

PropTech: Solutions for sustainability and cost mitigation



The integration of technology in buildings can help occupiers and landlords meet new environmental standards and minimise rising costs

The widely-quoted statistic about the built environment – that it contributes nearly 40% to global carbon emissions – doesn't tell the whole story. While 11% of the built environment's carbon emissions comes from the embodied carbon, a staggering 28% come from operational emissions.

Nowhere is this more apparent than for commercial offices: from lighting to heating to water usage, the daily operations of a building can have an outsized impact on the sustainability credentials, and costs, both of the building itself and for the firms that occupy it.

As a fusion of property and technology, PropTech can provide insights into, and streamline processes within, buildings. From monitoring tools to efficient fixtures to digital integration, PropTech can help landlords and occupiers meet sustainability requirements and manage rising energy costs.

There is significant scope for the adoption of PropTech solutions as an 'easy win' to lessen the impact of the built environment on global carbon emissions. Currently, less than nine percent of commercial real estate has adopted digital technology or PropTech solutions and could be considered 'smart', according to Deloitte. The integration of PropTech can provide critical insights to aid firms in managing their rising energy costs, which are rapidly increasing across the global economy with little signs of abating.

After a long period of relatively stable energy costs, prices have surged across many major economies feeding into growing inflation numbers. Across the top three economies

in the above chart with the highest price growth, energy prices have increased 20% over the past year, and 12% in the past six months alone. Energy producer UAE is the main outlier among the selected countries, with prices proving to be relatively stable in that economy. Other nations such as the US, UK, and Germany have seen rapidly increasing energy prices, as they are more dependent on energy imports than the UAE or China. These rising energy costs are filtering through to individuals and businesses who are all attempting to minimise their energy usage.

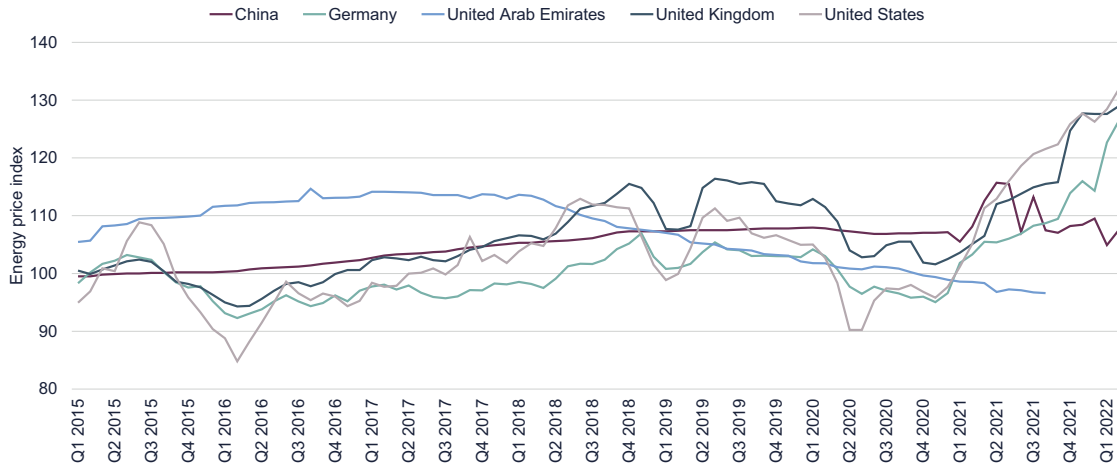
PropTech possibilities

Property owners and occupiers will need to invest in technologies to adapt the changing world of work and the increased emphasis on sustainability. There are two key elements to a successful PropTech strategy:

Internet of Things (IoT) devices: web-connected sensors and automation tools which can be applied for areas such as ventilation, lighting, and utilities, showing to-the-minute usage data. IoT can also include spatial intelligence, security, and people counting sensors so firms have an understanding of how and when their space is used.

Data management: Each device and sensor has its own data output, which can make creating comprehensive insights difficult. Managing data effectively through a single software can provide a picture of the overall usage and efficiency of individual office spaces and the entire building.

Global rising energy costs – selected countries



Source: Savills Research using World Bank

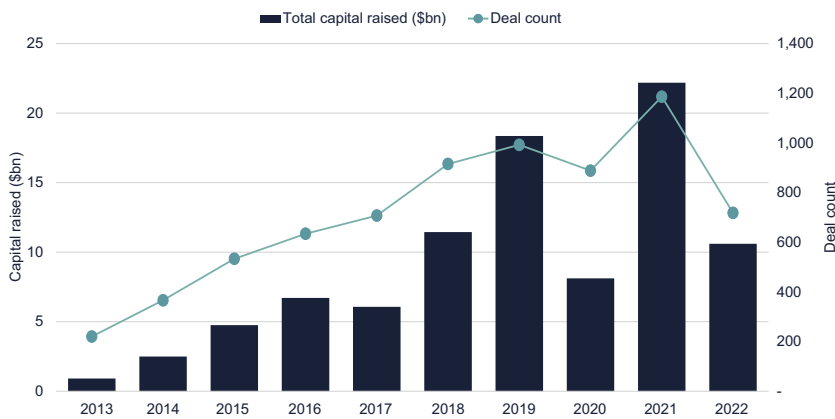
Data management software can identify changes to improve building performance and efficiency, increase occupant comfort, and locate issues affecting building maintenance. Data from a building’s automation and energy management systems, as well as long term occupancy data, will likely become viewed as a minimum requirement in future decades to create sustainable productive environments for all.

According to Sylvain Thouzeau, Building Performance Manager at Savills, “Metrics aggregated from PropTech solutions around service requests and property usage can also help to predict lease renewals and inform occupancy strategies for landlords. For occupiers, energy consumption is a major source of their operational emissions. Insights from PropTech data can provide opportunities for cost savings on energy, water, and heating, as well as providing an understanding of usage patterns within their office spaces.”

Outlook – PropTech for posterity

In the near term, PropTech will have the added benefit of helping lower energy costs and providing insights into how offices are used on a daily bases, which has become more important to monitor and understand, following the rise of hybrid working post-pandemic. Looking longer term, “As the industry grapples with sustainability pledges and regulations the focus on new technologies, particularly PropTech, as a solution is significant and will only continue to grow. Given the scale of the challenge the industry needs to find new revenue streams and value to enact this change” says Matthew Fitzgerald, Director of Cross Border Tenant Advisory – EMEA. These solutions allow decision makers to implement more effective strategies to reduce environmental impact, improve wellbeing, and reduce operating costs across individual office spaces and the wider buildings.

Venture Capital deal flow in PropTech



Source: Savills Research using PitchBook

The growth of the sector

Investors are seeing the benefits of PropTech too, and its immense potential. Over the past decade, venture capital investment in the sector has grown from less than \$1 billion in 2013 to a peak of over \$22 billion in 2021 across nearly 1,200 deals. This year appears set to match that trend with over \$10 billion invested into PropTech firms in 2022 to date. These investments range from seed funding in nascent start-ups to late stage funding into firms which may be planning their IPOs, but the goals of these firms are the same – to provide the tools to boost the technical integration of buildings and the wider built environment.

Research

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