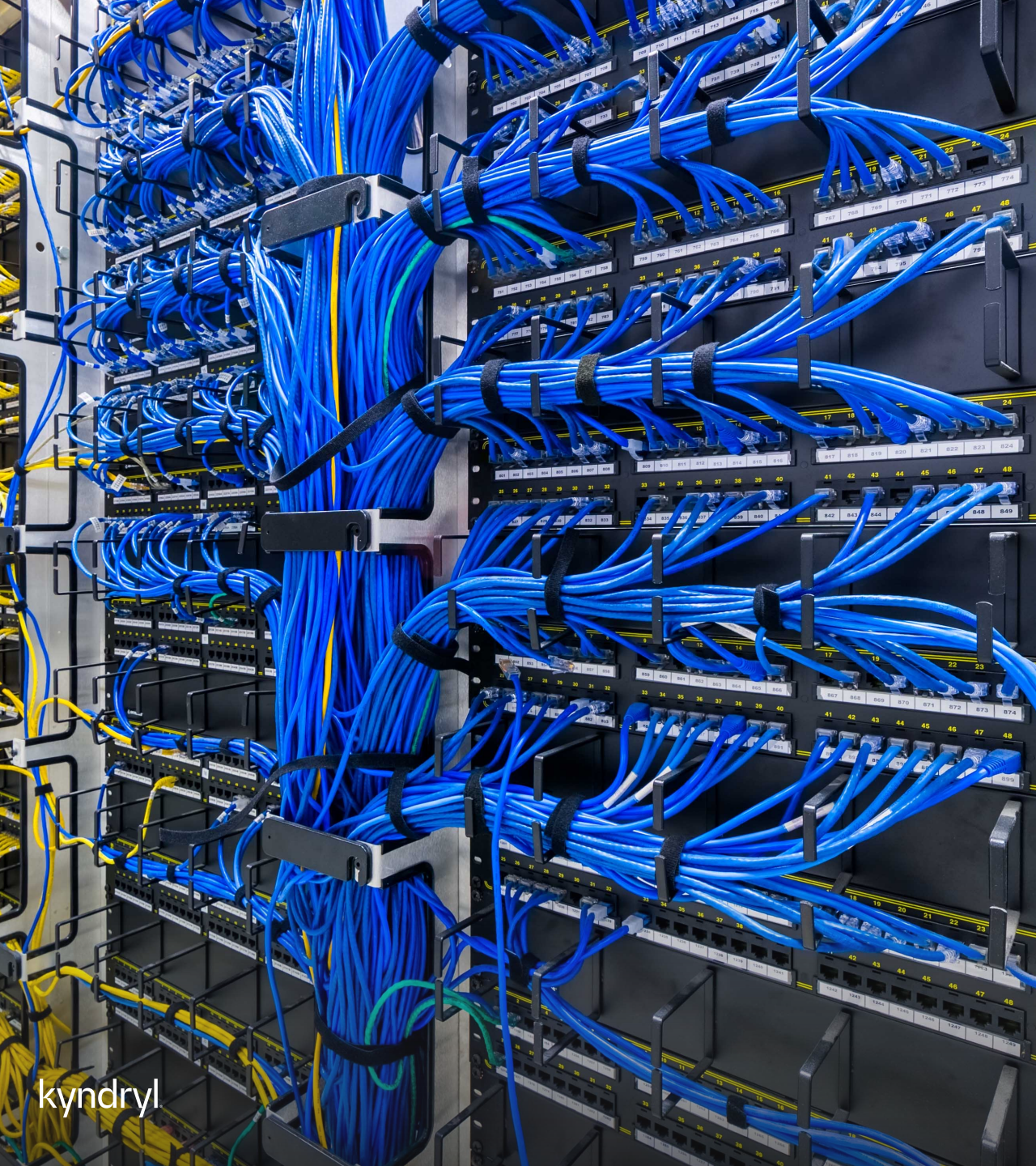


kyndryl.

Navigating the readiness paradox

The Kyndryl Readiness Report 2024
Industry focus: Telecommunications





Introduction

The Kyndryl Readiness Report — a global survey of business and technology leaders combined with exclusive data from Kyndryl Bridge, the company’s AI-driven digital business platform — sheds light on how business leaders turn to their IT and talent to address business challenges and gain a competitive edge.

The study reveals a **tech readiness paradox** among business and IT leaders, who express confidence in their current technology posture while expressing concern about its readiness to address future challenges.

WHILE

92%

of telecommunications leaders are confident their IT infrastructure is best-in-class (vs. 90% across all industries)

ONLY

43%

of those leaders say their IT infrastructure is ready to manage future risks (vs. 39% across all industries)

Telecommunications and readiness: Industry snapshot

Telecommunications companies excel at advanced technologies like fiber optics, 5G, and satellite systems. As the industry evolves, it is focused on newer opportunities, including AI, and further developing 5G/6G, edge, and quantum. This shift involves not just facilitating data movement but also engaging with it to deliver innovative, data-driven services. The field continues to grow: in the United States alone, in 2023, consumers used 100 trillion megabytes of mobile data, up 36% from the year before.

Opportunity to better leverage AI with existing strengths

Compared to those in other industries, telecommunications leaders are less likely to report positive return on investment on their artificial intelligence, machine learning, and generative AI investments.

These companies can deepen partnerships with AI enterprises and leverage 5G, 6G, and IoT (areas of particular strength) to explore micro-industry verticals, offering specialized services to bring AI at the edge.

More confident in skills, ready to integrate with new tech

Telecommunications leaders report that they are more ready to navigate talent gaps, even amid a macro environment of talent scarcity and complexity due to recent mergers across the industry, and the ongoing convergence of OT and IT.

At the same time, telecoms are also more ready to integrate advanced technologies such as IoT and edge computing into their services—moving beyond moving data to engaging with it.

Quantum, 5G, and edge present growth opportunities

Compared to those in other industries, telecommunications leaders are less likely to report positive return on investment on their artificial intelligence, machine learning, and generative AI investments.

These companies can deepen partnerships with AI enterprises and leverage 5G, 6G, and IoT (areas of particular strength) to explore micro-industry verticals, offering specialized services to bring AI at the edge.

Concerns topped by security and complexity

Telecommunications leaders are most concerned with cyber attacks, including AI-infused and state-sponsored attacks.

They are also more likely than those in other industries to cite complexity as a top tech challenge (38% vs. 28% across all industries), in part due to acquisitions and mergers in the industry. Leaders say they need more support integrating new technologies into existing infrastructure (52% vs. 43% across all industries).

Six learnings

01 **Leaders don't feel risk ready**, struggling with diverse disruptions and the pace of change

02 **The tech readiness paradox:** Leaders are confident in their tech, yet concerned about its readiness — **and end-of-life tech is a looming challenge**

03 **IT is the best line of defense to mitigate risk**, yet most are in **earlier stages of their tech modernization journey**

04 Keeping tech modernized is **hindered by complexity and prioritization paralysis**

05 Despite **significant AI investments** to drive modernization, leaders **struggle to see positive ROI**

06 Leaders in tech modernization report better business-tech alignment, higher ROI and **greater readiness for the future**

Being tech ready is being people ready: Readiness is a continual process that involves every part of an organization—and relies on people just as much as it does on technology.

01.

Leaders don't feel risk ready, struggling with diverse disruptions and the pace of change

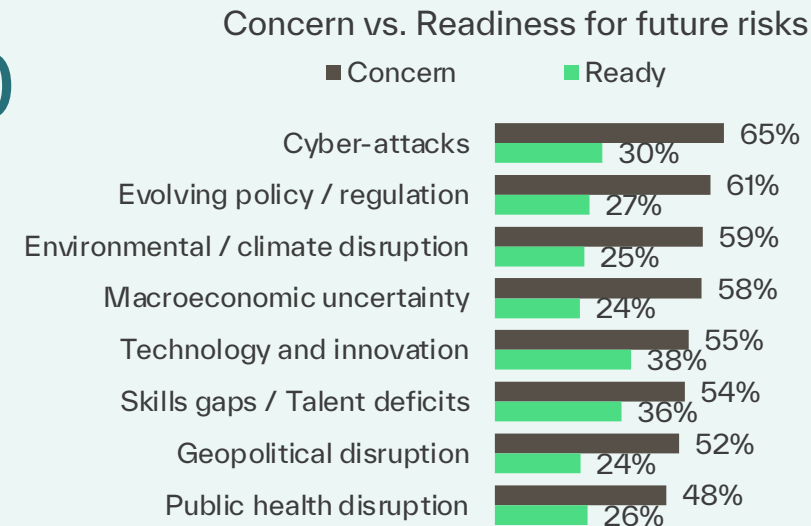
Multiple risks keep CEOs, CIOs and CTOs up at night, such as cyber attacks, evolving regulations, climate disruptions, economic uncertainty and keeping up with technological advances.

Cyber-attacks are a top concern for both CEOs and CIOs/CTOs. However, CEOs are more concerned about external headwinds (e.g., economy, climate, geopolitics) than CIOs/CTOs.

“Readiness” is a moving goalpost as leaders struggle to keep up with the speed of technological innovation. The pace of new regulations also presents a challenge for most, especially in Luxembourg, France, the Netherlands, India and Australia.

ONLY
29%

of business leaders
feel ready across
external risks



3 in 5

business leaders
struggle to keep up
with the speed of
technological
advancements

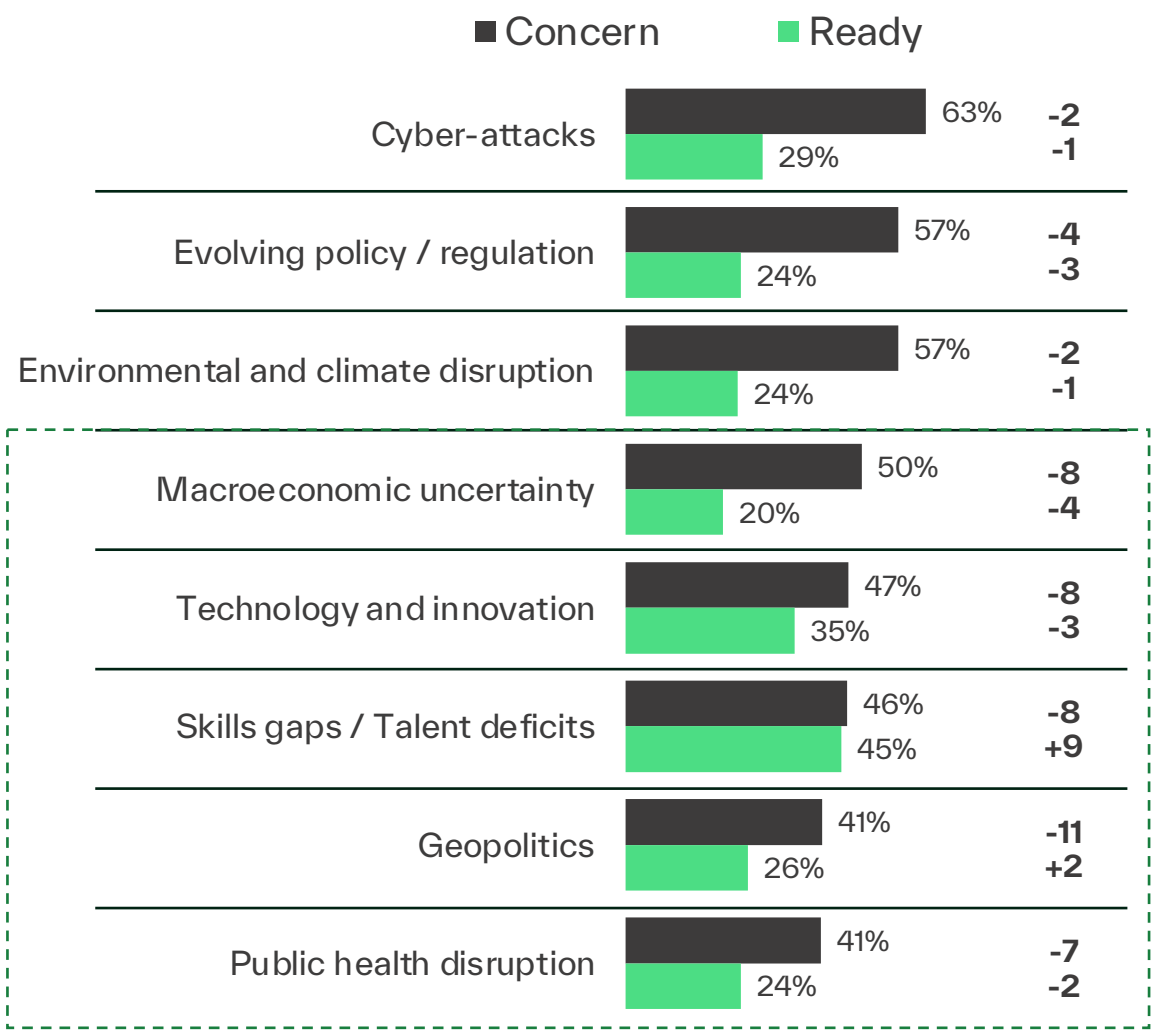
1 in 2

say **policy and**
regulatory changes are
moving too fast
in their country

01.
Telecom
leaders are
less concerned
about future
risks and more
ready for skills
gaps

28%
of Telecom leaders **feel
ready** across external
risks (vs. 29% all industries)

Concern vs. Readiness for Future Risks



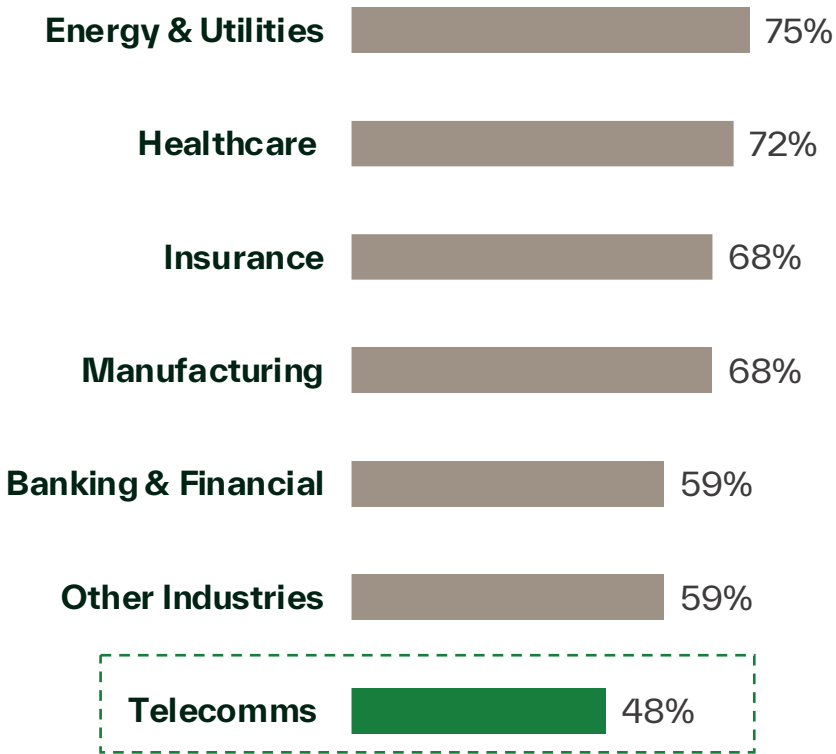
Concern/Readiness vs. all industry average (percentage point difference)

Telecom leaders report less concern across these risks than the global average

01. Telecom leaders are more likely to keep up with pace of innovation and regulatory changes

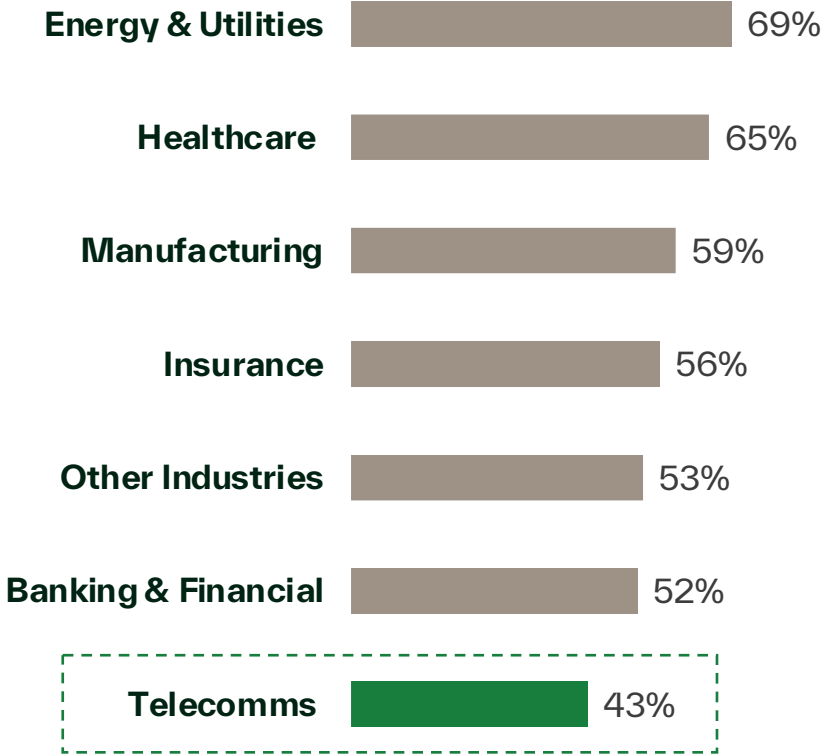
Struggle to keep up with the **pace of technological advancements**

Agree %



Navigating the **frequency and speed of policy or regulatory changes** is a challenge for their modernization efforts

Selected %



02.

The tech readiness paradox: Leaders are confident in their tech, yet concerned about its readiness – and end-of-life tech is a looming challenge

Executives have high confidence in the current state of their IT: 9 in 10 leaders say their company's IT is best in class. Dig deeper, and uncertainties emerge: Six in 10 do not feel it is ready to manage future risks. That gap deepens when it comes to newer technologies, such as AI: Seven in 10 don't feel their IT is completely ready to navigate future disruptions with the technology.

An end-of-life and end-of-service challenge is looming. Nearly two-thirds of CEOs are concerned that their IT is outdated or close to end-of-life, bringing vulnerabilities, skills gaps and challenges for modernization.

Almost all modern businesses are dealing with an end-of-life tech challenge. According to Kyndryl Bridge data, 44% of mission-critical components such as servers, storage networks and operating systems are approaching or at end-of-life. Being aware of these end-of-life challenges can help organizations better plan for future investments, realizing higher readiness, efficiency and growth.

kyndryl

90%

of business leaders are
confident their IT
infrastructure is **best-in-class**

HOWEVER, ONLY

39%

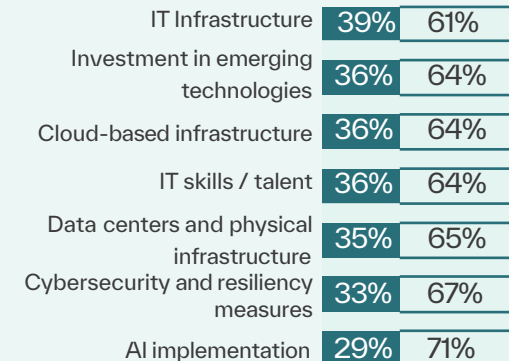
of businesses report their
IT infrastructure is ready
to manage future risks

AND

64%

of **CEOs are concerned**
their IT is outdated or
close to end-of-life

■ Completely ready □ Not completely ready



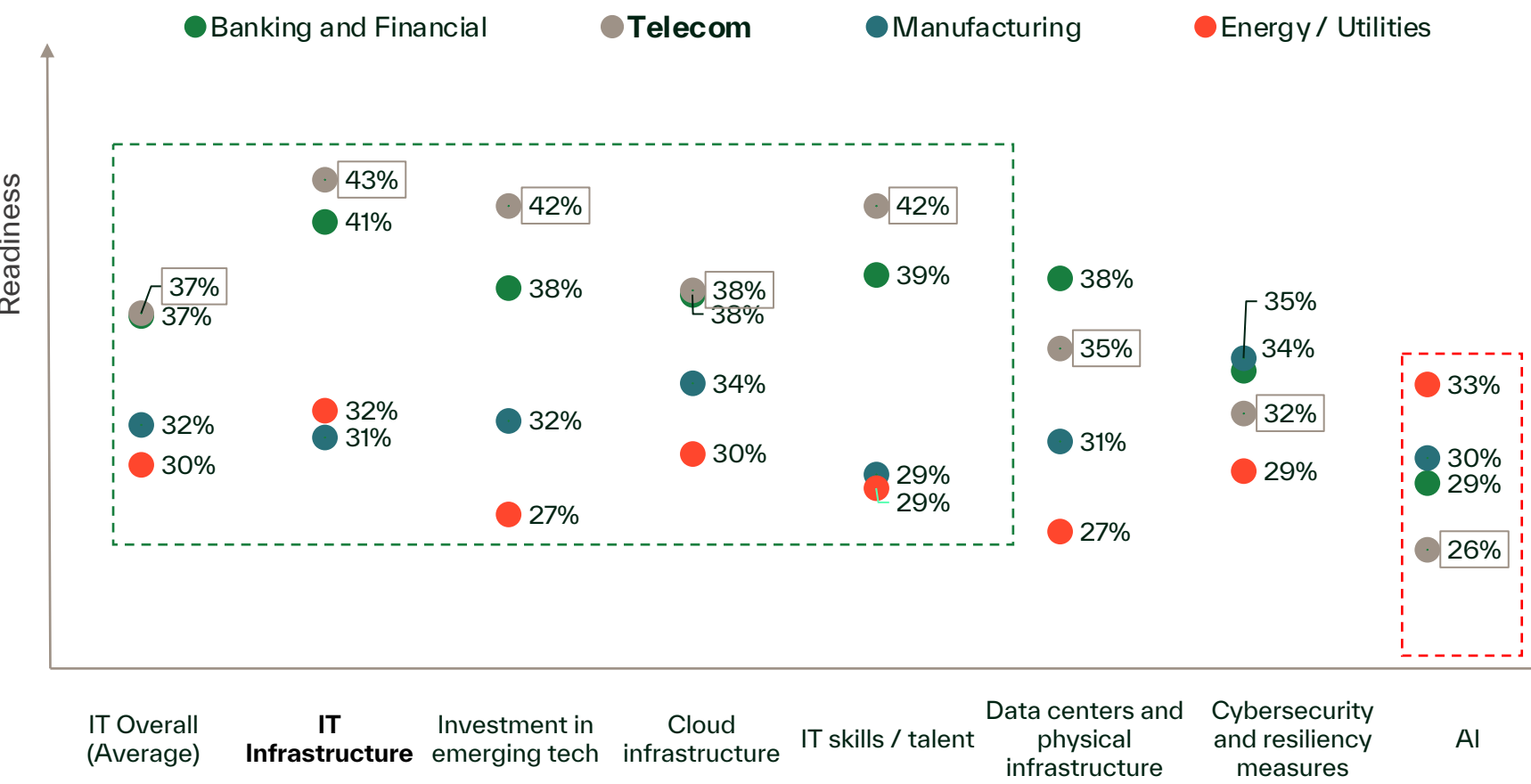
44%

of **servers, storage, networks,
and operating systems** are
approaching or at end of life,
according to Kyndryl Bridge

02.
Telecom leads other industries in tech readiness, yet leaders are less optimistic on AI

43%
of Telecom leaders report their **IT infrastructure is ready** to manage future risks (vs. 39% all industries)

Readiness across IT elements
% Completely Ready

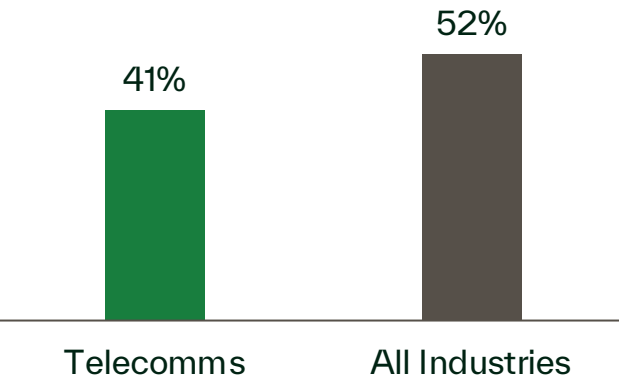


Q17: How ready would you say these elements of your organization's IT currently are to manage future risks and disruptive forces? Base: Total (n=3200); All Industries base sizes from (n=200) to (n=500)

02. Telecom leaders struggle less than those in other industries with end-of-life tech challenges

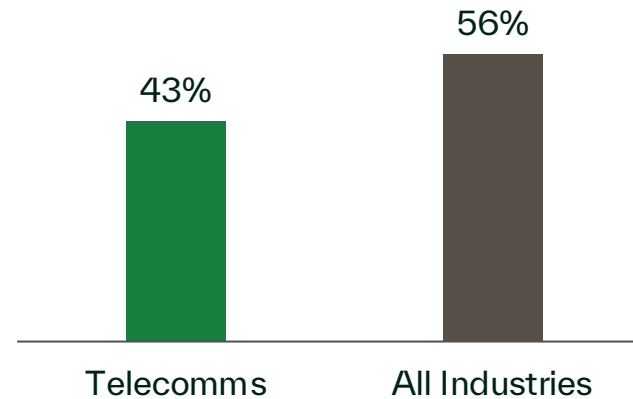
2 in 5

Telecommunications leaders **are concerned** their IT is **outdated or close to end-of-life**



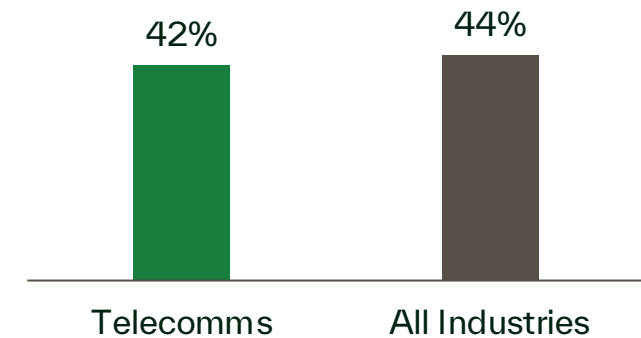
43%

of Telecommunications leaders **are anxious about the potential risks** posed **by end-of-life IT systems** within their organization



42%

of **servers, storage, networks, and operating systems** among Telecom businesses are **approaching or at end-of-life**, according to Kyndryl Bridge (slightly below 44% global average)



03.

IT is the best line of defense to mitigate risks, yet most are in earlier stages of their tech modernization journey

Almost all leaders — 94% — say modernizing their business is a high priority, and updating their IT is the top action to mitigate risk. Yet, only 3 in 10 feel their organization is leading when it comes to their tech modernization journey and utilizing innovative technologies to drive business outcomes.

Most leaders (71%) are somewhere in the earlier stages of modernization: 56% of leaders say they are in the process of adopting new digital technologies, and 15% say they're just starting out.

#1

Executives say **upgrading their IT** is the number one way to mitigate all of their business risks

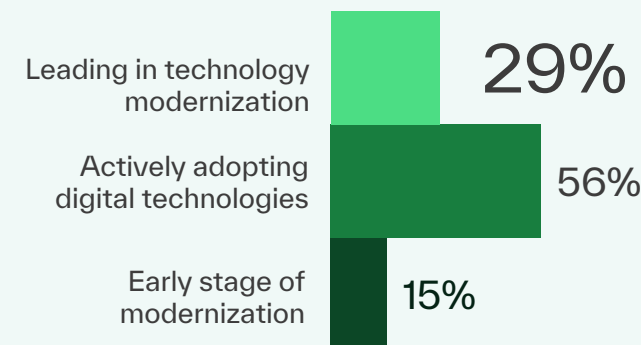
Top 5 risk mitigation actions:

1. Upgrading IT
2. Cybersecurity measures
3. Risk assessments
4. Employee training
5. Regulatory compliance

94%

Say tech modernization is a high priority

Only 3 in 10 feel they are leading when it comes to their **technology modernization journey**

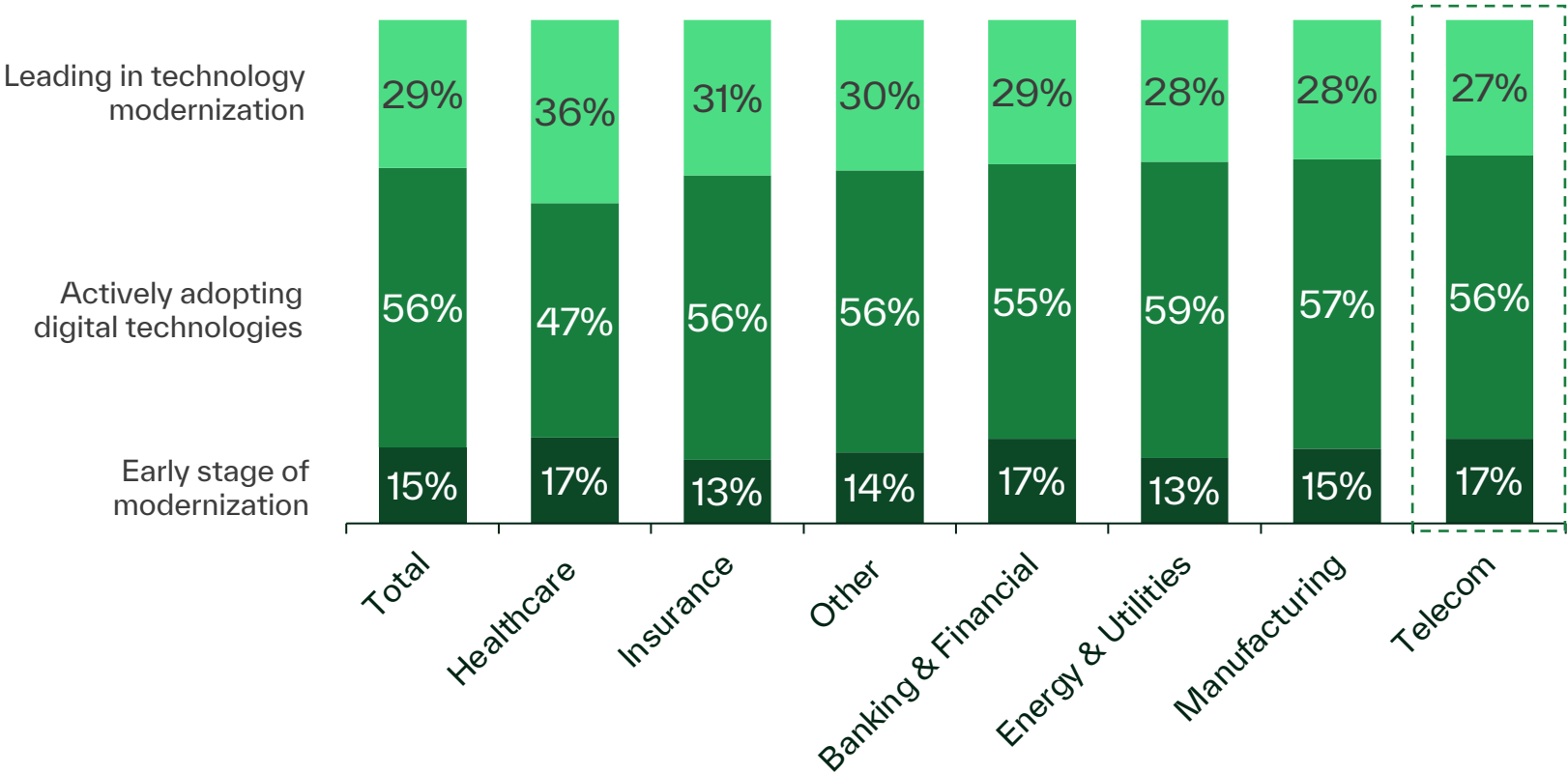


03.

Telecom leaders are nearly aligned with other industries in terms of tech modernization

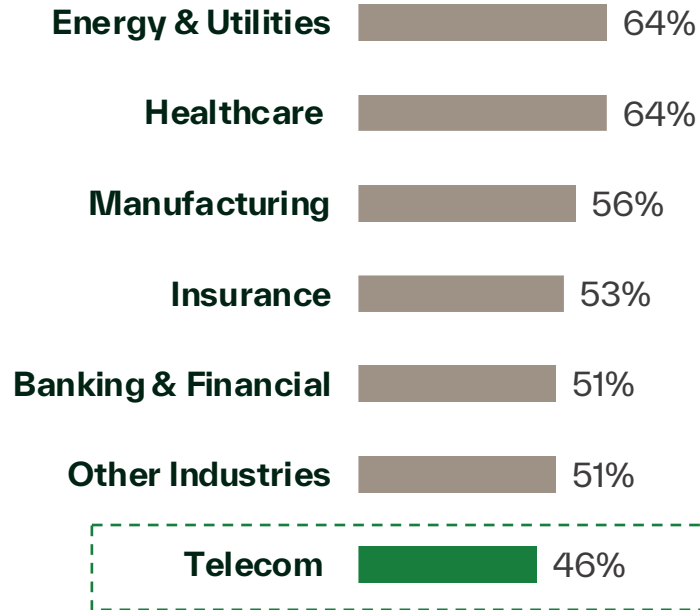
More so than other industries like Healthcare and Insurance, 73% of Telecom leaders say they are somewhere in the earlier stages of modernization: 56% of leaders say they are in the process of adopting new digital technologies, and 17% say they're just starting out.

Tech Modernization Journey
% selected

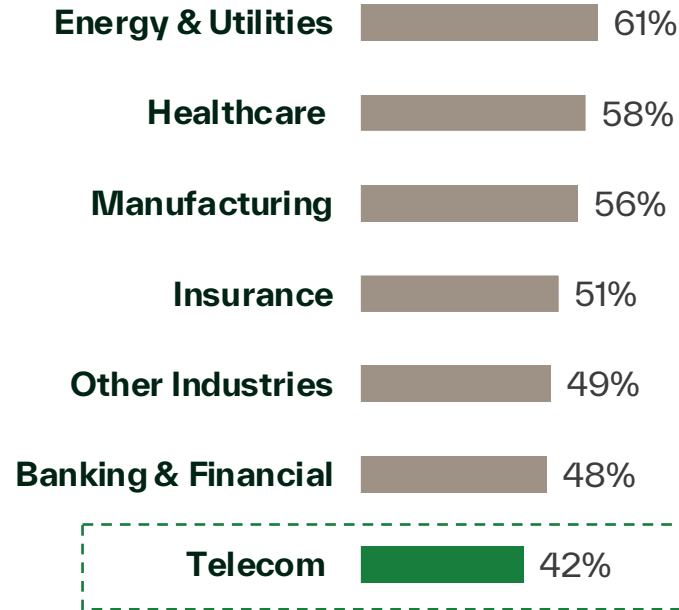


03. However, Telecommunications leaders are more likely to feel their IT talent is ready

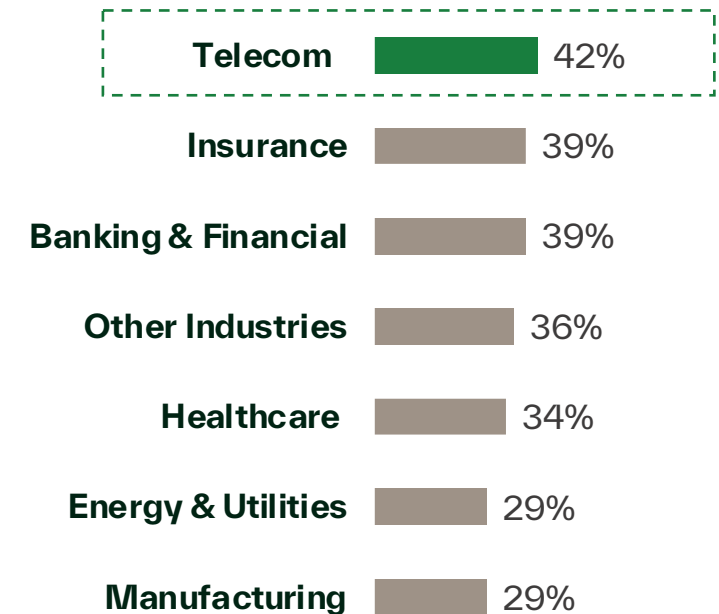
Concerned about skills gaps / talent deficits
Selected %



Cite skills gaps / talent deficits as a challenge
Selected %



Say their IT skills / talent are ready to manage future risks
Selected %

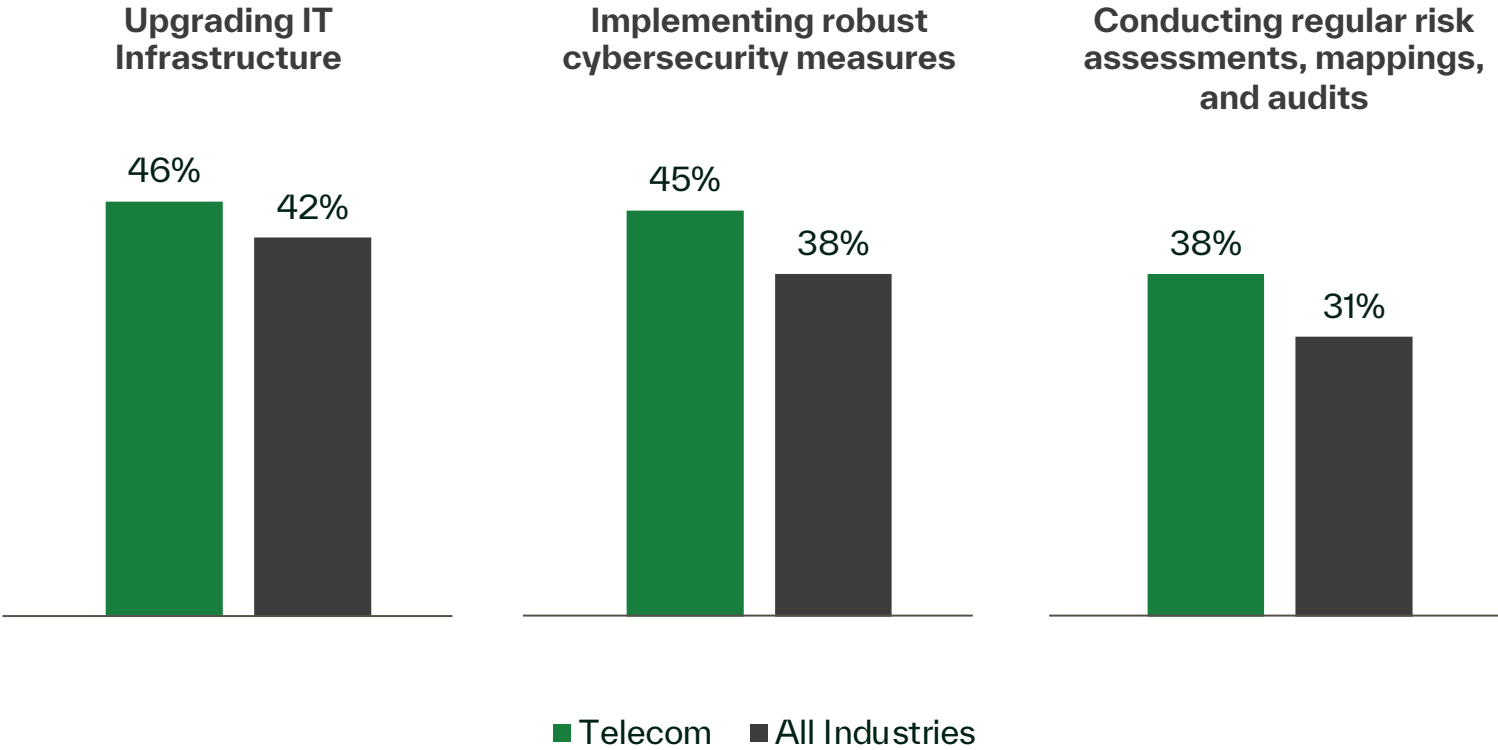


03.

Telecom leaders are more focused on cybersecurity and risk assessments

In line with other industries, updating IT infrastructure is the top risk mitigation strategy for Telecoms leaders, however they are more likely than other industry leaders to also prioritize implementing robust cybersecurity measures and conducting regular risk assessments

Top 3 Risk Mitigation Actions
% Selected



03. Even businesses that have already adopted automation have room to run

8%
vs. 30%+
target

of IT incidents are being
resolved through automation,
according to Kyndryl Bridge
data

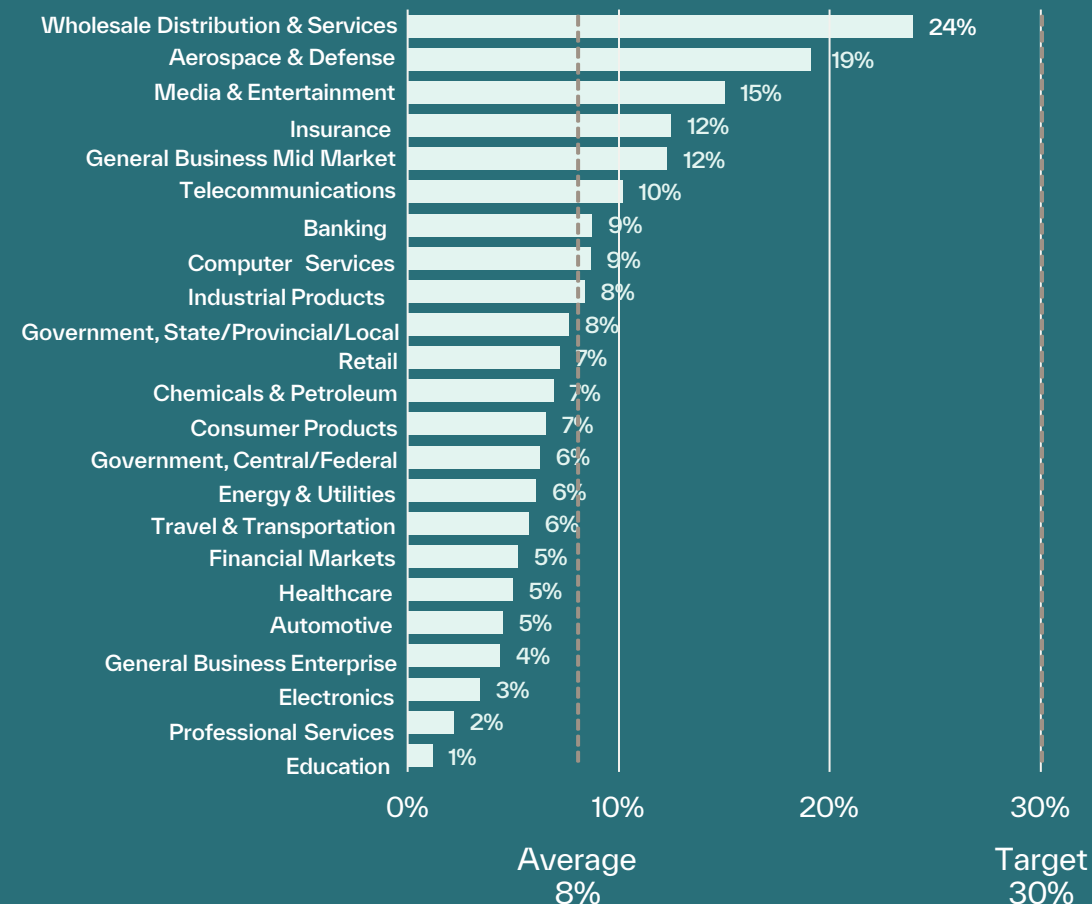
About this statistic: Automation can help companies automatically resolve issues in their environments without human intervention, avoiding major incidents and planned maintenance costs. The result is that organizations can improve their speed of execution and overall quality of services they provide to their own customers.

75%
vs. 90%+
target

Average IT best practices
adoption, according to
Kyndryl Bridge data

About this statistic: Best practice adoption is a holistic measure of effective IT, comprised of industry IT standards and measures for security compliance and regulatory compliance that can be monitored automatically.

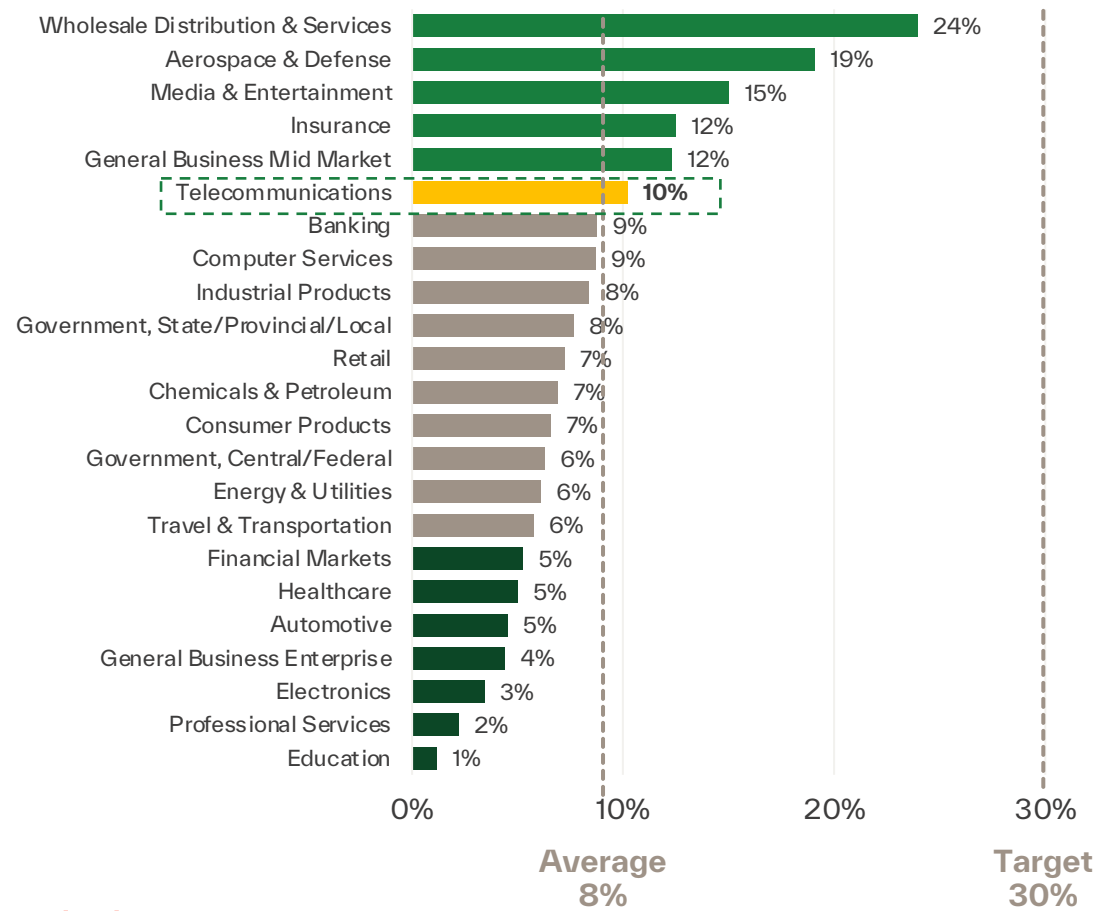
% of IT events resolved through automation



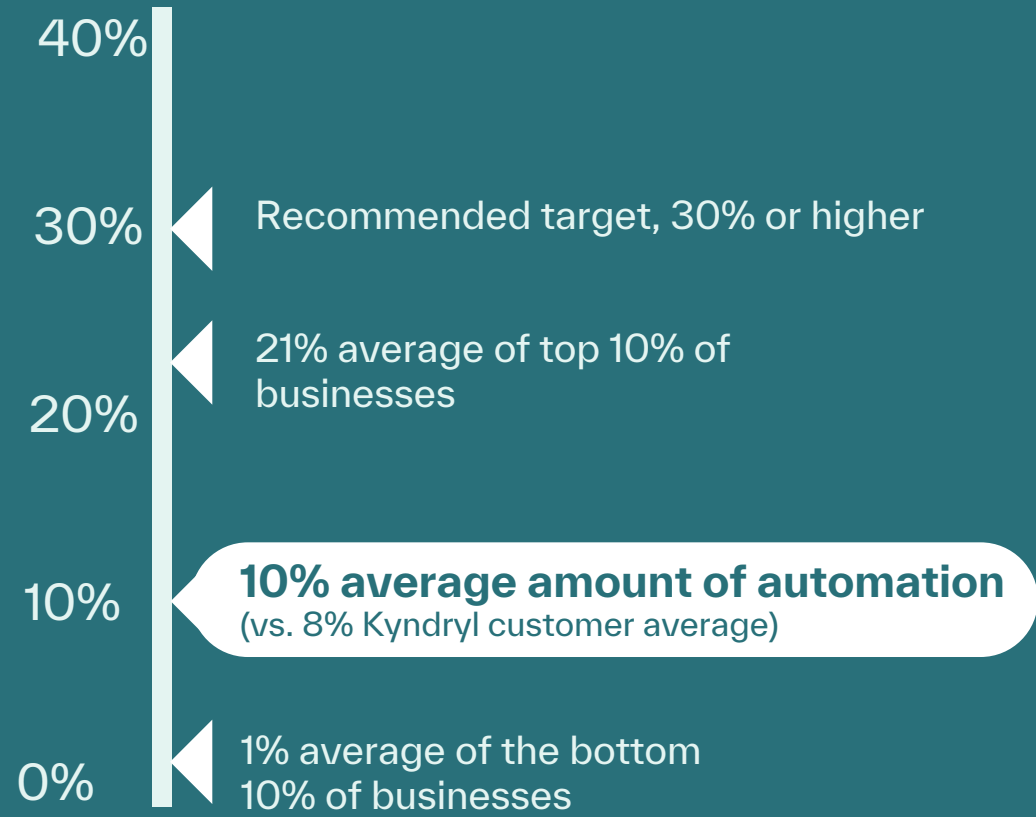
03.

Telecoms are above average on automation

% of IT events resolved through automation



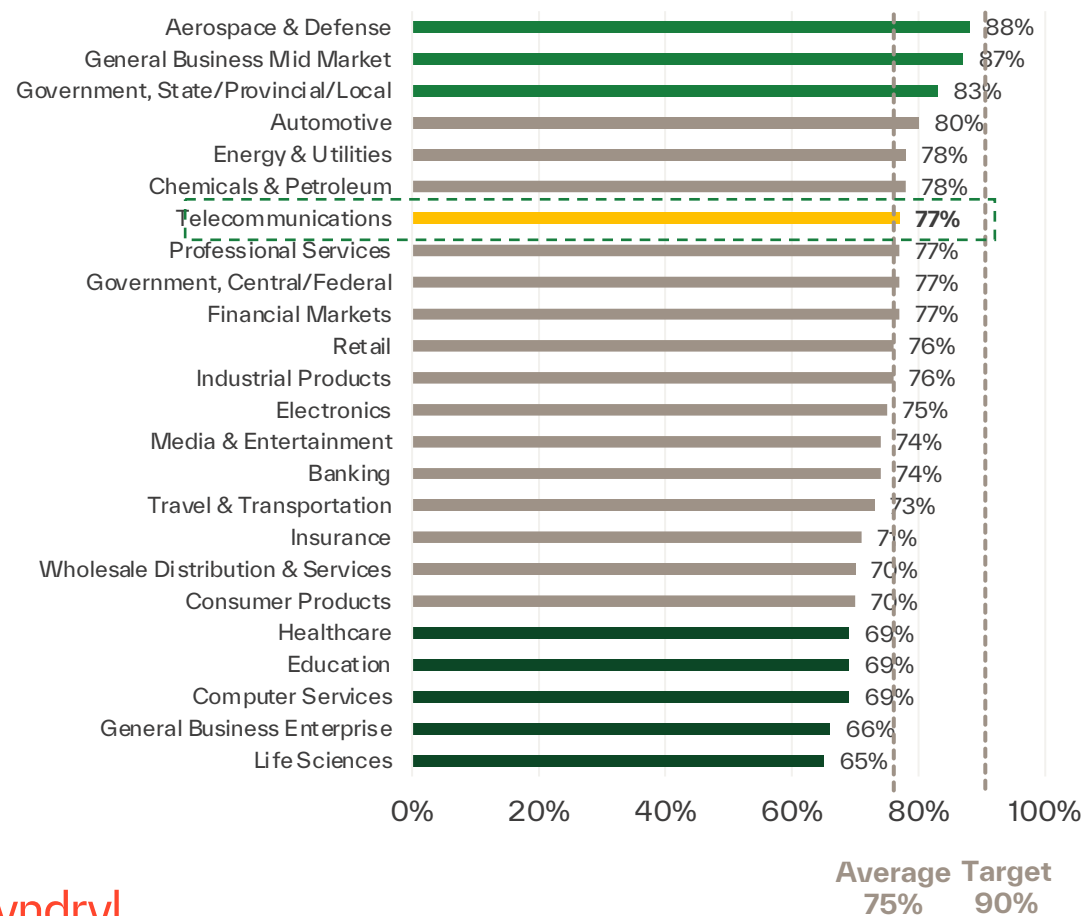
% of IT events resolved through automation



03.

Telecoms are also slightly above average on best practice adoption

% of IT best practice adoption



About this statistic: Best practice adoption is a holistic measure of effective IT, comprised of industry IT standards and measures for security compliance and regulatory compliance that can be monitored automatically.

% of IT best practice adoption



04.

Keeping tech modernized is hindered by complexity and prioritization paralysis

Complexity, resistance to change and misalignment between business and tech leaders are common challenges hindering modernization.

Conflicting priorities and diverse organizational needs like short-term gains vs. long-term benefits, innovation vs. risk and cost vs. function can paralyze leaders as they try to run the business and modernize simultaneously.

Sustainability goals also complicate modernization efforts. Most leaders cite sustainability as a priority, yet difficult tradeoffs often impede their ESG initiatives and only 27% of leaders are currently seeing sustainability-based outcomes from their tech modernization.

#1

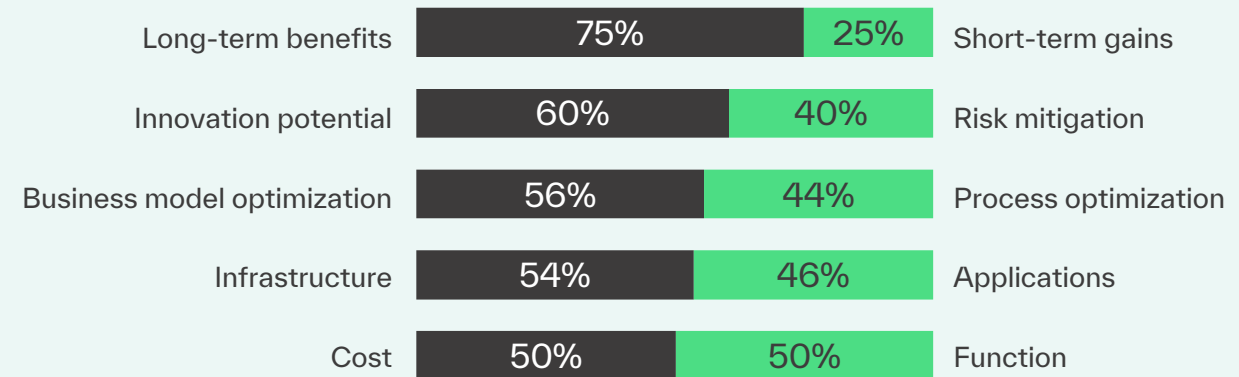
Complexity is the #1 challenge to tech modernization

Top sources of tension between business and tech leaders:

1. Resistance to change
2. Challenges in balancing short-term needs with long-term investments
3. Difficulty quantifying ROI

Priorities When Evaluating the Success of Tech Investments

% Prioritizing (Selected, forced choice)



90%

Prioritize **sustainability** when implementing tech modernization initiatives

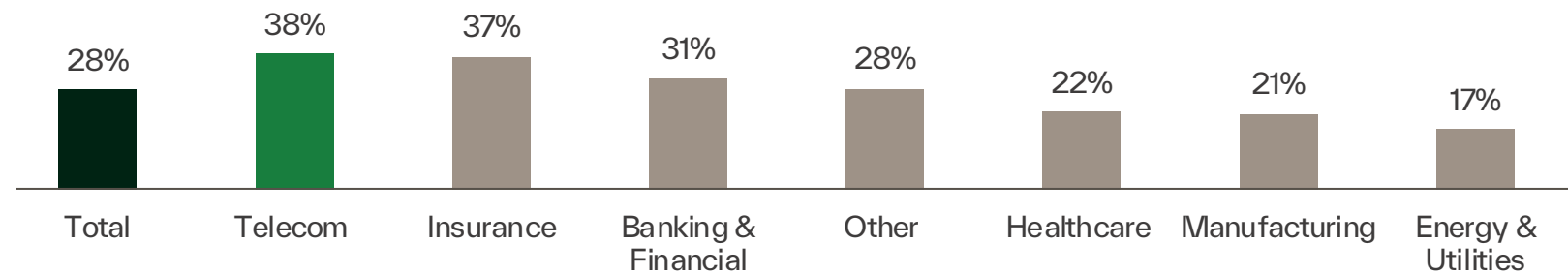
27%

Report seeing **sustainability-based outcomes** (e.g. lower emissions) from tech modernization, in the past year

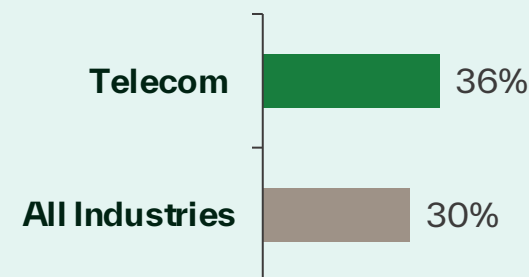
04. Telecom businesses struggle more with complexity and internal resistance

- Telecoms leaders are most likely to cite Complexity as the top tech modernization challenge (38% vs. 28% all-industry average)
- Additionally, Telecoms businesses uniquely struggle with resistance to change – citing it as the primary source of tension between business and tech leaders and reporting challenges underestimating the cultural impact of their tech modernization efforts

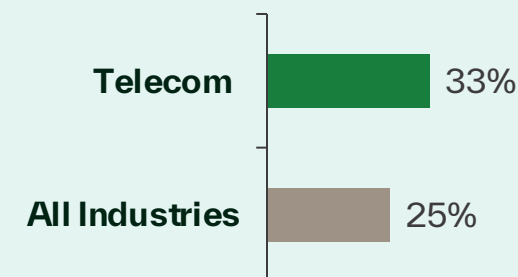
Cite 'Complexity' Among Top 3 Largest Tech Modernization Challenges
% Selected



Cite resistance to change as a primary source of tension between business and tech leaders
Selected %



Say they underestimate the internal cultural impact of technological changes, leading to internal resistance
Selected %

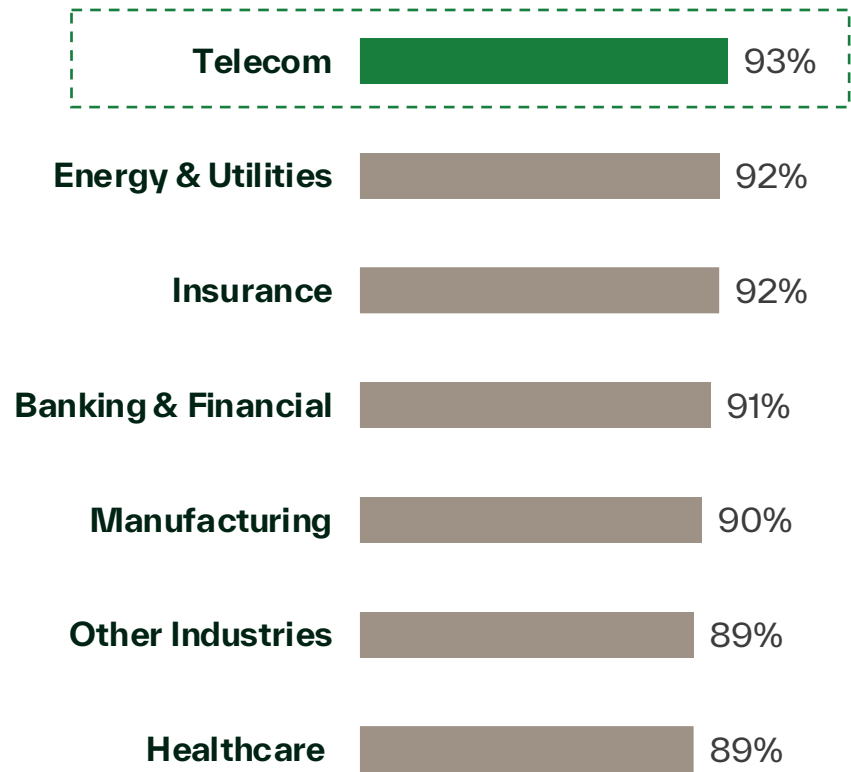


04.

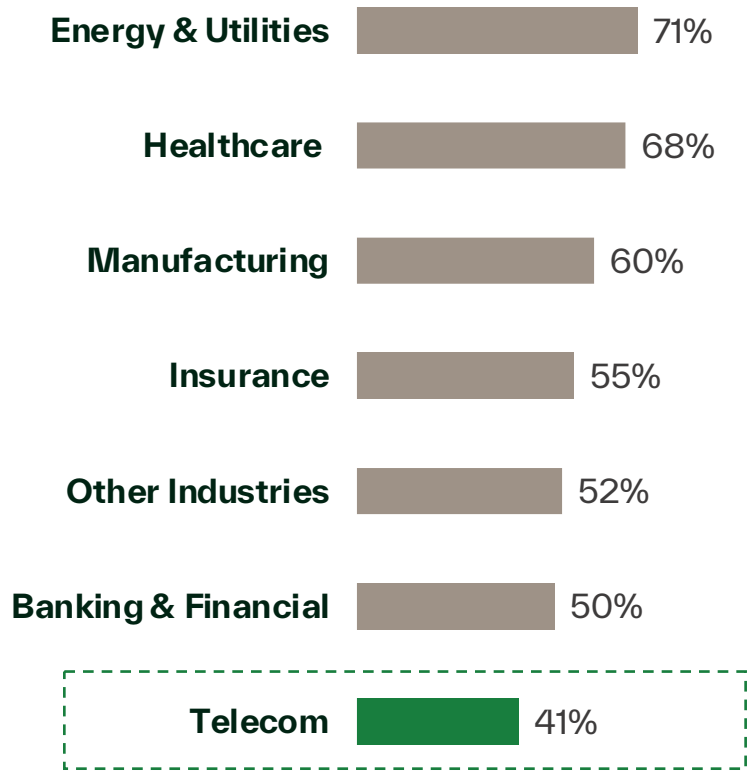
Sustainable modernization is a top priority, and a business opportunity for the industry

AI has great potential to tackle sustainability challenges. While companies currently use it to report sustainability data, there's a significant opportunity to leverage AI for predictive analytics and forecasting energy consumption. And the industry has an opportunity to help other companies achieve their sustainability goals by accelerating their efforts.

Prioritize sustainability when implementing tech modernization initiatives
Agree %



Cite meeting sustainability / ESG goals as a challenge for their modernization efforts
Selected %



05.

Despite significant AI investments to drive modernization, leaders struggle to see positive ROI

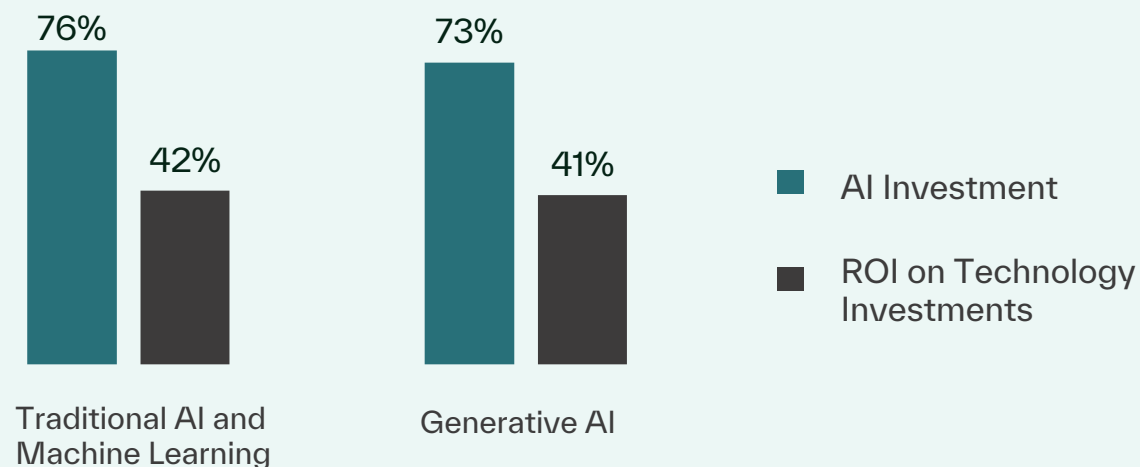
Most businesses are investing in both traditional AI—which includes Machine Learning—and Generative AI. However, only 42% of business leaders currently see positive ROI on their AI investments.

And 86% say their AI implementation is best in class, yet only 29% feel their AI is ready to navigate future risks.

Business leaders report data privacy, uncertainty of ROI and compliance as the biggest barriers to AI adoption; AI skills are the number one skills shortage they are desperately trying to fill to stay ahead of their competition.

AI Investment vs. ROI

% Selected, Currently Investing; % Net Positive ROI



86%

Say their AI implementation is best-in-class

YET ONLY 29%

think their AI implementation is ready to manage future risks

Top 5 barriers to AI adoption:

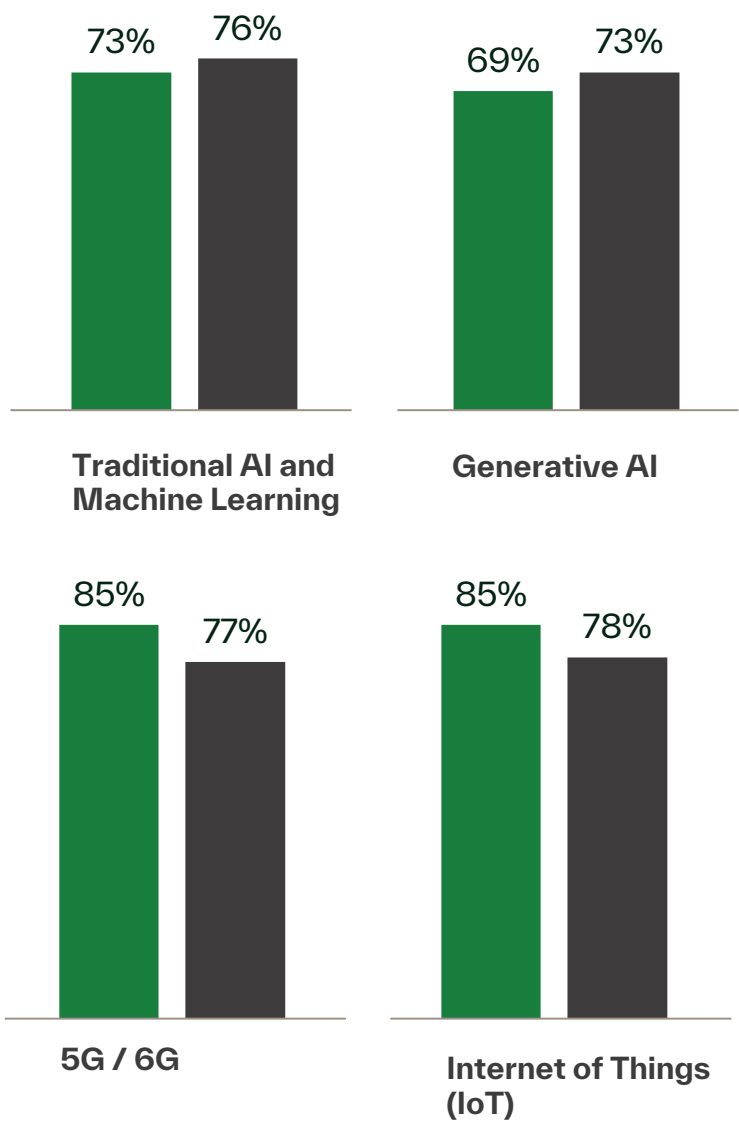
1. Data Privacy and security
2. Uncertainty of ROI
3. Regulation and compliance
4. Integration
5. AI Skills gaps

Most common skills gaps:

1. AI / ML skills
2. Cyber-security
3. Data science / analytics

05.
Telecoms are more likely to prioritize investment in 5G, 6G and IoT, and are less focused on AI

Investment in Digital Technologies
% Selected, Currently Investing



“

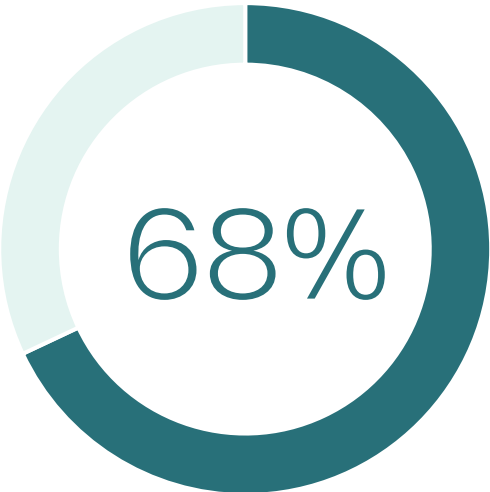
Data is data — it means nothing if you don't have the tools and the skills for ingesting that data to marshal insights, drive efficiency, and improve operations.”

Gretchen Tinnerman, Vice President, Country General Manager

■ Telecom ■ All Industries

05.

Quantum opportunity



of leaders in telecommunications say they are investing in quantum technologies

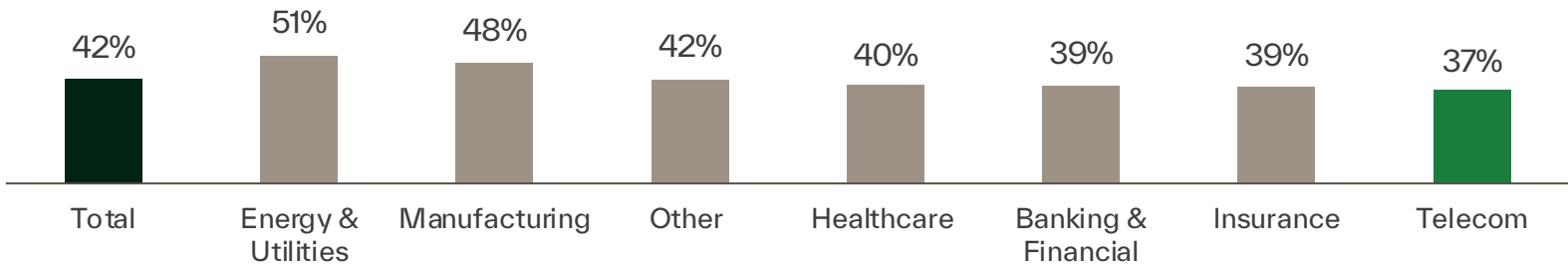
Telecommunication companies will play a pivotal role in helping quantum computing become more mainstream and prominent. As new sets of standards and techniques are being developed to create quantum encryption to safeguard private and sensitive corporate information, telecommunications companies can lead this effort, which can be a significant growth opportunity. One of the ways to create the next generation of quantum-based encryption is to use fiber optics networks.

05.

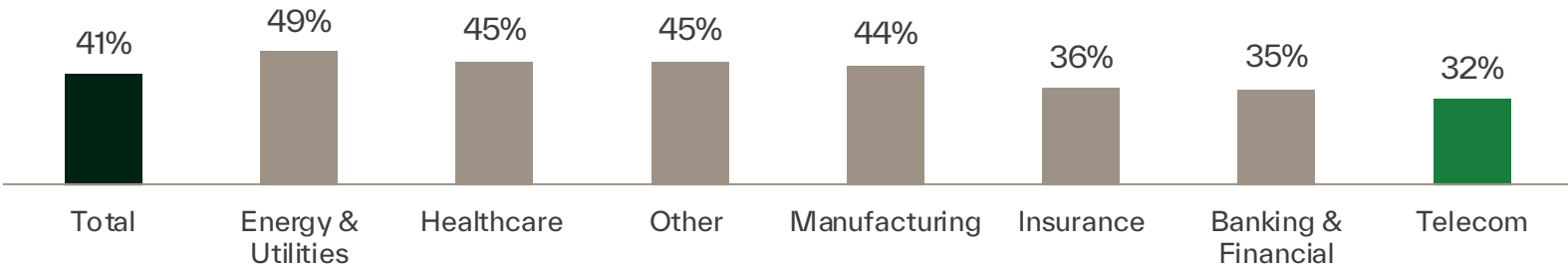
Telecom leaders are less likely to report positive ROI on their AI investments

While telecom companies process an enormous amount of data, many are in the early stages of AI modernization, in part due to data complexity from mergers and acquisitions in the industry.

ROI on Artificial Intelligence and/or Machine Learning Investments
(% Selected NET Positive ROI)



ROI on Generative AI Investments
(% Selected NET Positive ROI)



06.

Leaders that have progressed on the modernization journey overcome this prioritization paralysis and are more ready for the future

The leaders that are further along the tech modernization journey feel a heightened level of readiness to navigate risks (+11% pts vs. early stage modernization) and demonstrate four characteristics that set them apart:

- Prioritizing in a way that lets them both run their mission-critical business operations today while transforming for the future
- Seeing better ROI on emerging technology (e.g., AI, Quantum, Edge)
- Nurturing talent, skills and culture
- Collaborating effectively to achieve business goals

Businesses that report they are leading on their tech modernization journey, compared to those who are early stage:

+11% pts

feel more ready for future risks

+55% pts

say their IT is updated and ready for current and future needs

DECISION-MAKING

+22% pts

agree executive leadership effectively allocates resources to support IT infrastructure and technology modernization projects

MEASURING SUCCESS

+16% pts

see a positive ROI on emerging technologies such as AI, Generative AI, Quantum Computing and Edge Computing

TALENT

+19% pts

have a pool of talent proficient in emerging technologies

COLLABORATION

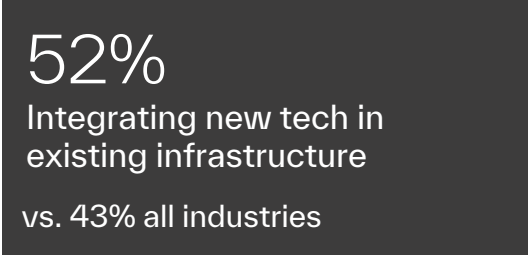
+43% pts

have seamless collaboration and alignment between business leaders and tech leaders

Among telecom businesses, there is appetite for more support on leadership decision-making and talent management to navigate tech modernization

Telecoms leaders are also more likely than those in other industries to say they need support integrating new technologies into existing infrastructure (52% vs. 43% all-industry average)

Areas of Support Needed for Modernization Efforts
Total %



- Enhancing collaboration between IT and other departments
- Ensuring alignment of modernization efforts with business objectives
- Talent acquisition and retention in IT-related roles
- Enhancing user adoption and training for new technologies
- Integration of new technologies into existing infrastructure
- Addressing legacy system limitations and modernization challenges

The readiness mindset shift

While all modern organizations are building readiness and transforming through technology, as this data shows, there are difficult trade-offs to be made. To overcome these challenges, organizations should consider a shift in mindset: Readiness goes beyond preparedness and resilience—going beyond transformation to arrive at transformative and sustainable performance. IT is core to this expansive vision, and organizations that allow for new investment paradigms, evolve collaboration models within their C-suite and adopt a holistic view of assets driving long-term success.

Being 'people-ready' is just as important as being 'tech-ready'. IT is everyone's business.

- With IT playing a more prominent role in shaping workplace culture than ever, it is just as critical to the CMO and CHRO as it is for the CTO and CIO. Getting on the same page is crucial, and bringing employees along is necessary.
- While automation may help with some IT challenges, rather than replacing people, it allows for an expansion of skills, creating new business imperatives for upskilling and reskilling.

Weigh the fantastic vs. the familiar and embrace their interdependence.

- Emerging technologies offer tantalizing opportunities to grow in new directions, but leaders must weigh new investments alongside upgrades to their existing IT.
- To make the most of new tech, leaders need to understand how those tools will integrate not only with technology but the company culture, processes and goals.
- All new tech capabilities rely on a solid foundation; investing in the familiar first may get better ROI.

Operate, accelerate, iterate. Agility is a hallmark of modern tech leadership.

- No enterprise can stay competitive by standing still, and talent can be the best bulwark against risks—and the best levers for opportunity.
- Businesses struggling to realize a meaningful ROI can start with shorter-term success metrics to drive long-term value. Those smaller starts can help build a better case to move into more complex projects.

Reframe the conversation about tech debt. Observability is an important ally.

- In an evolving market, with everyone continuously confronting this challenge, businesses are not alone.
- Observability across IT allows teams to identify aging equipment and potential issues, offering intelligence for the entire C-suite.
- Knowing where to start can be a challenge, but reducing technical debt eliminates operational inefficiencies and unlocks potential for faster growth.

Methodology

The Kyndryl Readiness Report combines survey data from 3,200 senior leaders and decision-makers with insights from Kyndryl Bridge, the company’s AI-powered, open integration digital business platform.

About Kyndryl Bridge

Kyndryl Bridge uses operational data, IP and embedded AI to provide observability across an enterprise's entire IT estate. To date, more than 1,200 enterprises have been onboarded onto the platform, which delivers 5.6 million AI-driven insights monthly. Kyndryl Bridge data in this report is a rolling three-month average from July to September 2024.

Kyndryl Bridge shows the status of IT estates across these dimensions

- **Best practices:** A score that shows alignment to both security and compliance requirements as well as industry best practices
- **Responsive:** A count of incidents automatically resolved (vs. requiring human intervention)
- **Competitive:** The amount of an IT estate that has aged past its expected life

3,200

Leaders and senior decision-makers

C-Suite business leaders (CEOs, CFOs), C-Suite tech leaders (CIOs, CTOs) and Senior Directors and Business Unit Leaders. Within this sample, 50% of respondents were C-Suite level executives and 50% of respondents represented companies with \$1 billion in revenue.

17

Markets

25

Industries, with a focus on a core 6

| | | | | | |
|--------|--------|---------|-------------|-------------|-----------|
| US | Brazil | Spain | Germany | Netherlands | Australia |
| Japan | Mexico | France | Italy | Luxembourg | China |
| Canada | UK | Belgium | Middle East | India | |

| | | |
|-----------------------|----------------------|---|
| Banking and Financial | Insurance | Other: e.g., Technology, Retail Professional services, Automotive, Government |
| Manufacturing | Healthcare | |
| Telecommunications | Energy and Utilities | |

The survey was conducted by Edelman DXI, on behalf of Kyndryl. Fieldwork was conducted via online survey and telephone interview between July 1, 2024 and August 12, 2024.

Learn More

The Kyndryl Readiness Report combines survey data from 3,200 senior leaders and decision-makers with insights from Kyndryl Bridge, the company's AI-powered, open integration digital business platform.



Scan the QR code or visit
kyndryl.com/readiness-report
for more insights

Thank you

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