

**Deloitte.**

# Unleashing business value from technology investments

Metrics that matter for increasing the business value  
of cloud and other investments



# Contents

Introduction	01
Defining and measuring digital transformation value	02
What the data says	03
Value leaders share key traits that set them apart	03
An industry perspective on value	04
Consumer	05
Energy, resources, and industrials	06
Financial services institutions	07
Government and public services	08
Life sciences and health care	09
Telecommunications, media, and technology	10
How actions shape value—correlation with market capitalization	11
Combinations	11
Tech strategy and cloud	11
Actions that can unleash digital transformation value	12
Looking forward	13

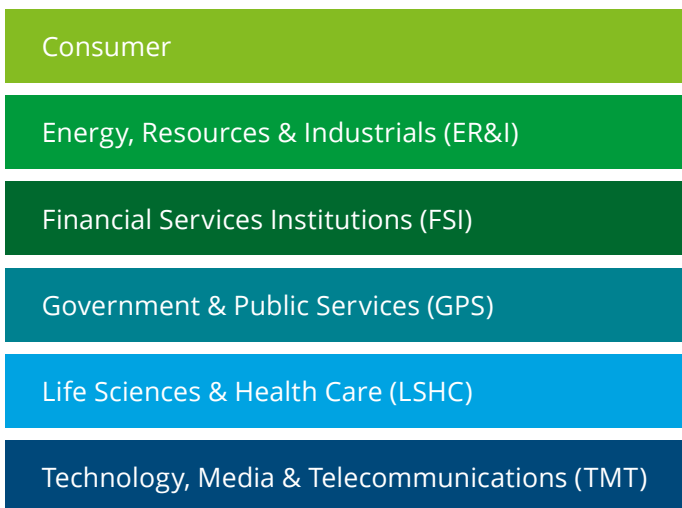
# Introduction

Digital and business transformation, enabled by cloud, isn't really optional anymore. Enterprises that fail to capitalize on new cloud-driven technologies, such as generative artificial intelligence (Generative AI) and machine learning (ML), and don't modernize their infrastructures with cloud-native software engineering principles and practices risk falling behind competitors. Most organizations will continue to make significant investments in cloud. However, budget scrutiny will place those investments under a microscope forcing leaders to measure and unlock more value from them.

Deloitte's research began here—questioning: What business value can technology transformation provide, how do companies measure that value, and how can they measure it more effectively? Our research acts as a lodestar, exploring technology investments and their value.

# Defining and measuring digital transformation value

To understand how organizations measure digital value and how that may differ across industries, Deloitte's Center for Integrated Research surveyed 1,600 global business and technology executives. Respondents were from six key industries:



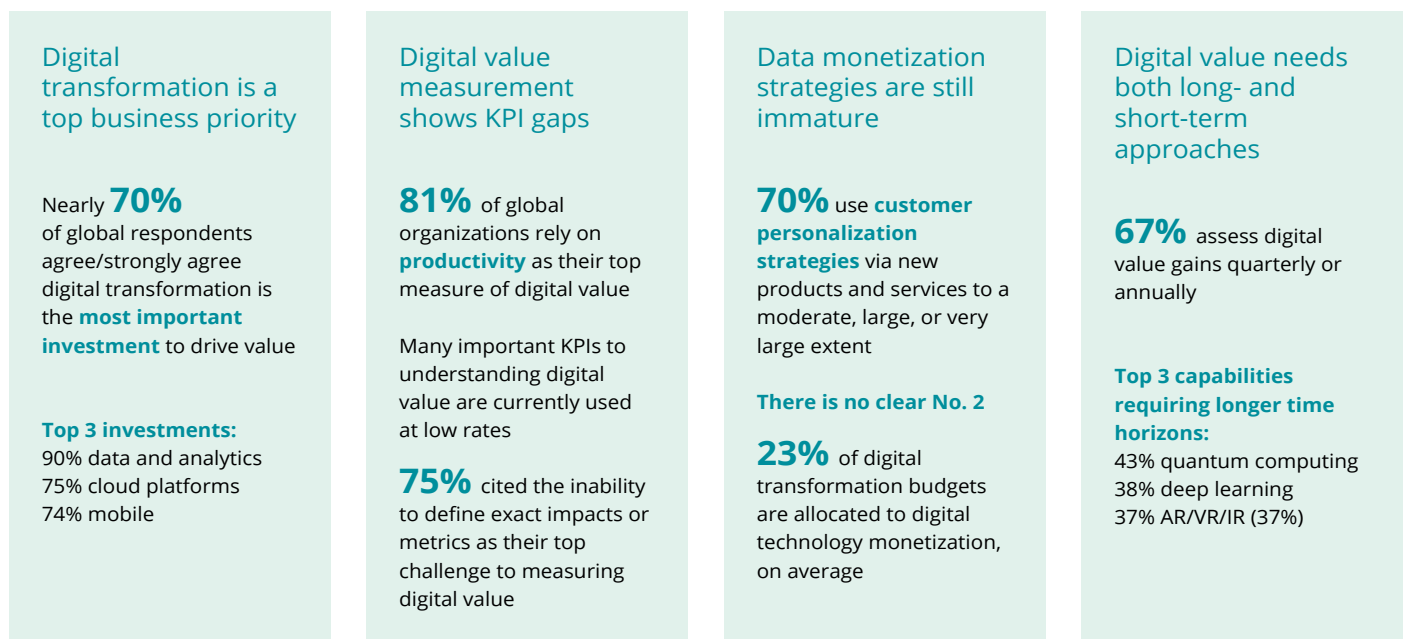
The survey asked key questions covering their digital strategy and technology investments; measurement practices across 46 key performance indicators (KPIs) that span financial, customer, process, workforce, and purpose measures; and their data monetization practices and value horizons.

Additionally, our research team analyzed financial statements from more than 4,600 companies to the role that three distinct digital transformation actions have in driving value, based on market capitalization: **digital strategy** such as new capabilities, new markets, and new products; **tech alignment with strategy** where investments in Generative AI, AI/ML, cloud, and other capabilities drive forward that strategy; and a **digital change capability** where the digital initiative is advanced by a focus on skills, culture, agilities, and efficiency.

## What the data says

The survey responses revealed some compelling data about companies' technology investment priorities, value measurement, and monetization strategies. Most agree that digital transformation drives value. They rely heavily on productivity as a metric to measure value. However, many organizations might think too short term, or too narrowly, about digital value. To that end, their monetization strategies are still relatively immature across global respondents.

## The numbers tell the story on digital transformation



Source: Deloitte Center for Integrated Research analysis

## Value leaders share key traits that set them apart

While the value from technology investments is acknowledged, organizations seeking to win on digital transformation could face a dilemma. They understand that digital transformation is the most critical factor in driving enterprise value, but they struggle to measure the value those investments return. Our survey analysis reveals four key traits shared by organizations that excel in extracting value from their digital investments. They are:

- **Comprehensive** in their approach to metrics, assessing value more holistically across financial, customer, process, workforce, and purpose categories.
- **Balanced** in their use of KPIs, looking beyond top measures like productivity, which 81% of respondents use as their leading indicator of digital value.
- **Able** to tackle value measurement challenges including the leading issue that 75% cited as "the inability to define exact impacts or metrics."
- **'All in'** measurers, and it pays off. Those measuring most holistically attributed up to 20% more enterprise value to their digital transformations.

While a holistic measurement approach characterizes value leaders across industries, we also see the need for leaders to calibrate measures based on their industry's strategic priorities and investment trends.

# An industry perspective on value

A deeper, industry-specific analysis of the survey responses begins to unravel how those priorities, investments, and value measures compare. Some industries showed interesting similarities while others showed striking differences.

## Industries are investing differently in the technology capabilities underpinning digital transformations



**Consumer leads in API marketplace investments (52% vs. 49% overall).**



**Government and public services sector leads in wireless 5G or higher (28% vs. 22%) and cryptography (14% vs. 6%).**



**Energy, resources, and industrials leads all other industries in IoT investments (77%) and quantum computing (19%).**



**Life sciences and health care leads all industries in investments in data and analytics (93% vs. 90% overall) and AR/VR/MR (21%).**



**Financial services leads in mobile investments (by 12 percentage points), cloud platforms (by 7 percentage points), broadband and wireless up to 4G (by 10 percentage points).**



**Technology, media, and telecommunications focuses less on mobile and IoT than others (by 12 percentage points).**

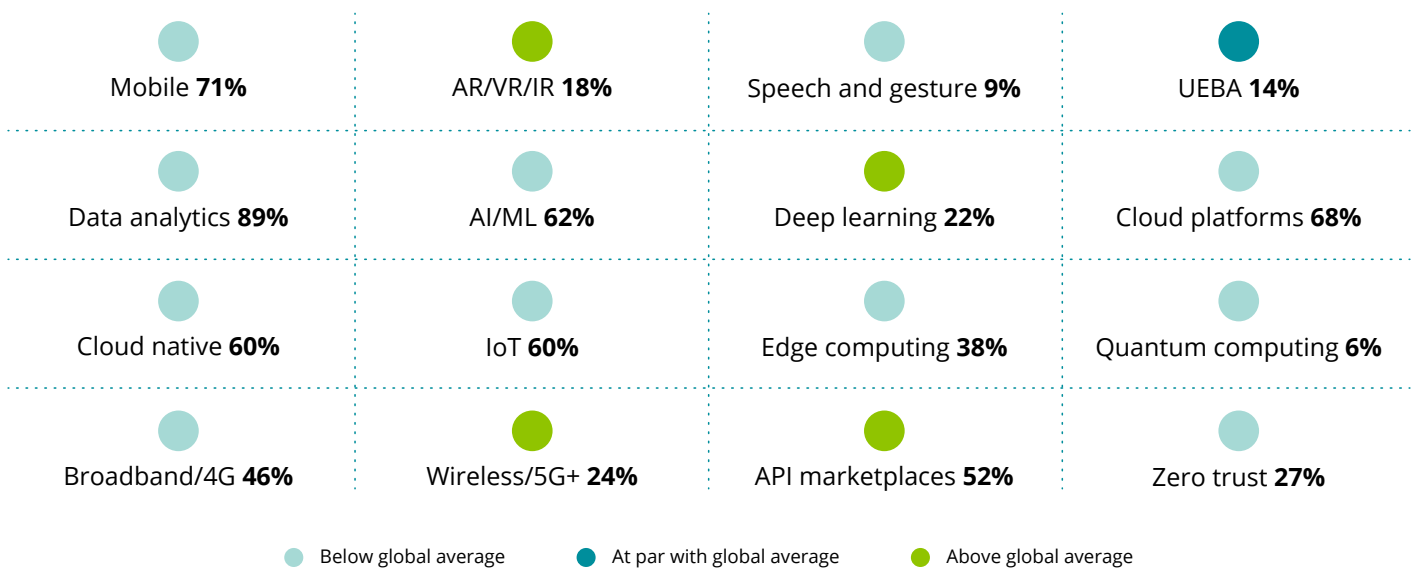
Source: Deloitte, [Digital value and the industry context](#), 2023

## Consumer

Consumer respondents across the automotive, consumer products, retail, wholesale and distribution, transportation, hospitality, and services sectors define and prioritize their digital initiatives differently from other industries. Our survey shows that consumer respondents had a more product-focused definition of digital transformation aligned to launching new products and services and are currently more focused on application programming interface (API) marketplace investments. While they may have eagerly embraced cloud in certain aspects, their 2023 investments lagged what we saw from other industries. Sixty percent of them are investing in cloud-native development initiatives, and 68% are investing in cloud platforms, which are both below global averages.

### How consumer organizations invest in tech versus others

*Outpace others in API investments and are currently investing to a lesser extent than others in cloud, edge, and quantum computing.*



Source: Deloitte, [Digital value and the industry context](#), 2023

### USE CASE SNAPSHOT

## Customer personalization

An American multinational fast-food corporation discovered the importance of using data-powered tools to develop customer personalization strategies and help enhance its customer experience. Now the company is using that data to enter new waters, including opening new stores based on metadata intelligence gleaned from its omnichannel ordering and marketing platform and exploring new AI approaches to enable customer-demand forecasting and predictions. The platform can help the corporation predict the optimal ordering quantity of raw ingredients, recommend specific items to customers that reduce wastage during cooking, and schedule the labor required to meet predicted demand.

Source: Deloitte Center for Integrated Research analysis based on the interview of 10 global executives knowledgeable on the topic of technology value, February 2023

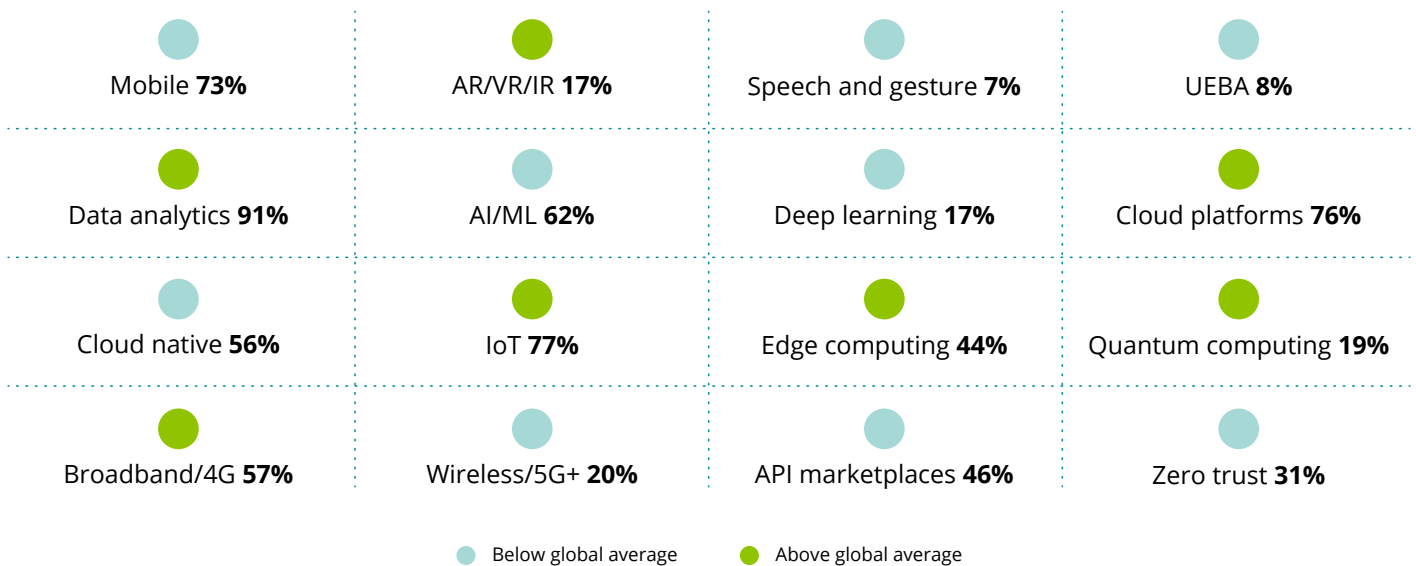
## Energy, resources, and industrials

Energy, resources, and industrials (ER&I) organizations in the electric utilities, gas utilities, and aerospace and defense sectors are highly regulated organizations that are still recovering from supply chain disruption. Our survey data shows ER&I respondents spend less on digital initiatives than other industries overall.

Their spend is directed toward the technology capabilities that matter most to them and corresponding KPIs. For example, ER&I respondents outpace other industries in their focus on IoT, edge, and quantum computing. ER&I companies also have significant cloud investments, with an above-average 76% investing in cloud platforms and 56% investing in cloud-native development initiatives, which is only slightly below the global average.

### How ER&I organizations invest in tech versus others

*Outpace others in IoT, edge, and quantum computing investments.*



Source: Deloitte, [Digital value and the industry context](#), 2023

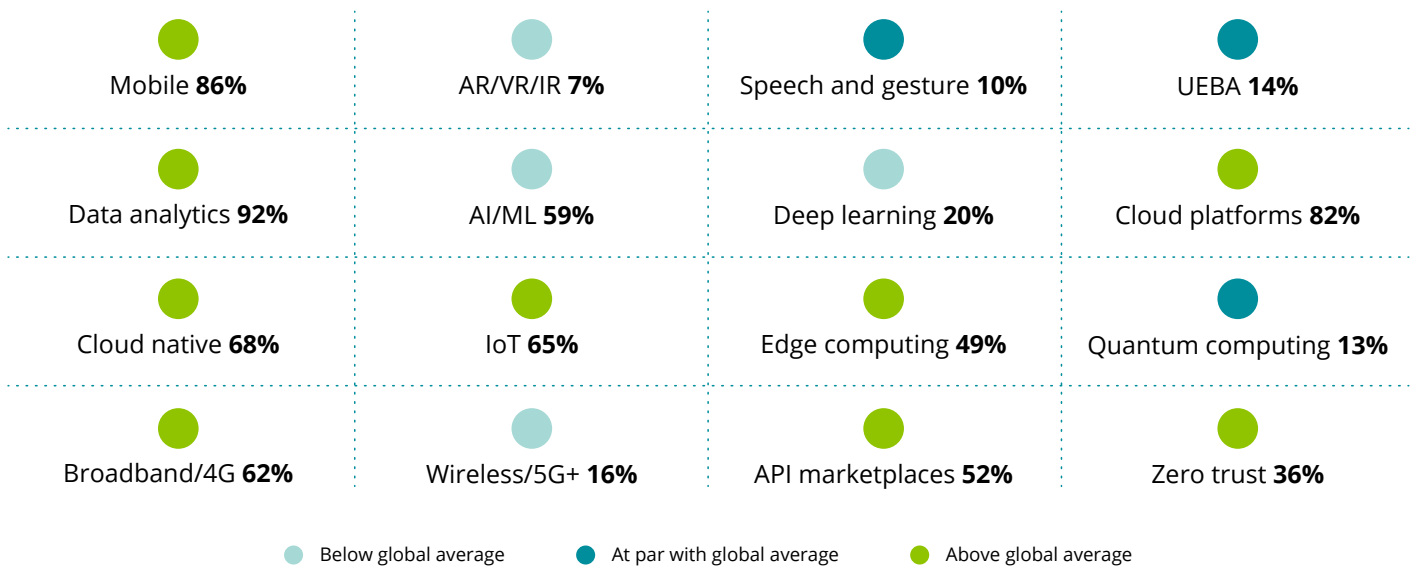


## Financial services institutions

Financial services institutions (FSI) respondents included individuals from the banking and capital markets, insurance, real estate, and investment management industries. FSI surveyed outpace in spending on digital transformation and technology capabilities for many technologies. For example, 82% are investing in cloud platforms, and 68% are spending on cloud-native development initiatives—which is well above the global average.

### How FSI organizations invest in tech versus others

Lead tech capability investment in mobile, broadband and wireless tech, cloud platforms, identity and access management (IAM), and edge computing.



Source: Deloitte, [Digital value and the industry context](#), 2023

### USE CASE SNAPSHOT

## Digital investments in banking

An executive from a large European bank highlights how banks can monetize their data and make bold technology investments to extend the value of their digital transformation. He explains: “You can offer many different basic products and services such as accounts, cards, and loans. And around that, you can create value-added services where you offer the client insights and recommendations and improve customer experience, based on their data.” To do it, he says that banks should build an operating model that aligns product lead and developer metrics and build an agile, DevOps organization focused on optimizing the value of digital investments.

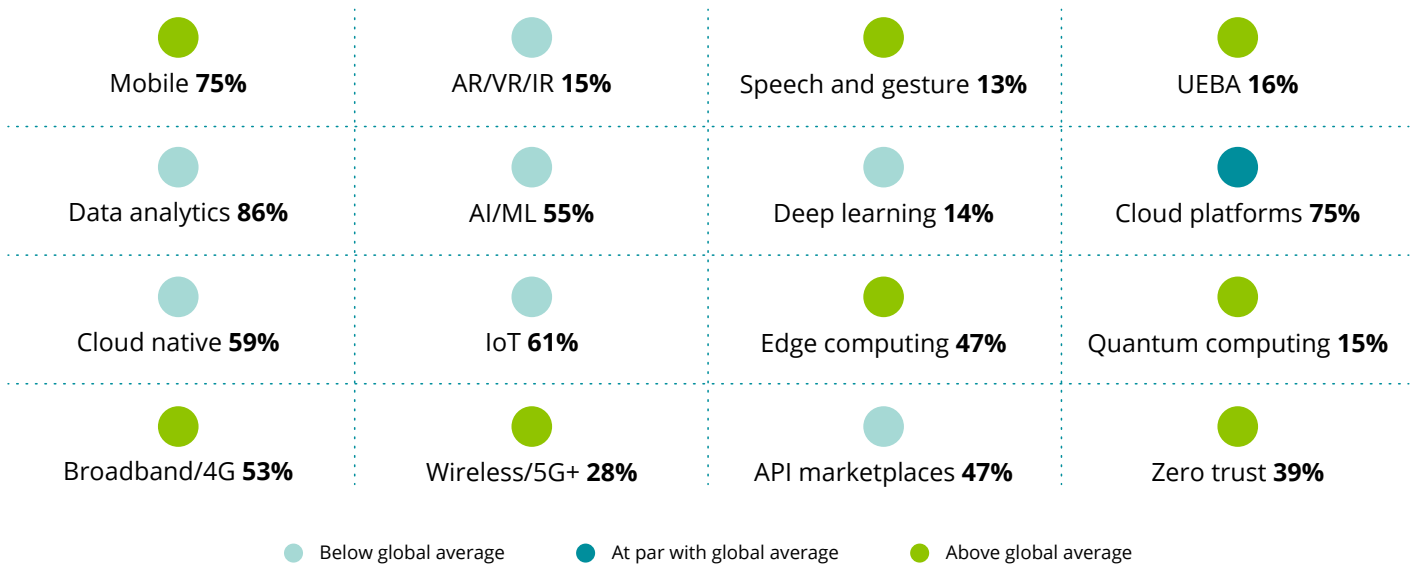
Source: Deloitte Center for Integrated Research analysis based on the interview of 10 global executives knowledgeable on the topic of technology value, February 2023

## Government and public services

Government and public services (GPS) respondents surveyed included individuals formerly in state, local, and civil government; defense, security, and justice; higher education; and federal health. These respondents are most likely to allocate budgets to advanced digital transformation initiatives. They currently lead other industries in 5G investments and lag in data analytics investments. However, their cloud platform investments are just at par with the global average (at 75%), and their cloud-native development initiatives are slightly below par with the global average (at 59%), which is perhaps an area companies can focus greater resources on to enhance their data analytics strategies.

### How GPS organizations invest in tech versus others

Lead in wireless 5G and cryptography investment, but AI and data investments lag. Believe cryptography investments contribute to enterprise value is high (71% / +15).



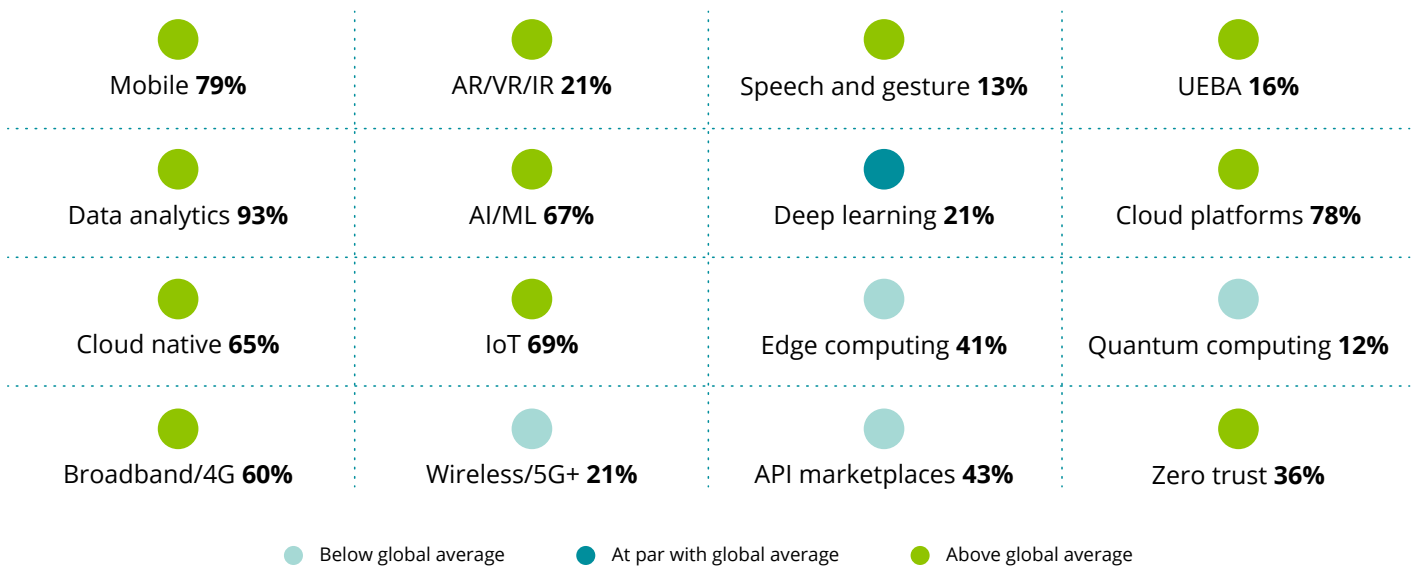
Source: Deloitte, [Digital value and the industry context](#), 2023

## Life sciences and health care

Life sciences and health care (LSHC) respondents are more focused on cloud relative to others with 78% investing in cloud platforms and 65% in cloud-native development—both above global averages. Their investment in IoT technologies is also high. However, given that edge computing investments are below global benchmarks, it is perhaps an area where organizations can focus to enhance cloud/edge/IoT computing strategies.

### How LSHC organizations invest in tech versus others

Lead all other industries in investments in data analytics and AR/VR/IR (though low), and lead all industries in the belief quantum computing investments contribute to enterprise value (79% / +16).



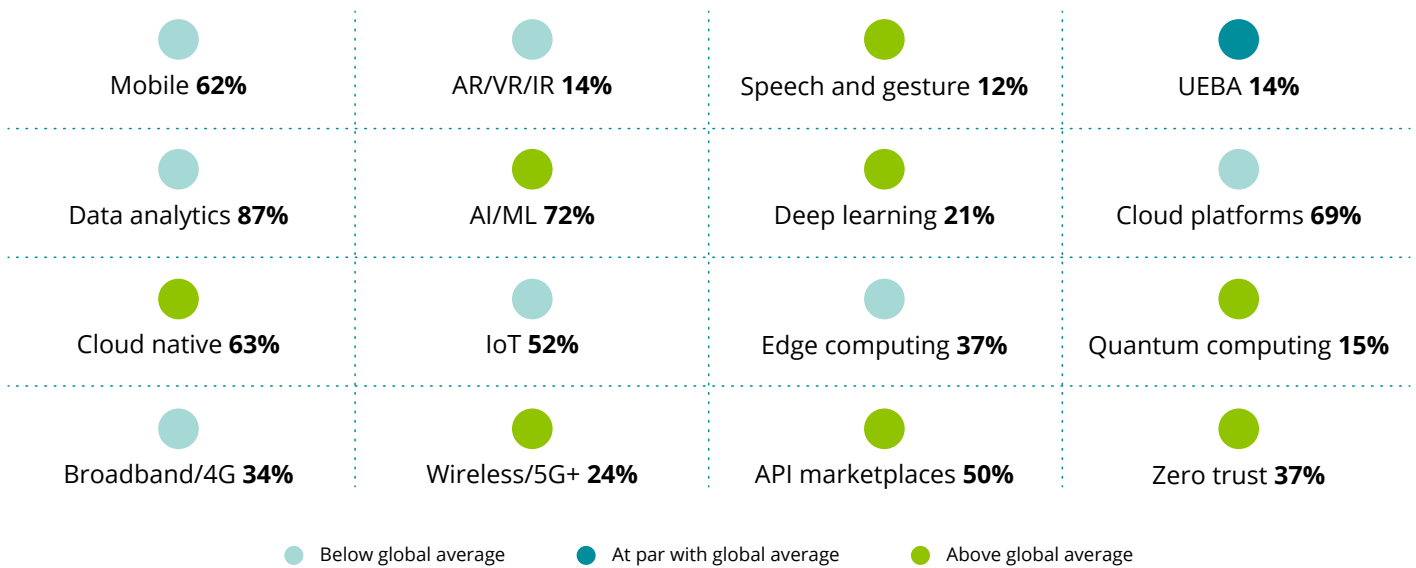
Source: Deloitte, [Digital value and the industry context](#), 2023

## Technology, media, and telecommunications

Technology, media, and telecommunications (TMT) respondents spend less compared to others, especially for capabilities like mobile and IoT. Their digital tech monetization strategies focus more on selling subscriptions to technology tools/services, which goes together with high AI leadership across AI/ML and deep learning investments. Cloud platform investments are below global averages at 69%, but cloud-native spend is 63%, which is above average. Perhaps a greater focus on cloud platforms could enable higher spend on mobile and IoT initiatives.

### How TMT organizations invest in tech versus others

Lags in tech capability investment in mobile and IoT. Believe IoT contributes to enterprise value lags (66% / -8).



Source: Deloitte, [Digital value and the industry context](#), 2023

# How actions shape value—correlation with market capitalization

As organizations look to effectively implement their unique strategies, this brings us back to our market-cap analysis.

We wanted to know, irrespective of industry, if digital strategy—and actions based upon it—had a correlation with an organization's market capitalization. So, we looked for combinations of actions that could unlock (or decrease) even more value.

## Combinations

We found that when organizations combined a solid digital strategy, technology investments that are aligned to business strategy, and a strong change capability they saw market-cap increases of up to 5%. That could result in a potential value opportunity of \$1.25 trillion for Fortune 500 firms alone and 12.5 times the market cap for high-performing enterprises.

However, our analysis revealed organizations that had digital transformation initiatives with a digital strategy and aligned investments, but lacked change capability, experienced 10 times greater losses than those seen with the other value destroyer—digital change on its own (as much as -9% and \$1.5 trillion total for Fortune 500 firms).

## Tech strategy and cloud

We also wanted to understand which driver on its own contributed most to market cap. The analysis found that when technology investments are aligned to the strategy, organizations reported, on average, double the market cap than from the baseline of having a digital strategy only.

## So how can organizations improve that alignment?

Cloud strategy and digital and business transformations are a critical element. Cloud programs that focus on tech innovation (not modernization), strong platform strategies, and making the most of the technology can help organizations increase market value. We saw that value leaders typically view digital investments from a cross-functional perspective and leverage the potential of strategic and innovative cloud investments to enable them to plan strategically and implement their strategies effectively.

# Actions that can unleash digital transformation value

Once organizations have formulated their cloud and business transformation strategies, they can begin to take steps to help them more effectively measure and unleash digital transformation value. Our analysis indicates that there are actions specific industries are taking to find a competitive advantage, as well as cultural and strategic shifts that companies across all industries can undertake.

**Take a purposeful approach to measuring value from technology investments by giving priority to the metrics that matter most to your organization.** Use your industry and sector strategy, along with benchmarking of investments and value measures, as a primary lens for assessing value.

**Clearly articulate and communicate your vision and expected returns on your technology investments.** A holistic framework can foster consistency and allow you to prioritize the KPIs that really matter to your organization and industry. You can choose not to employ particular KPIs, but it's crucial to ensure that you communicate your choices clearly and are intentional in making them. Also, reexamine your choices as your digital and business strategies change over time.

**Think about how investments in one technology create ripple effects across the organization and may serve as a value multiplier.** For example, cloud is becoming an integral part of nearly every organization's technology strategy—whether that's private, public, or hybrid—and the investments you make in other technologies such as Generative AI and/or machine learning will likely affect what cloud services you use and how your cloud architectural needs will change over time.

**Look at value not just now but with a long-term lens toward the future.** Markets change. Technologies come and go, and your digital and business needs and strategies will likely shift with those changes. It's imperative to engage in multi-horizon thinking and evaluate how truths about, and perceptions of, value will change. Strategies that work in the short term will almost certainly need to be reevaluated as your environment changes.

# Looking forward

Our research has made one thing abundantly clear: How companies think about value—and how effectively they measure it—has a significant impact on how they make technology investments and whether they receive the returns they expect from those investments. And now, with Generative AI posed to change the IT landscape in ways we can't yet imagine, it's even more crucial to make technology investments that return expected value. However, it's not easy to measure value from technology investments, especially when business and technology strategies need to be continually revised as markets, operating models, and technologies shift.

We've seen companies that successfully link digital and business strategies; communicate relentlessly; align technology to innovation and go-to-market goals; and invest in cloud architectures built on a modern software engineering foundation will put themselves in a position to realize more value from their investments—both now and in the future.

**Explore the full report →**

# Contact us



## Chris Thomas

Principal  
Deloitte Consulting LLP  
chrthomas@deloitte.com



## Diana Kearns-Manolatos

Senior Manager  
Deloitte Services LP  
dkearnsmanolatos@deloitte.com

### **The authors would like to thank the leaders who contributed to the foundational research and insights that helped shape this perspective:**

- Tim Smith
- Tim Bottke, PhD
- Gregory Dost
- Garima Dhasmana
- Sam Roddick
- Ari Ginsberg, PhD
- Nuno Goncalves
- Ahmed Alibage, PhD
- Iram Parveen
- Saurabh Bansode
- Brenna Sniderman
- Rod Sides

### **From the Deloitte Data Science and Survey Advisory Services (DSAS) team:**

- David Levin, PhD

### **Special thanks to:**

- Dr. Gabriele Troilo, associate professor at the department of marketing at the Università Bocconi and senior professor at SDA Bocconi
- Dr. Ronnie Sadka, senior associate dean for faculty, chairperson and professor of finance, and the Haub Family professor at the Carroll School of Management at Boston College
- Gideon Ozik, faculty professor, Risk Institute research associate at the EDHEC Business School

# Deloitte.

This publication contains general information only and Deloitte is not, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional adviser. Deloitte shall not be responsible for any loss sustained by any person who relies on this publication.