

Technology innovation hubs

Despite new global workforce trends, physical innovation hubs are here to stay

Innovation anywhere? Not necessarily.

Innovation hubs and physical workplaces remain key components of technology companies' strategy.

The technology sector has outpaced most other industries during COVID-19, and many companies have grown significantly since the start of the pandemic. This has advanced the perception that creativity and innovation can now happen literally anywhere as collaboration has gone more virtual and global.

However, a company still needs to be able to innovate, and physical workplaces and innovation hubs remain key components of technology companies' strategy, according to KPMG research. This report, the annual *Technology Innovation Hubs* publication, provides valuable insight for technology industry CEOs, COOs, CFOs, CHROs, and VPs of tax, strategy, and corporate development on the future of physical innovation hubs. Engineering talent and intellectual property are the lifeblood of the tech industry, and retaining top talent is a strategic imperative. Employers know this and are striving toward flexible work arrangements, permanent hybrid workforce models (work 2–3 days in the office and the rest remote), or even all-remote models. As the workforce disperses geographically, new hotbeds of technically skilled workers will emerge. In-person collaboration will still occur, just in more locations.

Meeting the needs of a more dispersed workforce and homing in on the cities that tech leaders consider leading innovation hubs should be considered when seeking to acquire a company, entering a joint venture, expanding operations, building a new office or innovation center, or developing a new workforce model.

Key takeways

- Almost twice as many global technology company leaders believe that hubs are still important in driving technology innovation as opposed to those who believe they are not.
- Seventy-eight percent say they will not be downsizing their physical footprint.
- Only 26 percent expect to hire predominantly remote talent.

- Sixty-one percent say the pandemic has changed their opinion of which cities will become leading technology innovation hubs.
- One third feel that Silicon Valley will maintain its innovation leadership position while an equal number feel it will not.



Alex Holt Global Head of Technology, Media & Telecommunications KPMG LLP



Tech hubs are still important for innovation

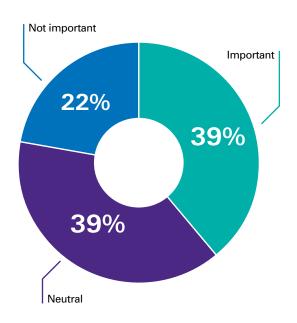
Tech hubs have traditionally been incubators for new ideas, collaboration, and innovation. Despite advances in video and communications technologies, sometimes there is no substitute for inperson, roll-up-your-sleeves designing, debating, whiteboarding, mentoring, idea sharing, and concept refining.

When asked how important physical hub locations (such as a city or region) are in driving technology innovation, almost twice as many global tech executives believe that hubs are still important as opposed to those who believe they are not. These findings are consistent across all the subsectors of the technology industry (technology services, internet/eCommerce, hardware/electronics, software/SaaS, and semiconductors). Even among the respondents that feel neutral or that physical hubs are not important, 92 percent think that physical hubs will still exist four years from now.

Tech CEOs corroborate the importance of physical locations and in-person employee interaction. In the KPMG <u>2021 CEO Outlook Pulse Survey</u> of technology company CEOs:

- Seventy-eight percent say they will not be downsizing their physical footprint.
- Only 26 percent expect to hire predominantly remote talent.
- Fifty-eight percent think the majority of employees will work remotely 2-3 days per week, indicating an appetite to still have workers on site for part of the workweek.

In the new business environment being created by COVID-19, how important is a physical hub location in driving technology innovation?



Source: KPMG Technology Industry Survey 2021, n=825



COVID-19 reshapes the innovation mindset

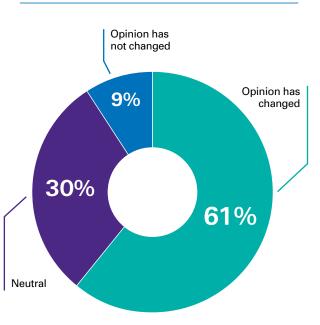
Global efforts to stem the pandemic have impacted the perception of where innovation can take place. The world has seen unprecedented virtual collaboration across borders and sharing of information to track infection patterns, perform contact tracing, and develop vaccines.

This mass collaboration even helped prompt the World Trade Organization to propose a temporary waiver on intellectual property rights for vaccines that would cover patents, industrial designs, copyrights, and protection of trade secrets.

Global technology company leaders see the benefits of increased global collaboration. But where technology innovation can and will take place in the future is in flux. A solid majority (61 percent) say the pandemic has changed their opinion of which cities will become leading technology innovation hubs over the next four years.

This is due in part to the hybrid and all-remote workforce models that the pandemic has accelerated. Tech companies are embracing these models to retain their top talent. As their workforce disperses geographically, new hotbeds of technically skilled workers will emerge.

How the pandemic has changed the opinion of which cities will be leading technology innovation hubs.



Source: KPMG Technology Industry Survey 2021, n=504

Global technology company leaders see the benefits of increased global collaboration. But where technology innovation can and will take place in the future is in flux.

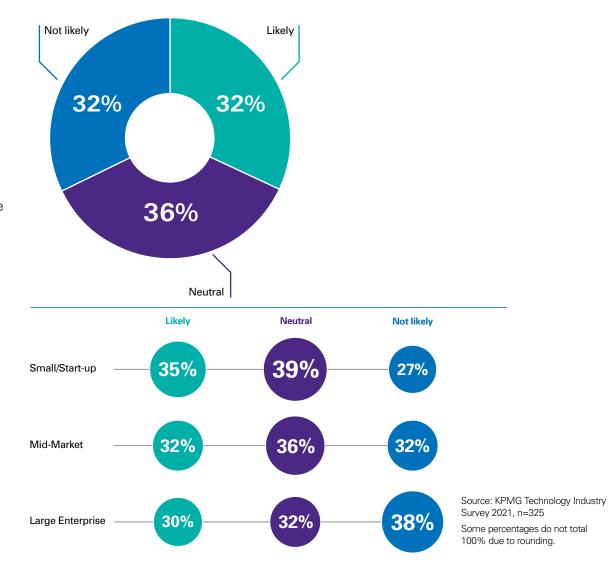
COVID-19 reshapes the innovation mindset (continued)

To the respondents that previously answered that physical hubs are very important, KPMG asked what the likelihood is that the technology innovation center of the world will move away from Silicon Valley to another location in the next four years. One-third (32 percent) feel that Silicon Valley will maintain its leadership position over the next four years. Interestingly, the same percentage believes it will not.

Companies of different sizes have slightly divergent views on this question. Thirty-eight percent of large technology enterprises think Silicon Valley will keep its leadership position, but only 27 percent of small/start-up companies feel this way. Mid-market companies are in the middle at 32 percent.

There are two overriding reasons for the sentiment that the world's innovation center will move away from Silicon Valley. The first is that talent will leave due to quality-of-life issues including a high cost of living and chronic traffic congestion. The second is that work-fromanywhere and hybrid work models, along with the increasing use and sophistication of virtual collaboration tools, are enabling innovation in more locations around the world.

Likelihood the innovation center of the world will move from Silicon Valley in the next four years.





5

Leading innovation hubs

The global technology company leaders surveyed revealed the cities they see as leading technology innovation hubs over the next four years (in addition to Silicon Valley/San Francisco). Despite a majority of respondents saying the pandemic changed their opinion of which cities will be leading innovation hubs, most of the top 10 locations stayed the same in respondent's minds compared to <u>last</u> year's survey. These cities all had strong innovation ecosystems in place before the pandemic. As the world recovers over the next four years, these cities will retain their status as tech hubs. And with a more virtual workforce and massive global digital acceleration underway, perhaps a viable competitor to Silicon Valley will emerge.

There are a few movers to note in the top 10. Seoul, ranked eighth last year, dropped out of the top 10 to tie for fourteenth this year. Austin and Seattle, ranked eleventh and twenty-fourth respectively last year, tied for tenth this year.

Cities seen as leading technology innovation hubs over the next four years (outside Silicon Valley/San Francisco)





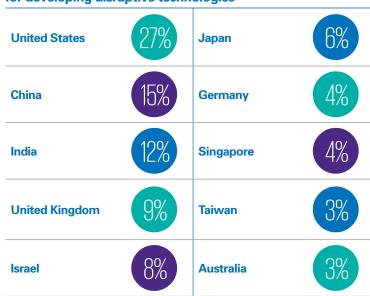
Top cities—within a geographic region—seen as leading technology innovation hubs over the next four years (outside Silicon Valley/San Francisco).

Americas	EMEA	ASPAC
New York City	Tel Aviv	Singapore
Austin (tie #2) Seattle (tie #2)	London	Beijing
	Berlin	Shanghai
Boston (tie #4) Chicago (tie #4)	Frankfurt	Tokyo
	Paris	Bengaluru
Dallas	Dubai	Hong Kong
Montreal	Moscow	Seoul
Miami (tie #8) Washington, DC (tie #8)	Bristol (tie #8) Hamburg (tie #8) Jerusalem (tie #8) Munich (tie #8)	Shenzhen
		Kuala Lumpur
Phoenix		Mumbai
Rio De Janeiro (tie #11 Toronto (tie #11)	Brussels	Taipei
	Barcelona	Sydney
Vancouver	Amsterdam (tie #14) Cape Town (tie #14) Dublin (tie #14) Riyadh (tie #14)	Melbourne
Atlanta (tie #14) Los Angeles (tie #14)		Hyderabad
		Bangkok

Source: KPMG Technology Industry Survey 2021, n=504 Up to three responses allowed per respondent. Partial lists shown.

Top countries and jurisdictions for innovation

Local factors influence a city's status as a tech hub, including but not limited to, infrastructure, the university community, demographics, and tax incentives. But there are certain macro factors too, such as the regulatory environments, available investment funding, and again, potential national tax incentives, that can help position a country as an incubator of technology innovation. When asked which countries and jurisdictions show the most promise for developing disruptive technologies, global tech leaders identified the U.S., China, and India as the top three, the same as in last year's survey.



Countries and jurisdictions that show the most promise for developing disruptive technologies

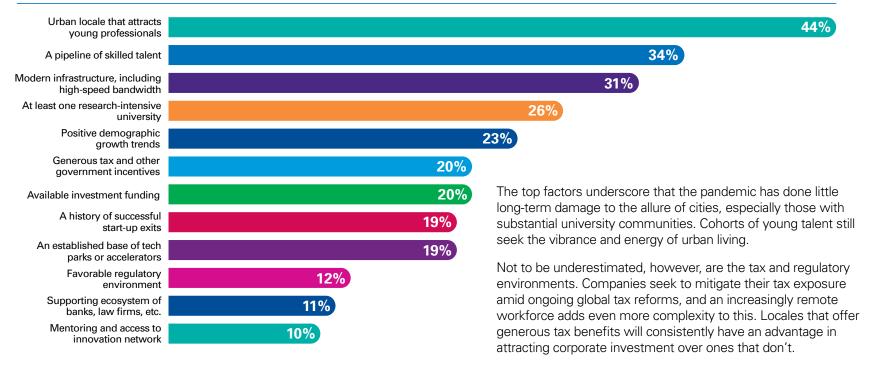
Source: KPMG Technology Industry Survey 2021, n=504 Partial list shown.



Key ingredients for a hub

No matter where a technology hub springs up, there are certain factors that are crucial to its long-term viability. Respondents to this year's survey prioritized these factors as follows:

Most important factors that enable a city to become a technology innovation center.



Source: KPMG Technology Industry Survey 2021, n=825 Up to three responses allowed per respondent.

7

Considerations for technology company leaders

Technology companies should assess several location factors when looking to acquire a company, enter a joint venture, or build a new office or innovation center:

- Are the infrastructure and master plan (including roads, mass transit, wireless bandwidth, green spaces, mixed-use development) conducive to long-term population growth and an improving quality of life?
- Is the locale attractive to Millennial and Generation Z workers, creating a pipeline of technology-savvy talent?
- Are there favorable long-term demographic projections (population growth, influx of tech jobs)?
- Does the new location have at least one research university or a system of established tech companies or innovation zones?
- Are both public and private investment funding available?
- Is the regulatory environment favorable to technology companies?

- Are there local and/or national tax benefits?
- What impact will the new location, and its potential hybrid and/or remote workforce, have on the effective corporate tax rate, especially if outside the home country?
- Is the prevalent culture of the new locale compatible with the overall company culture?
- Is the cost structure of the new locale consistent with the overall corporate plan?
- If acquiring a company, is the workforce hybrid or predominantly remote?
- If creating a joint venture or new location, will the workforce operate in a hybrid or all-remote model?

What impact will the new location, and its potential hybrid and/or remote workforce, have on the effective corporate tax rate, especially if outside the home country?



Global Strategy Group

The Global Strategy Group works with private, public, and not-for-profit organizations to develop and implement strategy from "innovation to results," helping clients achieve their goals and objectives. KPMG professionals develop insights and ideas to address organizational challenges such as growth, operating strategy, cost, deals, and transformation.

Deal Advisory

Deal Advisory professionals help organizations prepare to take advantage of opportunities in the marketplace. The KPMG approach is structured through an investor's lens to help clients identify, evaluate, and successfully implement their growth strategies. KPMG professionals offer technical and industry-focused experience to help execute mergers, acquisitions, integrations, restructurings, disposals, financings, and IPOs.

KPMG City Competitiveness Index

Selecting the best location for any business operation requires careful consideration. The City Competitiveness Index provides robust data and analytics across seven key factors to create custom insights that support informed location decisions.

Mergers & Acquisitions Tax

The M&A Tax practice leverages professionals from different service areas throughout the global KPMG network to help clients understand the practical impacts of tax developments from one country to the next, avoid pitfalls, and seize opportunities related to deals. By focusing on the initial deal structure and potential issues with acquisition integration, M&A Tax services can help companies realize the tax efficiencies of a merger, acquisition, joint venture, or disposition.

Global Location and Expansion Services

The Global Location and Expansion Services group was created to help companies locate and establish new operations around the world, designed around their business structure and approach, with sensitivity to their day-to-day operations. Bringing together one of the largest globally directed, multidisciplinary groups of location and expansion professionals, KPMG can assist with location analysis and site selection, business incentives, and tax credits.

Global Mobility Services

The Global Mobility Services practice brings together tax, technology, immigration, and mobile administration services to help make managing a global workforce easier, safer, and more efficient. Whether an organization is considering expansion or relocation to a new location, an acquisition or streamlining existing processes to manage the current workforce, this practice can support these goals and more.

Human Capital Advisory Services

Human Capital Advisory Services help transform organizations by changing the way its people are led, managed, and developed. By focusing on change management, HR transformation, organizational design, and talent management, KPMG helps clients organize and develop their workforce to achieve their strategic business goals.



About the authors and research

Alex Holt



Alex Holt is the global head of Technology, Media & Telecommunications (TMT) for KPMG and is 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 U.K., taking up the leadership of the U.K. TMT sector in 2015. Alex relocated to the United States, joining KPMG in the

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 the multibillion-dollar global TMT practice, leading the thousands of KPMG firms' professionals who serve clients across the TMT sector with a wide range of advisory, tax, and audit services. alexanderholt@kpmg.com

Mark Gibson



Mark Gibson is the Technology, Media & Telecommunications national sector leader for KPMG in the U.S. During his 30 years in public accounting and advisory, he has served clients in the technology, consumer products, and retail industries as both an audit and advisory partner. Prior to his current role, Mark was the Seattle office managing partner. He serves as the

account executive for several large clients in the Seattle and Silicon Valley markets, and as global lead partner for a leading technology company, where he works with KPMG professionals from audit, tax, and advisory in more than 15 countries.

About the research

The 2021 KPMG Technology Industry Survey, now in its ninth year, included responses from more than 800 global leaders in the technology industry across all the major subsectors including technology services, internet/eCommerce, hardware/electronics, software/SaaS, and semiconductors. Twelve countries were included in the online survey, and about two-thirds (65 percent) of the respondents were C-level executives. The data for this publication was collected from March 2021 to May 2021.

The 2021 KPMG Pulse Outlook Survey features insights from 500 CEOs at large global companies (\$500M+ annual revenue), including 50 in the technology industry. They were surveyed from January 2021 to March 20021 about key challenges and opportunities in driving business growth over the next three years and their responses to the ongoing COVID-19 pandemic.

Contacts:

Alex Holt

Global Head Technology, Media & Telecommunications KPMG LLP <u>alexanderholt@kpmg.com</u>

Mark Gibson

National Sector Leader Technology, Media & Telecommunications KPMG LLP mgibson@kpmg.com

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.



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.

© 2021 KPMG LLP, a Delaware limited liability partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

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