



Operating in a disrupted world

2018 Telecom CEO Outlook

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Foreword

Telecom CEOs retain an optimistic view of their companies' growth prospects, driven by favorable economic conditions and attractive new technologies. Innovation and market turbulence are nothing new for Telecom companies, and CEOs remain confident about their ability to respond to, and even drive, industry disruption.

As global momentum remains strong, Telecom CEOs are expressing strong confidence in their ability to generate and maintain top-line growth. Innovation, mergers and acquisitions (M&A), and strategic alliances are among the leading strategies these CEOs are embracing to position their companies for market expansion. Strategic alliances are a key to growth, particularly for partnerships in emerging technologies such as artificial intelligence (AI) or the Internet of Things (IoT) – key areas that provide attractive opportunities, but also require specialized talent to deploy successfully.

Overall, Telecom CEOs expressed confidence in their organizations' abilities to outgrow the broader sector, as well as the domestic and global economy. Time will tell if this strong confidence is borne out as the sector consolidates and new competition emerges from non-Telecom companies.

Not surprisingly, M&A remains a popular strategy for generating growth as firms recognize a need to change their business models more rapidly than organic growth can deliver alone, and to take advantage of favorable valuations. Telecom leaders recognize M&A can provide a fast track to acquiring new technologies or eliminating direct competitors, among other reasons and expected benefits. CEOs believe the deal-friendly climate of recent years will continue.

Telecom CEOs see technological and industry transformation as more of an opportunity than a threat as changing technologies and customer demands create product and service opportunities in areas such as AI, IoT, 5G to the Home, and other new offerings. This confidence is highest among the largest industry participants, who expect to leverage their size and capital to partner with, or acquire, companies with compelling innovations or talent.

Despite the opportunity digital transformation represents, it's perhaps surprising how quickly CEOs expect to see tangible returns from their investment in transformation initiatives and AI systems. CEOs expect a short time horizon for AI returns, despite also citing challenges in obtaining AI resources (being sought by companies in most industries) and managing digital initiatives in parallel with traditional processes. The successful integration of AI is an area where organizational agility is likely to be tested and rewarded.

Addressing business and operational challenges, adopting new products and services, and aligning with strategic partners in an innovation ecosystem will be among the key strategies for Telecom CEOs to leverage the benefits of technological and marketplace disruption.

Sean Sullivan

Telecommunications National Sector Leader,
KPMG LLP

Key findings



Growth Strategy

Telecom CEOs are optimistic about revenue growth, with expectations their companies will outpace the broader telecom sector, as well as the U.S. and global economies. This optimism, however, may be short-lived. U.S. CEOs indicate growth may be harder to achieve over the next three years.



Mergers and Acquisitions

M&A appetite remains strong among Telecom CEOs, with 75 percent indicating they have a high to moderate appetite for mergers and acquisitions (M&A) over the next three years. CEOs are optimistic the climate for deals will remain favorable, continuing strong M&A demand in the United States in recent years.



Disruption as an opportunity

Telecom CEOs are nearly unanimous in seeing the resulting disruption as more of an opportunity than a threat.



Data-Driven Decisions

While Telecom CEOs continue to place strong emphasis on their own experience and instincts in driving most of their organizational decisions, nearly all expect their company to begin relying more on data and analytics decision-support technologies to help them make more-informed decisions.



Millennials still a challenge

Four in 10 telecom CEOs say their organizations are challenged to understand how millennials' needs differ from older customers, and nearly half cite the challenge of finding senior leaders better able to relate to millennials.

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For many companies, M&A is the quickest path to fill gaps in innovation or to pivot quickly to realign their business model to meet shifting market demands. It's not surprising that 75 percent of telecom CEOs view M&A as an important pillar of their growth strategy. ”

– Kirsten Hill
Principal, Advisory,
Telecom Industry,
KPMG LLP

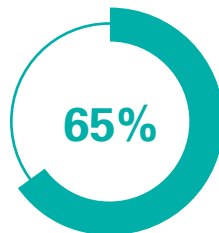




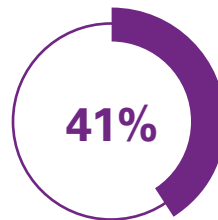
Business confidence and economic outlook

Business confidence is high among Telecom CEOs, especially for their growth prospects and ability to keep pace with rapid market disruption. The relationship between investment decisions and strategic goals is strong, and alliances and M&A activity are top of mind as a way to strengthen organizational resilience. Short-term M&A is increasing as firms recognize the need to change their business models faster than organic growth will deliver.

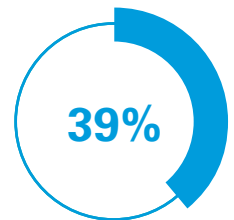
Types of growth strategies pursued



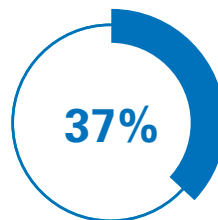
Strategic alliances



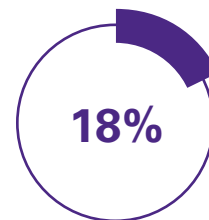
M&A



Organic growth



Outsourcing



Joint venture

Growth strategies

Telecom CEOs increasingly recognize the importance and value of strategic alliances to enhance their ability to capitalize on emerging technology and market opportunities. Given the maturity of the U.S. market and high acquisition valuations, Telecom CEOs are embracing the opportunity to expand their offerings through targeted partnerships with organizations that can help them reach new customers, increase revenue from current customers, and potentially reduce the reach of new market competitors.

Alliances also offer the ability for Telecom companies to adjust their business models faster than organic growth can deliver on its own. In this dynamic environment, CEOs are increasingly relying on a network of third parties to support their growth objectives.

For example, emerging uses of technologies, such as artificial intelligence (AI) and Internet of Things (IoT), offer examples of compelling value propositions in the business-to-business (B2B) sector as Telecom providers partner with technology firms to help business customers gain data-driven insights into their operations.

These arrangements can form the basis of an ecosystem that offers compelling benefits for all participants. Telecom providers gain access to content, services, or specialized talent without having to make a competitive investment that duplicates the efforts of others. Content and service providers benefit from the Telecom provider's scale and distribution infrastructure. And customers enjoy the convenience of expanding the services they purchase without dealing with additional providers.

Looking at organic growth, 39 percent of Telecom CEOs place a premium on areas such as innovation, R&D, capital investments, and recruitment to achieve their organization's growth objectives over the next three years.

Telecom CEOs are optimistic about revenue growth, with expectations their companies will outpace the broader sector, as well as the U.S. and global economies. This sentiment is nearly universal, with 99 percent of executives expressing confidence about their company's growth. This optimism compares favorably with 75 percent sharing similar confidence a year ago.

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Telecom CEOs expressed a higher level of confidence in their ability to grow revenue than might be expected. While there is much reason for optimism within the industry, growth is hard-earned in the current climate of disruption, and it remains to be seen if these companies can keep pace with their own expectations.”

– Sean Sullivan
Telecommunications
National Sector Leader,
KPMG LLP

The rate of that growth can best be described as “moderate,” with 60 percent of CEOs forecasting growth of up to 2 percent, followed by 40 percent respondents calling for growth of up to 5 percent.

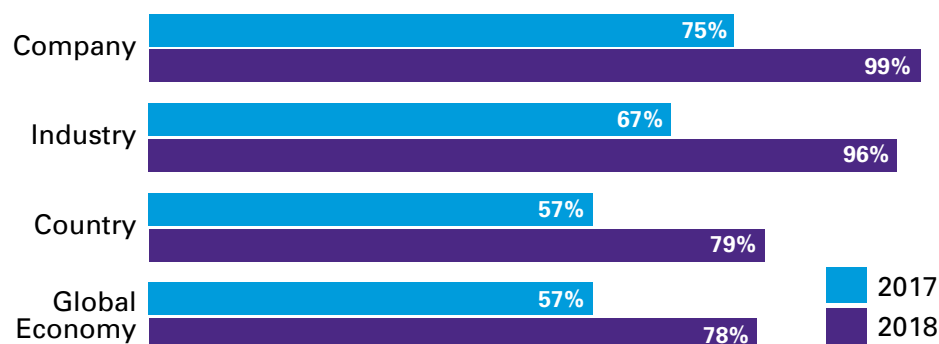
This optimism, however, may be short-lived. U.S. CEOs indicate growth may be harder to achieve over the next three years, as competitors from outside the sector build momentum and customer preferences shift from traditional products and services. This compares with 24 percent of global CEOs who believe reaching growth targets will be more challenging.

Overall, global CEOs have slightly less optimistic views than their U.S. peers about growth for their company and industry, as well as the broader economy in their country and the rest of the world.

Headcount expansion

Telecom CEOs plan to match this anticipated growth by increasing their investments in talent, with 70 percent calling for headcount growth of up to 5 percent, and 30 percent expecting to expand their workforce between 5 and 10 percent. Finding talent for this expansion, especially for in-demand skills in AI, cybersecurity, and data-related expertise, may provide an operational and growth challenge (see next section).

Confidence in growth over the next three years (Combined responses for confident and very confident)



To what extent do you agree or disagree with the following statements about your organization's growth? (Combined responses for strongly agree, agree, and neutral)



Threats to growth

Among Telecom CEOs, talent challenges, cybersecurity (discussed next page), operational risk, emerging and disruptive technologies, and a return to territorialism were cited as the leading threats to their growth aspirations.

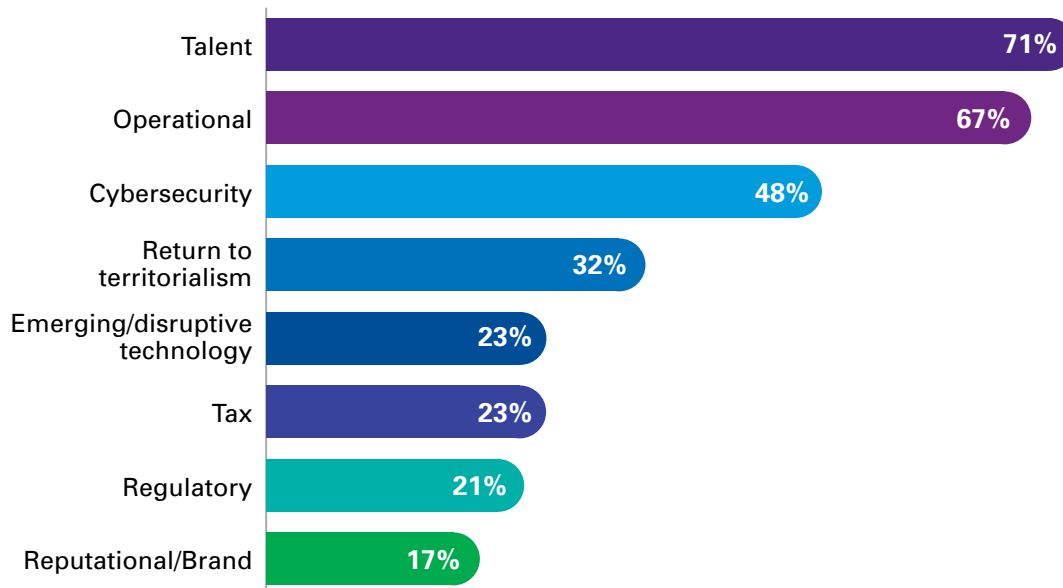
Talent risk is acute as companies are forced to compete not only with other telecom providers for professionals skilled in emerging technologies, but also with nontraditional competitors and other disruptive innovators in the ecosystem.

Operational risk is also increasing in the face of competition from companies outside the traditional boundaries of the Telecom sector. With large tech giants and other companies offering digital communications and messaging services, either individually or blended with social networking platforms, flawless execution and reliability offer competitive distinction.

While emerging technologies are creating the opportunity to offer a variety of digital services, they are also disrupting voice and data offerings that have driven the majority of the industry's revenue and profitability in recent years. Transitioning to new, higher-value services will test telecom providers' organizational agility and leadership.

For companies with international operations, geopolitical concerns are also providing increased cautionary signs. After years of international consensus on the value of globalization, nationalism is increasing in a growing number of regions. This expanding nationalism offers the potential to increase the cost and complexity of doing business internationally and may preclude operations or expansion in some otherwise promising markets.

Which of the following risks poses the greatest threat to your organization's growth?



Cyber challenges

Not surprisingly, cyber risks and security threats were also cited as leading growth challenges. Telecom providers work constantly to maintain effective security not only for their own systems but also to protect their customers' valuable personal data and privacy. As people entrust more of their data to mobile devices, for instance, cybersecurity can provide a critical competitive differentiator to build and retain customer trust.

Nearly 4 in 10 CEOs say their company experiencing a cyber attack or data breach is more a matter of "when," than "if," but most say their organization is reasonably well-prepared for an attack, and is able to respond to external stakeholders in the immediate aftermath of a cyber event.

It's worth noting that the "when, not if" sentiment is stronger among CEOs from the largest telecom companies, which presumably have the most sophisticated understanding of the problem and defenses. Among providers with \$10 billion or more in revenue, 88 percent of CEOs strongly agree with that sentiment, compared to 23 percent of companies with \$500 million to \$999 million in revenue, and 16 percent of those with \$1 billion to \$9.9 billion.

Not surprisingly, nearly all respondents (87 percent) cited cybersecurity specialists as being important to future growth.

Given the importance of protecting customer and organizational data, the vast majority of telecom CEOs believe their companies are reasonably prepared to identify and mitigate cyber-related security risks, as well as the potential reputational risks that can follow a cybersecurity breach.

How well prepared is your organization for a future cyber attack, in relation to the following capabilities? (1=Highly under-prepared and 5=Very well-prepared, answers shown are a total of the 3–5 range)

Our ability to manage external stakeholders, such as customers, regulators or business partners, in the event of a cyber attack

100%

Our ability to contain the impact of a cyber attack on our strategic operations

99%

Our ability to identify new cyber threats

98%

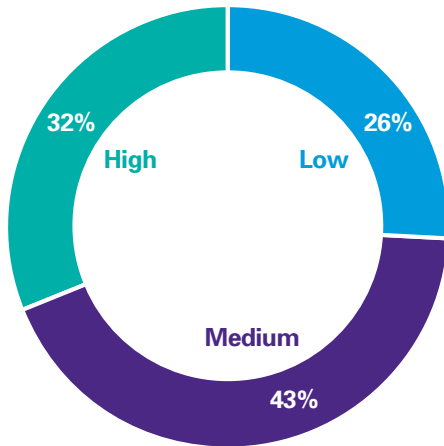
Our overall level of preparedness for a cyber attack

97%

87%

of respondents cited cybersecurity specialists as being important to future growth





How would you describe your organization's M&A appetite?

Mergers and acquisitions

For many CEOs, M&A remains a consistent strategy to foster top-line growth. One third of Telecom CEOs indicate they have a high (32 percent) appetite for mergers and acquisitions (M&A) over the next three years. While three-quarters indicated either a high or moderate appetite for M&A over the next three years. CEOs are optimistic the climate for deals will remain favorable, continuing the strong M&A activity in the United States in recent years.

Short-term M&A is likely to continue as firms recognize a need to change their business models faster than organic growth can deliver. Although a number of mega-mergers have dominated Telecom and media headlines recently, the majority of deals are likely to fall within a more moderate range, potentially to fill in innovation or technology gaps.

There's a broad mix of factors contributing to M&A appetite within the industry as Telecom companies work to address a wide spectrum of industry and company challenges. Among the M&A drivers Telecom CEOs cited, the leading position of "to eliminate a direct competitor" (43 percent) suggests consolidation within the sector is likely to continue for the short-to-intermediate term, in part as firms pursue transactions to capture growth opportunities and to keep pace with acquisitive rivals. Tied for the lead position was "transform our business model faster than organic growth will deliver" (43 percent).

What are the primary drivers for your organization's M&A appetite over the next three years?

To transform our business model faster than organic growth will deliver	43%
To eliminate a direct competitor	43%
To use cheap financing before interest rates rise	39%
To reduce costs through synergies/economies of scale	39%
To on-board new digital technology/innovation	36%
To diversify the business	36%
To increase market share	33%
To take advantage of favorable valuations	31%

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Telecom CEOs recognize industry and technology disruption, including new service offerings and markets, provides opportunity for organizations with the agility to adapt to those changes—but also represents a threat to organizations that can't. Successful leaders will embrace a variety of approaches, including alliances and M&A, to reposition their organizations to capture emerging opportunities. ”

– Richard Hanley
Advisory Industry Leader,
Technology, Media &
Telecommunications
KPMG LLP

Delivering on innovation and disruption

Amid the turbulence of technological and industry transformations, Telecom CEOs are nearly unanimous in seeing the resulting disruption as more of an opportunity than a threat. Despite marketplace uncertainty, Telecom CEOs understand that changes in technology and customer demands are opening product and service opportunities related to IoT, Smart City, Connected Home, 5G to the Home, security services, and other offerings.

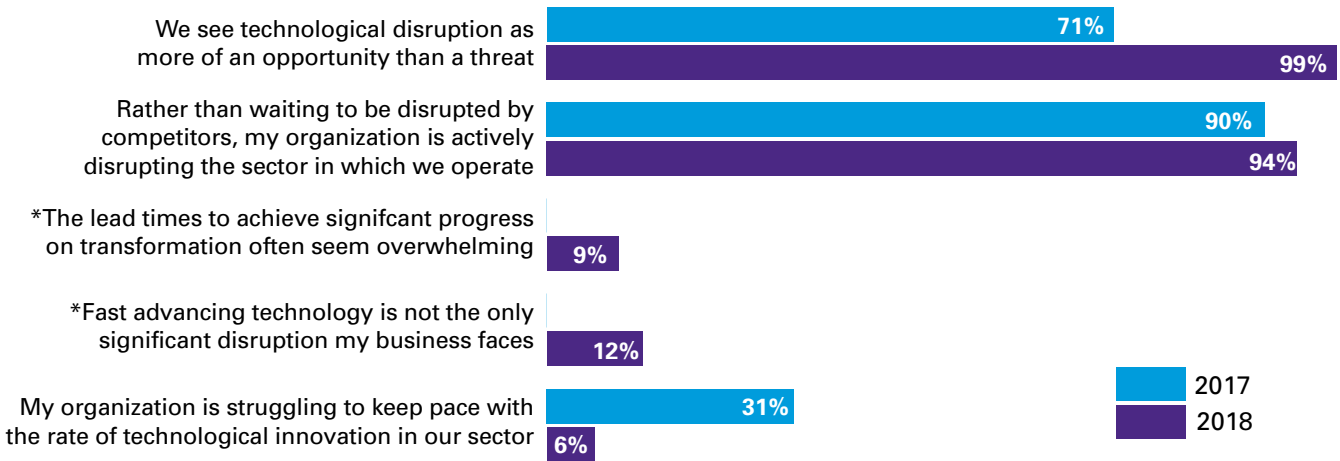
In addition, the largest industry participants expect to be able to deploy their scale and capital to acquire fast-growing startups or other companies with compelling technologies or engineering talent.

With dramatic changes in the marketplace prompting digital transformation initiatives, a perhaps-surprising 96 percent of U.S. respondents believe they are “personally prepared to lead [their] organization through a radical transformation of its operating model.”

This marks a notable difference from their international counterparts, with 82 percent of global Telecom CEOs expressing confidence in their ability to lead transformation efforts.

Whether or not this confidence is justified for every organization, or whether key stakeholders would agree with the sentiment, there's little disagreement among respondents that market disruptions are placing a higher premium on Telecom companies' ability to optimize their innovation processes.

To what extent do you agree with the following statements about disruption within your industry?
 (1=Strongly disagree and 5=Strongly agree, chart reflects the percentage who rated 4-5.)



* This question not asked in 2017.



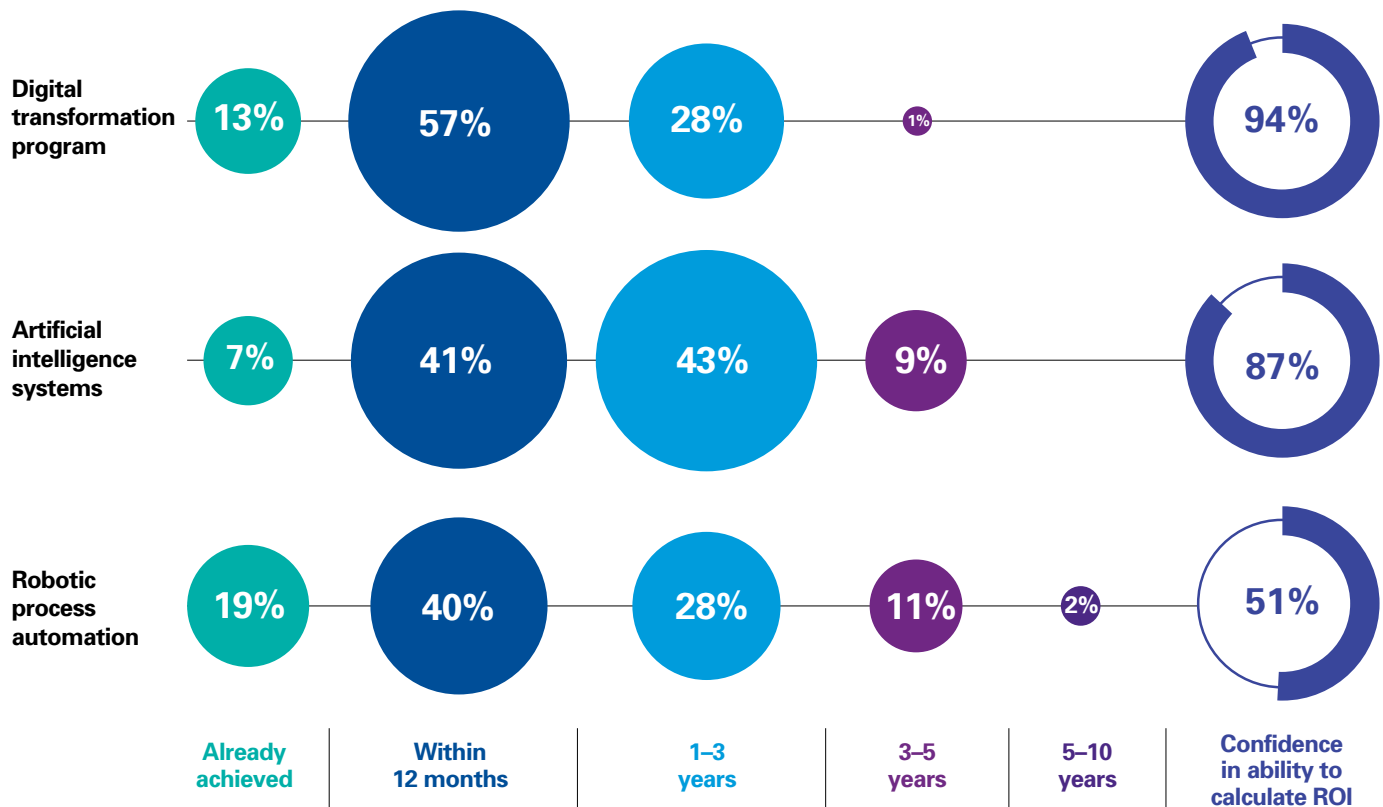
Understanding ROI

Asked about the timing of those investments paying off, CEOs expect the earliest returns from digital transformation initiatives within the next year, followed by AI delivering returns within the next one to three years.

Similar to their familiarity with managing transformation efforts, Telecom CEOs say they are comfortable understanding the return on investment (ROI) of their technology investments. Fully 94 percent of CEOs say they understand how to determine the ROI of their company's overall digital transformation efforts, and 87 have a similar understanding of their AI investments.

The short ROI horizon for digital transformation reflects the tangible returns these programs can provide for organizations, as well as the comfort level Telecom CEOs say they have with overseeing those initiatives.

Expected timeline for return on investment from technology investments





Data-driven decisions

While Telecom CEOs continue to place strong emphasis on their own experience and instincts in driving most of their organizational decisions, nearly all expect their company to begin relying more on data and analytics decision-support technologies to help them make more informed decisions.

CEOs are, at least in the short term, more confident in their traditional reliance on historic and structured data, but say they're confident predictive and analytical data tools will supplement their decision-making processes as those technologies evolve.

Digital workforce

As they invest in transformation efforts to refine their organizations, Telecom CEOs are optimizing their workforces to capitalize on emerging opportunities. All respondents expect headcount to increase over the next three years, with 70 percent forecasting growth of up to 5 percent, and 30 percent anticipating expansion up to 10 percent.

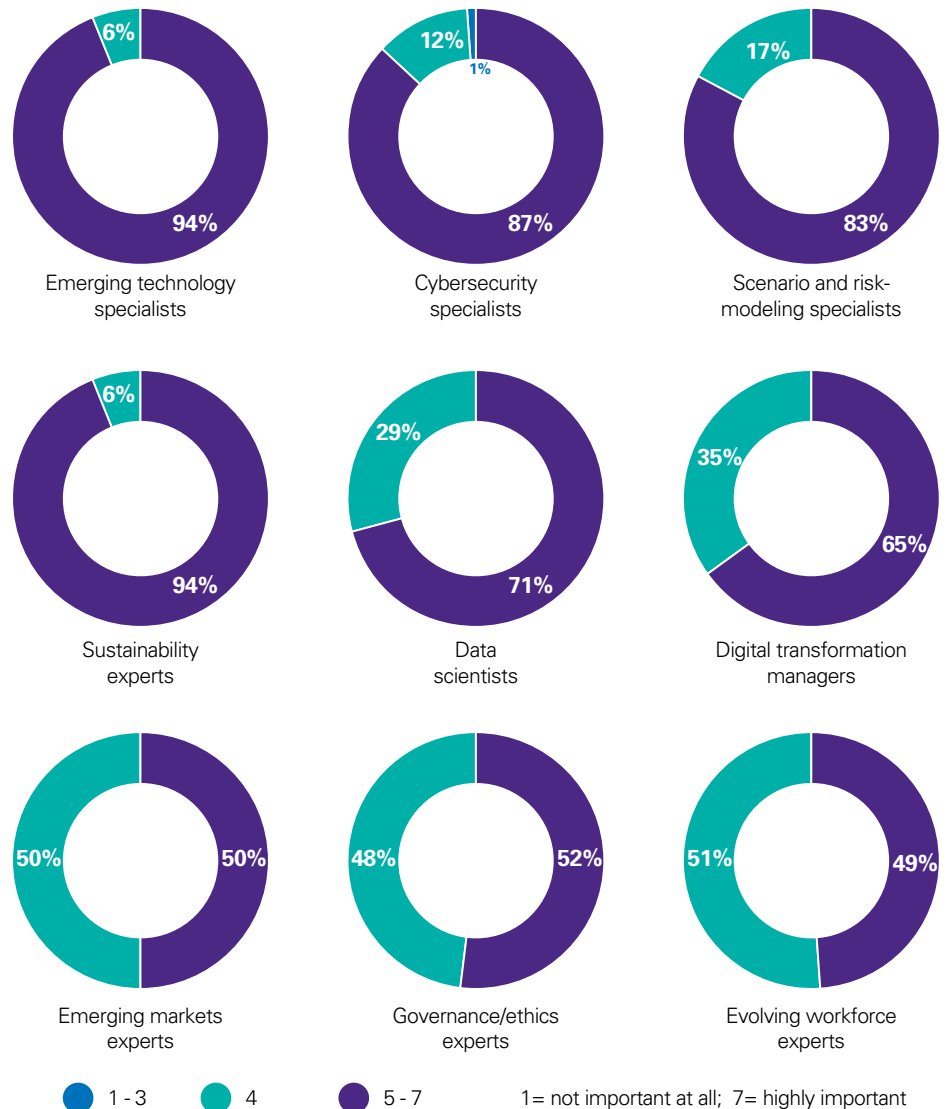
Looking at their future growth strategies, CEOs recognize a growing need for technology specialists, such as artificial intelligence experts, as well as sustainability professionals, cybersecurity experts, and modeling professionals.

These skills are vital in enabling data-driven operating models that help leaders identify and execute on disruptive market opportunities, including personalized offerings for their customers (see next section) and providing broader range of services.

To support these goals, Telecom CEOs identify AI as a strategic imperative, with 52 percent of the respondents reporting their organization has launched limited AI implementations for specific processes and other 23 percent reporting AI pilots. Nearly a quarter (24 percent) have used AI to automate some processes—a percentage likely to increase over the next three years.

The benefits Telecom leaders expect to gain from AI include accelerated revenue growth and improved customer experiences and organizational agility, as well as more effective data analytics, data governance, risk management, and productivity.

How important do you expect the following workforce capabilities to be in supporting your organization's future growth plans?



The overlap between these categories highlight CEO expectations that more effective use of data will make their organizations better equipped to understand changing customer demands and better able to adjust operating models dynamically as markets are disrupted.

And while CEOs expect to increase headcount overall, they're equally divided whether growing use of AI will lead to job growth or cuts over the next three years.

What do you expect to be the biggest benefits delivered to your organization by AI over the next three years?



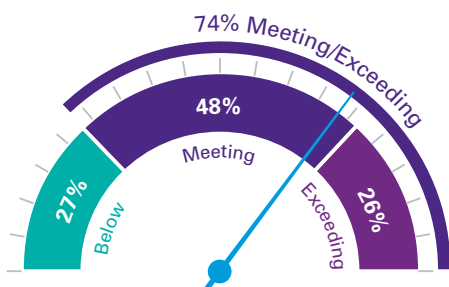
Customer experience—it's personal

Consumers are demanding more from their service providers and demonstrating a higher willingness to switch if their expectations are not met. In this environment, Telecom companies are developing customized experiences with a high degree of personalization in key aspects such as service and content offerings.

Customer experience continues to be a big area of focus for Telecom providers, resulting in notable improvements to service-related challenges consumers reported in the past. Nearly three-quarters of CEOs (74 percent) say their organization's performance is meeting or exceeding their customer's expectations for a "personalized" experience.

A key to offering a customized consumer experience effectively—and securely—depends on access to, and the ability to offer services based on, customer data. Given the importance of data, CEOs view customer data protection as one of their most important personal responsibilities in enabling long-term growth of the customer base.

How well are organizations meeting or exceeding their customers' expectations for a personalized experience?



Which of the following are the biggest challenges for your organization in meeting the needs of millennial (born between 1980-2000) customers?



Similarly, companies will need to balance the benefits of harvesting insights from customer data with stronger consumer resistance to data use, as well as regulatory restrictions on their ability to use and share personally identifiable information.

Meeting the needs of the millennial generation is another challenge for many CEOs across all industries, and Telecom leaders say they're no exception. The oldest millennials have

already crossed 35 years of age, and millennials are expected to provide the largest, and the most profitable, customer segment for Telecom providers for at least the next decade.

Four in 10 Telecom CEOs say their organizations are challenged to understand how millennials' needs differ from older customers, and nearly half cite the challenge of finding senior leaders better able to relate to millennials.



Takeaways

In the face of industry disruption, Telecom CEOs see opportunities. Business confidence remains high, with emerging technologies generating new products and services. CEOs need to supplement innovation and agility with data-driven capabilities that increase revenue and help them understand customers more effectively—while securing information and protecting privacy.

Compelling opportunities increasingly require external help.

Strategic alliances and M&A are playing larger roles in Telecom growth plans. Telecom leaders are working to enhance their value propositions and adjust their business models by, among other strategies, partnering with or purchasing firms that offer complementary technologies or access to attractive markets.



CEOs should guard against overconfidence.

Telecom companies enjoy significant growth potential, but cybersecurity and emerging technologies pose persistent challenges—both internally and for protecting customer data. Most CEOs believe their organizations are prepared to manage cyber risks, but understand the importance of technology expertise and organizational agility to their growth plans.



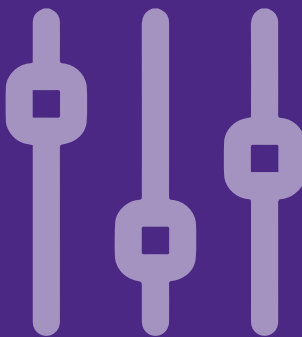
Better data, better decisions.

Telecom CEOs remain confident about their decision-making prowess and recognize the growing role organizational data plays in enhancing their ability to identify and execute on disruptive market opportunities. CEOs say artificial intelligence can help them understand changing customer demands while boosting revenue and efficiency.



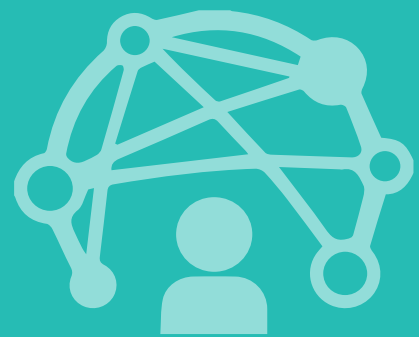
Personalization requires trust.

Customers are demanding more customized services, content and experiences that depend, in part, on their willingness to share personal data with service providers and platforms. To leverage data-driven opportunities, telecom companies need to use and protect data effectively while satisfying customers' and regulators' security and privacy expectations.



Invest in digital talent.

As disruptive technologies create opportunity, they also create a need for new talents and capabilities that may be challenging to find. Artificial intelligence professionals are coveted in nearly every industry, creating intense competition, while sustainability and cyber professionals remain key to protecting the organization and fostering digital transformation.



Demographics and methodology

The data in this report was compiled through a web-based survey of U.S. CEOs in the telecommunications industry. The results focus on the 82 U.S. CEOs who completed the survey, of which two-thirds reported \$1 billion or more in annual revenue. Eighty-four percent of the CEOs surveyed have been in their current position for four years or more.

Select results from KPMG's web-based survey of global Telecom CEOs are also included and represent the 207 global Telecom CEOs who completed that survey.

Please note that, due to rounding, the numbers presented throughout our report may not add up exactly to the totals provided, and percentages may not reflect the absolute figures precisely.

About KPMG

An experienced team, a global network

KPMG professionals combine industry knowledge with technical experience to provide insights that help technology industry leaders take advantage of emerging business opportunities and proactively manage business challenges. The KPMG network of professionals has extensive experience working with global technology companies ranging from the FORTUNE 500 to pre-IPO start-ups. They aim to anticipate the short- and long-term opportunities of shifting business, technology, and financial strategies.

The KPMG network of firms is one of the world's leading professional services organizations, providing audit, tax, and advisory services to many of the world's largest and most prestigious organizations. KPMG International's independent member firms have 200,000 professionals working in 154 countries and territories. Learn more at www.kpmg.com.

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Global CEO Outlook 2018

The 2018 report finds chief executives optimistic about the economy and excited by the growth opportunities offered by disruption.



Tech Giants

This publication looks at the possibility that the tech giants will become the dominant platform for consumers to obtain their premium content.



Tech disruptors outpace the competition

This report examines the game-changing technologies that are enabling new business models and identifies the opportunities and challenges of marketing new technologies.



U.S. CEO Outlook 2018

The need for disruption has intensified further, and technology has emerged as the only driver of transformation for a majority of U.S. CEOs.



Wireless World – Race for the Platform

This publication looks at the possibility that the wireless carriers will become the dominant platform for consumers to obtain their premium content.



Accelerating Automation

Intelligent automation is set to transform our lives. For business services, it promises huge gains, including lower costs along with better market insight into customer experiences.

Contact us

Sean Sullivan

Telecommunications National Sector Leader,
KPMG LLP
303-296-2323
seansullivan@kpmg.com

Richard Hanley

Advisory Industry Leader,
Technology, Media & Telecommunications,
KPMG LLP
408-367-7600
rhanley@kpmg.com

Pat Edgar

U.S. National Audit Industry Leader,
Media & Telecommunications, KPMG LLP
212-872-6736
patrickedgar1@kpmg.com

Dut LeBlanc

National Tax Leader,
Telecommunications, KPMG LLP
318-673-1229
dleblancjr@kpmg.com

kpmg.com/telecom

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