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# Navigating the readiness paradox

The Kyndryl Readiness Report 2024

Industry focus: Manufacturing







## 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

88%

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

ONLY

31%

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

# Manufacturing: Industry readiness snapshot

Sector leaders are combining networking, edge, and AI technologies with data from increasingly sophisticated sensors and devices to proactively solve problems, improve worker safety and maximize efficiency. But barriers stand in the way. Enterprises rely on a growing number of outdated systems and face new potential vulnerabilities as internet-connected devices proliferate. And because of the inherent risk in large-scale industrial operations, many manufacturing enterprises have fostered a culture that prioritizes incremental, rather than transformative, change.

## Lower IT readiness overall, with challenges of tech integration

Manufacturing leaders rate their IT infrastructure readiness below all other industries, and also report lower readiness to manage disruption in technology and innovation. Most Manufacturing leaders also cite concern and anxiety around end-of-life technology challenges.

Manufacturers will need to tackle long-standing challenges around digitization, data integration and security – from the plant floor to the supply chain – before they can fully use and benefit from emerging technologies.

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## Tech skills and talent are a key challenge

Manufacturing leaders rate their readiness to manage skills gaps below most other industries. They are also more likely to say they are currently experiencing technology skills gaps that hinder progress and cite challenges related to mainframe skills.

Driven by security concerns, changing budget priorities and the need to pull ahead in a competitive sector, more manufacturers will address data silos between IT and operational technology (OT) – as well as traditional divisions between teams.

## Modernization is leading to sustainability outcomes, and focus on security

Compared to those in other industries, Manufacturing leaders are more likely to have experienced improved sustainability-based outcomes from tech modernization in the past year.

As manufacturing leaders prepare to comply with changing regulations and navigate a growing threat landscape, they will focus on operational security and supply chain traceability. Companies will need to identify security risks caused by ageing systems and equipment to strengthen their operational security.

## Higher ROI on AI investments, and connectivity is an enabler

Manufacturing businesses are more likely than other industries to report positive ROI on their AI investments.

Enterprises will invest in 5G, Wi-Fi and hybrid networking models to achieve ubiquitous connectivity across manufacturing sites. Ubiquitous connectivity will be a key digital enabler as the industry prepares to feed data to generative AI technologies – without risking control or security.

# 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

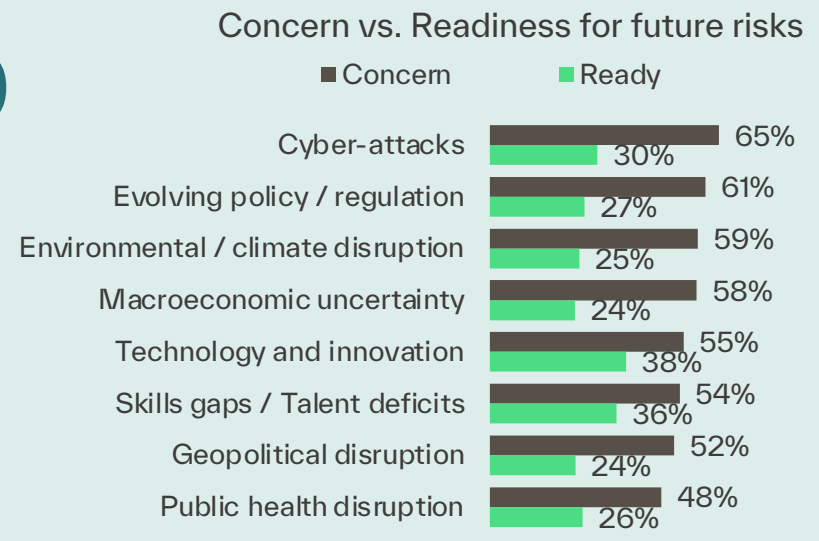
Multiple risks keep CEOs, CIOs and CTOs up at night, such as cyber attacks, evolving regulations, climate disruptions, economic uncertainty and keeping up with technological advances.

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

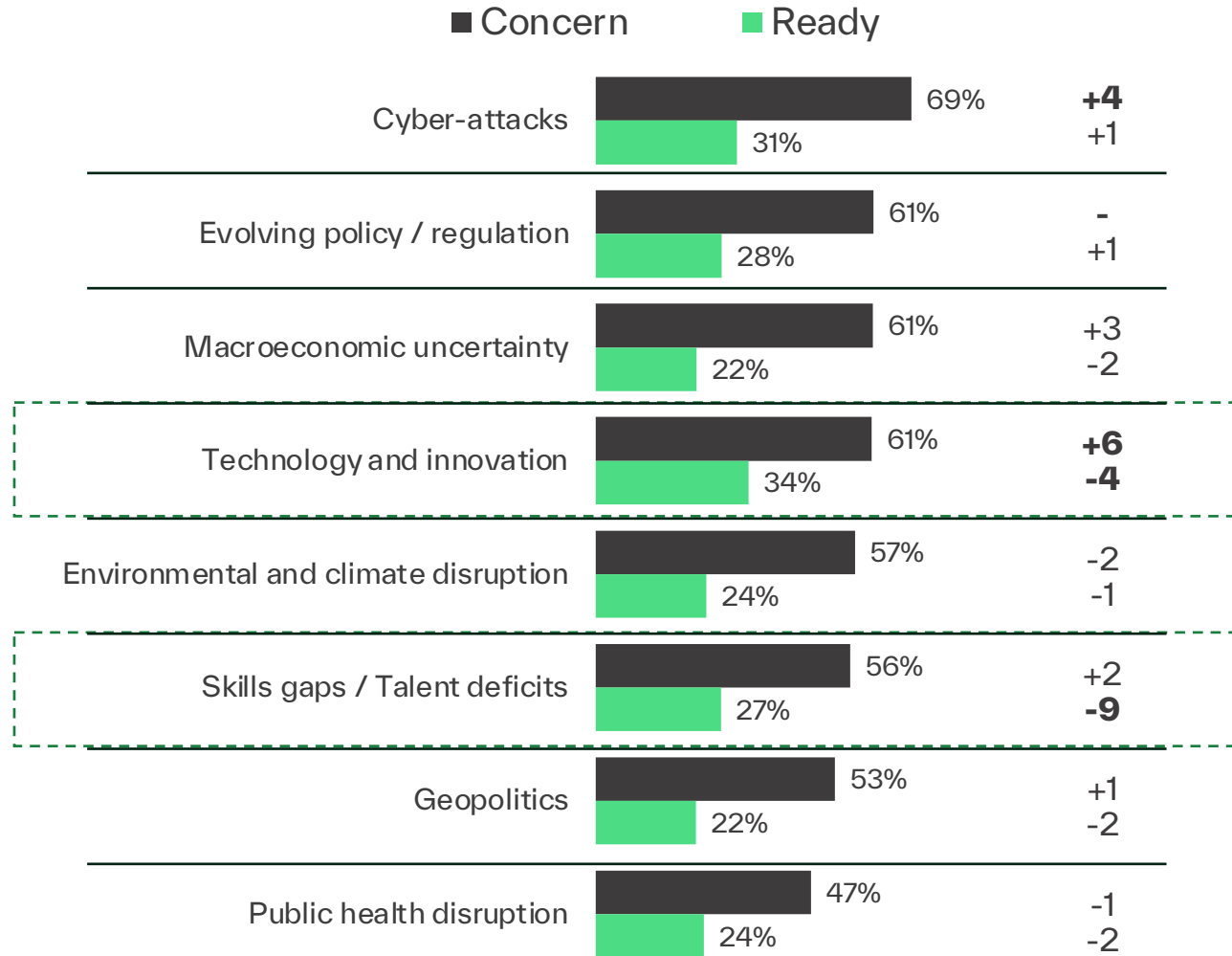
# 01. Manufacturing leaders are less ready on skills gaps and technological disruption

They also cite **higher levels of concern** than other industry leaders around **cyber-attacks** and **tech disruption**

# 26%

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

## Concern vs. Readiness for Future Risks



*Concern/Readiness vs. All Industries Average (percentage point difference)*



# 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.



# 90%

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

HOWEVER, ONLY

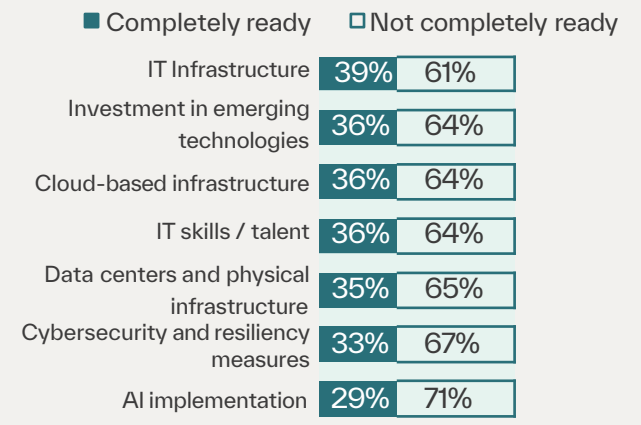
# 39%

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



# 44%

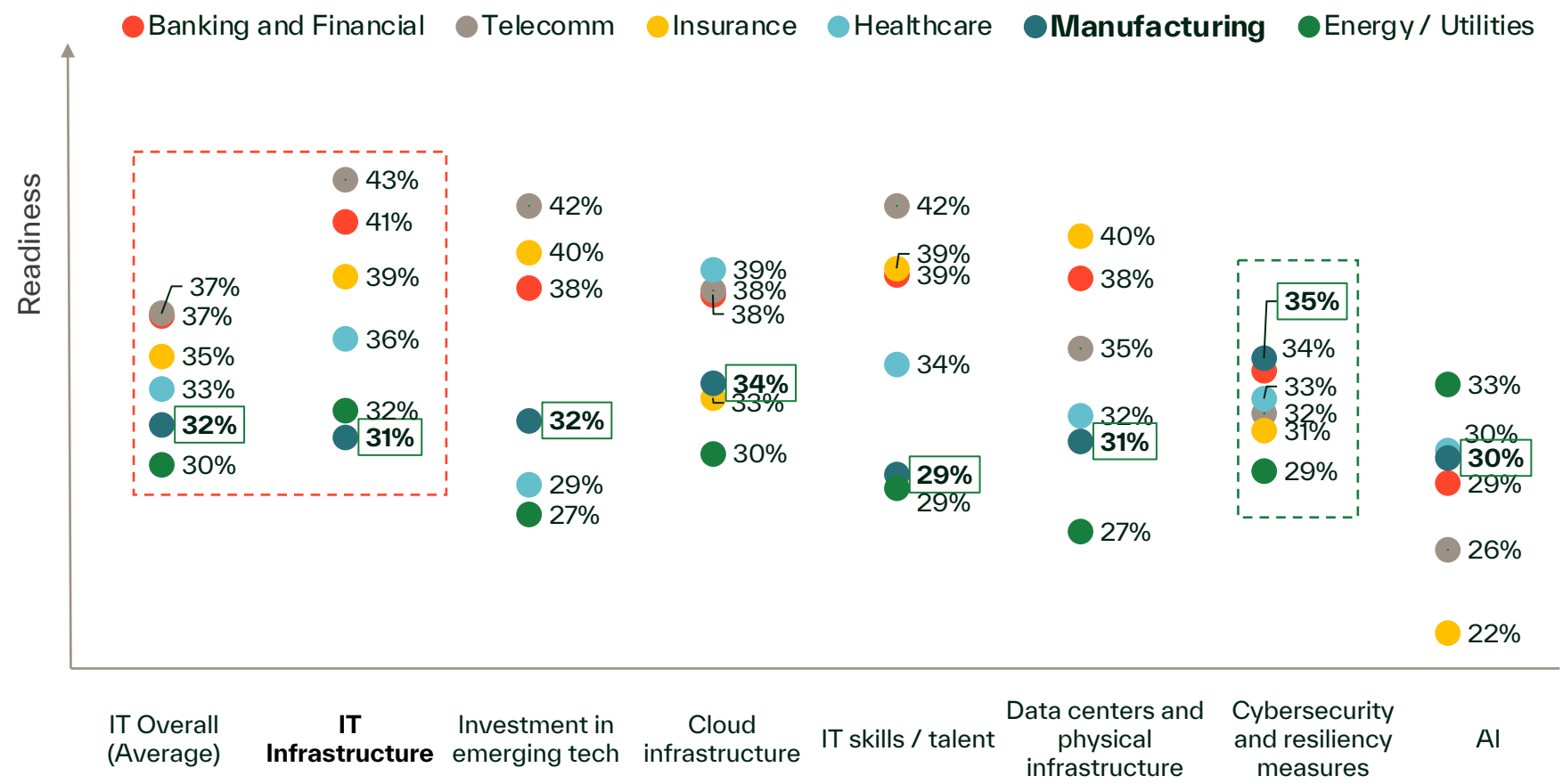
of **servers, storage, networks, and operating systems** are **approaching or at end of life**, according to Kyndryl Bridge

02. Manufacturing leaders have low IT readiness, yet are more optimistic about cybersecurity

31% of Manufacturing leaders report their IT infrastructure is ready to manage future risks (vs. 39% all industries)

### Readiness across IT elements

% Completely Ready

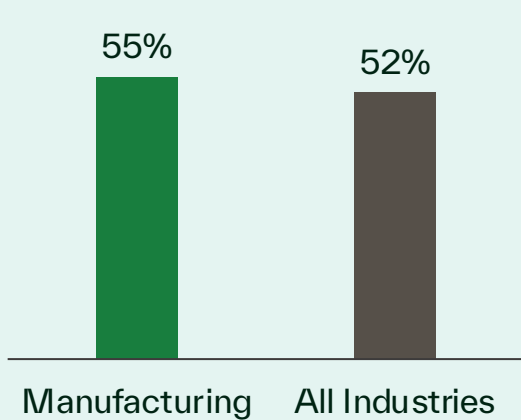




# 02. In line with those in other industries, many Manufacturing leaders struggle with end-of-life tech challenges

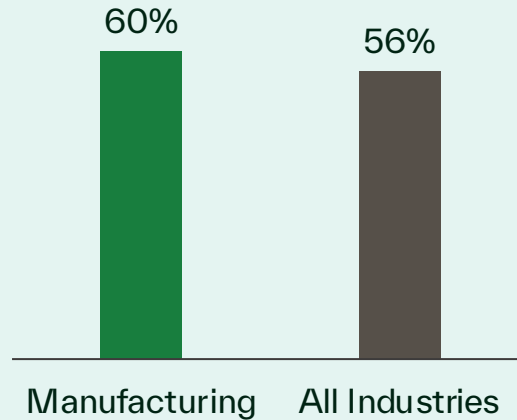
## Over Half

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



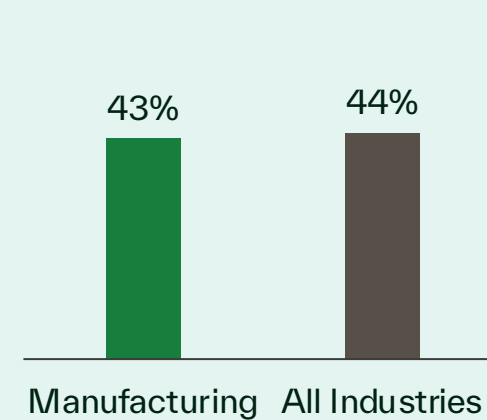
## 6 in 10

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



## 43%

of servers, storage, networks, and operating systems among Manufacturing businesses are approaching or at end-of-life, according to Kyndryl Bridge



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

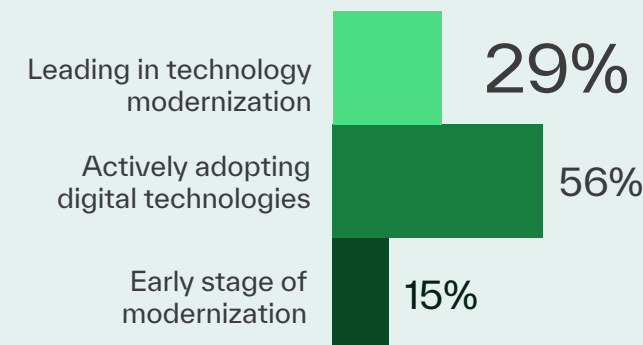
*Top 5 risk mitigation actions:*

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. Employee training and investing in sustainability are top risk management strategies for Manufacturing

- In line with other industries, updating IT infrastructure is the top risk mitigation strategy
- Yet, Manufacturing leaders are more likely than other industries to cite investing in employee training and environmentally sustainable practices to mitigate risk

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## Top 5 Risk Mitigation Actions % Selected

### Manufacturing

- 1. Upgrading IT Infrastructure**
- Implementing robust cybersecurity measures
- Investing in employee training and development programs  
*(+5 ppts vs. all-industry average)*
- Conducting regular risk assessments, mapping and audits
- Investing in environmentally sustainable practices and infrastructure  
*(+5 ppts vs. all-industry average)*

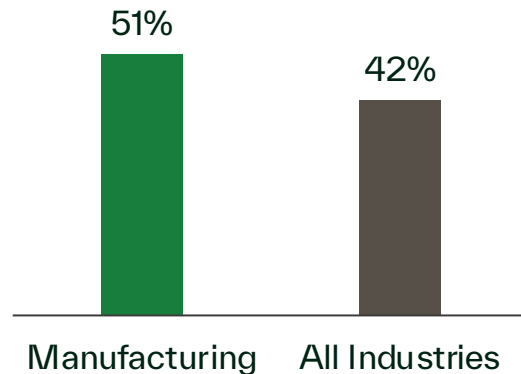
### All Industries

- 1. Upgrading IT Infrastructure**
- Implementing robust cybersecurity measures
- Conducting regular risk assessments, mappings, and audits
- Investing in employee training and development programs
- Enhancing regulatory compliance efforts

## 02. Manufacturing leaders struggle to manage technology skills gaps as they modernize

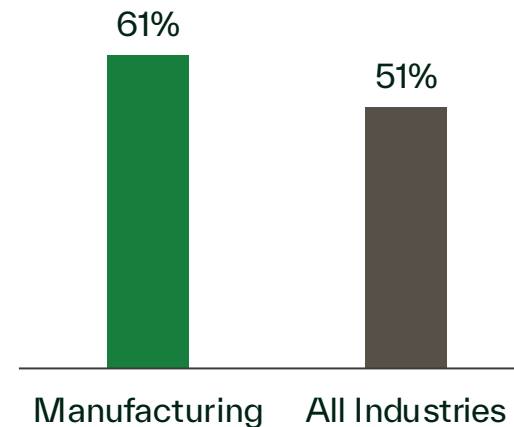
# 1 in 2

Manufacturing leaders are currently experiencing **technology skills gaps** that **hinder our progress**



# 3 in 5

Manufacturing leaders are currently experiencing **skills deficits** related to mainframe technology



# 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

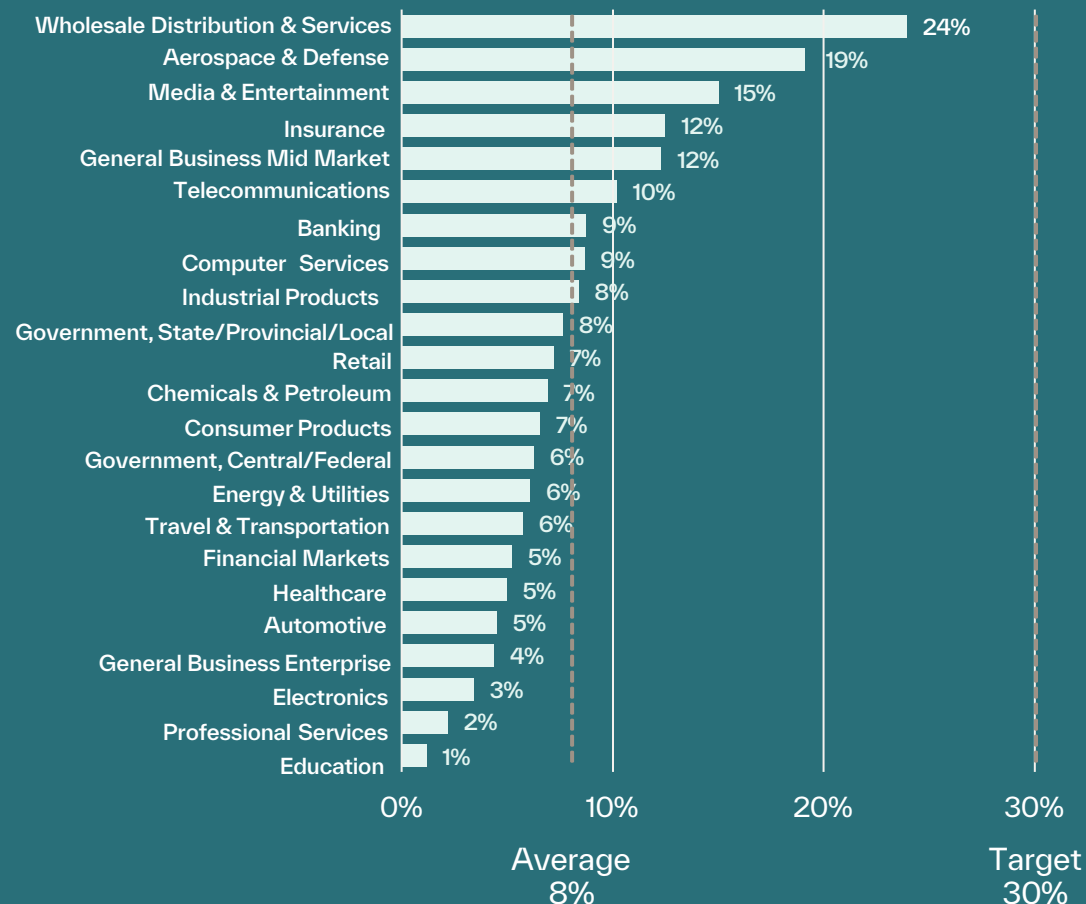
**About this statistic:** Automation can help companies automatically resolve issues in their environments without human intervention, avoiding major incidents and planned maintenance costs. The result is that organizations can improve their speed of execution and overall quality of services they provide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

75% vs. 90%+ target

Average IT best practices adoption, according to Kyndryl Bridge data

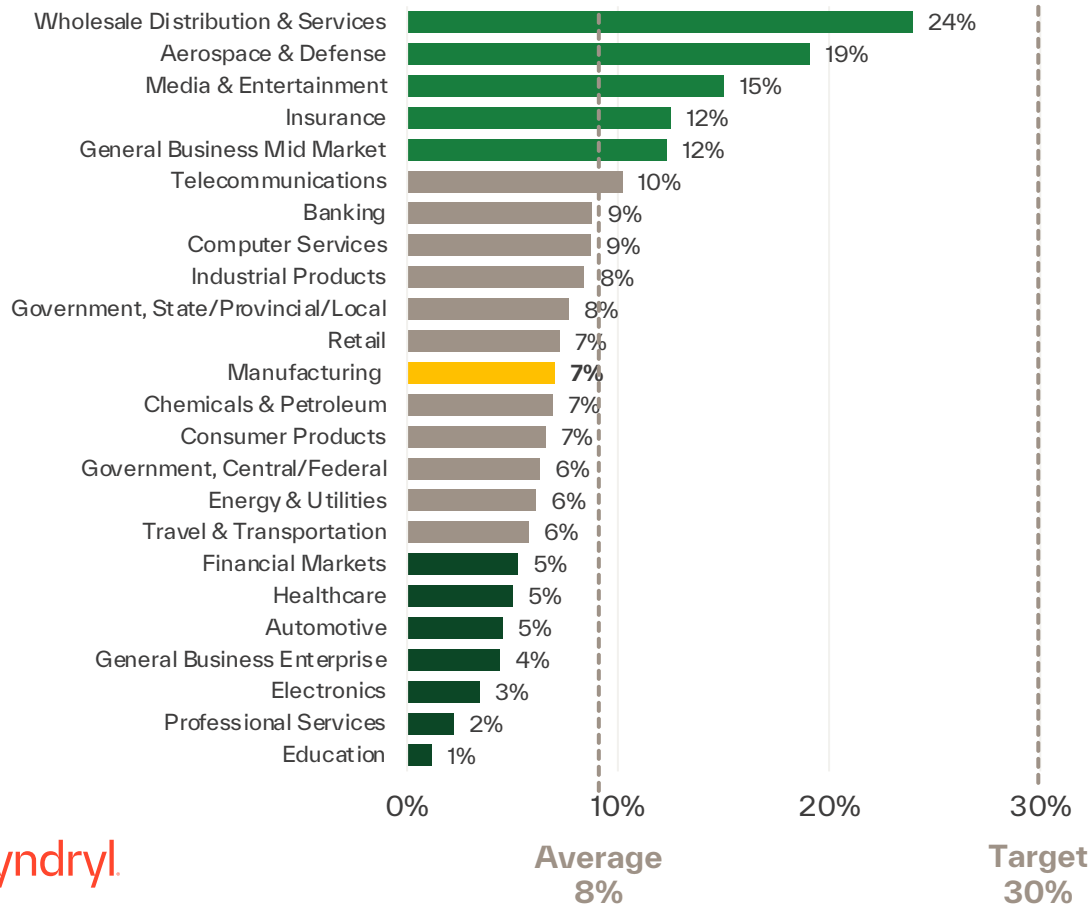
**About this statistic:** Best practice adoption is a holistic measure of effective IT, comprised of industry IT standards and measures for security compliance and regulatory compliance that can be monitored automatically.

% of IT events resolved through automation

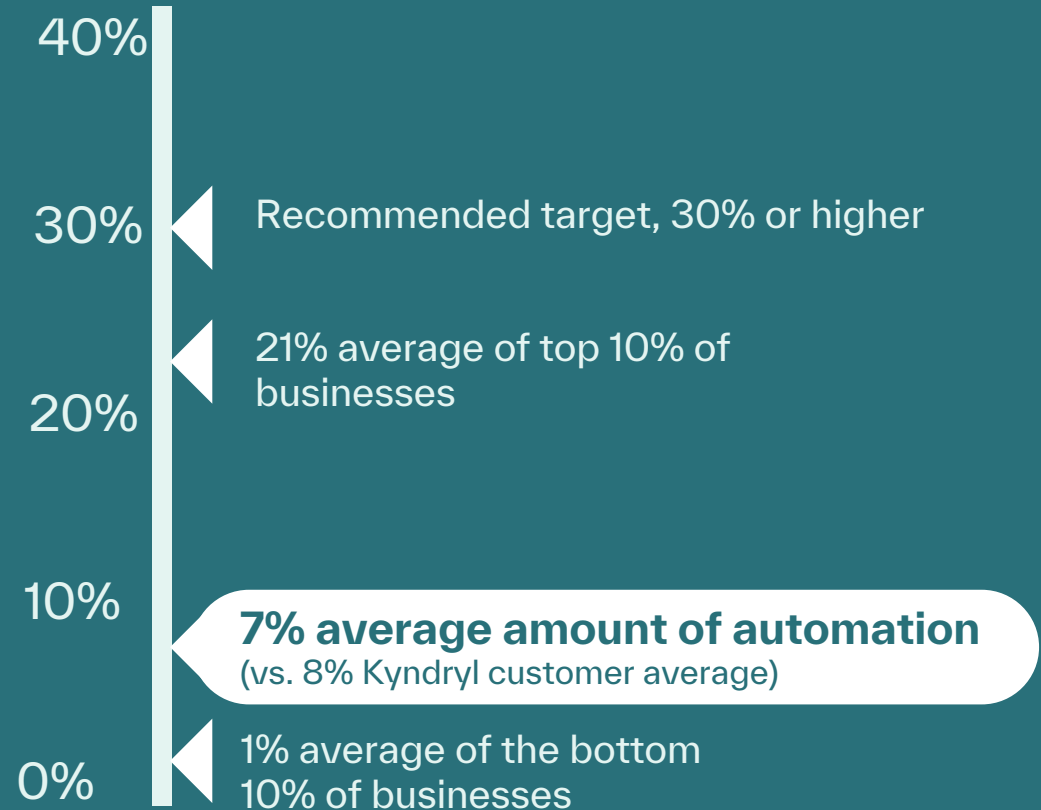


# 03. Manufacturing businesses are on par with Kyndryl customer average on automation

% of IT events resolved through automation



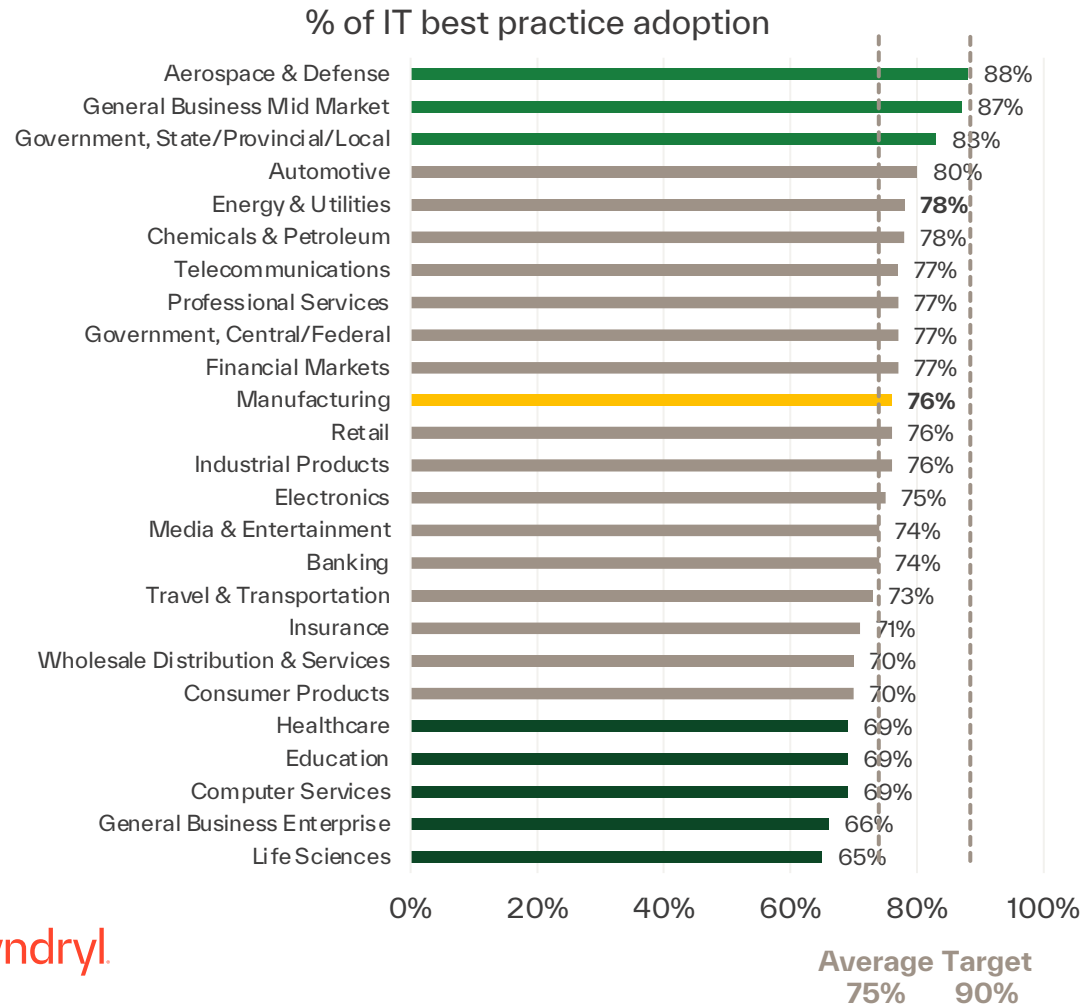
## % of IT events resolved through automation



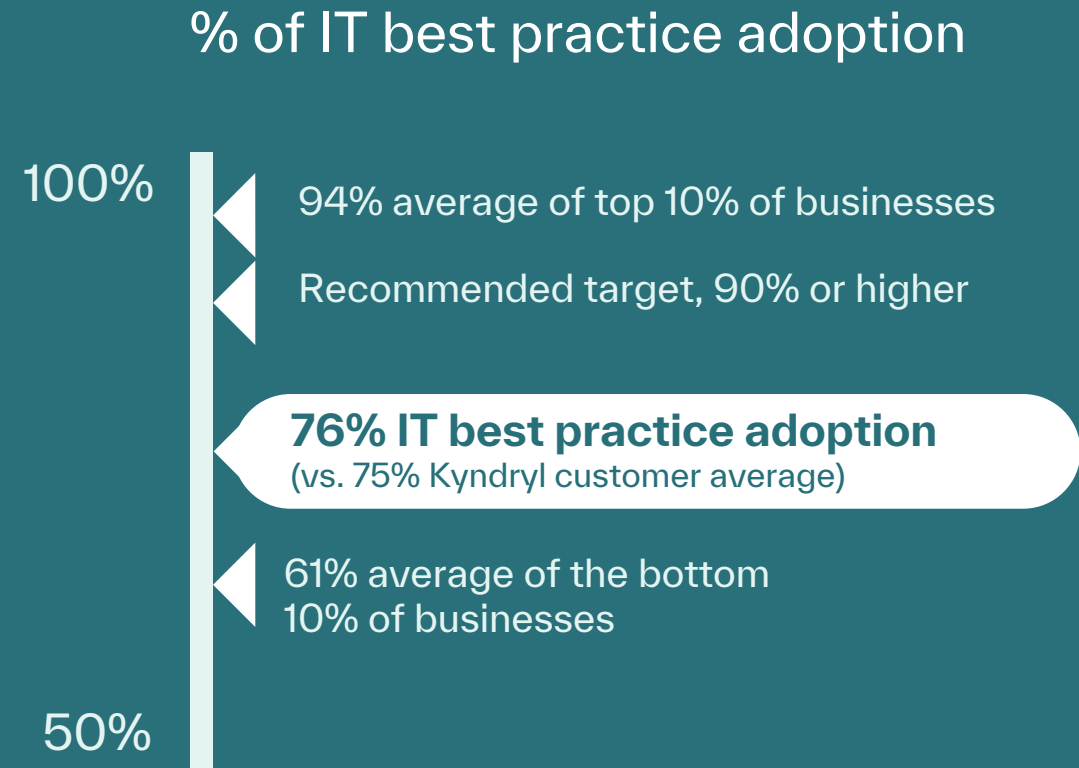
Source: Kyndryl Bridge data



# 03. Similarly, Manufacturing leaders are in line with Kyndryl customer average on 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.



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

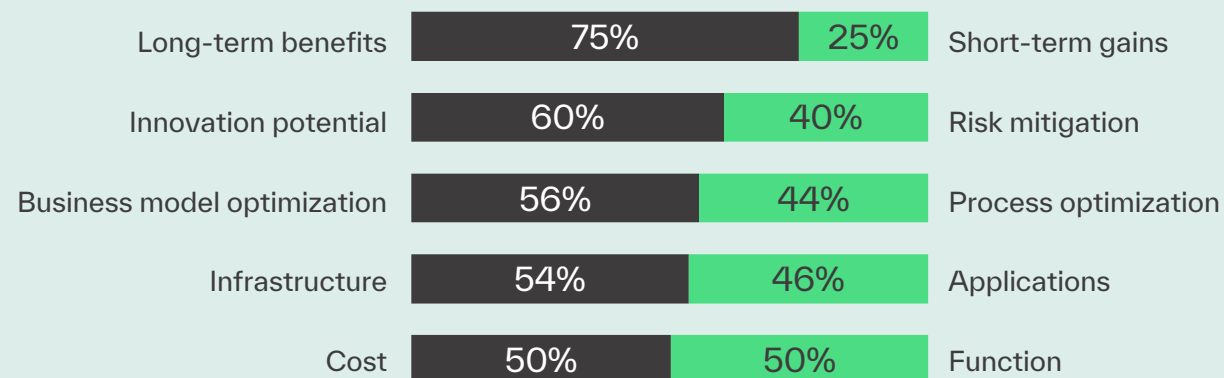
Complexity is the #1 challenge to tech modernization

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. Manufacturing cite costs as a top challenge to tech modernization

- While most industries cite Complexity as the top tech modernization challenge, Manufacturing leaders are more likely to struggle with other challenges such as long-term financial costs (25% vs. 20% all-industry average)
- Additionally, Manufacturing businesses are uniquely challenged with skill shortages when pursuing their tech modernization goals (21% vs. 16% all-industry average)

## Top 5 Tech Modernization Challenges

% Selected

### Manufacturing

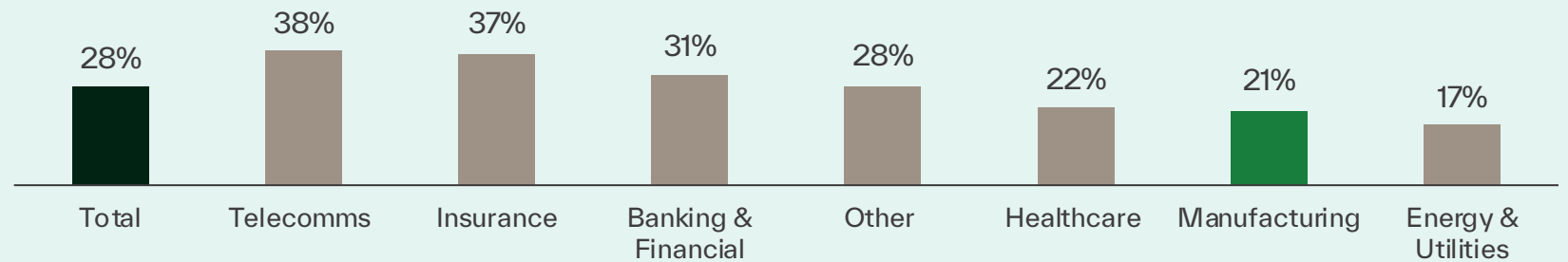
1. **Long-term financial costs**  
*(+5 ppts vs. all-industry average)*
2. Compatibility
3. Complexity
4. **Skills shortages**  
*(+5 ppts vs. all-industry average)*
5. Rise in data breach or cyberattacks

### All Industries

1. **Complexity**  
*(+7 ppts vs. Manufacturing)*
2. Compatibility
3. Long-term financial costs
4. Rise in data breaches or cyberattacks
5. Technical debt

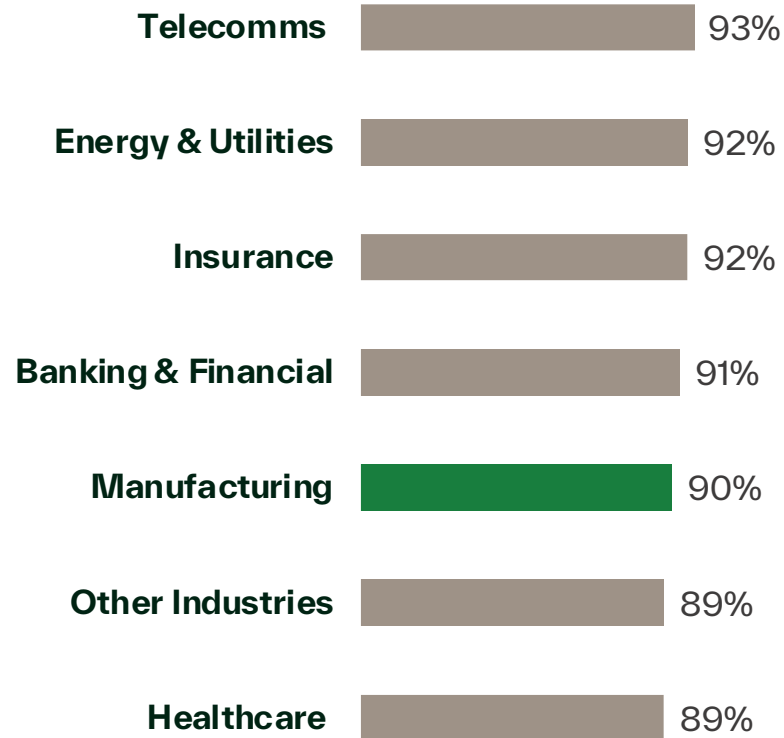
## Cite 'Complexity' Among Top 3 Largest Tech Modernization Challenges

% Selected

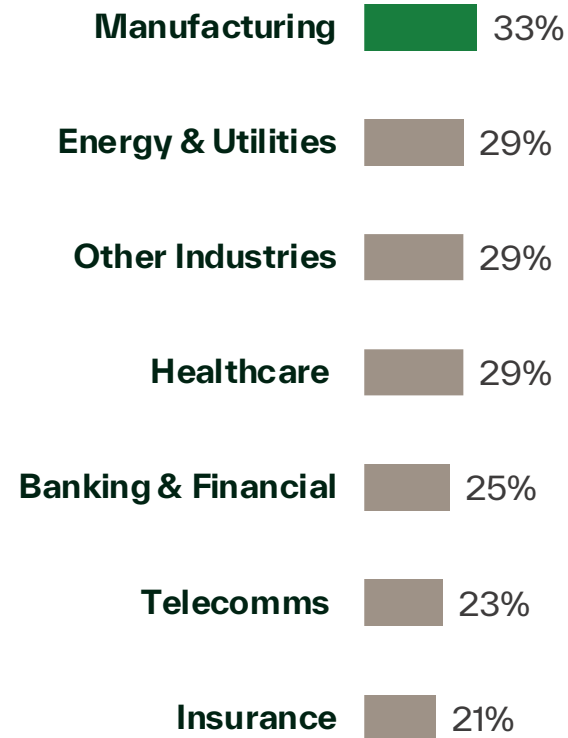


# 04. Modernization is leading to sustainability-based outcomes for Manufacturing leaders

Prioritize sustainability when implementing tech modernization initiatives  
Agree %



Experienced improved sustainability-based outcomes from tech modernization in the past year  
Selected %





# 05.

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

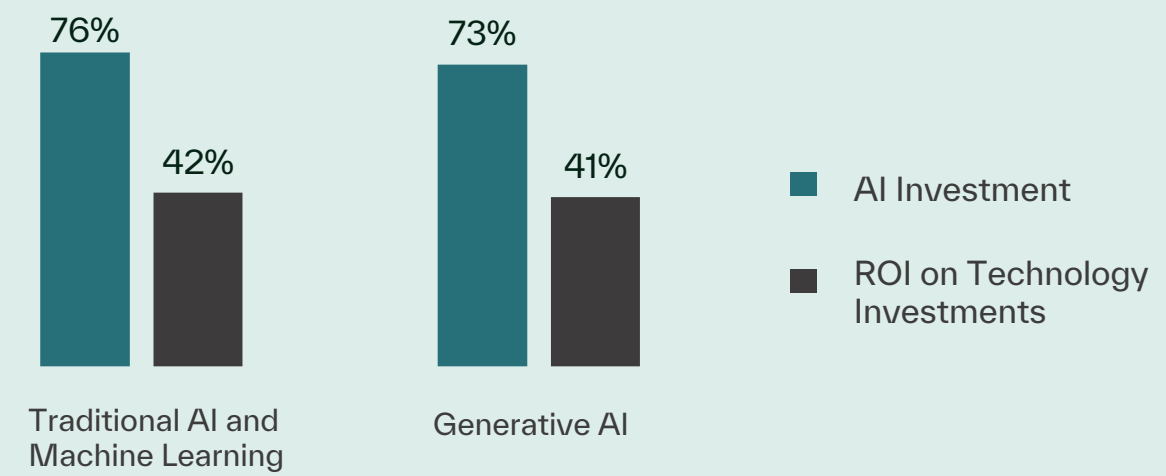
Most businesses are investing in both traditional AI—which includes Machine Learning—and Generative AI. However, only 42% of business leaders currently see positive ROI on their AI investments.

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:

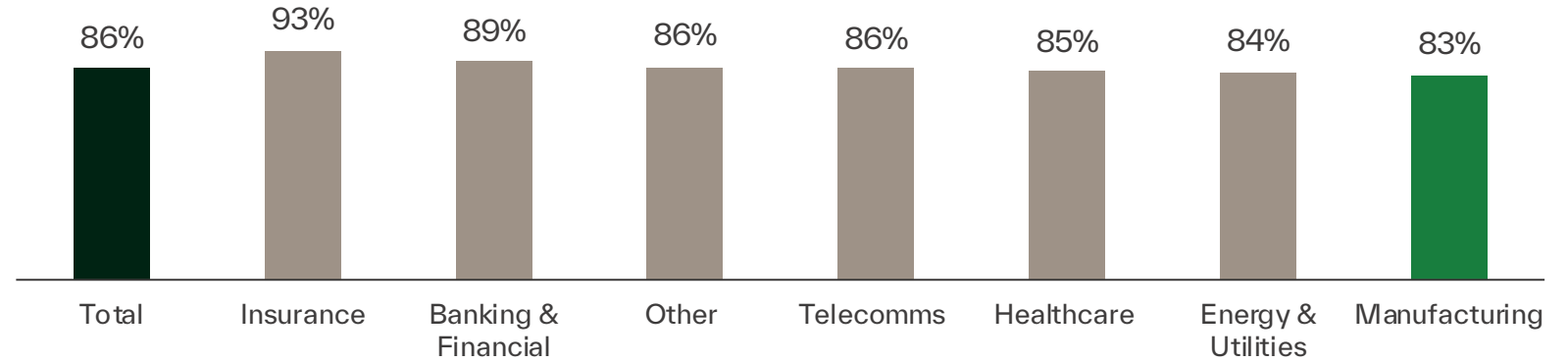
1. Data Privacy and security
2. Uncertainty of ROI
3. Regulation and compliance
4. Integration
5. AI Skills gaps

#### Most common skills gaps:

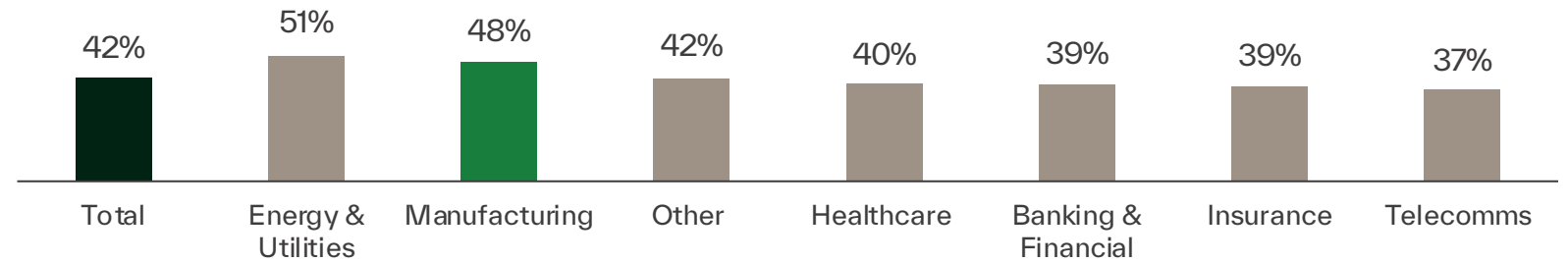
1. AI / ML skills
2. Cyber-security
3. Data science / analytics

# 05. Manufacturing businesses are more likely to report positive ROI on their AI investments

Confidence Artificial Intelligence Implementation is Best-in-Class  
 (% Selected NET Confident)



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



# 05. Manufacturing leaders cite similar barriers to AI adoption, such as data and ROI uncertainty

However, Manufacturing leaders are more likely to struggle with insufficient quality and quantity of data for training AI algorithms, while facing less difficulty navigating regulatory and compliance challenges related to AI implementation.

## Top 5 Barriers to AI Adoption % Selected

### Manufacturing

1. **Data privacy & security**
2. Uncertainty of ROI
3. Integration
4. **Insufficient data**  
*(+4 pts vs. all-industry average)*
5. AI skills gap

### All Industries

1. **Data privacy & security**
2. Uncertainty of ROI
3. Regulation & compliance
4. Integration
5. AI skills gaps

## 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 Manufacturing businesses, there is appetite for more support on leadership decision-making to navigate tech modernization – more so than other industries

### Areas of Support Needed for Modernization Efforts Total %

**69%**  
Leadership  
decision-making  
support

vs. 63% all industries

- Enhancing collaboration between IT and other departments
- Ensuring alignment of modernization efforts with business objectives

**59%**  
Talent management  
support

vs. 57% all industries

- Talent acquisition and retention in IT-related roles
- Improving internal skills development and training programs

**45%**  
Integrating new tech in  
existing infrastructure

vs. 43% all industries

- Integration of new technologies into existing infrastructure
- Managing complexity of hybrid or multi-cloud environments

## 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

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

# 25

## Industries, with a focus on a core 6

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](https://kyndryl.com/readiness-report)  
for more insights



# Thank you

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