

Telecoms Industry CEO Outlook

Accelerating digital transformation: current victories and future challenges

KPMG International

home.kpmg/telecoms-ceooutlook

Foreword

COVID-19 stay-at-home orders propelled telecoms providers into the sphere of essential services for most consumers, and heightened the importance of ultra-reliable connectivity for at-home, work, school, and social interaction. Demand surged for telecoms services as a huge swath of workers in many sectors shifted from working in an office to working from home overnight, and domestic telecoms networks served as the backbone to keep consumers and many businesses operating through COVID-19.

To understand the changing environment, and how telecoms providers are adapting to (and investing for) the new reality, the KPMG global CEO Outlook study asked leaders how their priorities have changed during this period of unprecedented disruption. The study was conducted in two phases. KPMG initially surveyed CEOs in January and February of 2020, before many key markets felt the full impact of the virus. In July and August, KPMG conducted a follow-up survey to understand how CEO thinking evolved over the ensuing months.

The results indicated that telecoms provider CEOs are taking many strategic steps to navigate the challenges of market disruption, and focusing on the organizational resilience to capture emerging opportunities and new revenue streams. Evolving customer needs, network requirements, operating cost structures (e.g., retail stores, call centers) and investment constraints will require telecoms operators to make a series of critical, strategic decisions to help identify and align leadership around the optimal course of action. The events of 2020 have put digital acceleration, societal needs, and talent into even greater focus for telecoms providers.



Alex Holt Global Head for Technology, Media, and Telecommunications KPMG International

Key findings



Economic Outlook

Telecoms CEOs maintained confidence about growth prospects, although at lower levels than we saw at the start of the year. The follow-up survey recorded a notable shift from CEOs who were 'very confident' to those that were merely 'confident,' as well as a small number of leaders who reported being 'not at all confident'-a category that received no responses in the earlier survey.



Standing for Equality

As the pandemic prompted more organizations to demonstrate their role in serving societal needs, telcos were among the companies that made public statements supporting racial and economic equality. Telecoms CEOs highlighted efforts such as promoting diversity and inclusion in recruitment, promotions, and leadership representation; donations to social organizations; including diversity in performance management; and other measures.



The pandemic shifted CEO concerns about potential risk factors, with talent and supply chain risks replacing disruptive tech and a return to territorialism as leading threats to organizational growth as indicated earlier in the year:

Talent risk concerns rose as telecoms CEOs cited a challenge with keeping workers connected, engaged, and productive despite surging customer demand, COVID-19-related anxiety, and a sudden need to change work patterns. CEOs will need to focus on enhancing the employee experience as work-from-anywhere employment strategies increase the ability of top talent to change employers easily.

Supply chain risk increased as manufacturing shut down suddenly, constraining the global supply of telecoms equipment and popular consumer devices. Trade disputes and national security concerns created a highly challenging supply chain environment.

Cyber security concerns increased in the wake of rising demand and a growing reliance on at-home telecoms services for work, family connections, education, and entertainment needs. Providing effective security is an ongoing and expanding opportunity for telecoms companies.

Emerging and disruptive technology became less of a concern as CEOs shifted their focus to meeting surging demand and a near-term need to enhance resiliency.



The pandemic forced telecoms providers to re-evaluate not only changing consumer demands and usage patterns, but also the best ways to meet their customer service obligations. The result was a sudden shift to a digital-first customer experience and acceleration of digital business models and revenue streams that generate value and enhance resiliency.



COVID-19 prompted telecoms providers to accelerate ESG initiatives including the use of collaboration tools in reducing business travel and long commutes. As they work to rebuild their companies, telecoms CEOs recognize a need to devote more attention to ESG issues and to lock in the sustainability and climate change gains made as a result of the crisis.



As providers shift into what is likely to remain a new reality, they are taking steps to enhance their resilience and evaluating planned discretionary spending, such as marketing investments, to prepare for extended economic downturns. Similarly, they are assessing network investments to ensure they are able to meet changes in demand and usage in an 'always at home' environment, and how the changes in usage patterns will affect plans for the 5G buildout and other network upgrades.

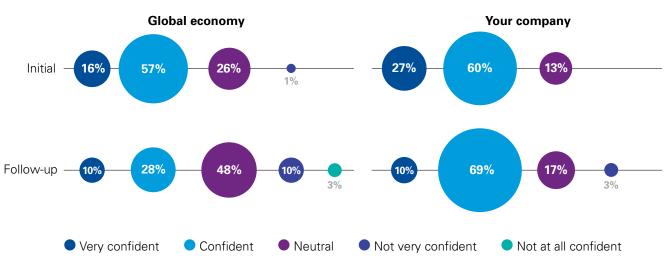
Survey results indicate telecoms CEOs maintained confidence in their companies' and industry's growth prospects as they demonstrated resiliency throughout COVID-19, but at a notably lower level than they reported at the start of 2020. Confidence in the global economy, for example, has slipped since the beginning of the year. Similarly, there has been a notable shift from 'very confident' to 'confident' in their company's growth prospects. Although 69 percent of CEOs reported they were confident and 10 percent described themselves as very confident, both of these metrics are lower than in the earlier survey. Perhaps more telling, a few respondents selected 'not at all confident' in the follow-up survey, but this response wasn't selected at all in the earlier survey.

CEOs remain confident, in part, because there's a demonstrated need for existing levels of telecoms services, and many are seeing incremental demand. Different countries are recovering at varying rates, but the new normal is likely to mean that reliance on telecoms services will be robust and potentially continue to grow.

In this evolving environment, providers will need to make a series of strategic decisions to meet the changed customer needs, cost structures, and network requirements of the new operating reality.

Economic outlook and business confidence, then and now

In the initial survey, respondents were asked to indicate their level of confidence over the next 3 years. In the follow-up survey, they were asked to indicate their level of confidence over the next 3 years, compared to the beginning of the year.



Confidence in growth prospects for...



Amidst the many challenges the pandemic caused companies in all industries in 2020, more organizations demonstrated their role in serving societal needs and emphasized corporate purposes that addressed a wider role than serving stakeholders. And as broad-based social movements and a drive for greater equality gained momentum in the United States in the spring and early summer, a growing number of companies made public statements supporting racial and economic equality. **66** Diversity and inclusion is one of our leadership philosophies and part of our credo as a company, and so talking about it comes very naturally for us.

Hans Vestberg Chairman and CEO, Verizon Communications



For Verizon Communications' Chairman and CEO Hans Vestberg, playing a critical role in tackling racial inequality was a logical extension of the company's approach to major societal issues, its strategy, and its leadership philosophy. "When I have opinions about societal challenges, it's when it's part of my strategy," he explains. "I was always an extremely strong advocate for diversity and inclusion. I've lived and worked in four continents, and I've learned that if you have seven people like me in the room, it's just going to be a disaster. Diversity and inclusion is one of our leadership philosophies and part of our credo as a company, and so talking about it comes very naturally for us."

Vestberg, who was visibly emotional in a video announcement to his staff where he announced Verizon was committing US\$10 million to organizations that are dedicated to racial equality and social justice, believes that a strong stance is a moral imperative if you find something simply unacceptable. "We knew racial injustice was something we needed to talk about because we're not going to accept it," he says. "We're really building diversity right here: our customer base is diverse and our company is diverse." Among telecoms CEOs, when we asked those CEOs who had already introduced new diversity and anti-racism measures about what actions they had taken, the top areas were:

- 1. Performance management
- 2. Individual training to manage unconscious bias.

Other areas include:

- Supportive interventions, such as allyship training, that provides foundational information about gender identity and expression, and sexual orientation
- Structural/systemic interventions, such as promoting diversity and inclusion in recruitment, promotion, and leadership representation
- External interventions, such as donations to social organizations.

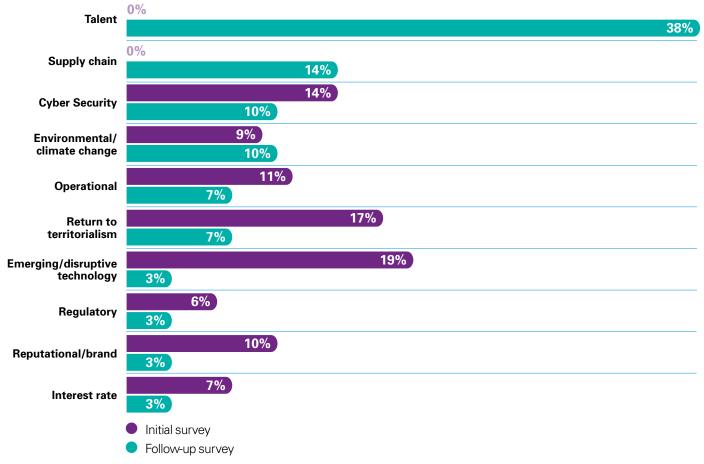
Download the KPMG <u>Global CEO Outlook</u> for additional detail about Vestberg's beliefs about standing for equality, or watch this <u>video</u> where he discusses the actions they are taking.



Greatest risks Threats to an organization's growth over the next three years

The pandemic shifted **CEO concerns about** potential risk factors, in some cases quite significantly, with talent and supply chain risks replacing disruptive tech and a return to territorialism as leading threats to organizational growth as indicated earlier in the year. CEOs also cited cyber security challenges as an obstacle to unlocking growth and their ability to capture market opportunities.

In the initial survey, respondents were asked to indicate their concerns about threats to their businesses' growth. In the follow-up survey, they were asked, aside from the pandemic/health risk, what risks pose the greatest threats.



Partial list of responses shown.

Greatest risks/threats to growth (continued)

Talent Risk

One of the factors driving the importance of talent as a leading concern is an interesting corollary to a trend driving industry growth and confidence: telecom-fueled work-fromanywhere employment strategies that increase the ability of top talent to choose and change employers with little regard for geography. This increased flexibility isn't limited to the highest-demand talent or positions, with most back-office workers gaining broader employment opportunities.

Telecoms CEOs also cited a challenge in keeping workers connected, engaged, and productive despite COVID-19-related anxiety and a need to change work patterns suddenly.

Telecoms providers may also need to re-skill their workforces to take advantage of new collaboration tools most effectively. With collaborative work becoming foundational for telecoms companies, leaders will need to ensure their teams are able to leverage new tools and processes to maintain and increase everyday productivity.

Similarly, telecoms leaders will need to focus on enhancing the employee experience in this new work environment. With the pandemic upending predictable routines for workers in and out of work, CEOs will have to adapt to how employees are re-configuring their personal lives to balance work and life.

One potential benefit of increased remote work, however, is that providers will be able to access a broader pool of talent that is able to work largely without geographic considerations.

Despite the heightened importance of talent-related risks, CEOs are prioritizing technology investments as they make plans for the next three years, with more than three-quarters indicating they will place more capital investment in buying new technology and digitization than in developing their workforce's skills and capabilities.



Supply Chain Risk

We saw a notable shift in CEO attitudes about the importance of supply chain risk. This risk didn't register in the early 2020 survey but rose to a second-leading concern in the follow-up survey.

The COVID-19-related shutdown of manufacturing constrained the global supply of equipment needed to maintain the 5G rollout and, coupled with rising demand, reduced the availability of popular consumer devices.

Trade disputes and national security concerns may reduce the availability of 5G infrastructure equipment and competition in the supply chain. Similarly, these trade disputes hampered development of semiconductors and chipsets to power upgraded telecoms networks and devices.

Cyber Security

The importance of cyber security, and maintaining the security and privacy of customer data, has only increased for telecoms providers. The increased use and growing importance of telecoms services in our work and home lives highlights the importance of providers being able to protect security.

More data is being uploaded and accessed in the cloud, more people are working outside of the enterprise networks, more business is conducted over video conferencing, and more students are participating at least part-time in online education—all of which are subject to hacking and disruption.

Telecoms providers recognize that effective cyber security is an obligation, a risk factor, and an opportunity. To the extent consumers are assured about the privacy and confidentiality of their online communications and entertainment, they will be more willing to trust providers and take advantage of telecoms services.

Greatest risks/threats to growth (continued)

Emerging/DisruptiveTechnology

The importance of emerging technology fell significantly from the top of CEO concerns earlier this year, in part because CEOs shifted their strategic focus from future-focused R&D projects to meeting surging demand and ensuring their companies would be able to survive the disruption.

The deployment of 5G technology can help telecoms providers solve business challenges, reshape value chains, enhance revenue models, and optimize operations across many industries. The combination of 5G and edge computing can create significant incremental economic value for those in the ecosystem, which is built on four pillars—connectivity, software, hardware, and services—with key players working together while also competing for their piece of the prize. Connectivity is the area of greatest interest to telcos, providing fixed and wireless infrastructure and service on either public or private networks. The value opportunity for telcos is determining how they maximize their position in the ecosystem to capture maximum value, or share of revenue.

5G continues to gain prominence in Asia Pacific and, combined with emerging technologies such as Internet of Things, will drive convergence in all sectors. Interest is rising in nearly every industry to use 5G's capabilities to enable major transformation initiatives. For example, pharmaceutical companies are educating and training medical professionals in remote cities for major surgical operations, while governments are embedding technology into infrastructure assets to enhance smart cities' development.

And in the U.S., many CEOs have accelerated initiatives and collapsed six years' worth of digital transformation into six months—as much a function of survival as a conscious effort to accelerate transformation. "The immediacy of COVID-19 bandwidth needs temporarily shifted focus, but as markets, customers, and especially enterprises stabilize their operations, telecoms CEOs have a renewed focus on disruptive technology," according to Sean Sullivan, NationalTelecommunications Industry Leader, KPMG in the U.S. In addition to 5G, areas such as cloud computing, omnichannel support and sales, and creating a true digital customer experience are top of mind for many CEOs.

Across all industries, clients are telling us about the imperative to accelerate their digital transformation. Prior to COVID-19, digital had momentum—everyone could see the imperative. Now the need is greater, perhaps even one of survival. Connectivity plays a vital role in any digital transformation, and this has been seen in both fixed and wireless over the last decade. While the 5G business case was strong before, it's even stronger now.

Alex Holt

Global Head for Technology, Media and Telecommunications, KPMG International

Telecoms companies are thinking more like technology companies

Digital transformation

Greatest risks

s telecoms providers have shifted their service offerings in recent years, many have also positioned themselves as technology companies and are viewing their business through a different lens. Now telecoms need to focus on cutting-edge technology to stay competitive, hone their ability to monetize infrastructure investments, and follow the examples of tech giants in successfully driving a digital-first transformation agenda and operating model.

The 2020 CEO Outlook reinforces that telecoms companies are pivoting to think more like tech companies. CEOs from tech companies and telecoms providers are largely aligned on their company and industry growth prospects, and both cite talent as a major risk. Both industries identify cyber security as a notable risk, highlighting a need to keep customers' data secure as it is used to improve their operating models. Telecoms providers are focused to a greater extent on digital transformation, with 79 percent of them prioritizing investments in new technology. This is up from 68 percent in our 2019 Telecoms CEO Outlook survey, and likely reflects increased connectivity demands resulting from COVID-19.

ESG

Key takeaways

Digitizing the customer experience is of the utmost importance to telecoms providers, with 90 percent accelerating their progress by either years or months as a result of COVID-19. More than half of telco CEOs (52 percent) have accelerated a new workforce model that augments human workers with automation and artificial intelligence (AI).

Analytics, AI, and machine learning (ML) will be critical to enable future platforms—creating a growing need for skills that can bridge the technology and business aspects. As a result of the pandemic, 24 percent of telco CEOs reported accelerating a new workforce model years faster (compared to only 11 percent of tech CEOs).

Telecoms providers' aspiration to function more like tech companies is evidenced by their commitment to spending on technology and improving their workforce and customer experiences.

Key findings

Economic outlook

Standing for equality



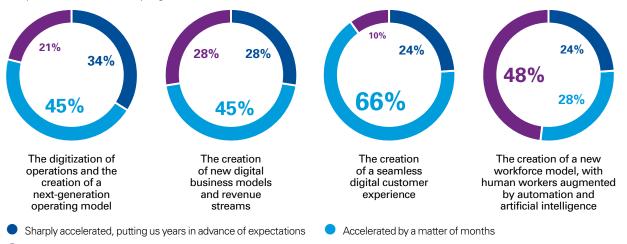
Digital transformation

COVID-19 also accelerated the need for, and pace of, digital transformation initiatives among telecoms companies. The result was a sudden shift to a digital customer experience and the acceleration of digital business models and revenue streams. As these gain momentum, telecoms providers will be challenged to focus their efforts and investments effectively on the areas that generate the most value while similarly enhancing their resiliency.

These two questions about the impact of COVID-19 on digital acceleration from the July/August survey provide an interesting window into the changing landscape.

Digital acceleration

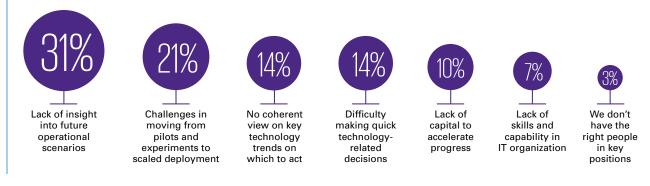
Across the following areas of enterprise digital transformation, please say what impact the pandemic has had on progress.



Is the same as it was before the pandemic

Challenges

What is the greatest challenge you have faced in accelerating digital transformation?





Asked about the pandemic's effects on enterprise digital transformation, 66 percent of CEOs indicated that the creation of a seamless digital customer experience accelerated by a matter of months, and 24 percent said it accelerated even more sharply—putting transformation initiatives years in advance of expectations.

However, according to lan West, Partner, Head of Technology, Media and Telecommunications, KPMG in the U.K., "The rising customer preference for digital channels, whether out of convenience or because of COVID-19related restrictions, has also exposed shortcomings. There are organizations coming back to us as clients who thought they were in a good position for digital, that they provided a pretty good digital customer experience. But when the pandemic came along, they found that the experience was one that the customer was merely tolerating."

During this disruption, telecoms providers played a critical role in connecting people and businesses. As remote work, education, and entertainment become routine, network capacity issues remain a potential challenge. Major wireless providers are likely to continue with planned 5G investments, and fixed-line providers could also accelerate investment to meet rising at-home demand.

"Improving customer experience is also front and center for U.S. telecoms companies, and COVID-19 has only served to heighten focus on this critical area. With retail store closures, a portion of purchase and support activity has been forced into online and call centers, which is likely to remain a permanent outcome," says Sean Sullivan, NationalTelecommunications Industry Leader, KPMG in the U.S. Enhancing the call center experience to attract, service, and retain customers is rapidly becoming a major priority in the digital transformation strategy of many telecoms companies.



Verizon Communications' Chairman and CEO Hans Vestberg follows up his statements with actions. He mentioned that early in the pandemic, Verizon increased their capital expenditure in their network by almost a US\$1 billion dollars, "The second week, when the pandemic hit the U.S., we increased our investment in the network," he says. "We thought it was

the right time. We didn't know how the network will be used. So we wanted to be prepared and we wanted to accelerate the investment in technology at that time, because we're a responsible company, we could invest in that time, and we thought it was good for the country and for our customers."

"As our clients in Asia Pacific and globally navigate through the uncertainties of a new reality, they are continually looking to new ways to digitally engage, onboard, and service their customers. The digital agenda has accelerated to take center stage, as we help clients pivot to new business models that will enable them to emerge post-COVID," according to Darren Yong, KPMG Asia Pacific head of Technology, Media and Telecommunications. This ensures more integrated use cases that deliver value for companies to create more insights and make better decisions around their growth and cost objectives. Tackling the customer experience means future collaboration will likely be about how to manage online and offline customer support in a seamless hybrid environment, which means digital transformation needs to be top of mind for telecoms providers.



In addition to economic challenges, COVID-19 promoted telecoms providers to continue and accelerate Environmental, Social, and Governance concerns as they work to rebuild their companies to support a new and sustainable economy. For instance, CEOs are looking to continue changes that produced climate-related benefits, such as the role of collaboration tools in reducing business travel and long commutes.

Telecoms CEOs recognize a need to devote more attention to ESG issues and taking actions today to impact the mediumand long-term future, with 66 percent agreeing or strongly agreeing they want to lock in the sustainability and climate change gains made as a result of the crisis.

Similarly, 55 percent agree or strongly agree their response to the pandemic shifted their focus toward the social component of their ESG program.

Climate risk is also on the minds of telco CEOs. When asked "how likely is it that managing climate-related risks will be a key factor in you keeping your job over the next five years?," nearly three-quarters (72 percent) indicated likely or highly likely. 72% of respondents said that addressing climate-related risks will be a key factor to keeping their jobs over the next five years.

Telecoms Industry CEO Outlook 2020

© 2020 Copyright owned by one or more of the KPMG International entities KPMG International entities provide no services to clients. All rights reserved

Key takeaways

Telecoms has never been a more important industry. During COVID-19, society relied on connectivity to access the essential components of our day-to-day life, from communication with friends and family, to maintaining our work life, and educating our children. Engineers and other field support are working sometimes in harm's way—to keep us all connected. Everyone depends on telecoms.



Economic Resilience

Telecoms companies demonstrated resilience throughout COVID-19, but CEOs report notable declines in confidence about the global economy and their companies' growth prospects. Reliance on telecoms services will be robust and potentially continue to grow worldwide, but providers will need to make a series of strategic decisions to meet changed customer needs, cost structures, and network requirements of the new operating reality.



Standing for Equality

As broad-based social movements and a drive for greater equality gained momentum in the United States, companies made public statements supporting broad corporate social purposes that include racial and economic equality. Some telecom CEOs reported a variety of measures to promote diversity and anti-racism initiatives in their organizations, through measures including performance management and individual training to manage unconscious bias.



Greatest Risk Factors

Telecoms CEOs are turning their attention to four main risk areas to enhance organizational resilience related to talent, supply chain, cyber security, and emerging technology. Supply chain risk has constrained the global availability of 5G infrastructure equipment and popular consumer devices, at the same time that telecoms companies are wrestling with how to capture maximum value and share of revenue from emerging technologies. These companies need to ensure their workforce has the required skills to support emerging technologies and future growth areas. Telecoms providers also recognize that effective cyber security is an obligation, a risk factor, and an opportunity.



Digital Transformation

COVID-19 also accelerated the digital transformation initiatives among telecoms companies, including a sudden shift to a digital customer experience and revenue streams. As these gain momentum, telecoms providers need to focus their efforts on the areas that generate the most value while similarly enhancing their resiliency. Network capacity issues still loom, and COVID-19 has heightened providers' focus on improving customer experience. As telecoms refocus their attention on transformation, they'll also need to adapt their digital business models and revenue streams to maximize value from their capital-intensive 5G investments.



ESG (Environmental, Social and Governance)

COVID-19 prompted telecoms providers to accelerate ESG initiatives. As they work to rebuild their companies, telco CEOs recognize a need to devote more attention to ESG issues and to lock in the sustainability and climate change gains made as a result of the crisis.

About the research

The 2020 KPMG CEO Outlook provides an indepth outlook of global executives on enterprise and economic growth. The survey offers a focused perspective on the mindset shift of global CEOs since COVID-19.

KPMG initially surveyed nearly 1,300 CEOs in January/February, before many key markets were beginning to feel the full impact of the pandemic. In July/August, KPMG conducted a follow-up survey of 315 chief executives across the globe to understand how CEO thinking has evolved during the crisis. In both instances, all respondents have annual revenue over US\$500M and a third of the companies surveyed have more than US\$10B in annual revenue.

The January/February survey included leaders from 11 key markets (Australia, Canada, China, France, Germany, India, Italy, Japan, Spain, U.K., and U.S.) and 11 key industry sectors (asset management, automotive, banking, consumer and retail, energy, infrastructure, insurance, life sciences, manufacturing, technology, and telecommunications). The follow-up survey included CEOs across the industries mentioned above and from eight key markets (Australia, Canada, China, France, Italy, Japan, U.K., and U.S.). There were 70 telecoms industry respondents in the initial survey and 29 in the follow-up.

Note: Some figures may not add up to 100 percent due to rounding.

How KPMG can help

KPMG digital transformation

KPMG digital transformation helps organizations navigate uncertainty and prepare for what's ahead by coupling powerful new technologies with business model and organizational changes that can help deliver value from investments. Our approach centers on the mindset that it's not just about technology for technology's sake. It's about using technology to drive value in the enterprise and enable growth. Therefore, there are no one-size-fits-all solutions. Instead, KPMG professionals strive to meet clients where they are so they can survive disruption, capitalize on changes in societal dynamics and customer behavior, and plot a course toward long-term resiliency.

Key takeaway

KPMG firms' work is enabled by deep domain knowledge, experience helping clients and our own global organization address numerous business disruptions, our suite of emerging technology solutions, and a practical approach to enterprise-wide digital transformation.

Sustainability services

The journey to a sustainable business model that is responsive, adaptive, and resilient can be challenging. <u>Sustainability services</u> professionals can help companies navigate the complex and evolving policy, regulatory, and business landscapes to better understand the risks and opportunities related to climate change and sustainability and help them capitalize on the resulting commercial opportunities. <u>Climate Change & Sustainability services</u> professionals can help companies build long-term value in a rapidly changing world. <u>KPMG IMPACT</u> brings together an experienced network of professionals from across the globe to deliver industry-leading practices, research, and trusted client solutions to address the biggest issues facing our planet, having a real and positive impact today and for our collective future. Through KPMG IMPACT, we aim to deliver growth with purpose. We unite the best of KPMG to help clients fulfill their purpose and deliver against the Sustainable Development Goals (SDGs), so all our communities can thrive and prosper.

Supply chain and operations

<u>KPMG supply chain and operations services</u> are here to support you. Organizations are asking mission-critical questions pertaining to supplier and operations risk that have arisen in the COVID-19 environment. We recognize that during this time, business leaders don't only need solutions, but also reliable consultants. Whatever your sector, more than 2,000 supply chain, strategy, and value chain management professionals from the KPMG firms worldwide can help you address the issues of today from crisis response planning, to rapid diagnostic for supply and demand risks across your operation, to scenario analysis and contingency planning.

KPMG professionals are skilled in all areas of supply chain operations from strategy and analytics, to supply chain risk, planning and execution, and logistics and distribution. We also have the capabilities to help you integrate tax planning into your business operations to help minimize expenses and risk, enhance return on investment, and drive efficiencies across operations.



Alex Holt

Alex is the Global Head for Technology, Media & Telecommunications (TMT) for KPMG International based in Silicon Valley. A highly accomplished executive with over 20 years international experience, Alex joined KPMG in 2012 as the Chief Operating Officer in the UK, taking up the leadership of the UK TMT sector in 2015. Alex relocated to KPMG U.S. in 2018 as the global account executive for several leading technology companies based in Silicon Valley. In 2020 he took on greater responsibility running KPMG's multi-billion-dollar global TMT business, leading the thousands of KPMG professionals who serve clients across the TMT sector with a full range of advisory, tax, and audit services. Alex has a Business Management degree from Leeds University and is a Member of the Royal Television Society.

M: +1 408 275 5784 E: alexanderholt@kpmg.com

home.kpmg/telecoms-ceooutlook



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act upon such information without appropriate professional advice after a thorough examination of the particular situation.

© 2020 Copyright owned by one or more of the KPMG International entities. KPMG International entities provide no services to clients. All rights reserved.

KPMG refers to the global organization or to one or more of the member firms of KPMG International Limited ("KPMG International"), each of which is a separate legal entity. KPMG International Limited is a private English company limited by guarantee and does not provide services to clients. No member firm has any authority to obligate or bind KPMG International or any other member firm vis-à-vis third parties, nor does KPMG International have any such authority to obligate or bind any member firm. For more detail about our structure please visit https:// home.kpmg/xx/en/home/misc/governance.html

Throughout this document, "we", "KPMG", "us" and "our" refers to the global organization or to one or more of the member firms of KPMG International Limited ("KPMG International"), each of which is a separate legal entity.

The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organization.