

Bridging the gap

How the real estate sector can engage with PropTech to bring the built and digital environments together

KPMG Global PropTech Survey



November 2017

kpmg.com/uk/proptech17

"We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten"

Bill Gates, The Road Ahead

Headline results



© 2017 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

Foreword

Embracing technology

PropTech's potential is undeniable. Is it time for real estate players to dive in?

Every sector is facing the challenge of moving from an industrial past to a digital future. The property industry is no exception. We are seeing significant transformation as the fourth industrial revolution continually redefines the relationship between the digital and built environments. New technologies, emerging businesses and alternative solutions are entering the mainstream. However, it is unclear what impact these changes will have on their existing business models in reality.

Real estate decision makers have noticed the huge steps forward that other industries have made with the adoption of technology, such as FinTech in financial services, and are looking at how they might follow suit. Property firms are also being forced to respond to the disruption facing occupiers in order to stay relevant to their customers. Furthermore, as in other industries, fast-growing businesses are emerging with new solutions to industry pain-points and are coming up with more effective and efficient ways of engaging with customers or transacting. Property firms now find themselves having to keep up with new competitors, as well as with existing peers.

All of this requires a different way of strategic thinking. To understand the global real estate sector's attitudes to PropTech and the steps that organisations are taking to adapt to the digital age, KPMG conducted a survey of more than 130 real estate decision makers from 36 countries across EMEA (46%), Americas (29%) and ASPAC (25%). The survey results demonstrated that there is increasingly widespread recognition of PropTech's potential within the industry, but that despite growing acceptance of PropTech, few organisations have entered the adoption phase. There has been much talk about PropTech in recent months and several organisations have taken steps to invest in technology and innovation, but in many cases real engagement is often patchy and restricted to isolated business units.

While there is no one-size-fits-all strategy to respond to the changes the industry is experiencing, it is evident that property organisations need to develop, implement and integrate a clear digital strategy now if they are to stay ahead of the game in today's rapidly changing environment.

We hope that this report is a useful resource for understanding how your international peers are approaching PropTech, and the factors to consider when you define your own path forward. If you would like to discuss our findings in more detail or to learn more about what your organisation can do to capture value from and respond to the challenges of PropTech, please contact the authors or your local KPMG contact.



Andrew Weir Global Chair, Real Estate and Construction



Andy Pyle Head of Real Estate, KPMG in the UK

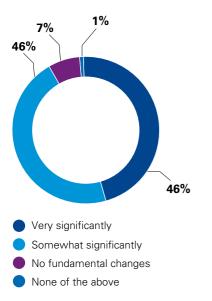
Those in the sector have noticed the huge steps forward that other industries have made through the adoption of technology, for example FinTech in Financial Services.

> **PropTech:** The term for property and technology has many guises globally, with words such as PropTech, RealTech, CREtech, ConTech and Real EsTech often used interchangeably and with multiple meanings. For the purposes of this survey and report, we have used PropTech to cover all technological and digital innovations relating to property.

Denial to acceptance

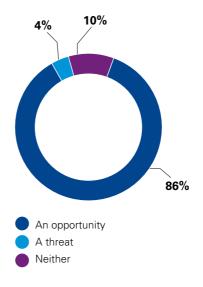
Property leaders can see where PropTech will make a difference: in better decisions and lower costs.

How much do you think digital/ technological innovation change will impact your business?



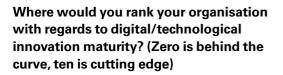
There is a general feeling among industry commentators that the impact and potential opportunites – and indeed threats – of PropTech have become more widely accepted over the past 12 to 18 months. This, our first global survey of the real estate sector's attitudes to PropTech, confirms the perception. Asked whether they view digital and technological innovation as a threat or an opportunity, most respondents (86 percent)

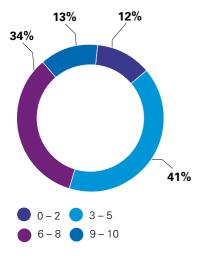
Overall, how does your company see digital/technological innovation?



voted opportunity. In truth, it is both. Emerging technologies, and the changes that come with them, certaintly pose a threat to existing business models if organisations are unable to adapt and capitalise on the opportunity.

The good news is that the vast majority of those surveyed acknowledge that PropTech will have a very significant or somewhat significant impact on their business.





But here is where the gap between acceptance and adoption creeps in. We asked how these real estate leaders would rank themselves on digital and innovation maturity – zero being well behind the curve, and 10 at the cutting edge. More than half (53 percent) ranked themselves at five or less, with just 13 percent considering themselves to be at the cutting edge of PropTech.

While reassuring that organisations are not over-confident about their innovation maturity, businesses that can move themselves towards the upper end of the scale will be in a much more competitive position as we progress into the digital age of real estate. "There are some amazing opportunities for the sector, but also real challenges. While most respondents recognise the impact of technology and case for change, half of the respondents give themselves a 'fail' when it comes to 'technological innovation maturity'. This means it really is time for the sector to act."

Sander Grunewald, Global Real Estate Advisory Network Lead, KPMG in the Netherlands



© 2017 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

What is the opportunity?

One of the biggest opportunities at the moment is in making smarter and faster decisions using the huge swathes of data to which real estate organisations have access. This is clearly illustrated in the survey results (see chart below). The ability to digest, analyse and use Big Data (or even just data) is one of the pain-points that many emerging technology firms are targeting with innovative solutions. Data-driven decisions allow real estate organisations to improve in areas such as utilisation of space, investment decisions and competitor analysis. However, an opportunity for enormous competitive advantage is in using data to improve customer service to the end users of property - the actual consumers of space. With efficient and effective data analysis, landlords can respond quickly to their consumers' rapidly changing needs and deliver superior service. Indeed, they can actually start to predict their consumers' needs and respond to them before the consumer realises the need themselves. As property increasingly becomes more of a service than a product, this ability will be key to real estate organisations' survival.

Critically, this doesn't need to involve large-scale expensive solutions – it's about taking small steps

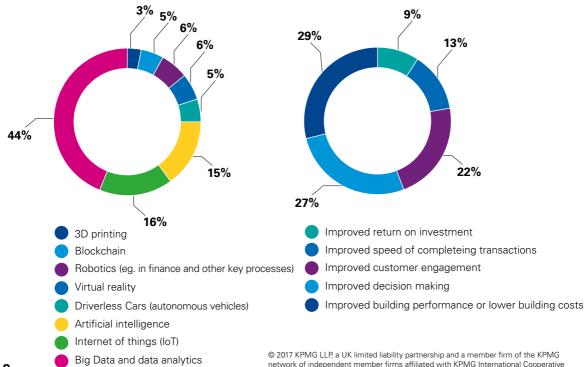
Which technological innovations will have the biggest impact on real estate over the next 5 years?

to understand what data you have, how you can make sense of it, and what information you want it to provide.

Respondents also noted the impact of Internet of Things (IoT) and artificial intelligence (AI). However, the immaturity of these technologies, and others such as autonomous vehicles, is illustrated in the survey results (see chart below). Arguably, these technologies will make a more significant impact over a five, 10 or 15-year period as they develop. Even though their impact appears to be some way off, organisations ought to consider them now to avoid building obsolescence or expensive retrofitting in future.

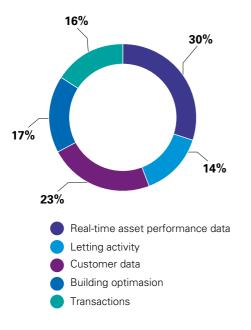
In terms of business improvements driven by PropTech, respondents placed greatest emphasis on building performance and costs; and decision-making and customer engagement. Interestingly given the amount of talk about Blockchain, only 13 percent felt improved speed of transactions due to technological innovation will have the biggest impact on the sector. Whether this is because the industry is yet to get to grips with Blockchain; or is underestimating its impact or feels it simply won't live up to its hype, remains to be seen.

Which business improvements driven by digital/technological innovation will have the biggest impact on the real estate sector?



("KPMG International"), a Swiss entity. All rights reserved.

What do you see as being most disrupted by digital/technological innovation over the next three years?



"PropTech is one small part of the wider digital transformation of the property industry. It describes a movement driving a mentality change within the real estate industry and its consumers regarding technologydriven innovation in the data assembly, transacting and design of buildings and cities"



Regional differences

There are two notable regional differences in the survey responses. Firstly, only 30 percent of firms in the Americas and Asia Pacific (ASPAC) state that PropTech's impact on the sector will be very significant, compared with 64 percent in Europe, Middle East and Africa (EMEA).

This could be explained in one of two ways. Either EMEA is behind the PropTech curve, while the Americas and ASPAC are further along and so do not have as much to gain from the future impact of digital innovation, or EMEA organisations are simply more aware of PropTech's potential.

And while only three percent of respondents in EMEA and two percent in the ASPAC region feel that autonomous vehicles (AVs) will have the biggest impact, the figure rose to 12 percent of respondents in the Americas. Perhaps the fact that AV technology is more advanced in the US makes respondents more cognisant of its implications for real estate, or it could be that driving distances in the Americas make the opportunities for driverless lorries more significant.

James Dearsley, Partner, PropTech Consult

Collaboration Is Key

Grow-your-own is rarely an option when it comes to deploying PropTech. Partnerships will be key.

One of the problems for many real estate businesses is that they are not naturally given to rapid digital innovation – in truth, they have had little need to do so until now. Equally, while many sectors have proven themselves particularly vulnerable to digital transformation – retail and financial services, for instance – property is, by its nature, less open to disruption.

Despite relatively slow progress in adopting PropTech, we have seen a noticeable increase in engagement with technological innovation across the industry. We have been through a period of acceptance, in the past 12 to 18 months (see chart) – and this is an essential precursor to wider adoption.

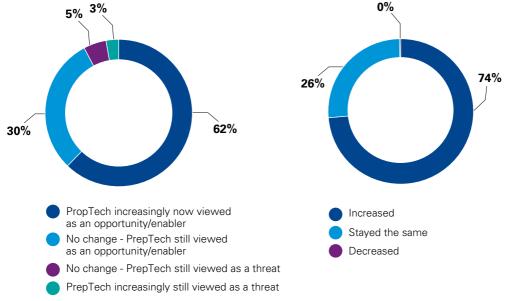
How have the attitudes in the corporate real estate industry changed towards PropTech over the last 12 months?

Speaking the same language

Increasingly, there are signs that those within the technology world have increased their understanding of the real estate industry. They are starting to explain their solutions in language that real estate firms understand – and are articulating the 'value-add' in more accessible ways.

Bridging the gap between real estate and technology experts – an outcome that property leaders seem overwhelmingly keen on – PropTech firms are starting to develop solutions to problems that real estate firms want to solve, rather than providing solutions disconnected from their target market.

How do you feel digital/technological innovation engagement from across the corporate real estate industry has changed over the last 12 months?



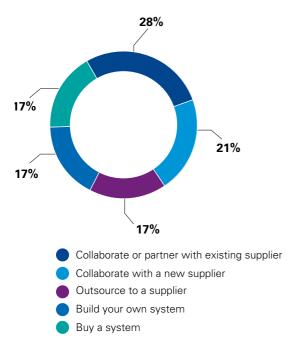
Engagement and collaboration

As the worlds of real estate and digital innovation collide, companies face a choice: build their own PropTech capabilities; buy off-the-shelf; or develop partnerships with specialists.

Within the financial services sector, we have seen all three strategies deployed with varying degrees of success.

But, right now, real estate leaders are leaning most heavily towards the various flavours of partnership. (See chart)

How do you expect to develop your digital/ technological innovation capability?



"Be careful! It is not about technology. It is about mindset and having the right culture to adapt to change."

Wouter Truffino, Founder and CEO, Holland **ConTech & PropTech**

"Technology is not a new thing in the property sector. However, as the pace of technology development increases, it has risen up the agenda rapidly, which is shown clearly in these results. Data and technology are going to have a significant impact on the short and long-term sector, both in how we use properties and how we do our jobs. There is no question that it will pose challenges for some people or buildings. However, while there will be some challenges, I believe technology is going to provide a huge opportunity for the sector and I am delighted that this is reflected in the survey results.

"To avoid some of the challenges on the road ahead, and to make sure we capitalise on the opportunities, the most important thing that everyone needs to do now is engage with the conversation about what is happening and the changes that will happen."

Dan Hughes, Director, Data and Information Product Management and PropTech lead, RICS Innovation often involves entering unchartered territory – what are key characteristics for success? Here are some guiding principles for Real Estate organisations seeking to adopt PropTech suscessfully:²



Dedicated

Dedicated team implementing PropTech innovoation – a team that has developed strong, collegial relationships across all business units and departments in the organisation in order to ensure PropTech is being used effectively to solve real business problems

Strategic

Well-developed yet adaptable strategy for leveraging PropTech innovation in order to achieve strategic business objectives

Collaborative

Looks to create both internal external relationships in order to drive its PropTech strategy and buy-in for specific initiatives

Customer-centric

Focused on customers first – using customer demands, pain points and challenges to drive technology innovation from outside in, rather than inside out

² Adapted from Forging the Future, KPMG Global Fintech survey, November 2017 https://home.kpmg.com/xx/en/home/insights/2017/10/forging-the-future-with-fintech-fs.htm

Long-term and shortterm focused

Able to focus on implementing the longterm, transformative changes required to reshape the business, whilst also implementing incremental changes required to respond to day-to-day challenges. Finding a balance between incremental changes and the guiding principles of the business' long-term innovation strategy

Outcome-orientated

Looks to create both internal Focused on outcomes, with specific plans to measure and assess the impact of PropTech innovation. At the same time, recognising that ROI may take time to achieve and so identified a range of other measures and metrics in order to help guide PropTechrelated decisions

Clarity of vision

Concrete vision for the future and a CEO and leadership team thoroughly committed to seeing the vision implemented

Awareness

Aware of the signals of change occurring in the market and constantly seeking insights into how PropTech will evolve in the future

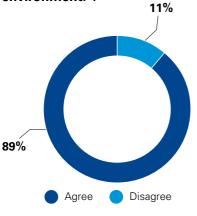
Willing to learn

Open to learning – not only from personal experience, but from the experiences of others both within and outside the industry. It goes without saying that this also requires a willingness to fail and resilience to continue trying new ideas. – starting with small experiments and establishing a foundation for larger steps.

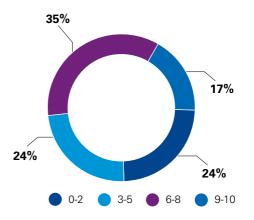
Agile and adaptable

Able to make changes as required to address the challenges associated with a constantly evolving business and PropTech environment There are clearly risks with collaboration. And with so many emerging PropTech solutions available, often targeting the same pain-points, it is difficult to ensure you are backing the right horse. This may be why, when we asked how actively respondents are looking for collaboration - zero being not at all and ten being very actively – almost half (48 percent) told us they are at five or less. Only 17 percent score themselves at nine or 10, while 34 percent are guite active, rating themselves at between six and eight. But collaboration gives businesses an opportunity to take small steps in their PropTech journey, allowing them to experiment and work together to the benefit of the corporate and the tech company. Indeed, often tech firms will shoulder much of the risk and offer short-term contacts to give corporates flexibility.

Do you agree with the statement "Traditional real estate organisations need to engage with PropTech companies in order to adapt to the changing global environment."?



How actively is your organisation looking for collaboration with technology partners? (Zero is not at all and ten is very actively)



"Large corporates are set up to engage with and procure from similarly large businesses, and that rigid framework often isn't suitable for fast-growing start-ups. Corporates are starting to realise that if they want to engage with fast-growing technology start-ups, they are going to have to change some of their core procurement processes."

Eden Dwek, Manager – KPMG Enterprise, KPMG in the UK It is worth noting that the highest proportion (28 percent) of respondents said they expect to collaborate or partner with an existing supplier. In an industry that has traditionally revolved around trust and long-term relationships, this result is fairly unsurprising. What is interesting is the emergence of competitors working together in order to further their businesses. Take, for instance, a project in the UK which will see some of the largest commercial property agents in the UK teaming up to share their data. Codenamed Project Dingo, the firms are seeking to create a platform to aggregate and analyse their data on property ownership and leasing in a move which will allow them to make better use of their data to avoid over-reliance on third-party providers. This mirrors collaboration seen in the residential sector, where agents in markets such as the UK have joined forces to establish sales and lettings platforms.

The need for agility in procurement

Among the barriers to the adoption of PropTech among real estate firms are the more formalised procurement processes of large corporates. In many businesses, lengthy partner-selection processes and a lack of knowledge about optimum digital solutions, result in halting progress on partnerships.

In order to succeed in their PropTech strategies, real estate organisations will need to reassess how they approach the procurement of new partnerships and suppliers. This forms part of the wider need for a cultural shift and mindset change among traditional corporates if they are to move forward and survive in the digital world.

Critically, this means engaging actively with innovation and emerging businesses. Organisations need to buy fully into the processes. It is not enough to simply procure a new technology, or promote your involvement with an emerging business, for brand value alone.

"These results are fascinating for two reasons. Firstly, it is reassuring to see commercial real estate begin to accept that technology will help them to operate their businesses more efficiently, but there is still some education needed in how to engage with and implement tech. Secondly, organisations are beginning to understand that the real estate data they gather can be used to start driving better decision-making, to speed up reporting and to improve building performance. But what underpins these drivers is, ultimately, closer engagement with the real estate customer and consumers of space. Getting the most out of technology needs an innovation strategy geared to delivering an improved customer journey and experience. Those who are prepared for this are quickly realising that innovation requires significant cultural change and new types of job roles across the organisation, but can be driven by becoming customer-facing and providing property as a service.

I am also delighted so see such positive sentiment from EMEAbased firms, as London and the wider area establishes itself as a global leader in PropTech and real estate digital transformation."

Mind the gap

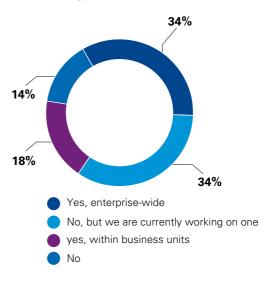
The global real estate industry has been slow to put in place strategies to take advantage of the latest PropTech developments. But it's not too late to innovate.

One of the most interesting findings of our survey is the apparent gap between PropTech acceptance and adoption. Our results show that although the vast majority of respondents acknowledge the impact that technology and innovation will have on the industry and their businesses, few have a strategy in place to respond to it.

We found that while 86 percent of respondents see digital and technological innovation as an opportunity, only 34 percent have a clear enterprise-wide digital strategy. If we remove respondents from PropTech businesses, this figure reduces to 24 percent. We found that 56 percent of respondents (excluding those from PropTech organisations) stated that they either do not have a digital strategy or are currently working on one, while a further 20 percent have a strategy within certain business units. These figures are consistent across all geographical regions. They are a telling sign that there is still much to be done to enable the real estate sector to ride the wave of change that is upon us.

"If you don't have a strategy, you will not be successful in implementing new changes by adding PropTech to your current business."

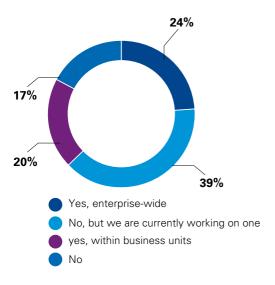
Wouter Truffino, Founder and CEO, Holland ConTech & PropTech Does your organization have a clear digital/ technological innovation business vision and strategy?



"The sector has moved forward in its acceptance of PropTech recently, but it's only a small step on a longer journey. I think the adoption phase over the next 12 months will be fascinating."

Nick Wright, Head of Business Development – Real Estate, KPMG in the UK

Does your organization have a clear digital/ technological innovation business vision and strategy?



Note: excluding respondents from technology businesses

The real estate sector is not alone in its slow adoption of tech. KPMG sees many of the issues facing real estate executives replicated across the whole spectrum of industries with which we work.

In KPMG's 2017 Global CEO Survey, almost half of CEOs (48 percent) said they expect major disruption in their sector over the next three years, and the same proportion expressed concerns about their business model being disrupted by a new entrant not currently perceived as a competitor.¹ Real estate organisations have as much to learn from other industries as they do from their peers and competitors.

It is critical that they act on these learnings now to avoid being left behind. PropTech growth is exponential – it will be far easier to hop on the train while it is still travelling slowly enough to take on passengers. "It is amazing that 89 percent agree with the statement that traditional real estate organisations need to engage with PropTech companies in order to adapt to the changing global environment, while 76 percent of respondents from non-technology businesses do not yet have an enterprisewide digital strategy. What an opportunity this represents for tech businesses!"

Professor Andrew Baum, author of *PropTech 3.0:* The future of real estate



¹ Global CEO Survey 2017 (https://home.kpmg.com/ xx/en/home/insights/2017/06/ceo-outlook.html), KPMG International.

Next steps

Connectivity. Changing environments. New ways to structure, control and trade real estate. But what are the immediate steps to realise PropTech's potential?

Although the real estate sector has a reputation for being slow to adopt cutting-edge innovation, we see more firms acknowledge the need for change and greater efforts are being made to integrate a forward-thinking approach into company cultures. It is an interesting time for the sector. New roles such as Chief Technology Officer (CTO) and Chief Data Officer (CDO) are emerging; technology champions or directors of innovation are being appointed and technological change is becoming a board-level issue.

However, real estate lags behind many other industries – often industries that are its clients – which might become more inclined to conduct business with property firms on the same technology page when it comes to improving investment performance. This is likely to be particularly acute in retail, healthcare and logistics, where digital revolutions are already well underway.

"To some extent, the required level of openness to innovation is not found internally. For most of us, we understand property and property investment, but venture capital is not an easy skill set and requires specialists." There is a clear risk that real estate players which do not convert their acceptance of PropTech into adoption, will be overtaken by rivals that do.

So what's the solution?

A great starting point is to appoint a senior director with a remit to assess and implement the best technological advances for the firm. This may include forming an innovation board, made up of a cross-section of employees and roles. For many, this appointment will come in addition to the day job. Increasingly, however, companies recognise the need for a dedicated role, where the job holder has board-level accountability and an influential voice in the company. There is also recognition that a culture of innovation should be encouraged across the organisation – everyone needs to be engaged with the digital agenda.

Looking across sectors; establishing links with emerging PropTech firms (and, it should not be forgotten, with other disruptive tech and non-tech businesses) and taking a long-term view on change within client industries, are essential.

Critically, PropTech and innovation should not be viewed in isolation. Organisations need to integrate innovation fully into their day-to-day culture and employees' mindsets. Procuring new technologies or service providers will be fruitless without making the organisation more open-minded to the potential gains of PropTech innovation.

Jonathan Hannam, Co-Founder & Managing Director, Taronga Group



Recruiting new skills

Typically, the skills required to innovate and respond to technological change are not found in traditional real estate organisations. How businesses go about recruiting these new skills and integrating new roles into their business set-up, will be critical to the success of their digital strategies.

It is not enough to assume that bringing in one 'expert' will solve all your problems. A sticking-plaster is not a solution here.

Companies first need to think about what they are trying to achieve. If you do not know your end goal, it will be difficult to find someone to help you achieve it.

They also need to fully integrate innovation roles within the rest of the business, and ensure that they are strategically aligned to the company's overall goals.

Finally, these role holders need to have board-level responsibility and accountability.

It will be interesting to see where real estate organisations source this new talent. We might see them look to other sectors to bring in new ideas and fresh energy, particularly as those within the property industry with the skillsets to become successful Chief Technology Officers (CTOs) and Chief Data Officers (CDOs) are somewhat limited – or, at least, untested.

"One of the most fascinating insights of our journey with Real Tech Ventures has been who we present the Fund to. We have often targeted the CEOs or Chairs of organisations and it is interesting to see who is brought to the meeting. If innovation is a direct report to the CEO, we know that the organisation is taking innovation seriously. We have also seen the Head of Innovation reporting to the Head of HR which tells us that innovation is being used to change the culture. And for other groups, the Head of Innovation is a direct report to the CFO – hence innovation is all about enhancing or protecting existing cash flows."

Jonathan Hannam, Co-Founder & Managing Director, Taronga Group

What steps can Real Estate organisations take to successfully adapt to the new digital ecosystem?

Assess where you are now and where you want to be

Honestly review your organisation's current position and set a board-sponsored target of where you want to be and how you will get there. And, importantly, identify the challenges to getting there. Companies that do not set a digital strategy nor realign their business goals to the new digital ecosystem now, will struggle in the future.

Appoint a board member to drive innovation

In order to succeed, innovation needs sponsorship from the top. It requires board-level responsibility and accountability, and complete integration across the business.

Set up an innovation board

Having an innovation board with representatives from across the business helps with reviewing all aspects of an organisation's digital strategy and ensuring its alignment with overall business goals. It is important to include people who will be using the new technologies, as well as the decision-makers who will purchase them.

Re-evaluate your purpose

What services do you want to provide and what do you want to be famous for? Think about what your organisation does now that will not be relevant in five, 10 or 15 years' time.

Re-assess your company culture

Developing a digital strategy is often as much about transforming an organisation's culture as it is about implementing new technologies.

Make your data work for you

Review what data you have access to and clarify which issues you want it to address.

Identify who your customers and consumers are

The customer signing the lease is important. So too are your consumers– the users of the space. What do they want and need, and how will this change over time? You should also consider your investors, and how tech can be used to improve reporting and investor engagement.

Become more agile

Fast-growing businesses have the ability to respond quickly to today's rapidly changing environment and to pivot their organisation to customer demand. Traditional corporates can learn from this approach.

Fill any skills gaps.

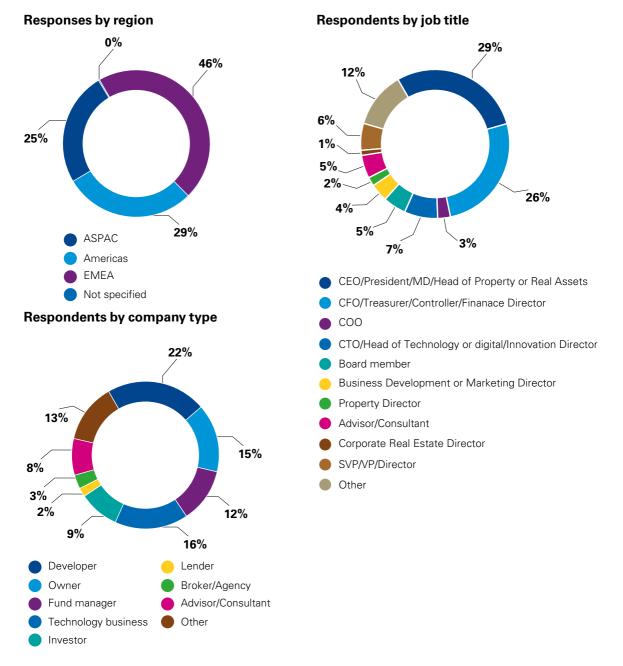
Are there people within your organisation who can dedicate more time to innovation and digital strategy? If not, identify where you can find these skills to plug the gap. Be open to looking outside the real estate sector.

Engage

Actively engage with PropTech. Whether this involves speaking with, procuring or even partnering with fast-growing businesses, or simply attending seminars about the topic, the key is to engage. And encourage all levels of your organisation to do the same.

About the survey

The KPMG Global PropTech Survey 2017 involved 331 respondents and was conducted between 15 September and 15 October.





© 2017 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

Contact us

Andy Pyle Head of Real Estate, KPMG in the UK

+44 (0)7968 987345 andy.pyle@kpmg.co.uk

Sander Grunewald

Global Real Estate Advisory Network Lead KPMG in the Netherlands

+31 6 50692013 grunewald.sander@kpmg.nl **Nick Wright**

Head of Business Development, Real Estate, KPMG in the UK

+44 (0)7770 670384 nick.wright@kpmg.co.uk

kpmg.com/uk

© 2017 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative. ("KPMG International"), a Swiss entity. All rights reserved. Printed in the United Kingdom. The KPMG name and logo are registered trademarks or trademarks of KPMG International.

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 endeavour 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 on such information without appropriate professional advice after a thorough examination of the particular situation.

CREATE Graphics | CRT089180 | November 2017