FMBusinessDaily

Beyond Maintenance: Why Occupancy Intelligence Is FM's Next AI Leap

2 months ago

By Stefania Vatidis, Growth Marketing Manager at workplace solutions provider HubStar

Facilities Management has made meaningful progress in adopting artificial intelligence. What began as a shift away from reactive maintenance has evolved into predictive and even prescriptive models.

Today, many organisations can anticipate when an asset is likely to fail and intervene before disruption occurs. This is a genuine step forward for operational efficiency, cost control, and risk management.

But there is a limitation to this progress.

Most AI strategies for FM remain heavily focused on assets rather than people. Buildings are still largely managed as collections of equipment instead of dynamic environments shaped by human behaviour. This creates a blind spot. While systems are becoming better at predicting how machines behave, they are often still disconnected from how spaces are actually used.

The next leap in AI maturity for FM lies in closing that gap.

It is not just about smarter maintenance. It is also about developing occupancy intelligence – a capability that allows buildings to understand, anticipate and respond to the people inside them.

Occupancy intelligence builds on the same technological foundations that have enabled predictive maintenance. Internet of Things sensors, building management system integrations, and machine learning models are already in place in many portfolios. The difference lies in how this data is applied. Instead of focusing only on asset performance, these tools can be used to capture patterns of movement,

space utilization, and occupancy trends over time.

This shift changes the role of data in FM. Rather than asking when a piece of equipment might fail, organisations can begin asking how spaces are being used, when demand will peak, and where inefficiencies exist. This moves FM from an asset-centric discipline to a human-centric one.

The implications for space planning are significant. Many organisations still rely on static assumptions about how offices, campuses, or facilities are used. These assumptions are often outdated, especially in a world where hybrid working has reshaped occupancy patterns. Predictive occupancy data enables a more dynamic approach. FM teams can identify underutilised areas, anticipate surges in demand, and adjust layouts or space allocations accordingly. This leads to more efficient use of space and better alignment with actual needs.

Energy optimisation is another area where occupancy intelligence can deliver immediate value. Traditional building systems often operate on fixed schedules or broad assumptions about usage. This results in energy being consumed in spaces that are empty or underused. By integrating occupancy data, systems can respond in real time to actual demand. Heating, cooling, lighting and ventilation can be adjusted based on how spaces are *actually* being used, rather than how they are expected to be used. The result is not only cost savings but also a meaningful reduction in environmental impact.

Workplace experience is perhaps the most compelling dimension of this shift. Employees increasingly expect environments that are responsive, comfortable and aligned with how they work. Occupancy intelligence makes this possible. By understanding patterns of use, organisations can reduce overcrowding, improve access to resources, and create spaces that better support collaboration and focus. Over time, buildings can evolve from static infrastructures into adaptive environments that enhance productivity and wellbeing.

Despite these opportunities, many organisations face a significant challenge in realising occupancy intelligence. The issue is not a lack of data, but a lack of integration. Data from sensors, access control systems, booking platforms, and building management systems often exists in silos. Without a unified data layer, it is difficult to generate the insights needed to drive meaningful change.

Data readiness is therefore a critical factor. Organisations need to ensure that their systems can communicate effectively, that data is standardised and accessible, and that there is a clear strategy for how information will be used. This requires investment not only in technology but also in governance and skills. FM teams must be equipped to interpret data, work with analytics tools, and translate insights into action.

This also requires a cultural shift. Moving towards occupancy intelligence means rethinking how success is measured in FM. Traditional metrics such as uptime and maintenance efficiency remain important, but they are no longer sufficient on their own. New metrics focused on utilisation, experience and adaptability must be incorporated into decision-making.

The organisations that succeed in this transition will be those that view AI not as a tool for optimising existing processes, but as a catalyst for redefining the role of FM. Predictive maintenance is an important milestone, but it is not the end state. It is a foundation on which more sophisticated capabilities can be built.

The core message is clear. AI maturity in FM is not achieved when maintenance is fully optimised. It is achieved when buildings are able to understand and respond to the people who use them. Occupancy intelligence represents the next stage in this journey. It shifts the focus from assets to experiences, from efficiency to adaptability, and from static operations to dynamic environments.

In the years ahead, the most successful FM strategies will be those that embrace this shift. Buildings will no longer be defined solely by their physical components, but by their ability to learn from and adapt to human behaviour. Those that make this transition will unlock not only operational gains, but also a fundamentally better relationship between people and the spaces they occupy.