

Achieving efficiencies through PropTech

PropTech, short for Property Technology, is a term that describes digital transformation in the real estate sector. It refers to businesses that use technology to disrupt and improve the way we buy, rent, sell, design, construct, and manage property. Several years ago, no one talked about PropTech. The real estate industry was generally considered to be sluggish at embracing and adopting innovation. There were very few companies trying to digitalize the industry.

Today, there is a vast interest and investment in PropTech. Its landscape is changing dramatically, and the market is developing at a rapid pace. PropTech has become a truly global phenomenon.

We have identified three primary elements of PropTech: space optimization, energy efficiency, and resident satisfaction.



Space optimization

With rapid urbanization, cities need to deal with an incredible influx of people moving into cities to live, work, and play. The UN estimates that approximately 1.5 million people move into cities per week. With a scarcity of land and resources, constructing more buildings to accommodate the growing urban population becomes even a bigger challenge. Thus, there is a need for technology to help us be more efficient in the use of our resources.

One example of a tool for space optimization comes from Basking Automation. Basking Automation is an

ROI-driven occupancy analytics platform that uses strategies such as indoor mapping, asset tracking, and room and desk booking to help corporate real estate managers understand how their office space is being used.

Colliers International, a global real estate services and investment management firm, utilized Basking Automation's platform to optimize its London office. After identifying multiple optimization opportunities, the office recognized its potential to hold 40 to 140 more people, resulting in increased headcount without an increase in building footprint, and

savings of up to €1.1 million.

Another company with smart building solutions is bGrid. Microsoft utilized bGrid technologies at its Netherlands office building to optimize the space and develop a smart building network. It deployed the technology to map existing building usage and occupancy. Results convinced Microsoft to reduce its floor space from 12,000 square meters to 8,000 square meters, resulting in annual savings of about €1.4 million. In addition, Microsoft allocated more workspace for public usage, increasing public space from 30% to 70% of workspace.



I'm a big believer that PropTech is not a buzzword. It's really applying technology to our industry.

– Nikki Greenberg, Women in PropTech

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Energy efficiency

Buildings are responsible for nearly 40% percent of global energy consumption. The built environment will go through unprecedented expansion as 60% of the buildings that will make up the world's fastest-growing cities by 2050 are yet to be built. Driving down energy use in buildings will be a crucial requirement for lowering greenhouse gas emissions, reducing climate change impacts, and creating sustainable, livable cities.

Het Rijksvastgoedbedrijf (RVB) is the Dutch government agency responsible for all governmental real estate. To facilitate optimal use of their Rijswijk RWS building, RVB has chosen to make the building smarter by installing the bGrid solution. With the bGrid solution and a mobile application supplied by a bGrid partner, the RVB is monitoring environmental conditions and desk and area occupancy so RWS employees can easily

find an available desk and office space. To further optimize on exploitation cost, RVB initiated a project with the Technical University of Eindhoven (TU/e) to study how to reduce energy costs. The model made by TU/e showed that for the RWS building, 14% to 20% could be saved on heating costs and 26% on cooling.

Resident satisfaction

Employee productivity and cognitive ability can increase by up to 50% in a healthy building environment. Addressing health and well-being in buildings improves peoples' health and efficiency. It helps building owners and managers attract and retain tenants and employees. Those employees have fewer sick days and enjoy a better working environment that provides them with the comfort of clean indoor air and thermal, lighting, and ventilation controls.

Awair is an indoor environment management solutions company that works with businesses

across the world to equip them with real-time, actionable environment data to achieve their financial, productivity, and wellness goals. The company produces Omni, an indoor environmental monitoring system that gathers and tracks indoor air quality (IAQ) data from millions of data points across 2,000 cities and 60 countries.

4D Monitoring, a UK-based firm that provides building monitoring solutions, integrated Awair products into its services. Omni is offered to clients as a cost-effective IAQ monitoring solution that verifies their building sustainability needs at a fraction of the cost of a certification application.

4D Monitoring can expand its service, leveraging findings collected by its clients' new in-depth IAQ data to provide actionable insights and building performance reviews.



There are two things [around PropTech and smart city progress] that are quite interesting. One is space optimization and efficiencies. Understanding how a building is being used, so you can design systems around it for efficiencies. Being able to figure out how many occupants are in a building at any given time, so you can adjust your heating and cooling and so on. The other piece is more around communication. [Apps] can control your smart locks. You can book your taxi. You can book your dry cleaning, etc. That's another form of efficiency that consumers are looking for, where technology can make people's lives easier and it's all in one place.

– Nikki Greenberg, Women in PropTech

Numbers in Real Estate Technology

2,900

investors

\$75.8B

total raised

65

countries

1,785

companies