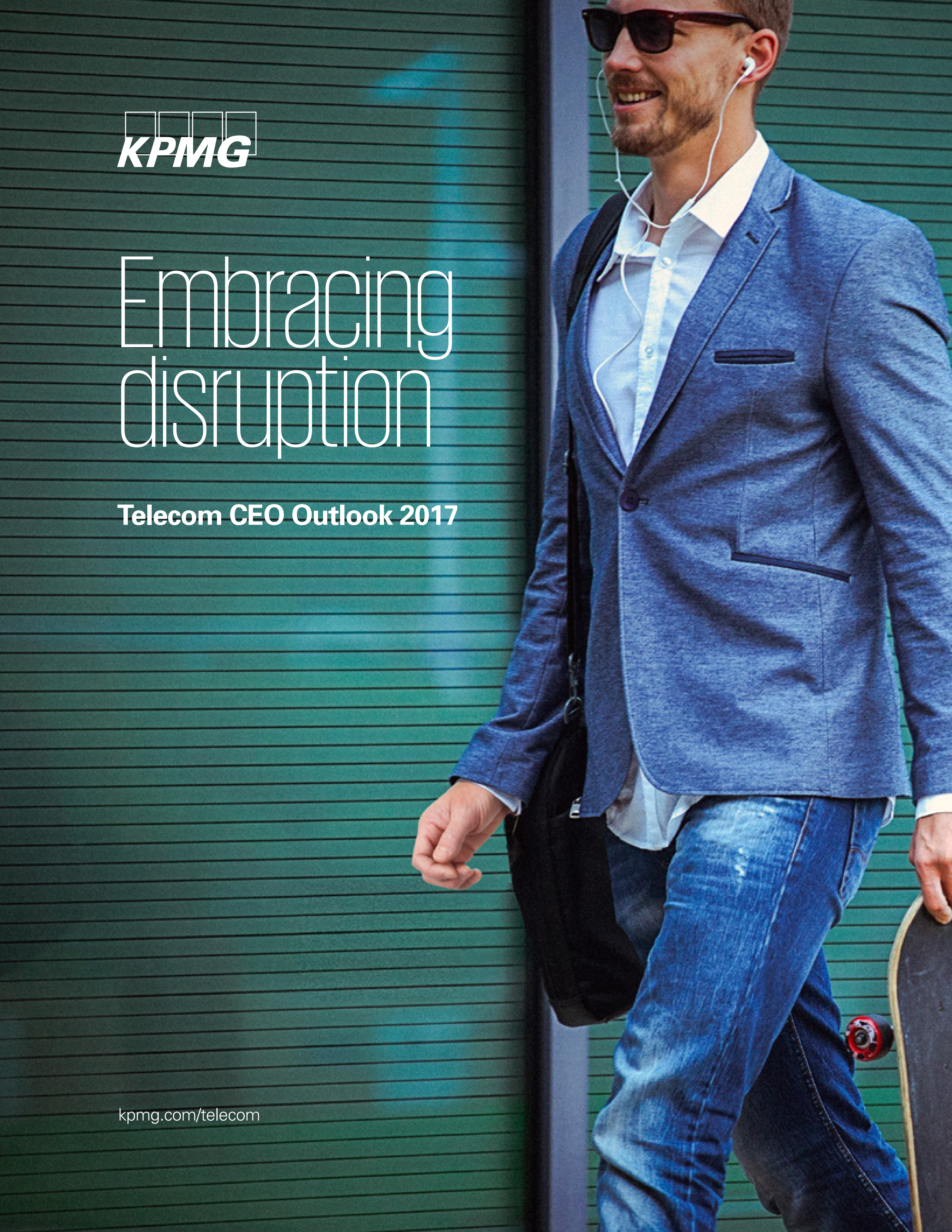
KPMG

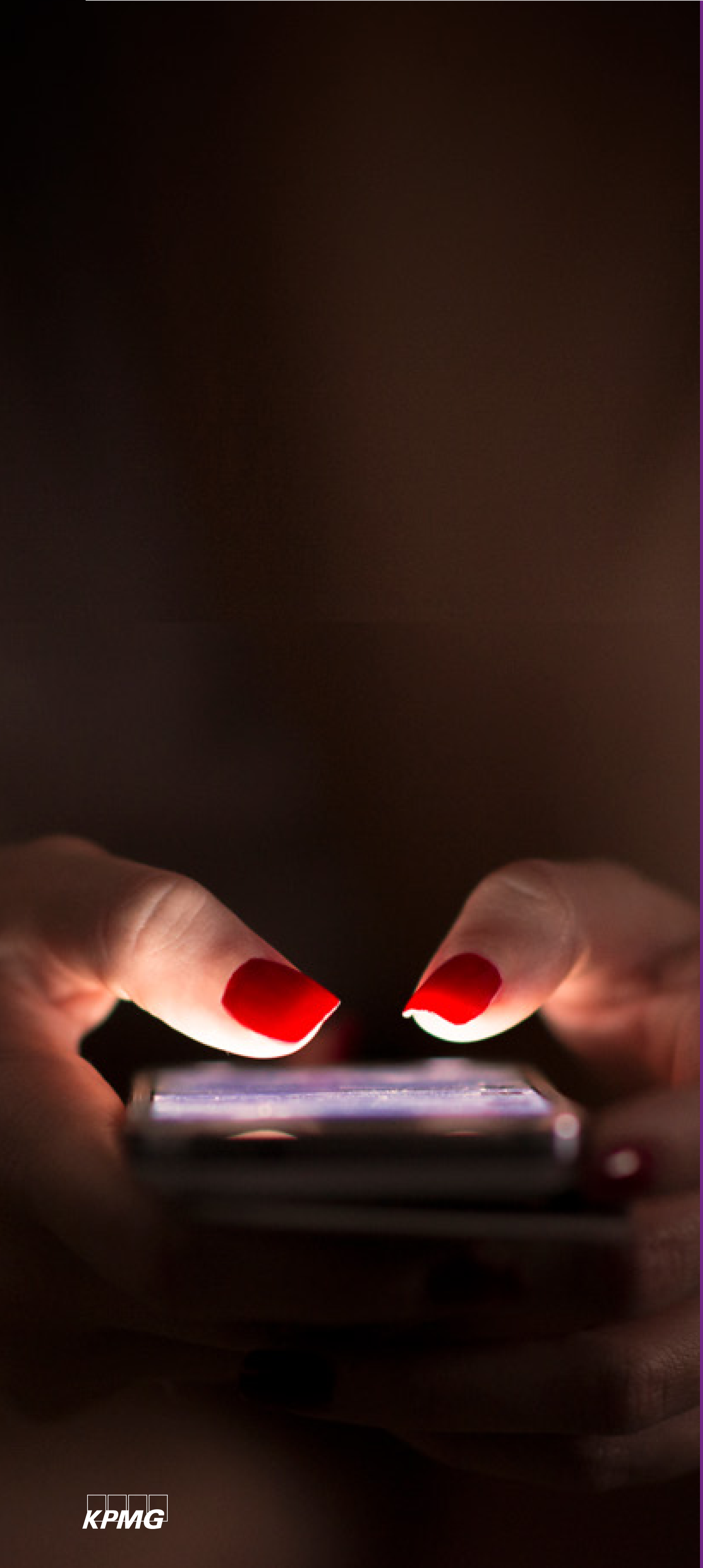
Embracing disruption

Telecom CEO Outlook 2017



kpmg.com/telecom

Contents



Foreword

As Telecom CEOs gain a greater comfort level with industry disruption, they have a much better understanding of how to deal with its effects on their business. These CEOs have become adept at anticipating and managing the challenges of rapid change, and most feel they are well positioned for the future.

Strategic plans now routinely focus on dealing with the inevitability of 5G, Internet of Things (IoT), connected car, and other near term industry advances that will make the most dramatic impact on their business.

But, there is also an inherent danger in getting too comfortable with the current pace of change, and many Telecom CEOs carry a lingering concern that their organizations would be ill-equipped to respond to a truly dramatic game-changing technology advance in the market.

It's clear that emerging technologies are significantly altering telecom's business processes and operations. Data and Analytics (D&A) continues to become more sophisticated as organizations learn to be more adept at turning customer information into an enhanced experience for the customer.

At the same time, cognitive technologies, like robotic process automation and artificial intelligence, are slowly reshaping the nation's workforce, taking over repetitive, lower level tasks, providing human workers with more time for creative endeavors.

Use cases are beginning to emerge for some of the ways Telecoms will be able to deploy cognitive technologies and D&A throughout their organizations. One example is to significantly enhance the customer experience. Telecoms now operate in a customer-centric world and face increasing competition. As companies develop an increasingly sophisticated approach to D&A, mining data is no longer just about selling information,but about creating greater value for the customer. Just consider how streaming services effectively use browsing habits to offer customized program suggestions.

The emergence of IoT is also shaping the way telecoms will do business in the years ahead. With digital assistants and other devices becoming increasingly interconnected, people will increasingly rely on their smart phones as the control centers for their lives. For businesses, IoT will enable greater efficiencies and productivity, help create smarter products, and be a source for an abundance of new consumer information.

Disruption is also driving M&A activity, since one of the ways companies can effect change faster is through acquisitions. Telecom CEOs are increasingly looking for new merger and alliance opportunities as they seek to acquire new technologies, fend off upstart competitors, and gain a pricing advantage. Many are approaching M&A as a way to buy an asset that will potentially create a differentiated customer experience. In the current political climate, Telecom CEOs face a potentially more deal-friendly environment in the United States that will likely lead to a changing landscape for the industry.

As these market and technology disruptions continue, CEOs will need to create cultures within their organizations that allow for innovation, and to inspire new products and services while charting bold strategies to meet the challenges that lay ahead.

Paul Wissmann
National Sector Leader,
Media & Telecommunications,
KPMG LLP

Highlights

Disruption

Telecom CEOs are confident about detecting and responding to market disruptors, and many are now getting out in front of the disruption to become the disruptor. What's behind this change in attitude? For the most part, disruption is no longer a headline, but more a part of daily business. CEOs are now approaching the rapidly changing market more strategically. But most also recognize that the future is complex, and what's on the horizon may be much different than the disruption they are navigating today.

Investment priorities

Telecom CEOs are placing their bets on cybersecurity, digital infrastructure, and emerging technologies. In large part, these investment choices are driven by a desire to improve bottom-line growth, improve customer engagement, and strengthen organizational resilience.

Strategic priorities and the Future

IoT, D&A, and Cognitive — As telecoms look to the future, CEOs are placing their bets on three emerging technologies: the Internet of Things (IoT), data and analytics (D&A), and cognitive intelligence. While their use is currently at the early stages, companies are highly focused on expanding capabilities in these areas.

Workforce

Human or Machine?—More Telecom CEOs expect to step up hiring in the coming years, although a majority still see their headcount remaining unchanged. Emerging cognitive technologies will bring about a reshaping of the workforce, but most CEOs view this as a realignment, not a replacement of human capital.

Cyber

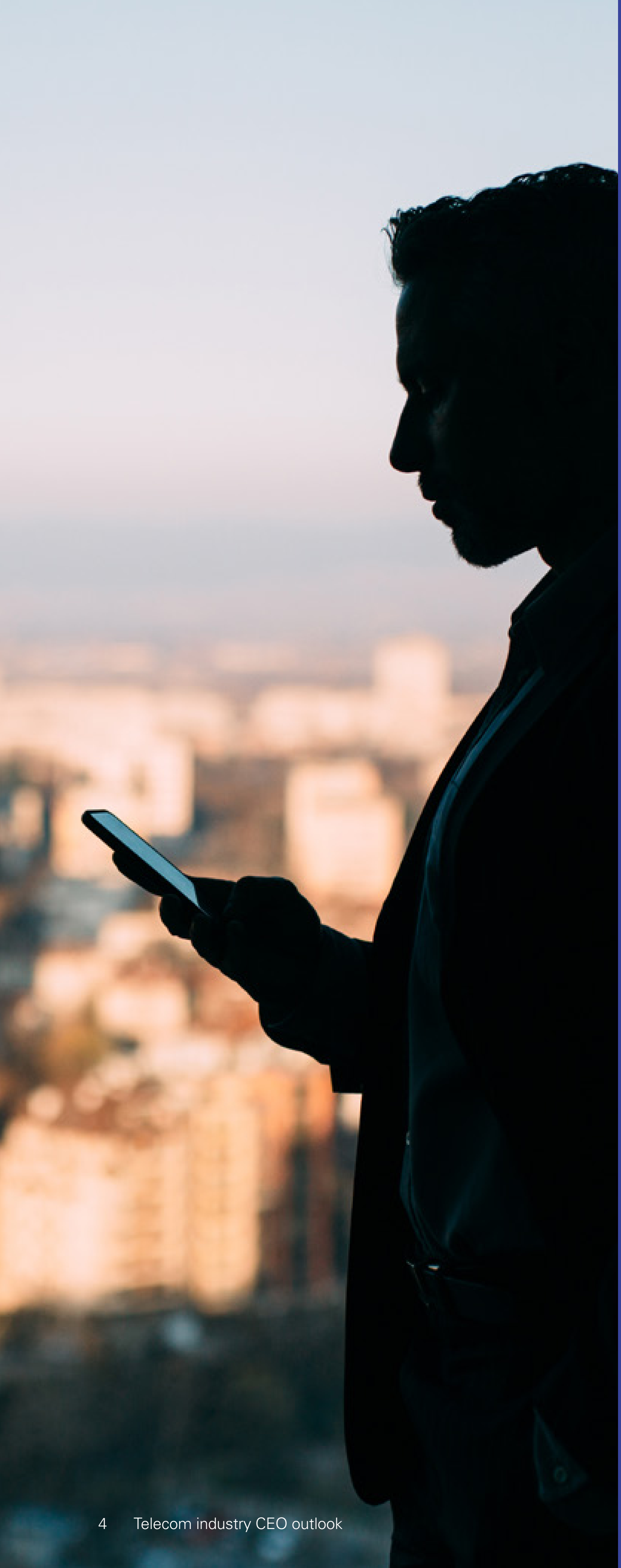
Telecom CEOs are expressing greater confidence in their ability to manage cybersecurity and in their preparedness for a potential cyber event. CEOs are embracing cybersecurity challenges, and most now recognize mitigating cyber risk as a more integral part of their leadership role.

Economic outlook

Telecom CEOs see regulations, brand/reputational risk, and global economic conditions as the main factors that will affect the growth of their companies in the next three years.

"The Telecom industry is responding to disruption based on the current pace of change. Companies are managing and, in some cases, getting in front of the shifting market, based on current market signals. But, CEOs also continue to express concern about their ability to react to the unknowns on the horizon, and are unsure of their ability to pivot quickly enough to an unexpected acceleration in technology development or other game-changing disruption."

— Paul Wissmann
National Sector Leader,
Media & Telecommunications,
KPMG LLP



The big picture

Strategic priorities and investment landscape

Throughout this report, survey results are broken out in key focus areas, including disruption, investment priorities, strategic priorities for the future, workforce, and cybersecurity. This section provides a more complete look at the survey questions that permeate each of those areas of focus.

As CEOs gain a greater comfort level with industry disruption, they have a much better understanding of how to deal with its effects on their business. Overall, they are much more comfortable navigating the strategic and operational shifts and making the key investment decisions, necessitated by rapid market changes. Telecom CEOs also seem to be showing a better understanding of their place as either a disruptor or the disrupted.

The next three pages cover the full range of responses from U.S. telecom CEOs to these questions related to their strategic and investment priorities.

- What are the top strategic priorities for your organization over the next three years?
- Which of the following best describes your organization's level of investment in the following areas over the past 12 months?
- What do you expect your level of investment in the following areas to be in three years' time?

What are the top three strategic priorities for your organization over the next three years?

Greater speed-to-market	30%	Stronger marketing, branding and communications	17%
Talent development/management	24%	Fostering innovation	15%
Becoming more data-driven	23%	Diversity/inclusion	14%
Stronger client focus (or to better meet customer needs)	23%	Minimizing cybersecurity risk	13%
Articulating our vision/culture/purpose	23%	Geographic expansion	13%
Building public trust	21%	Limiting brand risk in an age of transparency	11%
Responding effectively to regulatory change	20%	Acquisition, merger or joint-venture	6%
Digitization of your business (i.e., technology transformation)	18%	Improving the relevance of our reporting to investors	6%
Implementing disruptive technology	18%	Ensuring our KPIs are fit for purpose and accurately measured	4%

Multiple response allowed. Responses from U.S. CEOs. Source: KPMG Telecom industry CEO outlook 2017

Which of the following best describes your organization's level of investment in the following areas over the past 12 months?

	Significant investment	Incremental investment	No new investment
Cybersecurity	54%	12%	35%
Physical infrastructure	26%	43%	31%
Digital infrastructure	33%	36%	31%
Governance and risk	24%	40%	36%
Regulatory compliance	24%	38%	37%
Emerging technologies	31%	23%	46%
Innovation, including new products/services and ways of doing business	27%	23%	50%
Workforce training	19%	31%	50%
Recruitment	11%	23%	64%

Percentages for the response choice 'We have decreased investment in this area' are not displayed and were 2% or less.

Responses from U.S. CEOs. Source: KPMG Telecom industry CEO outlook 2017

What do you expect your level of investment in the following areas to be in three years' time?

	Significant investment	Incremental investment	No new investment
Recruitment	23%	61%	17%
Governance and risk	19%	26%	55%
Cybersecurity	29%	13%	58%
Digital infrastructure	19%	19%	62%
Physical infrastructure	21%	24%	55%
Emerging technologies	17%	26%	57%
Workforce training	13%	39%	48%
Regulatory compliance	14%	23%	63%
Innovation, including new products/services and ways of doing business	11%	24%	65%

Percentages for the response choice 'We have decreased investment in this area' are not displayed and were 1% or less.

Responses from U.S. CEOs. Source: KPMG Telecom industry CEO outlook 2017

Disruption

Telecom CEOs have become much more comfortable with the pervasive disruption within the industry than they were a year ago. What's more, a vast majority see their organizations as actively disrupting the sector, rather than waiting to be disrupted by their competitors.

What's behind this change in attitude? For the most part, disruption is no longer a headline, but more a part of daily business. CEOs are now approaching the rapidly changing market more strategically. They have developed a more fully formed view of how different facets of disruption will impact their business. But most also recognize that the future is complex, and what's on the horizon may be much different than the disruption they are navigating today.

Although telecom CEOs are confident in their abilities to recognize the market signals that are out there today, the survey did find one area of real concern: doubts about their ability to adapt to rapid disruption quickly enough to keep pace. Our survey found that 69 percent of telecom CEOs said their companies were effective at sensing market signals. But a surprising 89 percent expressed concern that their organization didn't have the sensory capabilities and innovative processes to respond to fast unfolding disturbance.

CEOs have become more familiar with the disruption occurring in the markets and are more comfortable with it. They are thinking of ways to respond to this disruption, but in some cases they are still concerned about whether their response will be fast enough and effective enough.

Please indicate your level of agreement with the following statements.

I am concerned our organization does not have the sensory capabilities and innovative processes to respond to rapid disruption	89%
We are effective at sensing market signals	69%
We are using the power of data analysis to predict where our next skill shortage will come from	31%
My organization is struggling to keep pace with the rate of technological innovation in our sector	31%
We can't base important business decisions on our data until we significantly invest in improving its quality	27%
My organization is not ready to adopt advanced artificial intelligence technology	27%
As CEO, it is difficult for me to get timely insight and advice on the strategic impact of new technologies	24%

"The Telecom industry is responding to disruption based on the current pace of change. Companies are managing and, in some cases, getting in front of the shifting market, based on current market signals. But, CEOs also continue to express concern about their ability to react to the unknowns on the horizon, and are unsure of their ability to pivot quickly enough to an unexpected acceleration in technology development or other game changing disruption." says Richard Hanley, KPMG's Advisory Industry Leader, Technology, Media & Telecommunications.

To be sure, telecoms will be facing disruption from many sides: the 5G future, new apps and products in the mobile space, as well as aggressive pricing from wireless competitors. But CEOs are now looking at these developments not just as challenges, but as areas for growth. For example, 71 percent of respondents said they see technology disruptions as more of an opportunity than a threat.

Telecoms are also beginning to move beyond established strategies to not only thrive in a rapidly changing business environment, but move out in front of the disruption to become the disruptor. Our survey found that 90 percent of respondents said that rather than waiting to be disrupted by competitors, their organization is actively disrupting the sector in which it operates. Yet, 79 percent also expressed concern that their organization is not disrupting business models in the industry. "This seems less of a contradiction and more of a recognition that disruption is both a constant and multifaceted," added Hanley.

Thinking about disruption in your sector, please indicate your level of agreement with the following statements

Rather than waiting to be disrupted by competitors, my organization is actively disrupting the sector in which we operate	90%
We see technological disruption as more of an opportunity than a threat	71%

CEOs expressed concern about the following:

That our organization is not disrupting business models in the industry	79%
That new entrants are disrupting our business model by a company not currently perceived as a competitor	37%
About whether our organization is staying on top of what's next in services/products	35%
About our competitors' ability to take business away from our organization	33%

CEOs focus on professional development

In a period of rapid transformation and a climate that is definitely not business as usual, CEOs are also focusing on their own professional development. Effectively dealing with rapid disruption requires the ability and willingness to embrace new ideas and new ways of working. This idea isn't lost among telecom CEOs, and many are looking to expand their own personal horizons.

A strong majority expressed a greater openness to new influences and collaborations. For instance, 78 percent of respondents said they are more open to new influences and new collaborations than at any other point in their career. Also, 82 percent said they had been on a course or studied for a qualification in the past 12 months in order to disrupt/challenge their role.

Nearly a third also expressed concern about the increase in mission-critical issues that they had not experienced previously in their career, yet they need to take a leadership position on.

The survey also shows that CEOs appear to be less concerned about competition from new market entrants compared with last year. For example, only 37 percent said they were concerned that their business model was being disrupted by a newcomer not currently perceived as a competitor. That's a precipitous drop from the 96 percent response in last year's survey. Likewise, only 33 percent said they were concerned about their competitors' ability to take business away from their organization, compared with a 93 percent response in 2016.

This growing acceptance of disruption and the need to change business models may be more prevalent among the larger telecoms, which are on the front lines when it comes to facing convergence within the industry. Smaller companies are seeing less of an impact.

Telecom CEOs also indicated strong agreement with a number of statements related to both short- and long-term strategic priorities/ objectives.

Level of agreement with statements related to both short- and long-term strategic priorities/ objectives

Our shareholders/board place equal importance on long-term and short-term performance objectives	88%
We see our objective to become more socially responsible as incompatible with short-term performance objectives	88%
Our organization is placing greater importance on trust, values and culture in order to sustain its long-term future	87%
My organization has a track record of successfully balancing both short-term financial goals and long-term growth plans	86%

Investment priorities

Cybersecurity, digital infrastructure, and emerging technologies were the top investments made by Telecom CEOs during the past 12 months. Followed closely by innovation, physical infrastructure, governance/risk, and regulatory compliance.

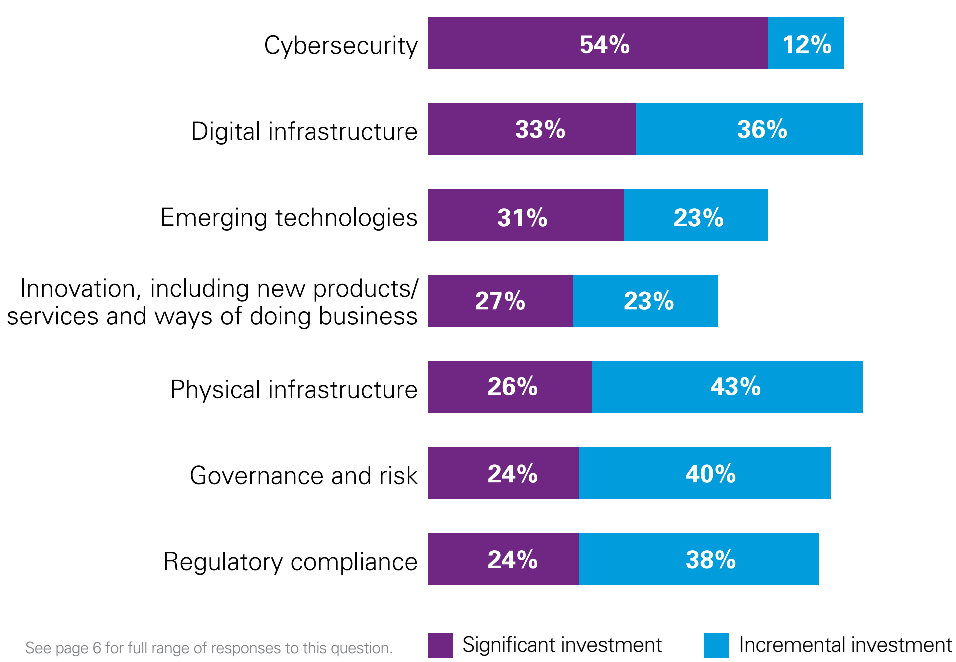
Interestingly, large companies ($10 billion or more in revenue) put a slightly greater emphasis on physical infrastructure, compared to smaller competitors, which slightly favored digital infrastructure.

As to their reasons for their choices, overall 64 percent said the primary objective for these investment choices was improving bottom-line growth, while 51 percent said getting closer to customers/improving customer engagement, and 43 percent said strengthening organization resilience.

When viewed by company size, the results showed that CEOs of large companies cited "strengthening organizational resilience" as their main motivation for their investment priorities.

Cybersecurity in particular was a significant area of investment for many companies in the past year, compared to other investment priorities, and results indicate reduced significance moving forward. Looking ahead over the next three years, the survey shows a slowing of focus in these areas, with a majority of respondents saying that cybersecurity, digital infrastructure, and emerging technologies would receive no new investment, except for maintaining current business needs.

Areas of significant and incremental investment over the past 12 months



See page 6 for full range of responses to this question.

"We see investment priorities shifting, in part based on market maturity," said KPMG's Wissmann. "As the digital future becomes reality, most companies are moving past the initial investment stage and into the strategy and implementation phase of their technology transformation. Though investment dollars are decreasing, technologies like D&A, IoT, and cognitive are still very much top of mind."

When it comes to specific technologies, 42 percent said they made significant investments in the Internet of Things in the past 12 months, 37 percent said data analytics tools, while 36 percent cited cognitive technologies (including artificial intelligence, and machine learning). Consequently, over the next three years, we see investments in these areas shifting to maintenance mode to support current business needs, with less emphasis on new investments.

There is also considerable focus on the importance of people both from a hiring and training/development standpoint in the investment plans for companies over the next three years.

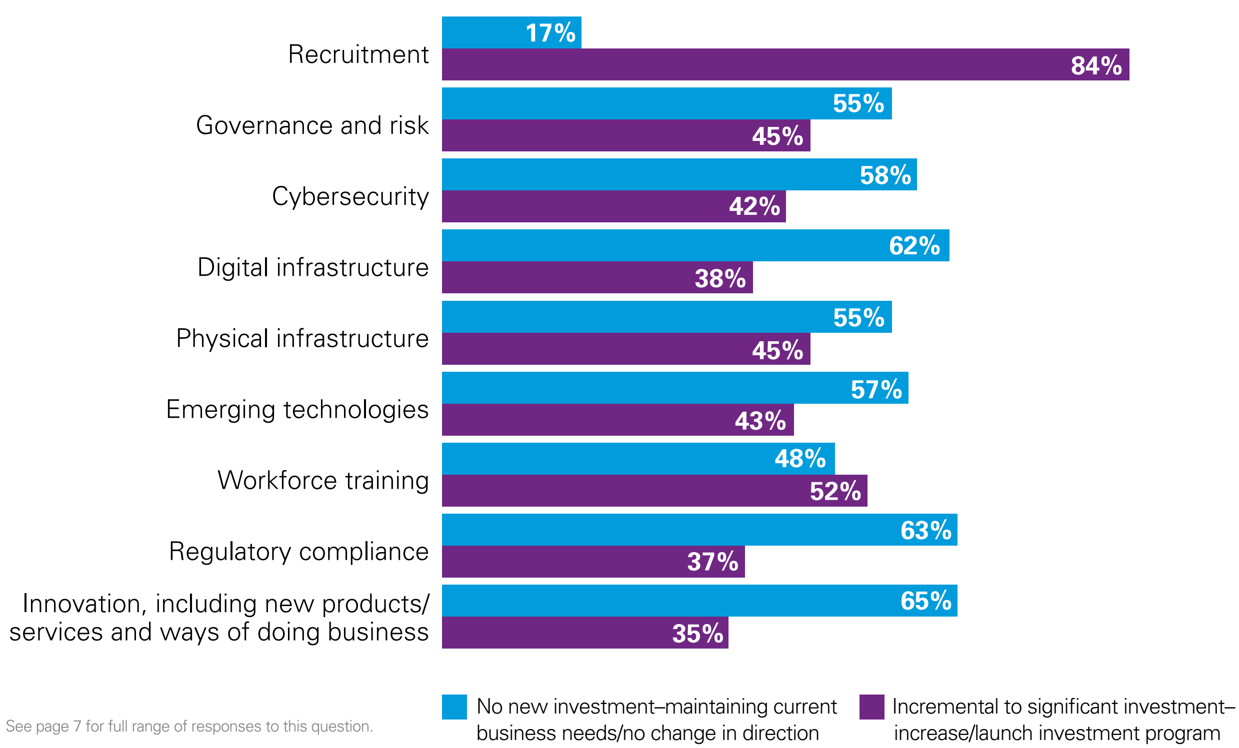
Which of the following best describes your organization's level of investment in the following technologies over the past 12 months?

42% **Internet of Things**

37% **Data analytics tools**

36% **Cognitive technologies**

What do you expect your level of investment in the following areas to be in three years' time?



See page 7 for full range of responses to this question.

Strategic priorities and the future - IoT, D&A, and Cognitive

As telecoms look to the future, CEOs are placing their bets on three emerging technologies: the Internet of Things (IoT), data and analytics (D&A), and cognitive intelligence. While their use is currently at the early stages, companies are highly focused on expanding capabilities in these areas.

"As Telecom CEOs determine where to expand their capabilities, they are setting investment priorities on the emerging technologies that will have the greatest market impact," said Richard Hanley. "With 5G on the horizon, IoT, D&A and cognitive technologies are coming into greater focus as key investment areas for the major Telcos."

Level of investment in various technologies three years from now:

	Significant investment	Incremental investment	No new investment	Decreased investment
Internet of Things	19%	26%	54%	1%
Data analytics tools	18%	29%	54%	0%
Cognitive technologies (including AI, machine learning)	14%	29%	57%	0%
Cognitive automation	13%	14%	71%	1%
Blockchain	14%	21%	64%	0%
Robotic process automation	11%	19%	69%	1%

Likely an indication of maintenance mode

As highlighted in the investments section, the survey found that 42 percent of CEOs made significant investments in IoT in the past 12 months, and 37 percent in D&A tools, while 36 percent cited cognitive technologies (including artificial intelligence, and machine learning).

Looking ahead to the next three years, CEOs will continue to focus on IoT, D&A tools and cognitive technologies, especially when considering those who anticipate either incremental or significant investment levels.

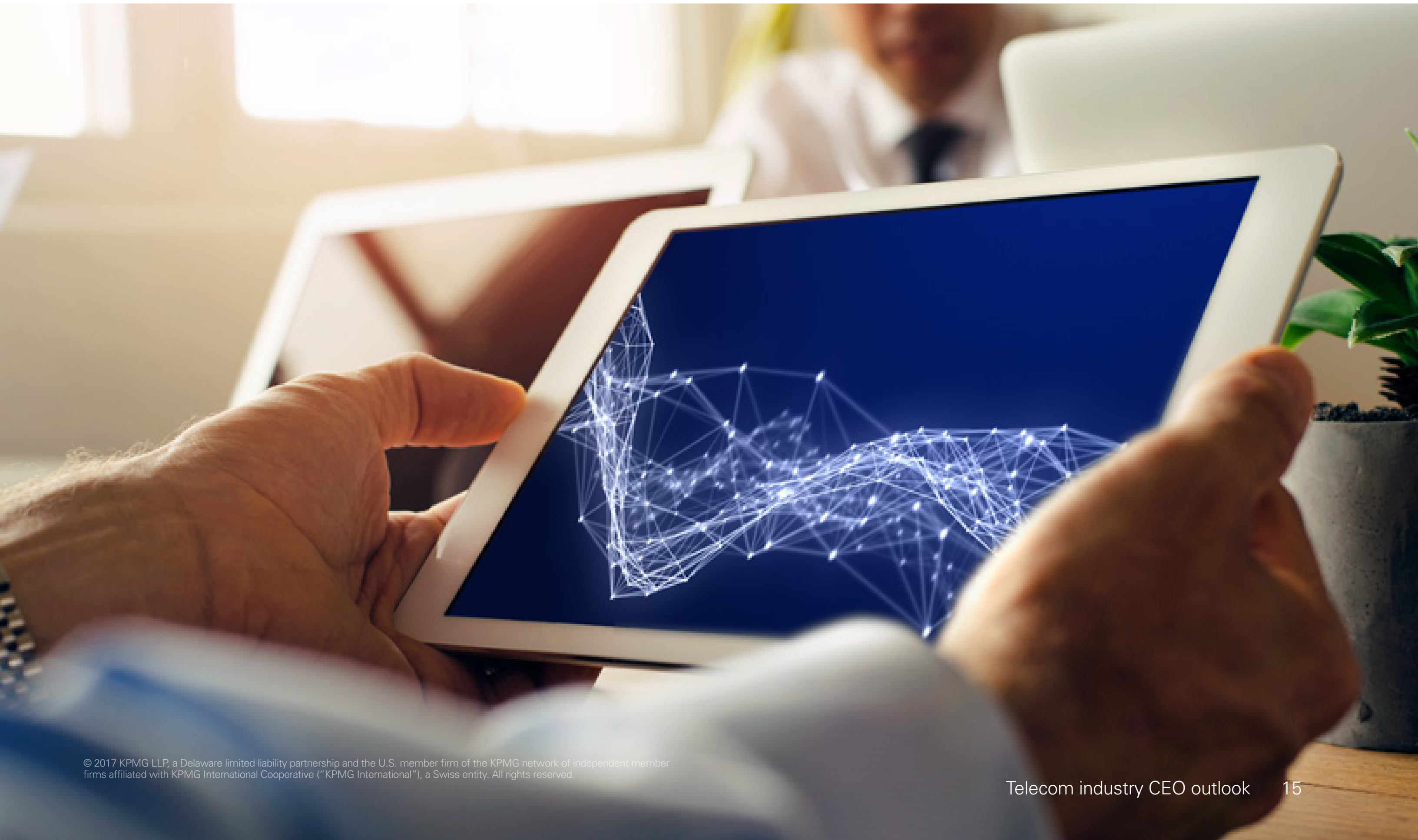
The use of cognitive technologies, such as robotic process automation (RPA), is growing, as companies seek to gain efficiencies and low costs by migrating lower-level tasks to software "bots." For their part, telecom CEOs indicated a far greater comfort level with the idea of employing cognitive technologies than just a year ago.

According to our survey, 45 percent said they are either unconcerned or neutral about having to consider the integration of basic automated business processes with artificial intelligence and cognitive processes, compared to only 2 percent who were comfortable with these concepts last year.

What's more, many feel that the emergence of cognitive technology will result in an increase in headcount, particularly in the areas of middle management, IT, and marketing and communications.

Data and analytics has become an essential tool for business leaders to plan strategy and react quickly to market forces. However, when it comes to data quality, many telecom CEOs expressed some apprehension. According to the survey, 71 percent said they were concerned about the integrity of the data they were basing their decision on.

For their part, telecom CEOs indicated a far greater comfort level with the idea of employing cognitive technologies than just a year ago.



Workforce—human or machine?

Although a majority of telecom CEOs expect headcount to remain unchanged during the next 12 months, there's a slight uptick in the percentage of CEOs that see a need to begin hiring in the coming year, compared with last year's survey.

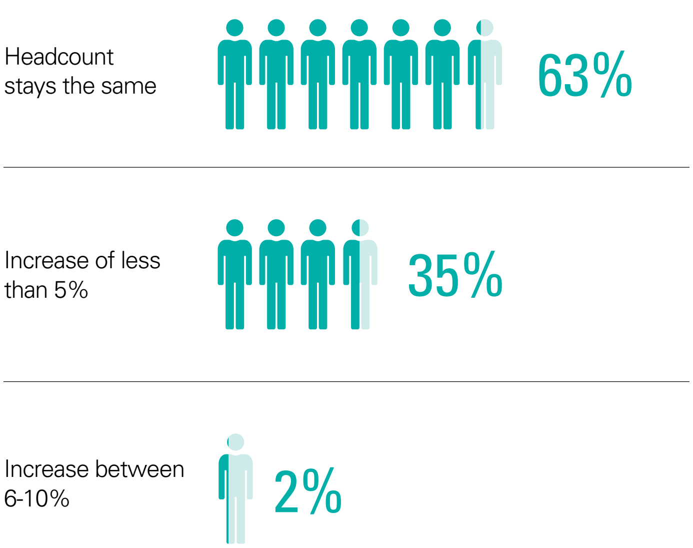
These sentiments are reinforced by survey results showing that over the next three years, 61 percent of respondents expect to gradually increase investments in recruiting, with 39 percent citing workforce training as a focus for gradually increasing investments.

The U.S. economy overall is facing a shortage of skilled workers. According to the nonprofit National Skills Coalition, just over half of the job openings between now and 2022 will be for middle-skill jobs, that is, those that require more than a high school diploma but less than a four-year degree. Middle-skill jobs account for 54 percent of United States' labor market, but only 44 percent of the country's workers are trained to the middle-skill level, according to the NSC. And a 2016 survey by Manpower Group of 42,000 employers found that 40 percent are experiencing difficulties filling roles—the highest number since 2007.

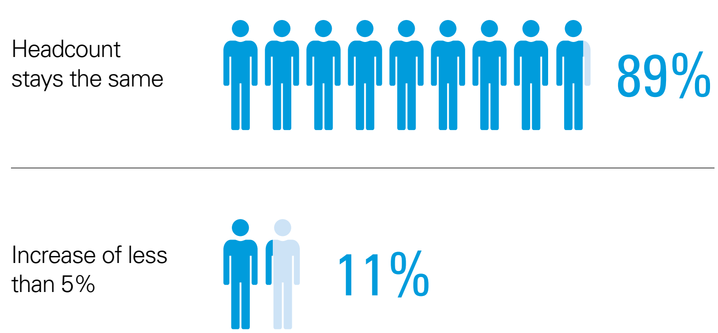
To fill the gap, some companies are turning to foreign workers, hiring independent contractors, increasing automation, adding to their training program and in some cases, boosting pay, says the National Association for Business Economics.

Another business trend gaining attention is the rise of the "digital workforce"—that is emerging cognitive technologies, including robotic process automation, cognitive computing, and cognitive automation. These technologies, often referred to as software robots, or "bots," can be used to replace workers who perform repetitive, lower-level back-office tasks. These bots promise to increase efficiencies, lower costs, and relieve workers from lower-lever repetitive tasks, freeing them up for higher-level jobs.

Headcount expectations over the next 12 months:



Headcount expectations from last year:



Our survey asked telecom CEOs how emerging cognitive technologies would affect headcount over the next three years. The majority said they expected it to require a significant increase in their workforce in the areas of IT, middle management, senior management, and marketing and communications.

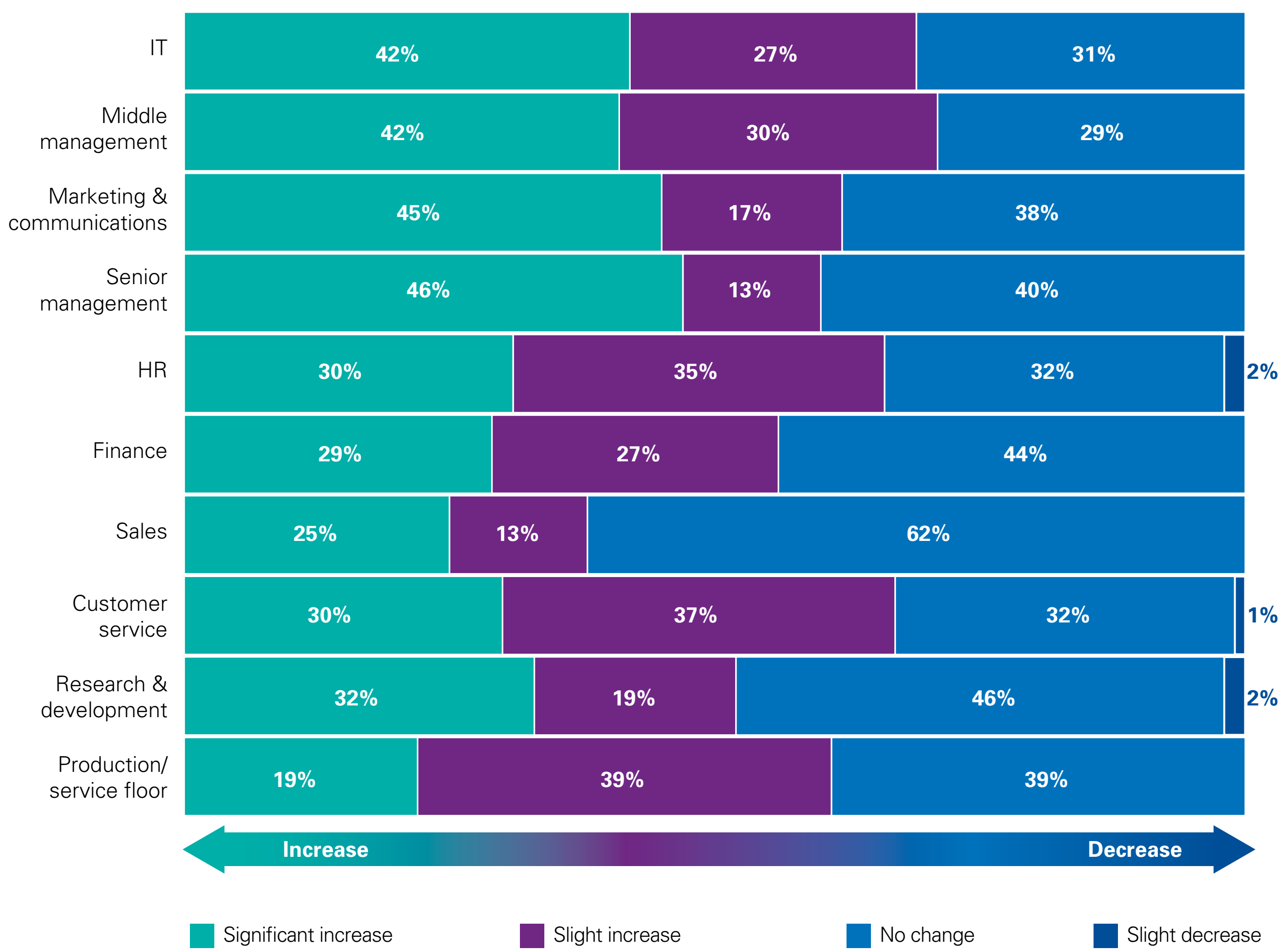
"The growing use of cognitive technologies will slowly reshape the workforce, but the precise impact from a talent management perspective remains to be seen," said Gavin Mead, Principal, KPMG Cyber Services. "Virtually no one seemed to be looking at cognitive as a headcount reducer, but rather a business enabler allowing high-value human resources to be refocused elsewhere."

Notably, when asked about strategic priorities over the next 3 years, talent development/management ranked among the top 3 priorities.

24%

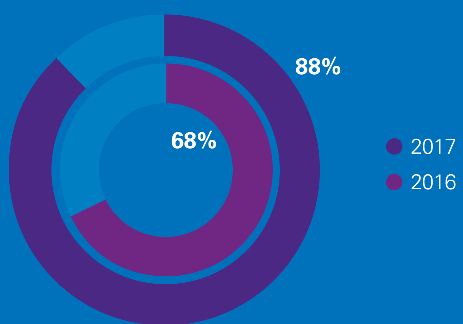
of CEOs point to talent development/management as one of the top three priorities over the next three years.

How will emerging cognitive technology (RPA, cognitive computing and cognitive automation) impact your headcount over the next three years in the following areas?

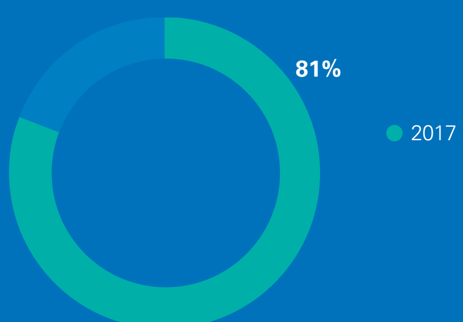


Most CEOs are comfortable with the degree to which mitigating cyber risk is part of their leadership role, and see cyber as an opportunity, not overhead cost.

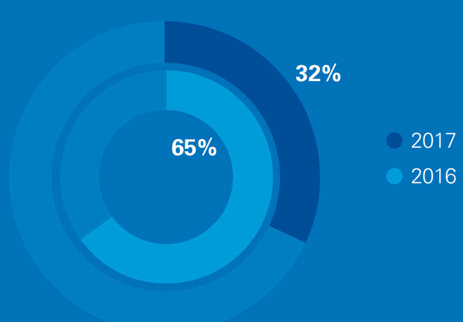
I am personally comfortable with the degree to which mitigating cyber risk is now part of my leadership role



We see investment in cybersecurity as an opportunity to find new revenue streams and innovate, rather than as an overhead cost



We believe that security prompts innovation in products and services



Cyber

While cybersecurity still presents a significant risk, telecom CEOs indicated a much greater level of preparedness than in the past. "With headline grabbing, reputation damaging, cyber events of the last couple of years, CEOs are embracing cybersecurity challenges as part of the leadership role, not just as an IT issue," said Mead. "Many CEOs see these risks as an opportunity to innovate, and are also filling the skills gap and investing in what has become the new reality of cyber vigilance."

Telecom CEOs expressed greater confidence than last year in their company's ability to manage the risks associated with cyber threats. In line with these results, many say they have made a significant investment in cybersecurity in the past 12 months, and consequently are now in maintenance mode, which enables them to curb future investment in cyber. They are now focusing instead on the emerging investment areas of IoT, D&A, and cognitive technologies.

In our survey, only 24 percent of respondents overall said that cybersecurity was a risk they were concerned about. That's down significantly from a response of 64 percent in last year's survey. Smaller companies were only slightly more concerned at 33 percent; while among larger companies the response was 14 percent.

Likewise, CEOs were generally more confident about their preparedness for a cyber event, with 40 percent saying they are fully prepared, and 57 percent saying they are somewhat prepared. This is a dramatic improvement over last year, when only 2 percent confirmed they were fully prepared.

CEOs also expressed more confidence in their own abilities around cybersecurity. Our survey found that 88 percent of CEOs said they were personally comfortable with the degree to which cybersecurity is part of their leadership role, an increase from 68 percent in last year's survey. A large majority, 81 percent, also said that they see investment in cybersecurity as an opportunity to find new revenue streams and innovate, rather than as an overhead cost.

All of these results point to a growing sentiment among CEOs that cyber risk has become less an unanticipated threat and more an issue to be addressed as part of their regular business processes. This sentiment is also reflected in the fact that although 54 percent of respondents said they made a significant investment in cyber in the past 12 months, the percentage falls to 29 percent when asked about their level of investment over the next three years.

40%

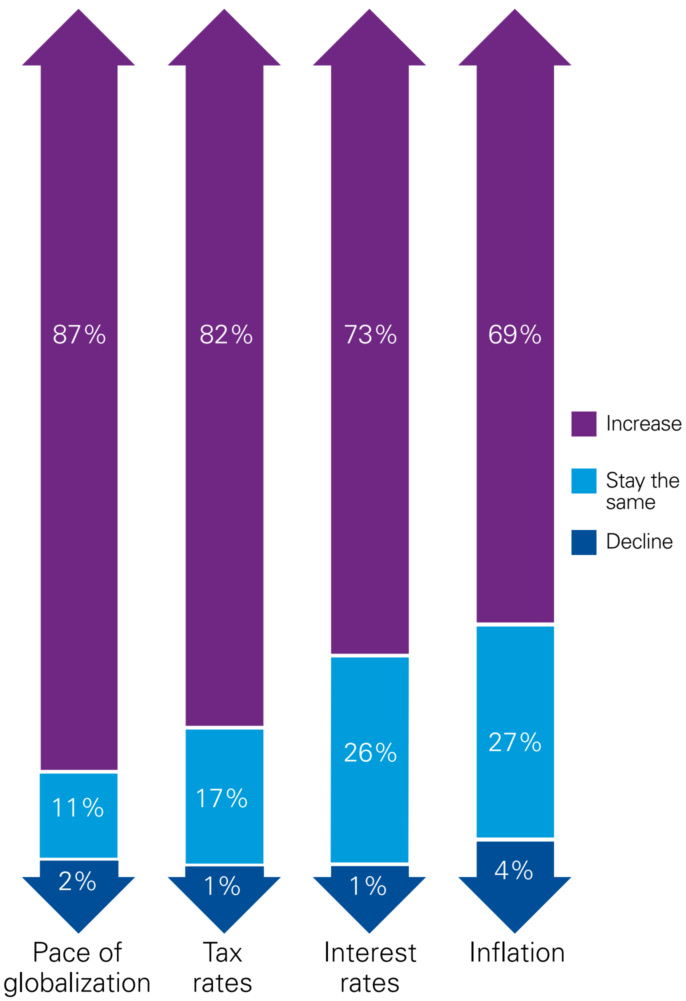
CEOs were generally more confident about their preparedness for a cyber event, with 40 percent saying they are fully prepared.

Economic outlook

Telecom CEOs expect multiple factors to impact the growth of the company over the next three years, including regulatory changes, reputational/brand risk, new technology, and access to talent. This is followed closely by global economic factors, new competitors/disruptors, and changing customer expectations.

Additionally, CEOs expect the pace of globalization and tax rates to increase over the next three years, with interest rates and inflation increasing to a lesser extent.

Growth prospects over the next 3 years for pace of globalization, tax rates, interest rates and inflation



In terms of growth prospects, please indicate your level of confidence in the following over the next 12 months

		Very Confident	Confident	Neutral	Not Very Confident
Prospects for growth for the global economy	**2017**	15% ↓	46% ↑	36% ↓	2% ↑
	2016	18%	23%	59%	0%
Prospects for growth for your country	**2017**	42% ↑	23% ↓	33% ↑	2% ↓
	2016	11%	63%	20%	7%
Prospects for growth for your industry	**2017**	36% ↑	44% ↓	20% ↓	0% ↓
	2016	16%	55%	23%	5%
Prospects for growth for your company	**2017**	36% ↑	43%	21% ↓	0%
	2016	32%	43%	25%	0%

Conclusion/implications

Telecom CEOs have become increasingly comfortable navigating the challenges of a shifting market. They are more confident about detecting and responding to disruption, and are aligning business process and operations to address market expectations.

The big question is what's next? With disruption as a constant, how are Telecom CEOs shoring up for the next big market shift that threatens to encroach on their core services and erode their customer base? Staying agile is only part of the solution.

Telecom CEOs largely indicated that they are faring well with the current pace of change, and in many cases getting out in front of it to become the disruptor, rather than lagging behind as the disrupted. But what if the pace of change accelerates? Are they well positioned to deal with a rapid shift that significantly upends the market?

CEOs continue to express concern about their ability to react to the unknowns on the horizon, and are unsure if their organization can pivot quickly enough in the face of a major and unexpected change. If the current pace of change accelerates dramatically — due to a major technology development or other game changing innovation — companies may not be able to respond quickly enough.

There's a general acceptance that more change is on the horizon. CEOs need to stay alert and anticipate that there could be rapid disruption and position their companies to react quickly, yet strategically. In this climate, it's no surprise that CEOs are increasingly focused on professional development and education to better equip themselves to deal with mission critical issues they have not experienced in their career. As competitors up their game and test new offerings, Telecom CEOs need to be able to assess market signals to determine whether their competitors are going in the right or wrong direction.

New technologies have the potential to create lower spend, and impact the customer base. Telecom CEOs must be vigilant and assess their investments and strategic priorities with an eye to not only what is going on in the market today, but what might be around the corner.

— With 5G, aggressive pricing from wireless competitors and new products in the mobile space, CEOs needs to assess disruption not only in terms of the challenges they present, but more importantly for the growth potential of new offerings

— For Telecom CEOs, the current mix of investment priorities are based on "strengthening organizational reliance." As companies move beyond the investment stage into the strategy and implementation phase in technologies like D&A, IoT and cognitive, they also need to keep a watchful eye on how the market is maturing and assess which capabilities will have the greatest market impact

— Even with the current level of preparedness, Telecom CEOs need to keep cybersecurity at the top of their agenda

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 in this report focus exclusively on the 84 U.S. CEOs who completed the survey, of which 66 percent reported $1 billion or more in annual sales. Almost all U.S. Telecom CEOs said their company is publicly traded. The survey was conducted in Q2 of 2017.

About KPMG

KPMG's professionals combine industry knowledge with technical experience to provide insights that help Telecommunications industry leaders take advantage of emerging business opportunities and proactively manage business challenges.

Our network of professionals in 152 countries, have extensive experience working with global companies ranging from the Fortune 500 to pre-IPO startups. We aim to anticipate the short- and long-term opportunities of shifting business, technology, and financial strategies.

KPMG operates as a global network of independent member firms offering audit, tax, and advisory services. Collectively we employ more than 189,000 people across a range of disciplines. Sustaining and enhancing the quality of this professional workforce is KPMG's primary objective. Wherever we operate, we want our firms to be no less than the professional employers of choice.

KPMG U.S. is consistently named one of the country's "100 Best Companies to Work For" by Fortune Magazine. Our people share a sense of purpose in the work we do, and a strong commitment to community service, diversity and inclusion, and eradicating childhood illiteracy. Learn more at: https://home.kpmg.com/us/en/home/about.html

Authors and contributors

Paul Wissmann, National Sector Leader, Media & Telecommunications, KPMG LLP Paul is the national sector leader of KPMG's Media and Telecommunications practice, which provides services to companies in the entertainment, cable, satellite, telecommunications, advertising, publishing, and digital-media industries.

Over the course of his 30 years with KPMG, Paul has been a resource to the firm on matters related to the entertainment and telecommunications industry, both in the U.S. and internationally. He has provided audit services to media, telecommunications, information, and entertainment clients. In addition, he has provided mergers and acquisition services to various companies in the media and telecommunications sector, including working on a number of large transactions involving well-known media companies.

Paul has written and given presentations on many business issues currently experienced by the media and telecommunications business, including the transformative changes being experienced within these industries. He has consulted with companies regarding the implications of these changes to their business models and potential acquisitions.

Richard Hanley, Advisory Industry Leader, Technology, Media & Telecommunications, KPMG LLP Richard is KPMG's Advisory Industry Leader for Technology, Media and Telecommunications and the Global Advisory Industry Leader for the Technology industry.

Richard has more than 25 years of advisory experience working with leading TMT companies, private equity funds, and sovereign wealth funds. His responsibilities include setting TMT industry strategy for Management Consulting, Risk Consulting, Strategy, and Deal Advisory services. Based in Silicon Valley, Richard works with U.S. and global clients.

He provides advice on domestic and cross-border mergers, acquisitions, due diligence, and disposals to leading technology companies as well as serving as lead partner for some technology companies. His previous responsibilities at KPMG include Advisory Practice leader for the Bay Area and Pacific Northwest and National Technology Industry Leader for Transaction Services. Richard has been based in KPMG's Silicon Valley, San Francisco, New York, and London offices.

Contributors

We appreciate the insights and support of the following individuals in the development of this publication:

Hasan Dajani, Primary Research Associate Director

Charles Garbowski, Primary Research Director

Contact us

Paul Wissmann
National Sector Leader,
Media & Telecommunications, KPMG LLP
213-955-8518
pwissmann@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