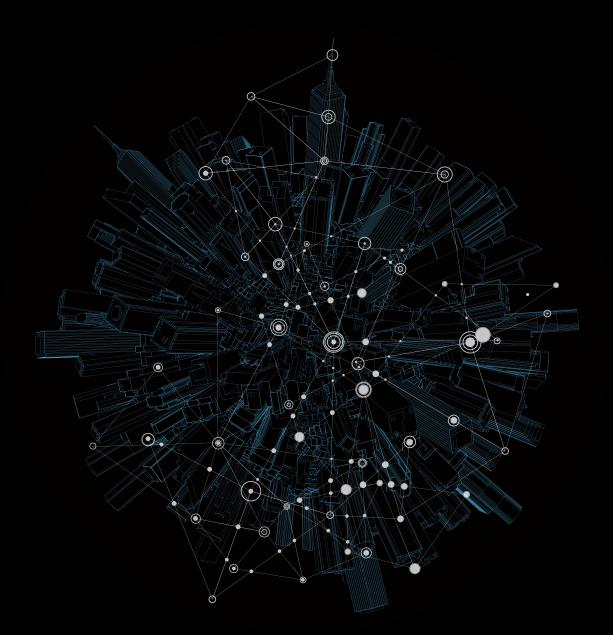
## Deloitte.



### 2019 Commercial Real Estate Outlook

Agility is key to winning in the digital era

Deloitte Center for Financial Services



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## The ecosystem influencers— Investors ride on tech-enabled commercial real estate firms

New business models and competition, extensive use of technology, and changing tenant and investor expectations are redefining the commercial real estate (CRE) industry. In our 2018 Real Estate Outlook, we emphasized that RE companies will likely have to take some risks and embrace change to adapt for the future.<sup>1</sup> Since then, we've seen these factors occurring at ever-increasing rates, which has continuously challenged companies to deal effectively with the relentless pace of change. As a result, traditional rules of the road might not work fast enough to provide the agility CRE companies of the future will likely require.

In our endeavor to help CRE companies understand the new rules of the road, our 2019 Commercial Real Estate Outlook dives deeper into the preferences of CRE investors. Our survey of 500 global investors, which provides insights on factors that are influencing their CRE investment decisions, revealed the following key themes:

- A large proportion of respondents plan to increase their capital commitment to CRE, with the United States, Germany, and Canada leading the way.
- 2. Nontraditional assets such as mixed-use properties and new business models such as properties with flexible leases and spaces are expected to attract an increased allocation of investment dollars.
- Many surveyed investors expect to prioritize their investments in existing and potential investee companies that respond rapidly to changes in business models and adopt a variety of technologies to make buildings future ready.
- Survey respondents see a significant impact from technology advancements on legacy properties in fewer than three years.

With investors seemingly committed to investing in newer business models and a tech-enabled ecosystem, how can CRE companies cash in on the gold rush? Fundamentally, CRE companies should gain a thorough understanding of the changing usage pattern of the built space. Take the example of WeWork, the co-sharing space owner that is positioning itself as a "services" company rather than a property owner-operator. Since its inception in 2010, the company has grown from a single space in New York City to 287 physical locations across 77 cities and 23 countries globally, as of August 2018.<sup>2</sup> At \$20 billion, WeWork is considered among the most valued tech startups, following Uber and Airbnb.<sup>3</sup> The company's growth outstrips many traditional CRE companies.

What are the companies with new business models doing differently? These companies, which can be considered change agents, are typically retaining the core ethos of the real estate business—the importance of location—while changing the mind-set about how the physical space is consumed. Powered by technology, their value proposition lies in augmenting the user experience. For instance, WeWork's goal appears to be to create not only a functional experience but also a memorable one through a vibrant ambience, varied open-seating options, amenities, and networking opportunities for the on-the-go Millennial and Gen Z workforce.

Change agents like WeWork are repositioning the CRE asset as not just a physical space but a service hub. In addition, they strive to differentiate themselves with a nimble and flexible business model. Once CRE companies are ready to change their mind-set, agility tends to be the most important factor that can enable them to rethink the way they approach change, remain competitive, and grow.

Given the increasing uncertainty in the CRE sector, this year's outlook takes stock of the current business environment and uncovers key investor preferences on capital allocations, use of technology, cyber risk management, talent, and the role of proptechs. We also provide actionable recommendations for how an agile CRE company can respond to these key investor preferences.

## Global capital flows Institutional investors' expectations: Reassess property and tenant mix to attract more capital

Global CRE investments continue to rise on the back of steady economic and employment growth in key global markets. This is despite some concerns about a flattening yield curve, various country tax reform initiatives, and the threat of trade tariffs as well as the yet to be fully determined impact of Brexit in Europe.<sup>4</sup> In the first half of 2018, global CRE transaction volume increased 13 percent year over year (YOY) to \$341 billion.<sup>5</sup> The Americas' volume rose by 9 percent YOY to \$132 billion.<sup>6</sup> The United States led the Americas' growth with a volume of \$122 billion (+11 percent YOY).<sup>7</sup>

The trend is expected to continue, as 97 percent of our survey respondents plan to increase their capital commitment to CRE over the next 18 months (see figure 1). Respondents from the United States plan to increase their capital commitments by 13 percent in this time frame, while those in Germany (13 percent) and Canada (12 percent) show similar levels of interest. In terms of inbound capital, the United States is the most preferred CRE market globally, followed by Hong Kong and China. Surveyed executives plan to diversify their portfolios through higher investments in newer and emerging business models and thematic investments. Over half of the survey sample aims to invest or increase investments in properties with flexible leases, and 44 percent plan to do so for flexible spaces. Investors seem to realize that their investments should be tied to the changing nature of work and tenant preferences. As such, the new capital commitment is unlikely to flow entirely into traditional CRE. For instance, survey respondents specializing in mixeduse and nontraditional properties plan to increase their capital commitment by a higher percentage than those focused on traditional properties (see figure 1c). Specifically, under nontraditional properties, those surveyed are likely to increase investments in data centers and health care (including senior housing) facilities. While investors diversify their risks, they are expected to continue to value traditional properties and longer-term and high-credit-worthy tenants.

97 percent of our survey respondents plan to increase their capital commitment to CRE over the next 18 months. Respondents from the United States plan to increase their capital commitments by 13 percent in this time frame, while those in Germany (13 percent) and Canada (12 percent) show similar levels of interest.

## Figure 1. The investor pulse: Global capital flows

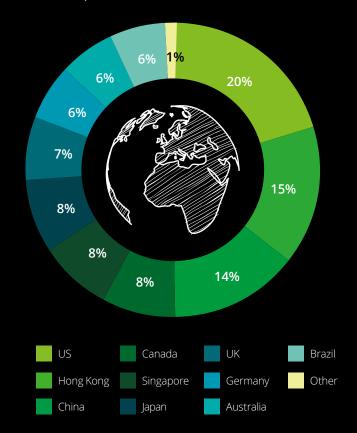
### (1a) Investors plan to increase CRE capital commitment in the next 18 months

Top and bottom two respondent types across categories

Property focus	% increase
Mixed-use	14%
Nontraditional	13%
Retail	10%
Hospitality	9%
Geographic focus	% increase
US, Germany	13%
Canada	12%
China, Hong Kong	9%
Japan	8%
Assets under management	% increase
Less than US \$500 million	13%
US \$1.1 billion – US \$5 billion	11%
US \$500 million – US \$1 billion	10%
Above US \$30 billion	10%
Investor category	% increase
REITs or real estate operating companies	14%
Banking or finance companies (asset management divisions)	) 13%
Private equity, sovereign wealth funds	10%
Hedge funds, pension funds	9%

### (1b) Globally, US, Hong Kong, and China most favored CRE markets

Investment split across countries



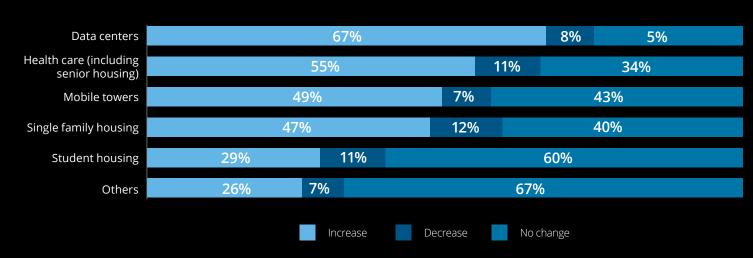
next 18 months

### For mixed-use

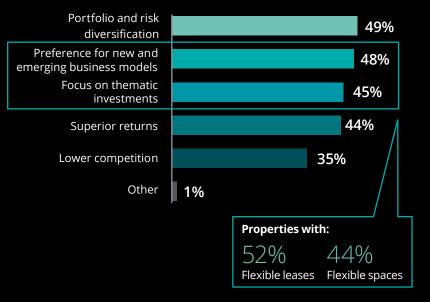
Top three respondent types across categories

Geographic focus	% increase
Canada, Singapore	66%
US, Hong Kong	57%
UK, Germany	55%
Assets under management	% increase
US \$10.1 billion – US \$20 billion	69%
US \$20.1 billion – US \$30 billion	66%
US \$5.1 billion – US \$10 billion	59%
Investor category	% increase
Pension funds	75%
Hedge funds	66%
Sovereign wealth funds	58%

### (1d) Most investors prefer data centers and health care among nontraditional assets



(1e) Investors are interested in newer and emerging business models and thematic investments



**Note:** The categories highlighted in the graphic tables suggest the following about the survey respondents:

Property focus: Property specialization of investors; Geographic focus: Home country of the investor; Assets under management: Investor size Source: Deloitte Center for Financial Services analysis.

### (1c) Investors plan to increase investments in mixed-use and nontraditional properties in the

### For nontraditional

*Top three respondent types across categories* 

Geographic focus	% increase
Japan	73%
China	70%
Singapore	40%
Assets under management	% increase
US \$1.1 billion – US \$5 billion	50%
Above US \$30 billion	44%
US \$500 million – US \$1 billion	41%
Investor category	% increase
Sovereign wealth funds	48%
Banking or finance companies (asset management divisions), private equity	46%
REITs or real estate operating companies	40%

(1f) Investors are looking to pursue M&A, enhance user experience, and improve property features to generate target returns

44% Rebalance portfolio through M&A

41% Redevelop to enhance user experience

Abandon

41% Invest to enhance property features

Repurpose for alternative use

# What should CRE companies do to be more agile in attracting capital?

With the change in investor preferences, CRE companies should consider rebalancing their property portfolios, focusing on creating memorable tenant experiences, and diversifying their investor base to attract higher capital investment.

#### **Rebalance property portfolio**

Investors' capital commitment plans suggest CRE companies could have an advantage if they stay close to and demonstrate clarity on their core investment strategies, and risk alignment against those strategies, while balancing and diversifying their property portfolios. However, even the meaning of "diversification" could be challenged. Properties and portfolios could take different shapes and forms, such as building more flexible spaces and making properties more experiential and engaging.

Most traditional property real estate investment trusts, except industrials and certain classes of nontraditional REITs, are trading at a discount to their net asset values.8 Accordingly, CRE companies may also be able to take advantage of mergers & acquisitions (M&A) and joint venture or partnering routes. Companies can leverage data-driven analysis to craft a more robust strategy around current market positions and analyze how expansion into newer properties could complement their existing ones. Strategy linkage driven by supporting data can help demonstrate how a single investment not only presents operational synergies but also evolves the broader portfolio. For instance, retail owners could conduct highest and best use analysis based on location, surrounding demographics, and other macro factors to repurpose some of their vacant assets into nontraditional uses such as data centers and senior housing and create new sources of revenue.

#### Increase tenant centricity

CRE companies should reimagine tenant experience by weaving technology throughout the tenant life cycle. This can help strengthen tenant stickiness and therefore valuations. For instance, CRE owners and developers can use a combination of augmented (AR) and virtual (VR) reality, commonly known as mixed reality, to allow potential buyers or tenants to visualize the new property using a 360-degree immersive experience and offer multiple finished site options. This may also expand the reach to potential clients across different geographies. Companies could also leverage technologies such as Internet of Things (IoT), artificial intelligence (AI), and predictive analytics to (re)develop and tailor existing or new buildings to suit changing tenant preferences and to anticipate tenant needs. This also provides an opportunity for CRE companies to partner with tenants to augment the end-user experience.

Companies should reconsider their existing tenant mix, as physical spaces that offer diverse experiences are providing an opportunity to yield higher occupancy and rents. CRE companies should consider using traditional and alternative data, AI, and predictive analytics for smarter tenant repositioning by having a more diverse tenant portfolio. For example, some retail owners are now offering empty mall space to retail incubators or even co-sharing work spaces.<sup>9</sup>

These new arrangements seem beneficial to most stakeholders, even though these new forms of tenants occupy a relatively smaller portion of the leasable space. Retail incubators get a marketplace to demo their products before they expand their physical presence, and people working in co-working spaces get more networking opportunities and increased "walkability" for their eating, shopping, and entertainment needs.<sup>10</sup> And of course, for retail owners, all this generally means a higher-value experience for the entire property due to an attractive tenant mix and increased retention of existing tenants through higher foot traffic. Companies can add other leading models, such as enhancing existing lease administration processes, to better offer short-term leases or a hybrid along with longer-term leases. With increased business uncertainty, traditional tenants are looking at more flexible leases, while the newer form of tenants thrive on such lease models.<sup>11</sup> Landlords, for their part, can see a direct benefit on their net operating income by leasing out vacant spaces. Moving from longerterm to short-term leases may require a change in financial forecasting techniques, as it would impact revenue stream predictability.

By revamping the user experience, tenant mix, and lease administration processes, companies can not only reduce tenant risk but also create a differentiating brand.

### **Diversify investor base**

Real estate has arrived as a meaningful and strategic long-term play for many investors. With increased investor interest in CRE, REITs can expand and diversify their investor pool. They can take advantage of the separate Global Industry Classification Standard (GICS) of real estate and help generalist investors to better understand the nuances of REIT operations, performance, and valuation. Companies can frame a targeted expansion strategy for generalist investors—such as pension, endowment, and foundation funds—who have traditionally under-allocated to REITs but are warming up to REIT investments.<sup>12</sup> For instance, on average, pension fund respondents to the Deloitte survey plan to increase CRE capital commitment by 9 percent in the next 18 months (see figure 1a), and a significant portion of this could be directed toward REITs. Further, the increased investor interest can particularly help smaller REITs (market capitalization of less than \$1 billion) to gain exposure to more institutional investors, as the investors plan to expand beyond core markets in search of yield.<sup>13</sup> CREs are also able to use data insights to achieve geographical diversification by targeting investors from different countries. For instance, our survey respondents from Canada (55 percent) are interested more in the Northeast region of the United States, while Chinese respondents (40 percent) focus more on the Sunbelt.

### The bottom line: Key questions the CRE C-suite should consider



### Change the mind-set

Are you prepared to reassess the existing property and tenant mix? Do you position your real estate as a service? What are your key considerations for portfolio rebalancing? Is there additional value to capture by prioritizing tenant expectations and experience while selecting, designing, and leasing a location?



#### Start operationalizing your capital investment strategy

How are you planning to use investor capital to enhance the use of existing properties? Are you planning to acquire, dispose of, and redevelop existing buildings to increase their utility? Which technologies are you likely to use to augment tenant experience?

## Technology Institutional investors' expectations: Upgrade digital strategy and infrastructure

Technology has permeated every aspect of the CRE business. Companies are adopting a variety of advanced technologies, albeit at a relatively slow pace compared to some other industries.<sup>14</sup> Compared with the rate of technological advancement, the industry continues to play catch-up. In fact, nearly 53 percent of respondents believe that technology advancements will have the greatest impact on legacy properties within the next three years, and 15 percent believe that the impact is already visible. Investors also have certain expectations about technology usage from their CRE investee companies. More than 80 percent of our survey sample believe that CRE companies should prioritize the use of predictive analytics and business intelligence. In fact, over the next 18 months, nearly twofifths plan to increase the use of these two technologies to make their investment decisions (see figure 2c).

More than a quarter of the respondents believe that CRE companies should prioritize the use of IoT technology in (re)designing buildings. Respondents from China (48 percent) and Singapore (43 percent) place a greater emphasis on the use of IoT technology compared to respondents from the United States (15 percent).

Perhaps one of the challenges facing CRE companies is the ability to prioritize investments between different technologies and needs. Currently, most companies are tactically focusing on individual technologies relevant for a specific business area and not looking at an enterprisewide picture. As a result, CRE technology leadership tends to spend significant time and resources in managing both modern and legacy infrastructure while not yet reimagining the power of fully utilizing data.

More than 80 percent of our survey sample believe that CRE companies should prioritize the use of predictive analytics and business intelligence. In fact, over the next 18 months, nearly twofifths plan to increase the use of these two technologies to make their investment decisions.

## Figure 2. The investor pulse: Technology

(2a) Investors want CRE companies to prioritize the use of IoT to (re)design their buildings



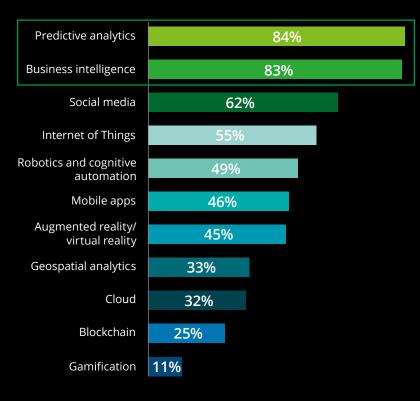
Overall percentage of investors

Top and bottom respondent types prioritizing IoT for building (re)design

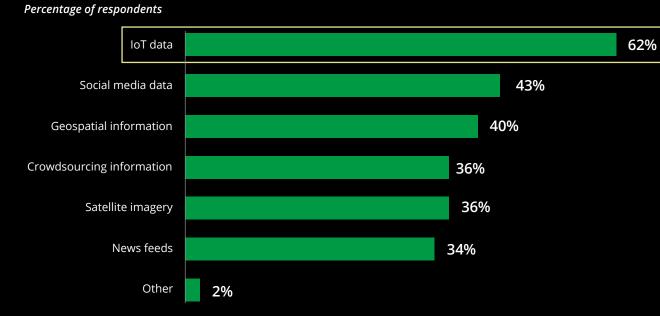
Property focus	%
Retail	38%
Industrial	18%
Geographic focus	%
China	48%
US	15%
Assets under management	%
US \$20.1 billion – US \$30 billion	44%
Less than US \$500 million	8%
Investor category	%
Sovereign wealth funds	60%
REITs or real estate operating companies	9%

(2b) Investors want companies to prioritize predictive analytics and business intelligence to make buildings future ready

### Percentage of respondents



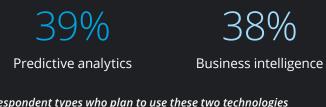
### (2e) IoT among the most preferred alternative data sources for CRE investment decisions



Note: The categories highlighted in the graphic tables suggest the following about the survey respondents:

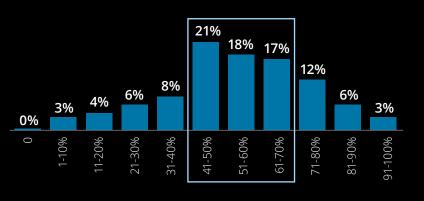
Property focus: Property specialization of investors; Geographic focus: Home country of the investor; Assets under management: Investor size Source: Deloitte Center for Financial Services analysis.

### (2c) Most investors plan to use predictive analytics and business intelligence for CRE investment decisions



Top respondent types who plan to use these two technologies		
Property focus		%
Predictive analytics	Office	47%
Business intelligence	Office, multifamily	43%
Geographic focus		%
Predictive analytics	Japan	73%
Business intelligence	Japan	73%
Assets under management		%
Predictive analytics	US \$1.1 billion – US \$5 billion	45%
Business intelligence	US \$20.1 billion – US \$30 billion	44%
Investor category		%
Predictive analytics	Hedge funds	46%
Business intelligence	Mutual funds	44%

### (2f) Investors make a majority of their CRE decisions based on data analytics



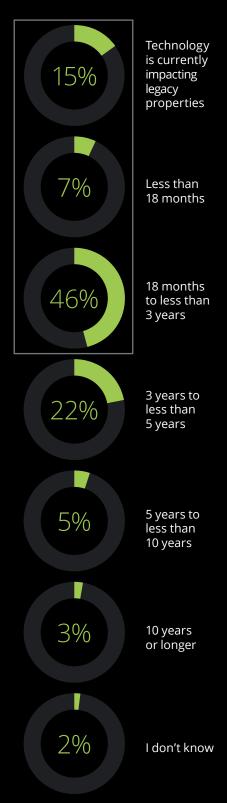
### Percentage of CRE decisions based on data analytics

Top respondent type	%
China	63%
AUM above US \$30 billion	59%
Sovereign wealth funds	65%
Nontraditional	62%
	China AUM above US \$30 billion Sovereign wealth funds



### (2d) Investors expect greatest impact of technology on legacy properties in the next three years

Percentage of respondents



# What should CRE companies do to be more agile with technology?

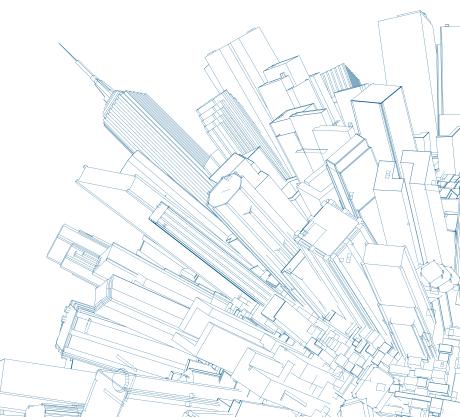
While CRE companies have been slow to embrace technological innovations, investors' expectations indicate it is time to take a more proactive stance. Developing an enterprise-wide strategy and a strong, agile digital core can become increasingly more important to a CRE company's central strategy, which can be bolstered by implementing data gathering and analytical technologies.

### Have an enterprise-wide digital strategy

According to Deloitte's 2018 Global CIO Survey, only one-fourth of organizations globally, across industries, have an enterprise-wide digital vision and strategy.<sup>15</sup> To this end, CRE owners and operators may want to consider developing some pertinent questions to evaluate the use of diverse technologies across key processes and functions. An enterprise-wide technology strategy is often a first step toward effective technology deployment and integration, as well as more efficient utilization of IT budgets and resources. For example, the strategy could include an enterprise-wide evaluation of data capture, the use of predictive analytics, and enhanced reporting to management using business intelligence software. A planned and phased deployment of technology will likely yield better results than ad hoc adoption.

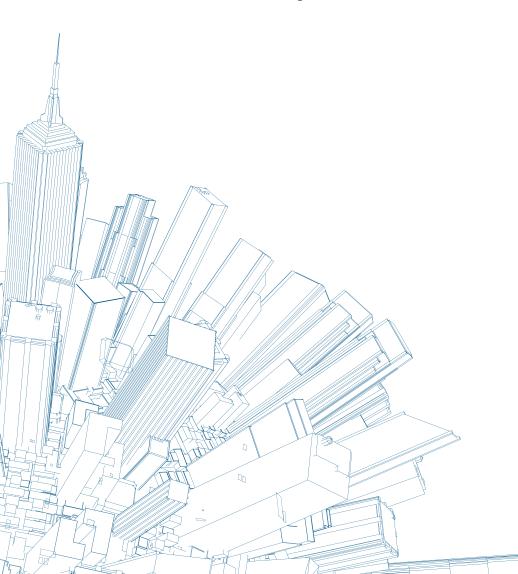
#### Develop a robust and agile digital core

CRE companies should invest in modern core technology systems that are more dynamic, automated, and easy to integrate with emerging solutions.<sup>16</sup> For instance, one of the modern core applications could include smart building management systems carrying out automated procedures and tracking building operations. This information can be seamlessly collated for a global property portfolio and leveraged by different stakeholders, including CRE functions and investors, to draw valuable insights. This does not mean that every digital initiative must be run and managed internally. CRE companies can hire external cloud-based service providers for specific business areas or even outsource functions as they phase out legacy enterprise resource planning (ERP) systems.



### Enhance data-gathering and analytics capabilities

CRE companies should consider different approaches to gather, store, and analyze large sets of internal and external data. Today, not only are many companies overwhelmed by various types of data, but also by the sources. For instance, some of the external and alternative data sources include news feeds, satellite imagery, geospatial information, and crowdsourcing. Internally, advanced technologies such as IoT, blockchain, and robotic process automation (RPA) can result in new data sets. In fact, more than three-fifths (62 percent) of the surveyed investors prefer having access to IoT data for their CRE investment decisions (see figure 2e). CRE companies can gain sophisticated practical insights for different strategic and tactical actions by using alternative data sources and advanced technologies. As an example, companies can create what-if scenarios while managing tenant experience. Some of these could include analyzing tenant benefits due to flexible leases or tenant convenience through better designed spaces. Companies can also collaborate with tenants and drive value by leveraging the insights, whether customer and traffic information for a retail center or employee usage information for an office property.



The predictive capability of cognitive technologies such as machine learning can generate insights from large data sets and power decision making. Machine learning technology "can automatically identify patterns and detect anomalies in the data that smart sensors and devices generate information such as temperature, pressure, humidity, air quality, vibration, and sound."<sup>17</sup> For instance, at its data centers, Google uses Al-based DeepMind and a multitude of information collected by the sensors to forecast pressure and temperature, which has helped the company optimize power consumption and reduce cooling costs by 40 percent.<sup>18</sup> CRE companies can gain tremendous competitive advantage with their ability to harness the various data sets to make fast and informed decisions.

### The bottom line: Key questions the CRE C-suite should consider



### Change the mind-set

Do you have or are you working on an enterprise-wide digital strategy? Are you able to prioritize relevant technologies? How are you thinking of strengthening the core IT infrastructure and its compatibility with the latest technologies?

### Start operationalizing your digital strategy

Which technologies and applications do you plan to adopt to enable better information management and advanced analytics? Which external and alternative data sources are you planning to leverage to unearth newer insights? How could better information and new insights drive value?

## Cyber risk management Institutional investors' expectations: Evolve from reactive to proactive risk management

Risk management in the CRE sector tends to center around interest rate and financing risk, tenant risk, and, to some extent, portfolio risk. CRE owners organized as REITs need to ensure adherence to the REIT status requirements. Companies typically also prepare for potential structural damage to physical assets. CRE investors, on the other hand, consider geographic market, tenant and industry concentration, and financing/interest rate as the top three risks when making investment decisions (see figure 3a).

Over the years, the scope of risk has expanded with technology advancements and evolving business complexities. As a result, there tends to be an increase in information security and data privacy concerns. These risks will likely only get heightened as CRE stakeholders expect companies to increase technology usage.

The growing use of IoT technologies such as wearables and sensor-enabled building management systems could also broaden the attack surface of hackers, increasing access to sensitive data that can cause financial and reputational damage. Respondents consider damage to reputation (41 percent), financial theft/fraud (37 percent), and theft of personally identifiable information or PII (35 percent) as the top three impacts of cybersecurity breaches at CRE investee companies. It is also worth noting that attacks are no longer limited to data theft, but often also to buildings' efficiency, output, and, in rare cases, even life itself.<sup>19</sup>

Many CRE companies, however, seem to be struggling to find the right balance of investments and efforts to handle such cyberattacks. Nearly two-thirds of survey respondents are somewhat satisfied and only a quarter are very satisfied with companies' current efforts. Rapid IT changes and rising complexities (53 percent), lack of detailed response by management of CRE companies (38 percent), and ineffective security solutions due to functionality and interoperability issues (37 percent) were reported as the top three challenges in managing cybersecurity for CRE investee companies.

Respondents consider damage to reputation (41 percent), financial theft/fraud (37 percent), and theft of personally identifiable information or PII (35 percent) as the top three impacts of cybersecurity breaches at CRE investee companies.

### Figure 3. The investor pulse: Cyber risk management

### (3a) Geographic, tenant, and financing risks are the top three risks that investors face for their CRE decisions

(3b) Most investors are only somewhat satisfied with the CRE companies' preparedness against cyberattacks

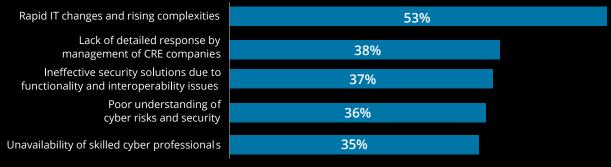
### Percentage of respondents Geographic market risk Tenant risk (including industry concentration) Financing/interest rate risk Portfolio investment risk Compliance risk Regulatory risk Climate change risk Lack of availability of quality data to make timely decisions Risk of global operations and sourcing Leasing risk Geopolitical risk

### % 9% Very Somewhat dissatisfied dissatisfied 66, Somewhat Very satisfied satisfied

### (3d) Investors consider rapid IT changes and rising complexities as top challenge for managing cybersecurity at CRE companies

### Percentage of respondents

By composite score based on ranks

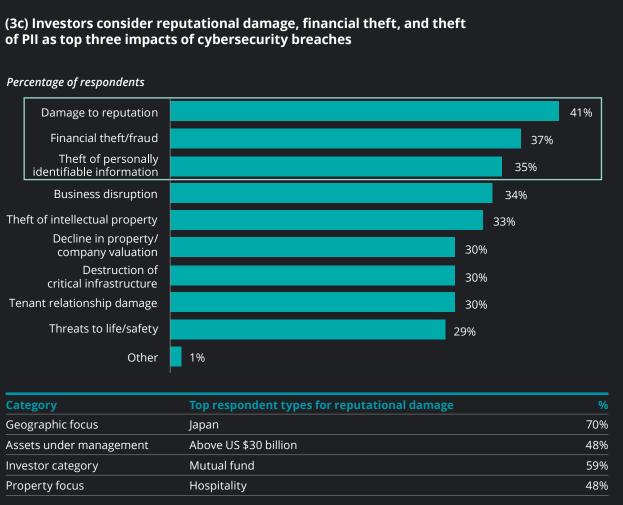


Category	Top respondent types for IT changes and rising complexities	%
Geographic focus	Japan	77%
Assets under management	US \$20.1 billion – US \$30 billion	72%
Investor category	Pension funds	65%
Property focus	Industrial	58%

Note: The categories highlighted in the graphic tables suggest the following about the survey respondents:

Property focus: Property specialization of investors; Geographic focus: Home country of the investor; Assets under management: Investor size Source: Deloitte Center for Financial Services analysis.

### Percentage of respondents



(3e) Regular audits, making cyber a strategic priority, and cyber risk assessment are the top steps CRE companies can take to prepare for cyberattacks

Percentage of respondents



32% Make cybersecurity a strategic business priority





Frame cybersecurity policy

1% Conduct cyber risk assessment to evaluate susceptibility to potential attacks



Invest in cybersecurity firms



Appoint a cybersecurity officer



### What should CRE companies do to be more agile at managing cyber risks?

It is incumbent upon CRE companies to take a proactive, rather than reactive, approach to managing cyber risks, given the growing business and IT complexities. Companies should therefore consider the following approach to be more secure, vigilant, and resilient.

### Own risk governance and oversight

The CRE board and senior management should assume responsibility and accountability for cyber risk governance and oversight. They should be deeply involved in developing policies, frameworks, and roles and responsibilities; assigning budgets; and tracking overall progress. While doing so, they should also consider investor expectations regarding cyber risk preparedness and reporting. Thereafter, the board and senior management should discuss the organization's risk priorities with functional leads, who should be held accountable for designing, executing, and aligning their risk strategy with the central mandate. The CRE board and senior management should work together, rather than in silos. Frequent communications between senior leadership about emerging risks from increased digitization can facilitate a planned and coordinated risk mitigation approach. To know more, please read the report, "The state of cybersecurity at financial institutions."

### Conduct cyber risk assessment and use technology to strengthen sensing capability

A detailed scenario planning and cyber risk assessment would allow companies to evaluate susceptibility to cyberattacks and identify appropriate responses. Companies should develop a cyber risk assessment framework that offers guidelines to evaluate the threat landscape and align appropriate resources to manage the risk.<sup>20</sup> Our survey sample ranked cyber risk assessment third (see figure 3e) among the steps that CRE companies can take to prepare for potential cyberattacks. Bearing in mind that it is not possible to eliminate risks, CRE companies should potentially use advanced detection technologies such as artificial intelligence to sense potential threats and use analytics to devise appropriate response management tactics.<sup>21</sup>

#### **Enhance employee awareness**

CRE companies should evaluate employees for their exposure to cyber risks. They should conduct trainings to help employees understand the potential threat and implications of various types of risks, especially cybercrimes. CRE companies may also need to train or hire appropriate cyber risk talent in their IT organization. Finally, companies should drive behavioral change to instill the responsibility and accountability for risk management among all employees.

### The bottom line: Key questions the CRE C-suite should consider



### Change the mind-set

Are you broadening the risk management agenda to include cyber risk? Are the CRE board and senior management ready to assume responsibility and accountability for managing these new risks? Are you considering a centralized or hybrid approach to managing cyber risks?



### Start operationalizing your cyber risk management strategy

What is your proposed approach to develop the cyber risk governance framework, policies, and guidelines? Do you have the processes to conduct periodic cyber risk assessments? Are you considering the expectations of investors and other stakeholders? Are you evaluating the appropriate people, process, and technology to execute your cyber risk management agenda? How are you creating awareness about emerging cyber risks? How are you informing investors and other stakeholders about your cyber risk mitigation strategy?

## Talent Institutional investors' expectations: Gear up for a digitalized workforce and work environment

Talent strategies are constantly evolving. However, with workplaces and work itself becoming increasingly digitalized, new talent needs are emerging and should become a business priority. Institutional investors agree—nearly 9 in 10 of retail-property-focused investors and nearly 7 in 10 of industrial-property-focused investors somewhat or strongly agreed that CRE companies need to do more to nurture their talent (see figure 4).

Next-generation talent, both Millennials and Gen Z, appear to prefer working in a startup culture.<sup>22</sup> The industry, meanwhile, seems unprepared to recruit, engage, and retain this talent pool—93 percent of pension funds and 95 percent of hedge fund investors believe so. As a result, many CRE companies continue to face a scarcity of skilled talent. Further, most CRE companies also appear unprepared to deal with the high proportion of Baby Boomers likely to retire over the next three to five years. Along with talent, the work itself will evolve as artificial intelligence and cognitive technologies reshape roles.<sup>23</sup> Some existing skills will become redundant, while new ones will need to be learned.<sup>24</sup> Workers' jobs will likely be oriented toward tasks that require human intervention. They could be supported by technologies that execute more of the routine and repetitive tasks inherent in their work. Investors also believe that CRE companies should prioritize the use of business intelligence and predictive analytics to enhance the talent experience. As examples, AI and predictive analytics can be used for résumé screening and to spot turnover risks, respectively.<sup>25,26</sup>

Senior leadership teams and boards should also include a fair and more even representation of women, minorities, and the LGBT community. Investors—particularly 92 percent of the respondents who were large investors with more than \$30 billion in assets under management—believe that a more diversified board helps generate better returns.

Nearly 9 in 10 of retail-propertyfocused investors and nearly 7 in 10 of industrial-property-focused investors somewhat or strongly agreed that CRE companies need to do more to nurture their talent.

## Figure 4. The investor pulse: Talent

CRE companies are not doing enough to attract nextgeneration talent into their workforce CRE companies are not doing enough to retool Baby Boomers

79%

Property focus	%
Industrial	68%
Nontraditional	70%
Hospitality	88%
Retail	89%
Geographic focus	%
Brazil	55%
US	70%
Japan	73%
Singapore	93%
China	94%
Assets under management	%
US \$1 billion and below	66%
US \$1.1 billion – US \$10 billion	80%
US \$30 billion and above	96%
Investor category	%
REITs or real estate operating companies	63%
Private equity	73%
Pension funds	93%
Hedge funds	95%



Property focus	%
Mixed-use	53%
Industrial	63%
Office	84%
Retail	91%
Geographic focus	%
Brazil	50%
Japan	50%
US	75%
Singapore	90%
China	92%
Assets under management	%
US \$1 billion and below	67%
US \$1.1 billion – US \$10 billion	76%
US \$30 billion and above	92%
Investor category	%
Banking or finance companies — asset management divisions	56%
REITs or real estate operating companies	63%
Sovereign wealth funds	90%
Hedge funds	93%

We believe that morediversified CRE company boards help generate better returns



Property focus	%
Industrial	77%
Mixed-use and nontraditional	80%
Retail	91%
Office	93%
Geographic focus	%
Germany	68%
Brazil	80%
US	85%
Hong Kong	93%
Singapore	97%
Assets under management	%
US \$1 billion and below	75%
US \$1.1 billion – US \$10 billion	88%
US \$30 billion and above	92%
Investor category	%
Mutual funds	77%
Banking or finance companies — asset management divisions	78%
Hedge funds	93%
Pension funds	98%
- Hedge funds	

Note: The categories highlighted in the graphic tables suggest the following about the survey respondents:

**Property focus:** Property specialization of investors; **Geographic focus:** Home country of the investor; **Assets under management:** Investor size Source: Deloitte Center for Financial Services analysis.

# What should CRE companies do to be more agile with talent?

Overall, the CRE landscape should evolve toward creating and enabling a more agile and engaged workforce. This typically involves not just overhauling talent strategies and work processes but also creating an environment that reduces bureaucracy and inculcates a sense of purpose for employees. CRE companies should double down on efforts to attract next-generation talent, retool existing talent, and diversify senior leadership and the board.

### Attract next-generation talent

Our 2018 Real Estate Outlook recommended that companies consider tapping the open talent economy and enriching the employee experience to help overcome the ongoing talent shortage. For example, CRE companies can consider structured corporate social responsibility programs that give a sense of purpose to employees by connecting them to the community.<sup>27</sup> Along with this, companies should consider using the power of social media and branding to change marketplace perceptions and attract next-generation talent. It's important for companies to recognize that today's digital natives have different aspirations and expectations.<sup>28</sup> Policies that enable mobility-such as flexibility to work from any location or make lateral moves within the company to build a portfolio of experiences—and revamped performance management and incentive programs may elevate the sense of belonging and recognition among employees. The 2018 Deloitte Millennial Survey indicates diversity and flexibility as the keys to loyalty.29

#### **Redevelop internal talent pool**

There is significant variance in investor perception about companies' ability to reskill Baby Boomers across geographies. More than 9 out of 10 Singaporeans and Chinese surveyed believe CRE companies are not doing enough to retool Baby Boomers, compared to 50 percent of Brazilian and Japanese respondents.

The Baby Boomer workforce itself is generally divided between employees who want to exit the workforce and ones who would like to continue to be in employment, albeit with more flexibility.<sup>30</sup> Companies should consider knowledge-transfer programs from Baby Boomers to Gen X and Millennials in situations where the former are likely to retire. Further, companies may choose to deploy technology to automate parts of a work process. Subsequently, they can engage the available workforce, including Baby Boomers who prefer to extend their careers, more efficiently. Although, Baby Boomers would likely need to be reskilled in select areas to remain relevant.

CRE companies should develop a culture of lifelong learning; this may involve both structured and experiential learning opportunities. For instance, many employees are increasingly looking at garnering exposure to different types of work in their pursuit of meaningful work and career enrichment. Other focus areas often include developing soft skills and nurturing leadership traits at all career levels.

CRE companies should double down on efforts to attract nextgeneration talent, retool existing talent, and diversify senior leadership and the board.

### Diversify senior leadership and the board

Research suggests that diverse leadership teams and boards with a wider representation of women tend to have positive financial impact for an organization.<sup>31</sup> CRE companies should become more intentional about improving senior leader and board diversity, with specific targets to recruit women and minorities, followed by tailored programs to support them through their career life stages. They should facilitate focused awareness-building sessions for majority-population members addressing the value of and mechanisms for creating inclusion and connection within the organization. In addition, CRE companies should reward inclusive behavior such that it becomes a part of the fabric of the organization. Companies should also consider mentorship programs to help women and minorities prepare for leadership roles, and vice versa, to help senior leaders appreciate and value diverse up-and-coming talent.

### The bottom line: Key questions the CRE C-suite should consider



### Change the mind-set

Do you think that talent and strategy are connected? Is creating an extraordinary employee experience a strategic business priority? How are you defining meaningful work for employees? Are you evaluating the use of technology to solve existing problems and behaviors in balance with "getting the work done" and the daily execution of tasks?

### Start operationalizing your talent strategy

Are you investing in developing the functional/technical/leadership traits of your frontline managers? Are you redeveloping policies to facilitate talent mobility by location and job roles? Do you have performance management and rewards and recognition programs designed to motivate employees through timely and appropriate recognition of impactful contributions? How are you creating awareness and educating employees about alleviating unconscious bias against women and minorities?

## Proptechs Institutional investors' expectations: Engage to gain a competitive edge

Proptechs are increasingly popular with investors and are expanding their coverage across the real estate value chain. Consider this: Globally, almost 9 in 10 of those surveyed believe that proptechs will have a moderate to significant influence on the CRE industry. Geographically, Asia Pacific respondents are the most optimistic about proptech influence (97 percent), although North Americans plan to commit the highest percentage of their investment portfolio (roughly 16 percent on average) to proptechs. Not surprisingly, fundraising by proptechs was the highest in 2017, compared to previous years, at \$13 billion.<sup>32</sup> Yet, the number of proptech launches declined to 21 in 2017 and none in the first half of 2018 (see figure 5b).<sup>33</sup> One reason for this trend could be investors' preference for established proptechs, which have more evolved products/services and a performance track record.

Given the investor preference for proptechs, there is merit in CRE companies becoming knowledgeable about areas of proptech that may create value for their businesses. Proptechs are using existing and developing technology to nurture new, innovative ideas that enhance operational efficiency, tenant experience, and information flow. Take the case of Open Box, which promises automation services to real estate companies on a robots-as-a-service (RaaS) model.<sup>34</sup> One of its applications includes automated data transfer from budgeting function to valuation, through its real estate automation engine, thus saving hours of monotonous and manual work.<sup>35</sup> Another example is Leverton, a company that provides real estate document abstraction services through AI-powered deep learning algorithms.<sup>36</sup> By using natural language processing and machine learning systems, Leverton's platform is designed to extract and structure the relevant information from complicated documents related to purchase-sale, lease, title insurance, and mortgage transactions.37

Globally, almost 9 in 10 of those surveyed believe that proptechs will have a moderate to significant influence on the CRE industry.

## Figure 5: The investor pulse: Proptechs

### (5a) Investors expect moderate to significant influence of proptechs on CRE

Percentage of respondents

Moderate

1%

Significant

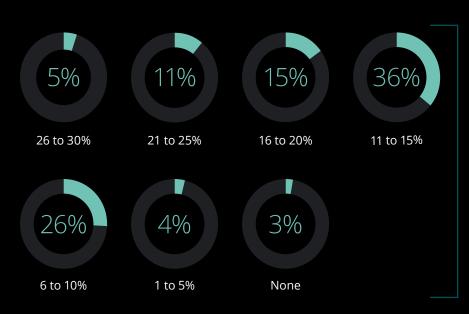
No influence

Top and bottom two respondent types for moderate to significant

Property focus	% respondents
Hospitality, multifamily	95%
Mixed-use	90%
Retail	81%
Industrial	77%
Geographic focus	% respondents
China, Hong Kong, Japan	100%
Singapore	97%
Brazil	78%
Germany	75%
Assets under management	% respondents
US \$5.1 billion – US \$10 billion	94%
Above US \$30 billion	92%
Less than US \$500 million	78%
US \$500 million – US \$1 billion	75%
Investor category	% respondents
Hedge funds	94%
Pension funds	93%
Insurance companies (investment divisions)	77%
Banking or finance companies (asset management divisions)	76%

### (5c) On an average, investors plan to commit 14 percent of CRE capital to proptechs

### Percentage of respondents



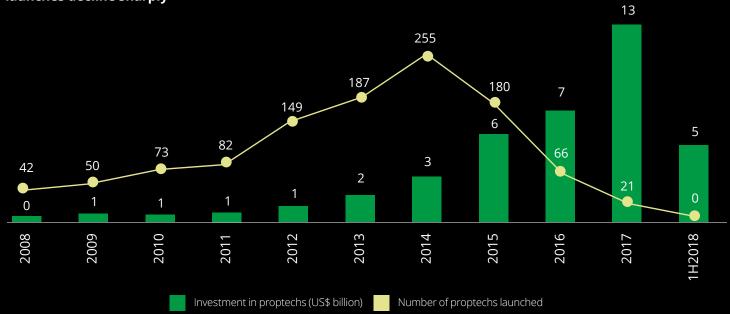
Top and bottom respondent types by % commitment

Property focus	% commitn	nent
Nontraditional, industrial		16%
Hospitality, multifamily		13%
Geographic focus	% commitn	nent
Canada		17%
Hong Kong, Japan		10%
Assets under management	% commitn	nent
Assets under management Less than US \$500 million	% commitn	
	% commitn	
Less than US \$500 million	% commitm % commitm	16% 12%
Less than US \$500 million Above US \$30 billion	% commitn	16% 12% nent
Less than US \$500 million Above US \$30 billion Investor category	% commitn	16% 12% nent



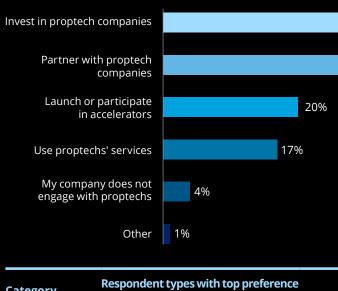
Property focus: Property specialization of investors; Geographic focus: Home country of the investor; Assets under management: Investor size Source: Venture Scanner database and Deloitte Center for Financial Services analysis.

### (5b) Globally, proptech fundraising continues to rise even as new launches decline sharply



(5d) Invest and partner are most preferred modes of engaging with proptechs

### Percentage of respondents



Category	apart from invest or partner		
Investor size	AUM above US \$30 billion	ا/Launch in ac	
Investor category	Sovereign wealth funds	ا/Launch in ac	

26%

### (5e) Collaboration with proptechs is a key influencer of CRE investment decisions for nearly a third of investors

### Top and bottom two respondent types with proptech collaboration as key influencer in CRE investment decisions

Property focus	% respondents
Mixed-use	43%
Nontraditional	40%
Hospitality	25%
Retail	21%
Geographic focus	% respondents
Japan	60%
Brazil	48%
Singapore	23%
Germany, Australia	13%
Assets under management	% respondents
US \$1.1 billion – US \$5 billion	37%
	220/
US \$10.1 billion – US \$20 billion	33%
Above US \$30 billion	<u>33%</u> 24%
Above US \$30 billion	24%
Above US \$30 billion US \$20.1 billion – US \$30 billion	24% 20%
Above US \$30 billion US \$20.1 billion – US \$30 billion Investor category Banking or finance companies	24% 20% % respondents
Above US \$30 billion US \$20.1 billion – US \$30 billion Investor category Banking or finance companies (asset management divisions)	24% 20% % respondents 48%

31%

### Mode

/participate ccelerators

/participate ccelerators

# What should CRE companies do to be more agile at engaging with proptechs?

In our 2018 Real Estate Outlook, we highlighted that CRE companies can work with, acquire, or use proptechs' services. However, we have seen limited engagement of CRE owners with proptechs. This is at a time when investor enthusiasm for proptech seems quite high.<sup>38</sup> To better engage with proptechs, CRE companies can consider the following options.

### **Collaborate with proptechs**

Today, CRE companies tend to be more aware of proptechs, but the industry seems to perceive them more as a disruptor than as a collaborator.<sup>39</sup> This is a stage that most of the broader financial services peers have passed, and many are now looking to proactively engage with fintechs.<sup>40</sup> It is important for CRE owners/operators to understand that it is a win-win situation, where CRE companies can match their industry knowledge and business opportunities/needs with proptechs' technology know-how and nimbleness. Nearly a third of the survey respondents acknowledged that incumbents' collaboration with proptechs will influence their future investment decisions. It may not be a good idea to consider proptechs as just vendors of a product or service, as it may limit the range of benefits that companies can achieve by partnering on potential innovations. For instance, as per a global agreement, Leverton will automate lease abstraction systems for JLL's clients across North America, Latin America, Europe, and Asia Pacific.41

#### **Reassess proptech engagement approach**

CRE companies may consider identifying a single point of contact to drive conversations with proptechs.<sup>42</sup> To ensure a coordinated approach, companies may develop a governance model and guidelines to evaluate proptechs.<sup>43</sup> CRE companies should consider assessing the size, scale, maturity, level of innovation, and relevance to existing business.

Of course, cultural differences with proptechs—because of their startup nature—are natural, and CRE companies should acknowledge these. For instance, proptechs tend to be leaner and make faster decisions compared to CRE companies. Both sides should therefore develop a shared understanding of the communication flow that allows incumbents and proptechs to coexist successfully. A bigger mind-set change for CRE companies is to increase agility by enhancing their risk appetite and adopting a fail-fast approach, as every proptech investment may not generate the desired returns.

CRE companies should also establish quantitative and qualitative metrics to measure their return on investment from proptech investments. They may consider firm revenue and cost-saving targets, market penetration, or qualitative measures such as tenant feedback and level of transformation.

### The bottom line: Key questions the CRE C-suite should consider



### Change the mind-set

Do you consider proptechs a threat or opportunity? Do you have a clear strategy and/or internal guidelines on proptech engagement? Do your company executives acknowledge the potential transformation that proptechs could bring?



### Start operationalizing your engagement strategy with proptechs

Do you have a list of decision-making criteria to guide when choosing proptechs? What is your ability to match the proptechs' pace of development, from contracting to development of proofs of concept and pilots, to demonstrating results? Do you have a dedicated team to engage with proptechs? Have you identified metrics to measure success of your proptech investment?<sup>44</sup>

# The winner cashes in on the investment dollars Be agile. Fail fast. Adapt rapidly.

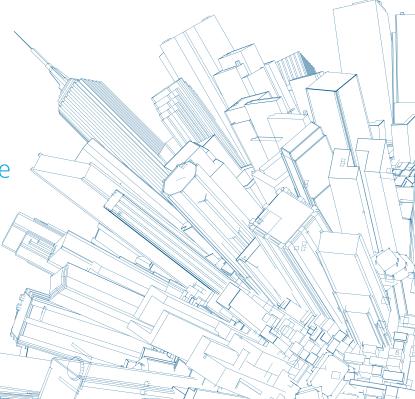
Technology advancements and interconnectedness will increasingly influence CRE business models. As we have observed, most institutional investors are committed to the CRE industry over the next 18 months despite concerns around a flattening yield curve, various country tax reform initiatives, the potential of trade tariffs in the United States, and the uncertainty around the impact of Brexit in Europe. Their investment mandate is leaning toward technologyenabled companies that emphasize tenant and employee experience, and newer real estate assets and business models. One may argue that investors perhaps have tunnel vision, as they fundamentally focus on the return on their investments.

Investors' investment mandate aligns with our analyses of the technology influence on the CRE ecosystem over the last four years. CRE companies will have to find ways to realign their business priorities and adapt to the new demands of their stakeholders to remain relevant. To enhance agility, CRE companies should innovate continuously and improve organizational fluidity rather than work within set guidelines and in silos. Running pilots of new products and services with a "fail early, fail fast, learn faster" approach could allow them to learn from failures, develop better offerings, and/or discard the unviable ones.

Taking it all in can be a challenge. And adopting new behaviors and mind-sets tends to go against the grain for most people. But the alternative to proactive change is organizational irrelevance. Although some CRE companies won't adapt, many of their competitors will—taking not only their customers and top talent but the investment dollars as well.

Ultimately, the winners will be those that can adapt to the forces of change faster than the speed of change itself.

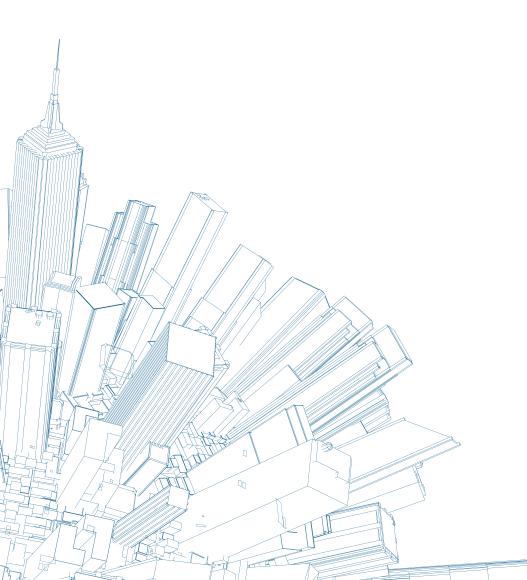
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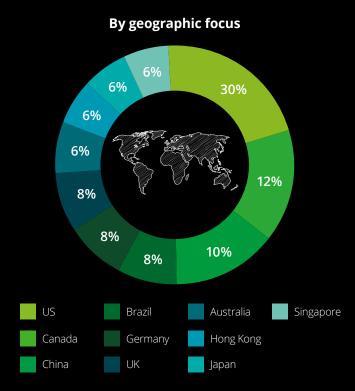


## Survey methodology

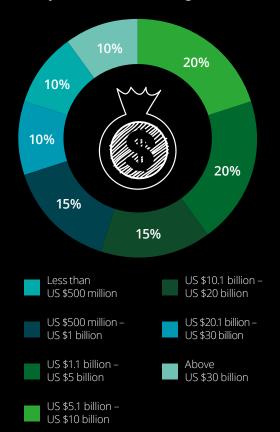
Our survey was based on responses from C-suite executives of 500 real estate institutional investors globally. The survey was conducted in July 2018 and covered investors from 10 countries across the Americas, Europe, and Asia Pacific with assets under management (AUM) ranging from less than \$500 million to more than \$30 billion. The investors included private equity firms, hedge funds, mutual funds, asset management arms of banks and insurance companies, sovereign wealth funds and pension funds, and REITs. The survey also included fair representation of investors focused on a variety of traditional and nontraditional properties. The respondents were asked questions around themes, such as capital flows, influence of technology, cyber risk management, evolution of talent and culture, and the role of proptechs, to understand the factors that are driving their CRE investment decisions.

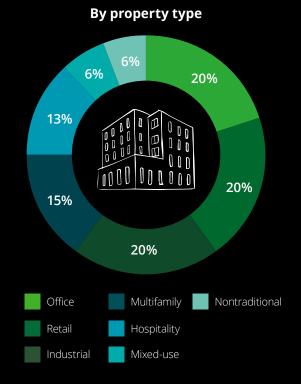
To learn more, please refer to the survey demographics chart on the following page.



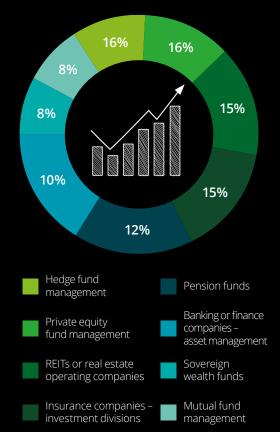


By assets under management





By investor category



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