



Real Estate Predictions 2022

The future of smart buildings

**Six market insights on how to match
expectations between occupiers and owners**



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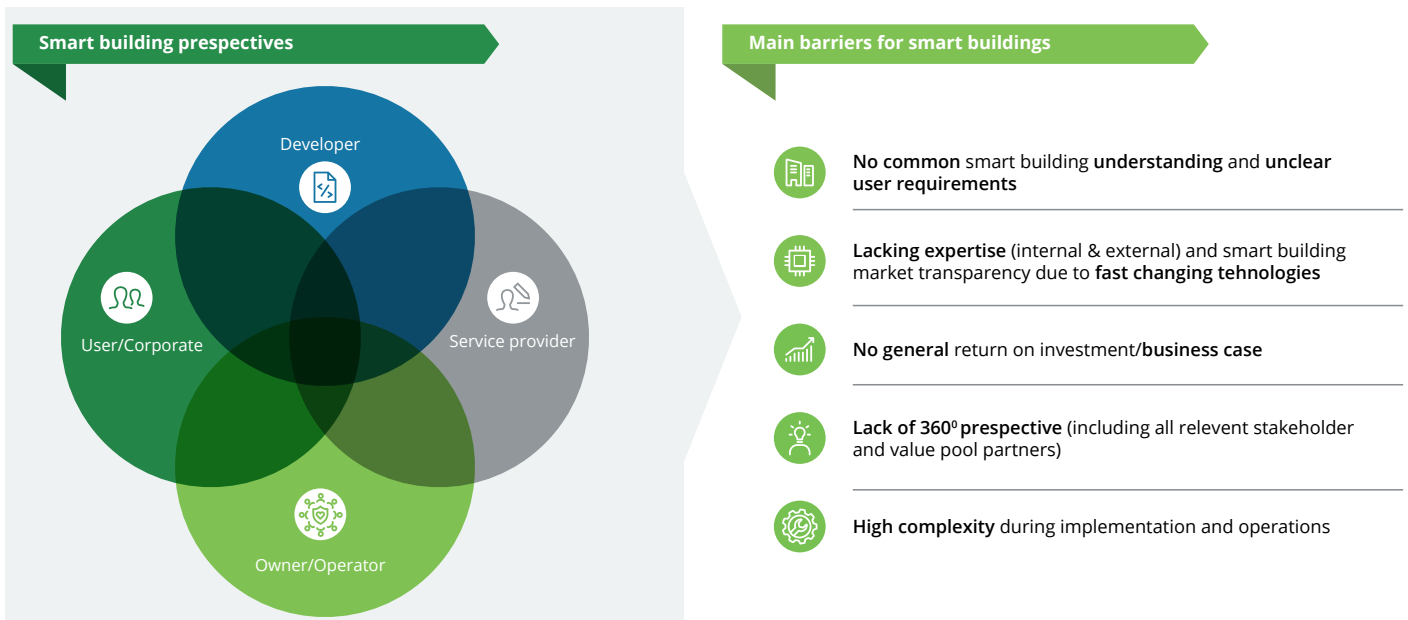
In 2020, 75% of Real Estate executives anticipated that smart buildings would become the norm within five years¹. Despite an increasing number of smart building lighthouse projects, this expectation has not yet been fulfilled. Market participants are still facing a lot of uncertainty around this topic. This article provides an overview of current barriers as well as drivers of the future of smart buildings, based on a set of interviews with different market participants from both the owner/developer and the user side.

In 2016, the Deloitte office in Amsterdam (“The Edge”) opened. At the time, it was the “smartest building in the world”². Since then we have observed an increasing

interest and various smart building lighthouse projects in the market. However, market participants are still struggling to incorporate smart buildings into their

corporate strategy in order to implement and operate them on a large scale. What are their actual thoughts on smart buildings and what needs to be done?

Smart Building Challenges of Market Participants



The actual “smartness” of a building not only depends on the implemented smart building technologies but also on the participation of each relevant stakeholder group during planning, implementation and operation. This is necessary in order

to reduce implementation complexity and technology adoption during operation.

To better understand the different views on and challenges of smart buildings, and provide a 360° perspective on what will

drive smart buildings in the future, we have conducted a series of interviews with market participants. They represent the owners/operators and developers as well as the users/corporates.

Sources:

¹Deloitte; Commercial Real Estate Outlook 2020,

²[Bloomberg.com](https://www.bloomberg.com); The Edge the worlds greenest building

What users think about smart buildings

Recent smart building projects are often driven by technology rather than the actual user or operator demand. Very often, this leads to a lower degree of acceptance of implemented smart building features during a building's life cycle. Therefore, it is key to understand the demand and the underlying drivers for smart building functionalities from an end-user perspective.

1. Future of Work

The [world of work](#) is fundamentally changing across several dimensions (work, workforce, and workplace) and Covid-19 has further accelerated these changes. However, the pandemic has also shown that complex and creative activities as well as social interaction is still more effective in a face-to-face situation. As a result, organizations are questioning the purpose of their offices and their respective workplace strategies. There is a trend towards a hybrid working environment (on-site and remote working) with the office developing into a user-centric and activity-based place for ideas, creativity and personal interaction. This requires a higher flexibility and creates an increasing demand for certain smart building features. Hence, corporates are looking for smart building features that create an attractive working environment and support their employees throughout the working day, including room and desk booking, seamless wireless connection, and keyless entry, in order to pull their workforce back into the offices and foster collaboration.

2. ESG

Increasing efforts to reduce carbon emissions, sustainability is seen as one of the major drivers for smart building features from a user perspective. Therefore, a granular and automatic provision and analysis of energy consumption data by means of smart meters and an energy management system will be a standard requirement. Even though the focus is clearly on supporting the environmental (E) aspects, corporates

also see an increasing demand for smart building features to support the "S" (social) and the "G" (governance), for example through the monitoring and optimization of workplace conditions (air quality, lighting, temperature) or the clear user-centric interaction between the (smart) building and its users.

3. Smart building operations (facility management)

The optimization of operating costs through more intelligent and data-driven operations is often quoted as an important value proposition of smart buildings. However, today's facility management models, including sourcing criteria for supplier selection, service level descriptions, processes, data provision and CAFM integration, are preventing practical examples for operating cost reduction through intelligent operations. Hence, corporates are demanding a certain "smart building readiness" - an IoT-ready building infrastructure and open system interfaces. This will enable them to upgrade certain smart building features (e.g. preventive/predictive maintenance, cleaning on demand) in the future and drive smart and future-oriented facility management models.

What owners and developers think about smart buildings

Talking to Real Estate developers as well as asset and investment managers, we see a clear market segmentation with only a few innovators and early adopters that have produced different lighthouse projects compared to most market players that have no experience with smart buildings yet. However, both sides have in common that they are currently looking for the right strategy on how to approach smart buildings and exploit their potential.

4. Higher expected returns for smart and sustainable buildings

The owners and developers that we interviewed, expect higher returns for smart buildings, mainly driven by ESG. On the one hand, tenants are expected to pay higher rents for more sustainable buildings

and the possibility to reduce operating costs in the long run. On the other hand, smart buildings that provide relevant data required for ESG ratings are expected to receive a mark-up on the capitalization rate, resulting in an increase in market value.

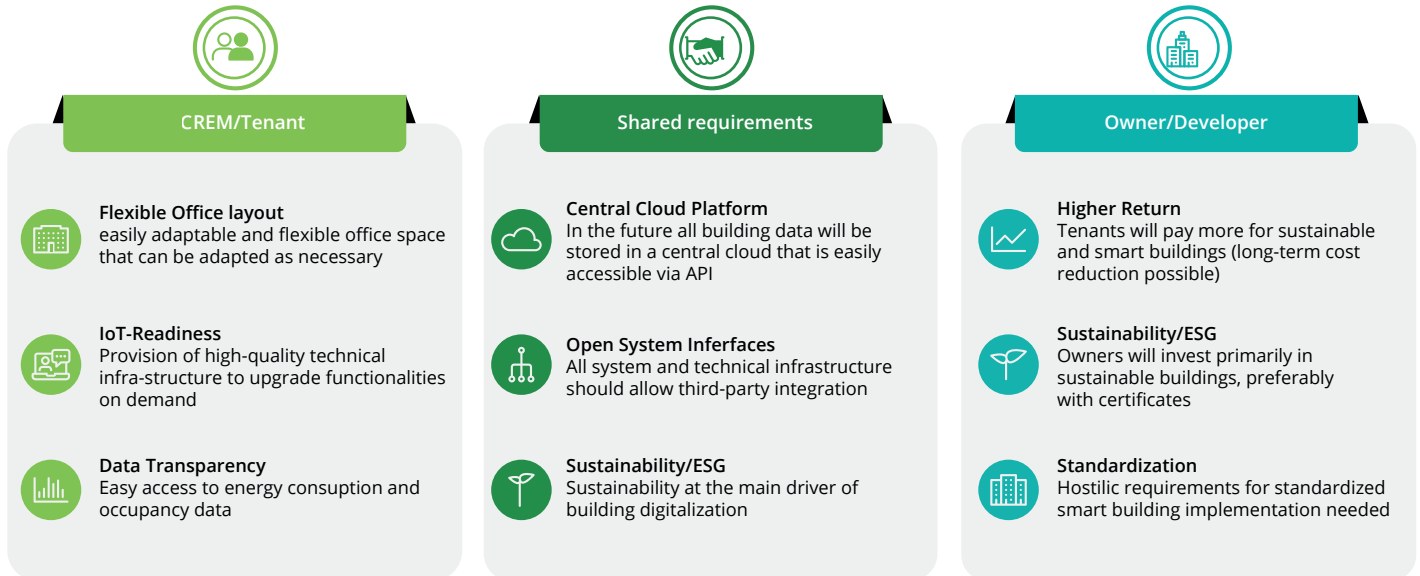
5. Overarching data and KPI framework required

In addition to better meet the demand of tenants with respect to their future office and workplace strategy, the optimization of asset and facility management activities based on data analytics is quoted as another value proposition of smart buildings in the future. However, recent smart building projects have shown that this requires a clear strategy. Owners need to start with defining an overarching data and KPI structure. Next, they need to incorporate this into the company's performance management system. This serves as the basis to define relevant smart building technologies to support the data provision in a second step.

6. Smart building standard (and certifications) needed

The absence of a clear market standard for smart buildings is currently seen as one of the main barriers for smart buildings. Hence, owners and developers are looking for standardization of data, technologies, interfaces, and implementation processes. Some of the participants expect such a smart building standard from the introduction of certificates (e.g. SmartScore) similar to sustainability certificates such as LEED or BREEAM. However, the market for smart building technologies is changing fast. This makes it hard to create a standardized market label for smart building technologies to be applied on a larger scale.

Overview of Key Findings from Interviews



What actually can be done

Users/corporates need to identify relevant smart building use cases based on the overall workplace and ESG or Sustainability goals to ensure the best cost/benefit ratio from smart building technology adoption. Technology should not be implemented for the sake of technology but rather be driven by a clear business need and underlying business case.

As there is currently no official smart building market standard and clear value proposition for owners and developers, the individual smart building strategy must be derived from the overall business strategy. To increase long-term rental growth the future smart building standard needs to be tailored to the future tenant/market demand.

There is still a way to go to bridge the gap between occupiers, owners, developers, and service providers. The goals from the different perspectives need to be aligned to create win-win-win-win situations with smart buildings. However, the interviews have enabled us to get one step closer to a common smart building understanding and to defining the office of the future. Let's proceed from here.

Contact

Steffen Skopp
 Director Real Estate Consulting
sskopp@deloitte.de

Tobias Neumann
 Senior Consultant Real Estate Consulting
toneumann@deloitte.de

Tobias Linzmaier
 Manager Real Estate Consulting
tlinzmaier@deloitte.de

Lara Lumbe
 Consultant Real Estate Consulting
llumbe@deloitte.de

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