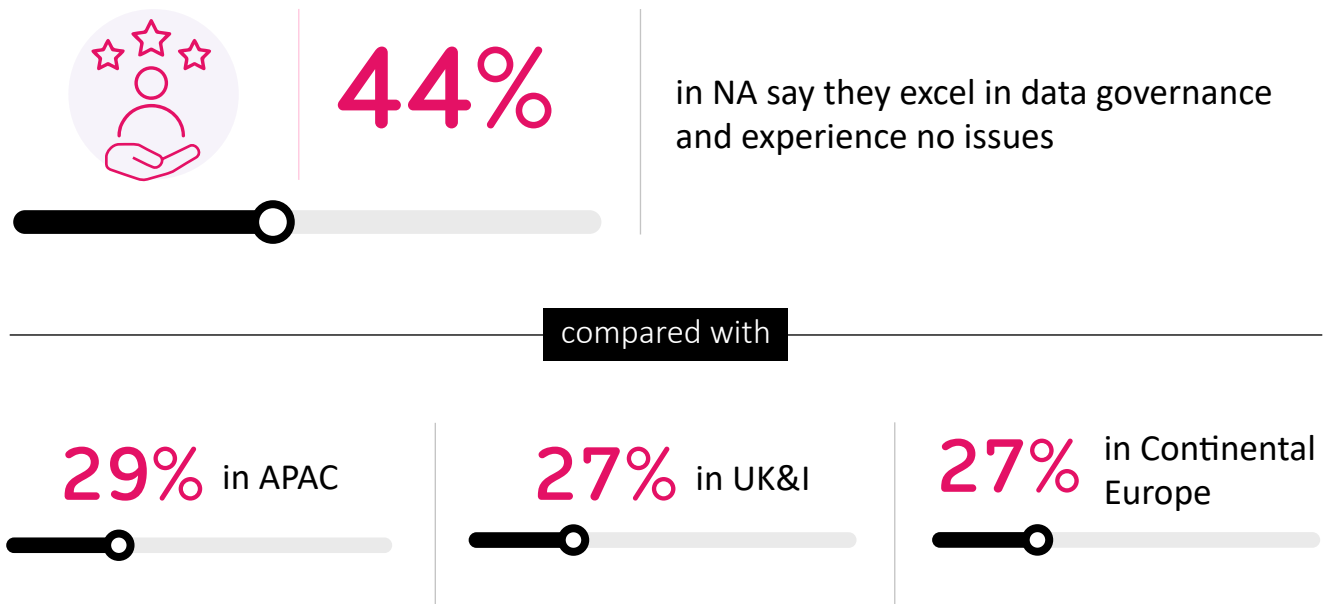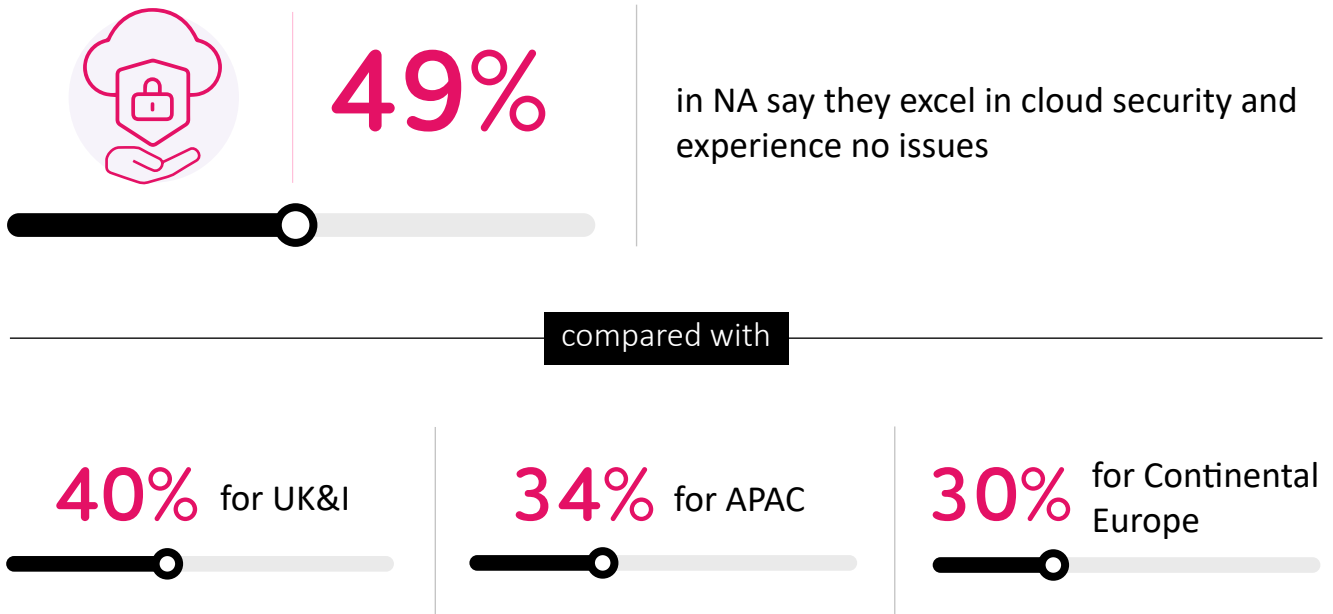|	Roles who **currently have** the majority of the decision-making and ownership of cloud transformation	Roles that **should have** the majority of the decision-making and ownership of cloud transformation
IT only (including CIO, senior IT leaders)	**28%**	**22%**
Mostly IT, some business	**41%**	**34%**
50%-50% even split between business & IT leaders	**19%**	**33%**

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

Extending the advantage

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, North America leads the regions across a range of capabilities.

This lead is especially noticeable in areas that are particularly critical: cloud security and data governance.

49%

in NA say they excel in cloud security and experience no issues

compared with

40% for UK&I

34% for APAC

30% for Continental Europe

44%

in NA say they excel in data governance and experience no issues

compared with

29% in APAC

27% in UK&I

27% in Continental Europe

The strong focus on acquiring skills and capabilities of North American respondents suggests they are well placed to continue extending their advantage. But there is more to do.

When it comes to the full ecosystem participation indicative of later-stage cloud maturity, North America, 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 many North American businesses have recognized the crucial role cloud can play in innovation. They have invested in a range of capabilities and technologies to support their organizations' push for cloud-enabled innovation and the connected future it will help bring to fruition.

To continue moving forward, North American organizations must prioritize:

Aligning business and IT stakeholders

Ensure all responsibility and decision-making for cloud-enabled innovation rest with both IT and business stakeholders. Connect business and IT requirements for cloud – and the stakeholders of those – to high-level objectives, with a focus on long-term gains.

Continued investing in data-intensive technologies

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.

Acquiring greater competencies

Cloud skills and experience fall short in critical areas, and overcoming these shortfalls will require a range of strategies. Industry clouds, with baked-in subject matter expertise and best practices, are rapidly becoming one such strategy. More than a third (34%) of North American organizations have already adopted industry cloud solutions or are currently doing so, and 39% say they are assessing requirements.
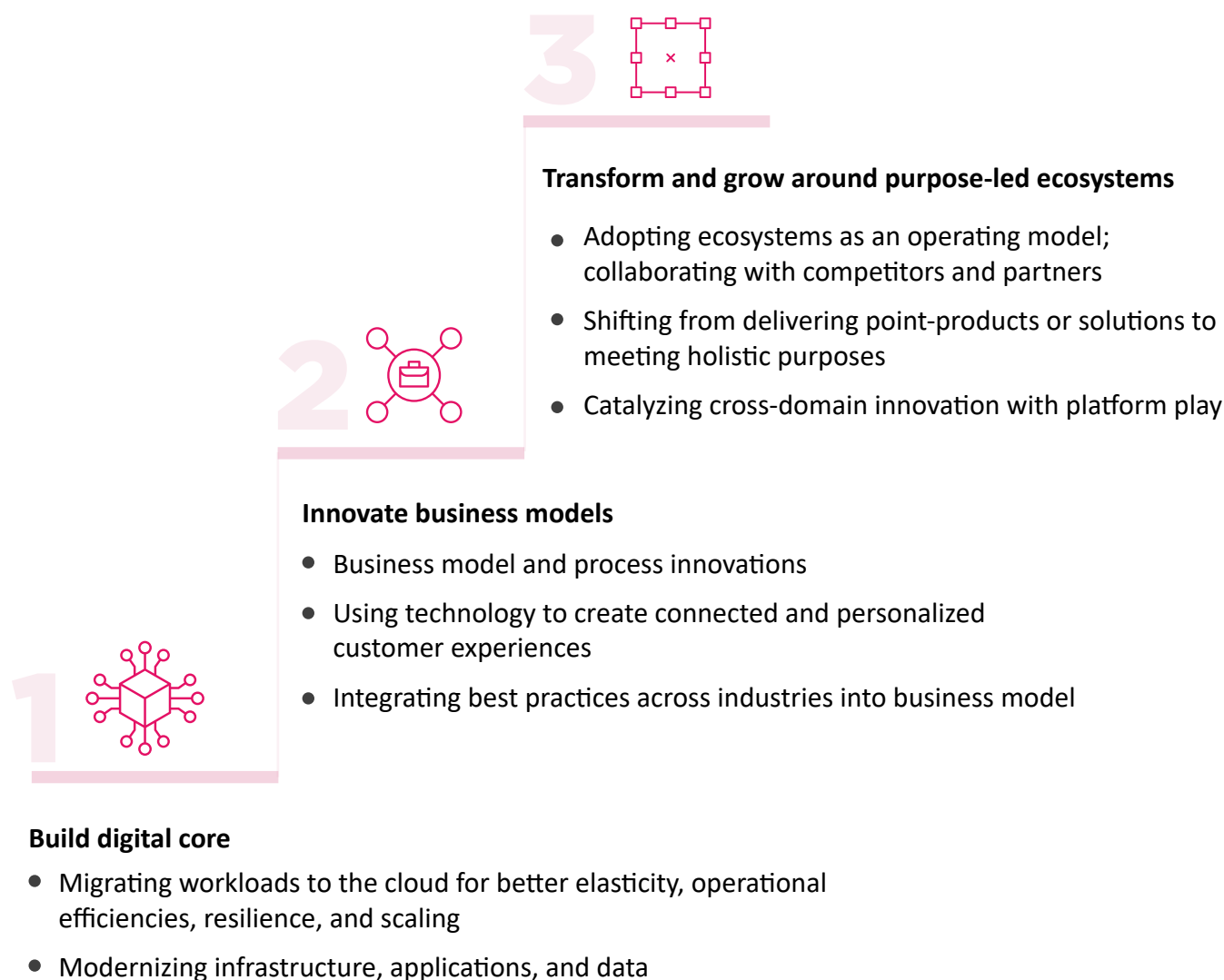
Read the Key Findings report to learn how organizations are moving toward cloud-enabled innovation.

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

3

Transform and grow around purpose-led ecosystems

- Adopting ecosystems as an operating model; collaborating with competitors and partners
- Shifting from delivering point-products or solutions to meeting holistic purposes
- Catalyzing cross-domain innovation with platform play

2

Innovate business models

- Business model and process innovations
- Using technology to create connected and personalized customer experiences
- Integrating best practices across industries into business model

1

Build digital core

- Migrating workloads to the cloud for better elasticity, operational efficiencies, resilience, and scaling
- Modernizing infrastructure, applications, and data

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

For the most up-to-date content and news, download the
'TCS Perspectives' app for your iOS and Android device.

Get more insights

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

About Tata Consultancy Services Ltd (TCS)

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