



February 2023

Proptech Insights

Based on a survey of U.S. and Canadian real estate management
professionals in December 2022.

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Background of report

This report, PropTech Insights, is the result of data collected in a survey conducted under the guidance of the IREM® Technology Advisory Board.

This survey focused on PropTech, how it's being used in real estate management, and the digitalization of the real estate industry. The survey centered on building-level technologies, as opposed to business or corporate technologies.

The purpose of the survey was to:

- Evaluate how real estate managers saw themselves and their companies in terms of PropTech adoption and usage
- Identify challenges that managers are facing which can be solved by PropTech
- Assess gaps in comfort level with PropTech in order to develop additional resources and information for real estate managers
- Measure significant year-over-year changes that point to emerging trends

Similar surveys were conducted in 2019, 2020, and 2021. These have helped establish a benchmark for pinpointing the key issues facing property managers that can be addressed by technology solutions. By conducting the survey on an annual basis, shifts in PropTech adoption patterns and trends among property management companies can be identified.

The 2022 survey was distributed to all IREM members in the U.S. and Canada in December 2022. A total of 494 responses were received.

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Overview of findings

- Managing tenant-related issues was the top problem (13.9%) faced by real estate management professionals that they believe can be solved by Proptech according to the survey. Other leading concerns that respondents believe can be improved with Proptech included automating repetitive tasks (13.7%), improving the integration of their companies' existing systems (13.3%), and managing property maintenance (12.3%).
- Over half of survey respondents have implemented Proptech of one kind or another at the properties they manage. The Proptech application implemented most was drones/ photogrammetry (26.4%), followed by internet of things (IoT) and smart home technology (22.5%).
- Unchanged from the previous year, digital twin technology has been utilized at only 1.5% of properties managed by respondents. This is in contrast with smart contracts, a much more recent development, which were used at nearly ten times as many respondents' properties.
- Respondents indicated a growing confidence that Proptech can provide real solutions to some of the biggest challenges they face at their properties. But the difficulty of measuring the benefits against costs, now the number one hurdle to implementing Proptech at nearly half of all respondents' properties, remains an obstacle to wider adoption.

Key insights

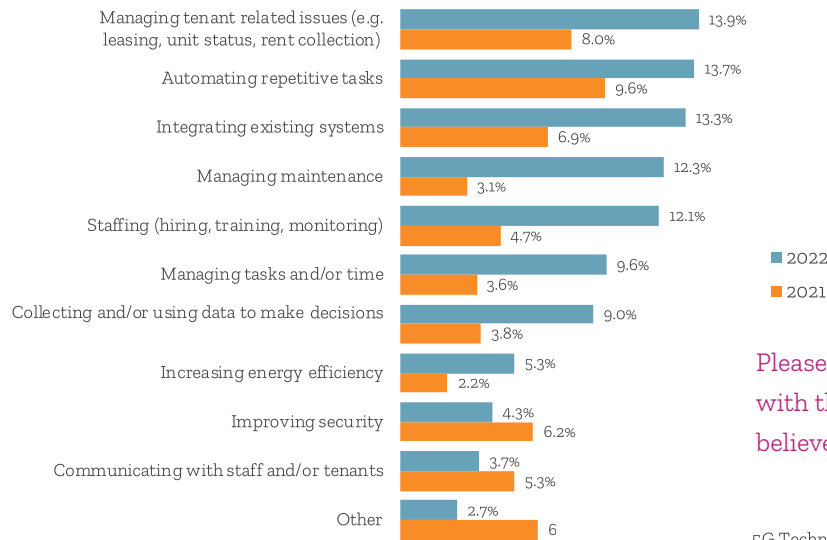
- While it's most common to take a collaborative approach to evaluating potential Proptech investments, 29.9% of respondents indicated that it's ultimately their property management team that takes the lead in decision making. This is more than any other department, including IT (16.9%) as well as ownership and top executives (6.3%).
- Use of drones for conducting inspections was over 2.5 times more common than in 2021. Meanwhile, managers used drones for mapping nearly eight times as much as they did in 2021.
- The biggest hurdles to Proptech implementation were both financial, with 88.4% of respondents citing the difficulty of conducting cost-benefit analyses and overall financial cost. These cost concerns were cited as major hurdles nearly twice as much as convincing the property owner or securing organizational buy-in. Proptech is a high priority for real estate managers, but it appears that the hesitancy to invest company dollars into Proptech will remain high as long as costs do.
- Adopters of each application of Proptech are spread similarly across the asset classes, with most respondents who've implemented each technology managing either conventionally financed apartments or office buildings. The two notable exceptions were IoT and smart home applications as well as AI and machine learning, with conventionally financed apartments well ahead of the other asset classes at 40% and 63.6%, respectively.
- Respondents' view of Proptech's importance still outpaced their familiarity with it, just as it has in preceding years. Familiarity with each category of Proptech was 3.0 out of 5 or below, demonstrating an ongoing need for broader education and training. This need to provide training throughout the entire organization was cited by a quarter of all respondents as one of the top three hurdles to implementing Proptech.



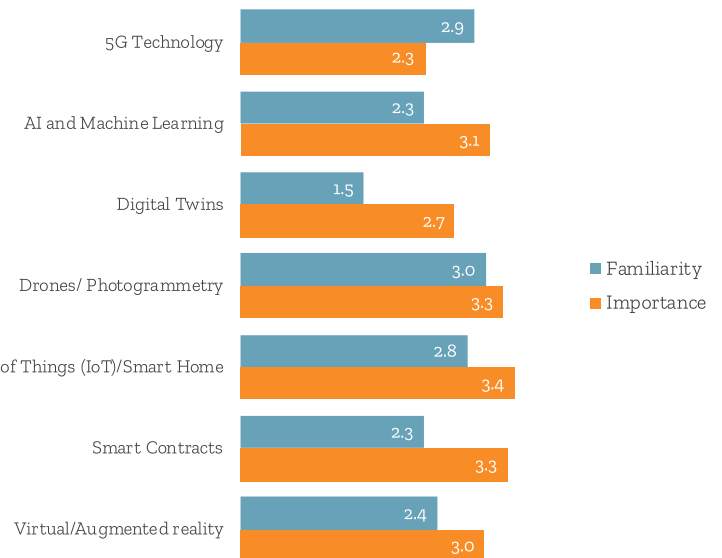
Know your tech terms

Check out the IREM Technology Glossary at irem.org/tools/technology/technology-glossary for definitions and to keep up with the latest advancements.

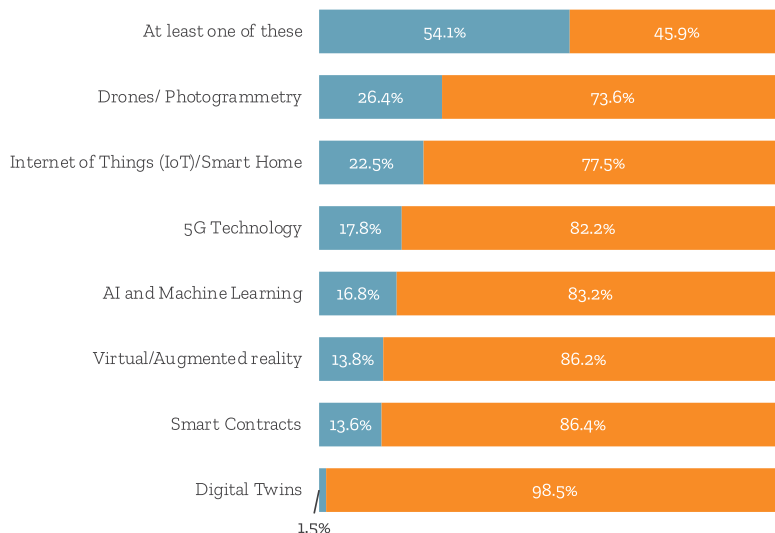
What is the biggest problem you face as a real estate management professional that you believe proptech can help you solve?



Please rate both your level of familiarity with the technology, and how important you believe it is to property management.



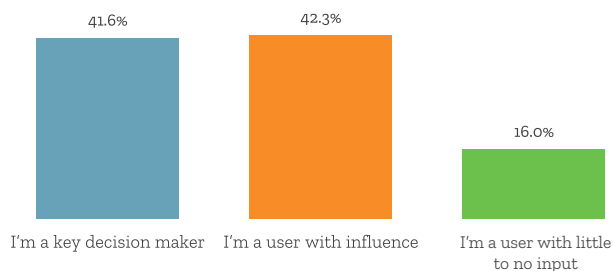
Which of the following technologies, if any, have been implemented at your property?



Respondents' role

As in previous years, the vast majority of respondents (83.9%) described themselves as either a key decision-maker in their company or as a user with influence when it comes to Proptech decision-making.

How would you describe your role within your company when it comes to decision-making about property technology (proptech, building-level technology) implemented onsite at your properties?

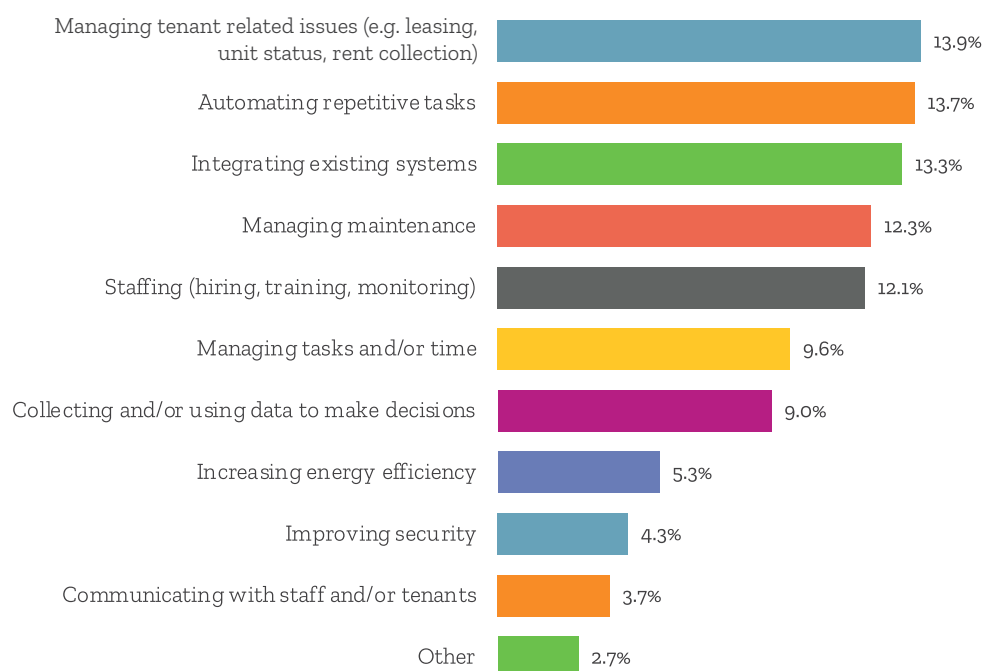


To learn even more about implementing Proptech at your buildings, register for the **IREM Skill Badge: Building Technology**

Problems solved by Proptech

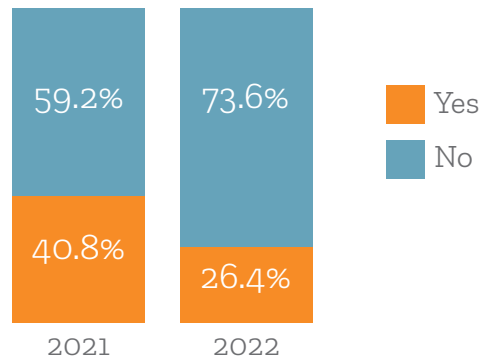
The top problem identified by real estate management professionals that they believe can be solved by Proptech was managing tenant-related tasks, such as leasing, updating unit status, and rent collection. This highlights how even while high costs continue to hinder adoption, managers are becoming increasingly aware of the immediate benefits that implementing Proptech can add to their operations.

What is the biggest problem you face as a real estate management professional that you believe proptech can help you solve?

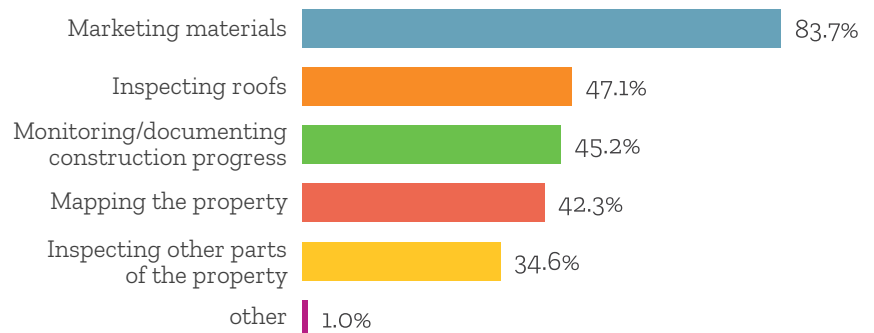


Drones/Photogrammetry

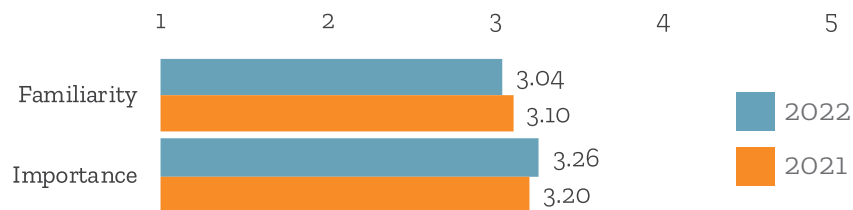
Has this technology been implemented at your property?



How has this technology been implemented at your property?

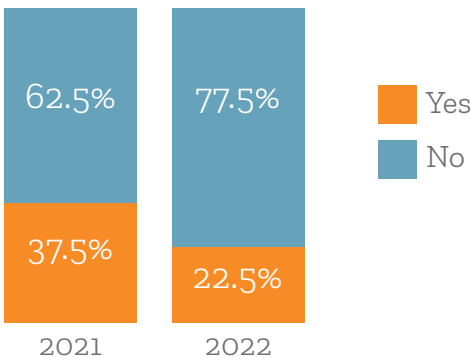


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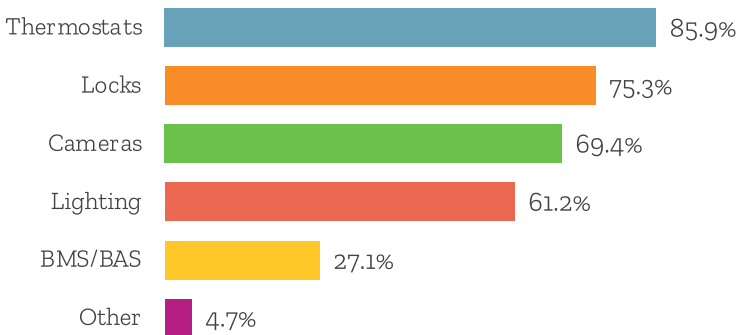


Internet of Things (IoT)/Smart Home

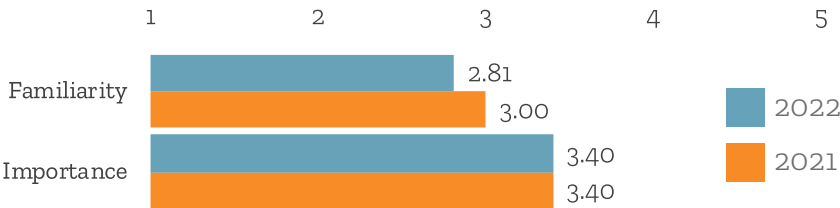
Has this technology been implemented at your property?



How has this technology been implemented at your property?

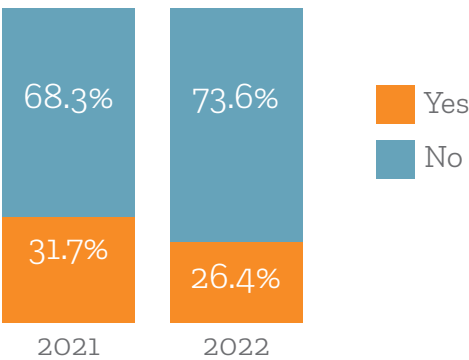


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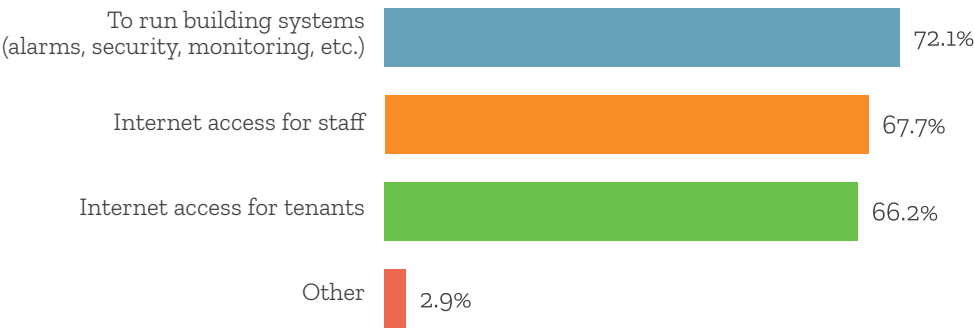


5G Technology

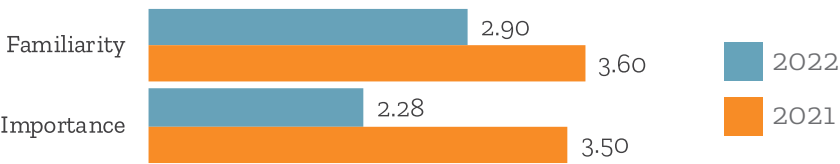
Has this technology been implemented at your property?



How has this technology been implemented at your property?

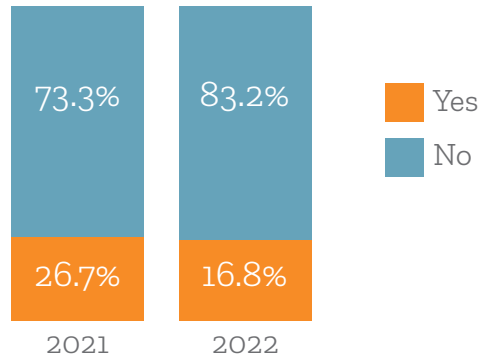


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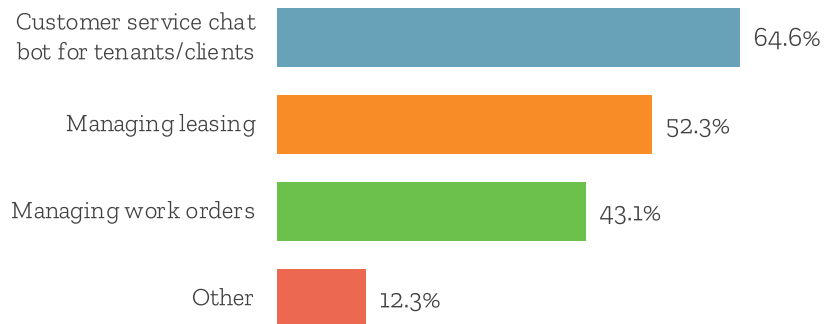


AI and Machine Learning

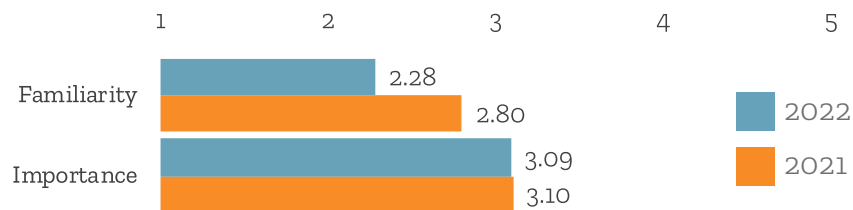
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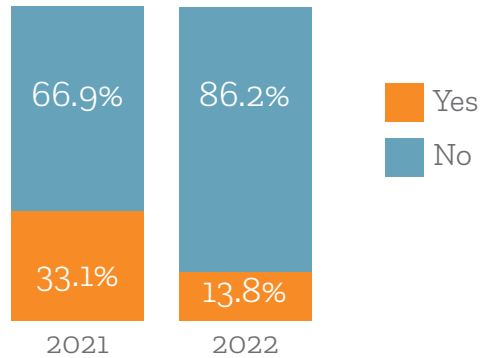


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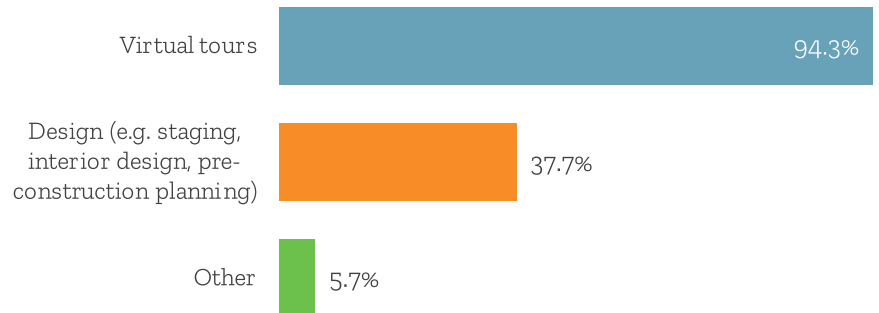


Virtual/Augmented Reality

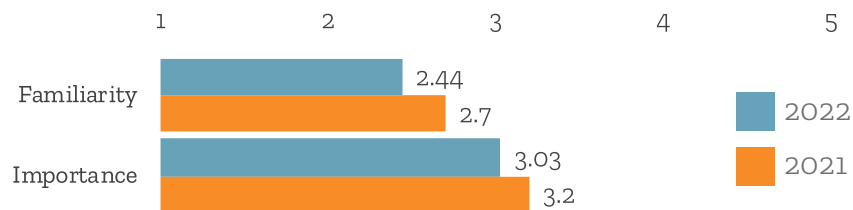
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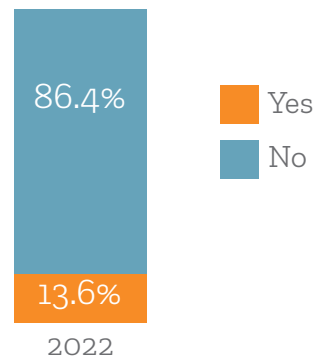


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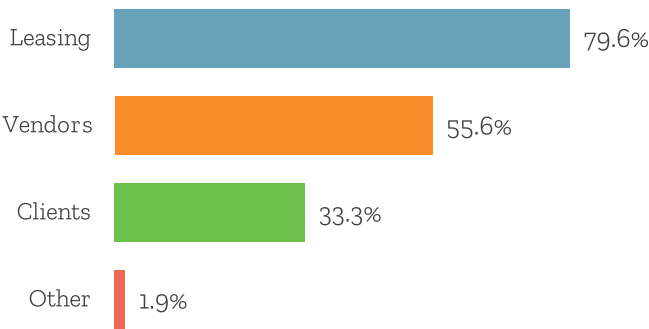


Smart Contracts

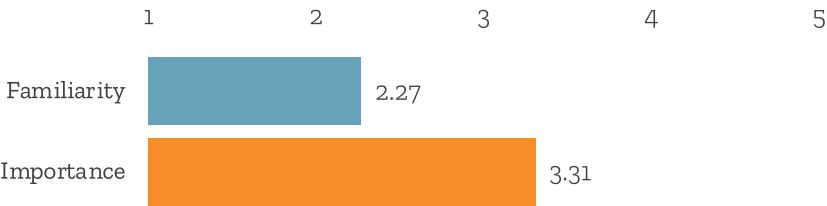
Has this technology been implemented at your property?



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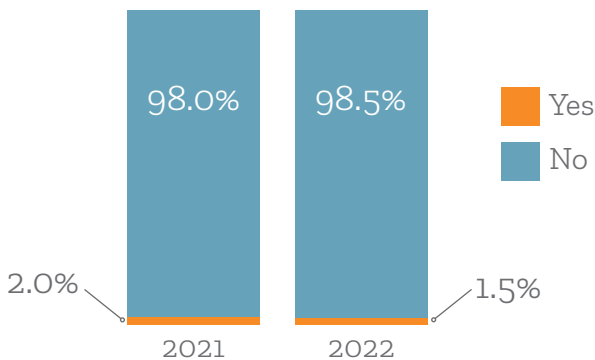
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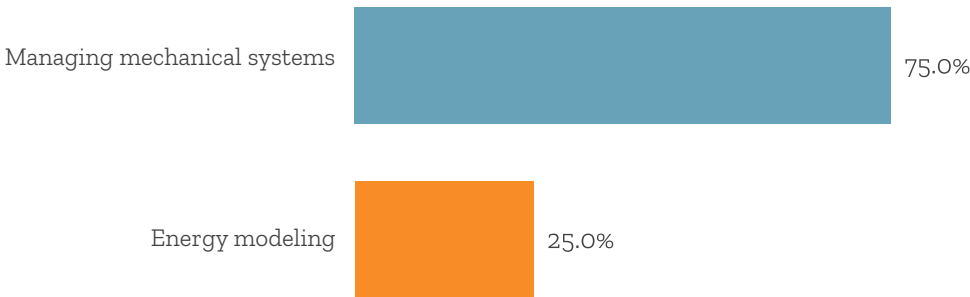
*Smart contracts were not included in the 2021 survey

Digital Twins

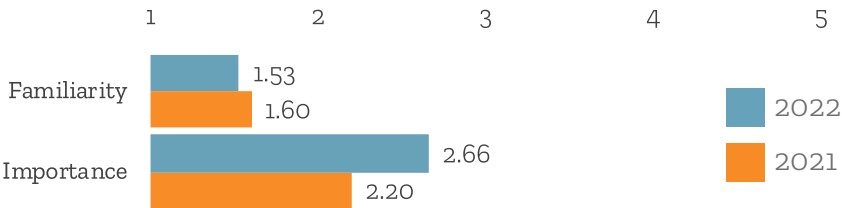
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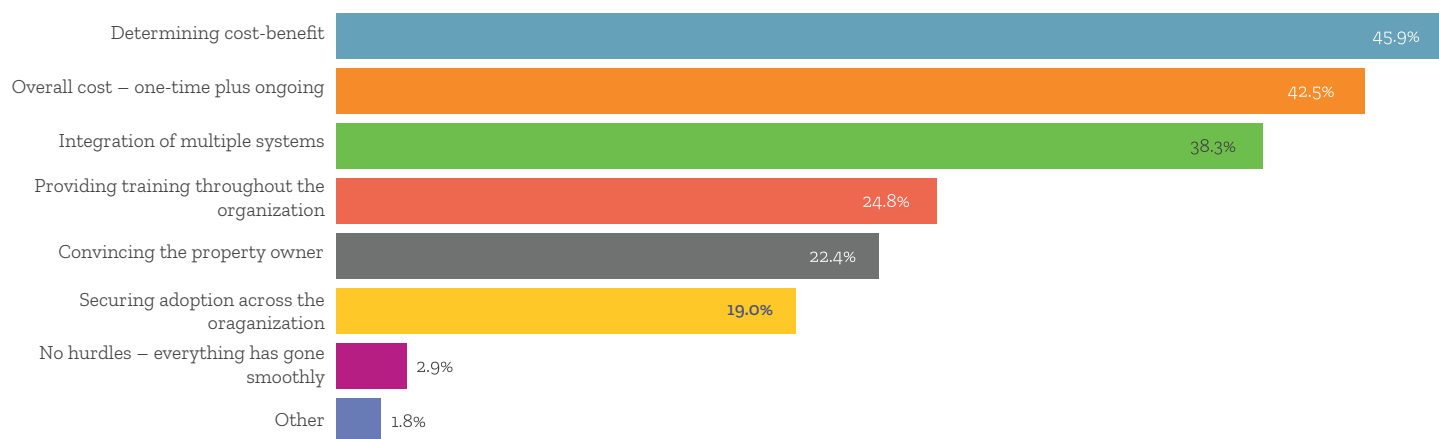


Please rate both your level of familiarity with the technology, and how important you believe it is to property management.





In considering and implementing proptech solutions at your company, what have been the major hurdles?



*The sum is greater than 100% because respondents were able to select up to 3 options

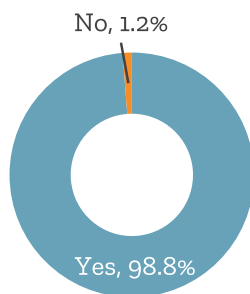
Demographics

Nearly all of the survey respondents were IREM members (98.8%), over a quarter of whom manage conventional multifamily buildings (28.6%), while office was the primary property type managed by 17.5% of respondents. In the 2021 survey, the share of respondents who primarily managed conventional apartments was roughly equal to those managing office buildings, at about 25% each.

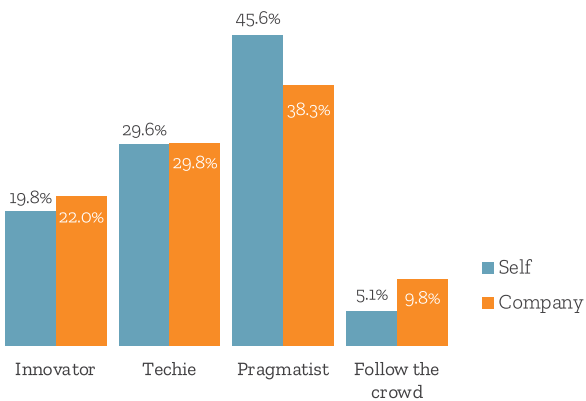
Close to half of all respondents rated both themselves and their companies a "pragmatist", with "techie" the second most common assessment at both the individual and company level.

The majority of respondents work for property management firms (46.6%) or full-service real estate firms (21.2%). Firms ranged in size, with nearly equal numbers of respondents representing small, medium, and large firms and portfolio sizes.

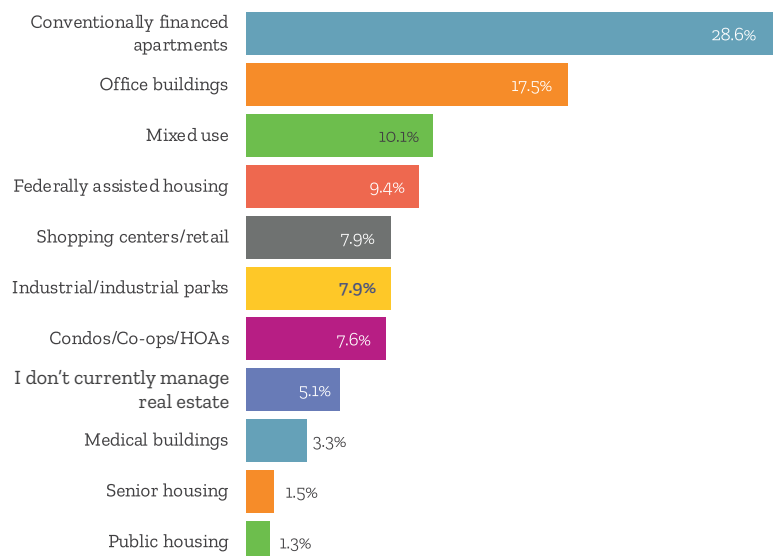
Are you a member of IREM?



When it comes to proptech, how do you describe yourself and your company

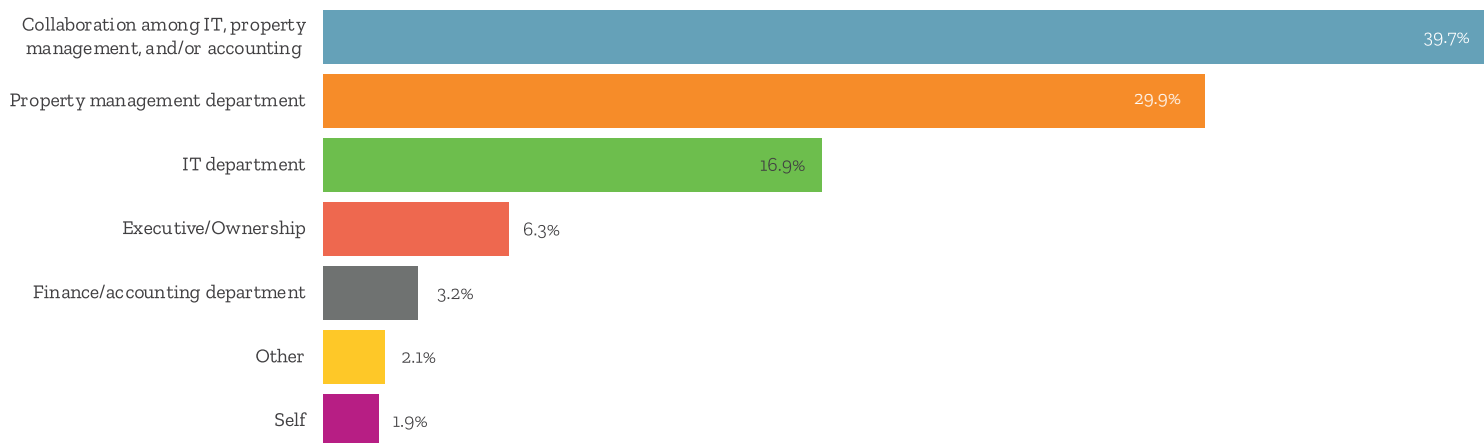


What property type do you primarily personally oversee?



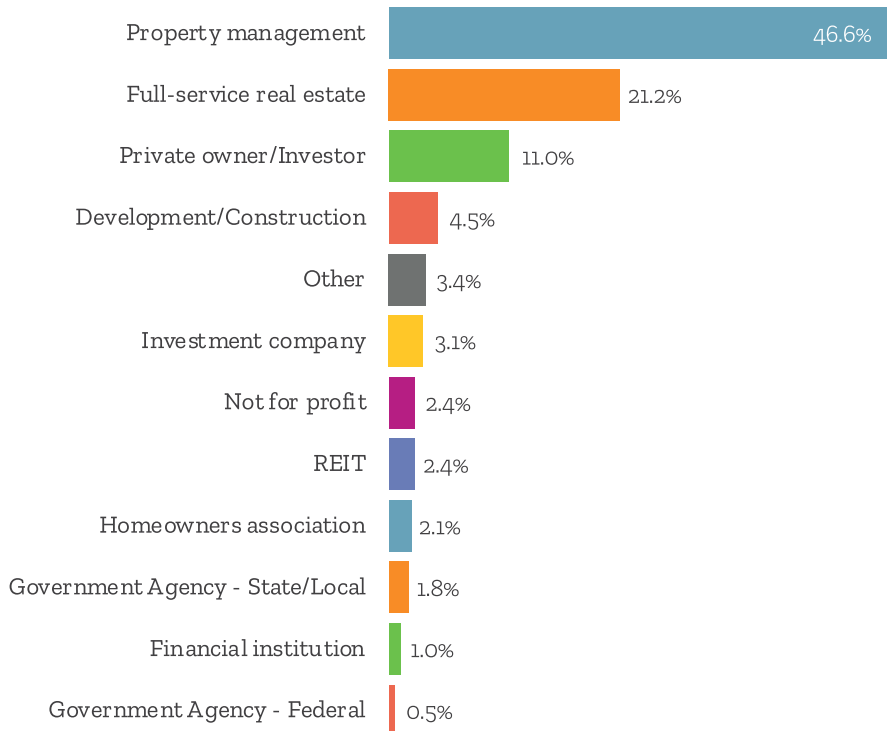


When it comes to proptech decisions within your company,
who typically takes the lead role?

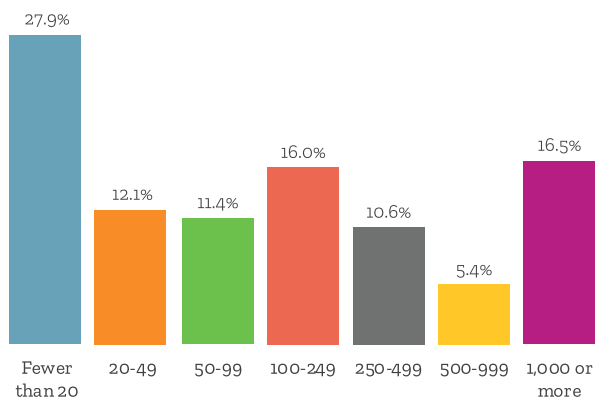


Demographics

Which best describes the type of organization you work for?



What is the size of your company based on total employees?



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