

3 STEP GUIDE TO

Your Holistic Building Experience Journey



Table of Content

1

Introduction..... 3

2

From Passive to Dynamic –
The Smart Building Development Journey .. 6

3

Drivers, Outcomes & Deliverables 11

4

A Call to Action16



1

Introduction

Employee expectations of the workplace are shifting with the move to different working styles, like hybrid working.

In this white paper, Memoori have teamed up with smart space software provider Spaceti to explore the development journey that end-users experience as they seek to cultivate more engaging, and productive building experiences.

We want readers to use this whitepaper as a guide to better understand what to expect as they embark on their smart building development journeys. It highlights potential pitfalls and key questions stakeholders will need to answer along the way, as well as addressing the huge range of positive outcomes that investment can help to deliver.

The white paper draws on over a decade of specialist market research conducted by Memoori into the markets for the underlying technologies that deliver smart building solutions (The Internet of Things, Big Data Analytics, AI & Machine Learning). This body of research has then been further supplemented by expert opinions and data from interviews with end user customers and the Spaceti team, to provide readers with a broad overview of learnings gained from prior travelers along the smart building development journey.



Smart buildings offer the promise to significantly enhance both the operational performance and the quality of life of those who live and work inside their walls. Proven solutions are now available that allow building owners to boost productivity, improve user health and wellbeing, and establish a consistent user experience across multiple sites and locations. Smart buildings also provide new ways to understand space demand and occupancy too – helping to improve the occupier experience, health and safety, support efficient energy management, and allow flexibility in how structures are managed and maintained.

A primary driver for the adoption of smart building technologies has long been the desire to improve the energy and sustainability performance of buildings, and with good reason. Both the construction and ongoing operations of buildings

remain highly energy-intensive and polluting sectors, with a 2018 by the Global Alliance for Buildings and Construction, the International Energy Agency and the UN Environment Programme finding that building construction and operations were responsible for 36 per cent of energy use globally.²

Significant improvements are being made over time in the energy intensity of buildings however, with the use of energy-efficient technology-powered processes is helping to establish a more environmentally-aware approach to building operations. According to American Council for an Energy-Efficient Economy (ACEEE), smart technologies can save an estimated 8-18% of total energy consumption in buildings in subsectors including offices, small chain and independent retail stores³, ultimately leading to more sustainable real-estate portfolios.

In parallel to the increased rollout of smart building energy efficiency initiatives, further drivers including the growth in focus on national and global sustainability targets, increasing numbers of organizations adopting ambitious corporate sustainability goals, and the increased adoption of green building standards such as LEED, BREAM, Green Star etc. further enhance the adoption of smart technologies in this domain.

While the technical solutions aimed at improving sustainability outcomes continue to mature and evolve, employee expectations of their workplaces are also shifting – with moves to different working styles, like hybrid working. Staff need a good reason to come into the office now that they have adjusted to working from home and are demanding healthy, human-centric spaces that support their productivity and wellbeing. According to the U.S. Bureau of Labor Statistics, 4 million Americans quit their jobs in July 2021, resignations peaked in April and have remained abnormally high for the last several months, with a record-breaking 10.9 million open jobs at the end of July⁴. In the light of such trends, employers are paying more attention to workplace experience as a driver for talent retention and business success.

² IEA: Global Status Report for Buildings and Construction 2019

³ <https://www.aceee.org/>

⁴ Job Openings and Labor Turnover Summary: U.S Bureau of Labor Statistics – March 2022

Companies need new ways to deliver an environment in the post-pandemic era that the modern workforce demands.

A growing body of evidence indicates strong correlations between environmental conditions and employee satisfaction and productivity. For example, data from the U.S. Green Building Council shows that occupants in LEED certified buildings are healthier, happier and more productive than occupants in traditional buildings⁵. Progressive organisations were already investing in wellness solutions to help recruit and retain the best talent before the advent of the COVID-19 pandemic, but the virus has helped to further propel issues of health and safety to the top of many corporate agendas. With evidence from numerous studies now demonstrating that improved ventilation and indoor air quality can significantly reduce the transmission risks of the virus, building occupant expectations in relation to maintaining optimal health and safety standards have also risen. As occupiers return to their regular places of work, landlords are challenged with optimising the health and safety performance of buildings to a greatest extent than ever before, to minimise risk and give their tenants peace of mind.

Because COVID-19 is an airborne disease that spreads more easily in poorly ventilated rooms, people are increasingly conscious of indoor air quality.⁶

Corinne Mandin, president of the International Society of Indoor Air Quality and Climate

Here too, smart building technologies can assist, with effective monitoring and management of air quality being increasingly seen as a key tool in preventing the spread of the virus. The installation of indoor air quality sensors allows for the capture parameters including CO₂, humidity, and temperature. These parameters can be used to automatically inform ventilation and building management systems so that indoor air quality can be optimized.

⁵<https://www.facilitiesnet.com/green/tip/LEED-Buildings-Yield-Happier-Healthier-Occupants-Study--42577>

⁶<https://www.politico.eu/article/covid19-coronavirus-spurs-efforts-to-clean-up-indoor-air/>

The interviews conducted in the preparation of this white paper involved gaining the perspectives of a cross-section of the key stakeholders who are now on the smart building development journey, but each has been heavily involved in the planning, decision making and management of new smart building initiatives for their buildings.

Interviews included the asset/property managers at PFA, Denmark's largest Commercial Pension Fund, with responsibility for -€8Bn in real-estate assets, the CTO for linked workspaces and technology at leading flexible space operators Red Thread, and the Head of Artists Services at Warner Music Group.

We discovered that each of these stakeholders has approached their own smart building development journey with slightly different set of priorities and objectives. Each of these stakeholders are also prioritizing different smart building technologies to achieve their desired objectives, depending on the evolving needs of their business, but no matter what their role, each stakeholder group, from FM teams, to asset managers to C-Suite Executives are all seeing positive results as their strategies evolve.

Among the varied delivery objectives these businesses cited as key drivers for investment were factors such as: gaining improved insight into how their spaces are being used, managing new patterns of hybrid work, engaging employees through the creation of dynamic spaces that they want to return to as well as reducing employee attrition by transforming what a workplace is, and creating better differentiated, more unique spaces with a more unified sense of brand.

Further insights from these interviews detailed in the sections to follow should provide the reader with a clearer understanding of the motivations and drivers for investment into smart building technologies, as well as helping to document the key learning experiences in terms of best practice and potential pitfalls that subsequent travelers along the journey to developing truly holistic smart buildings may be.



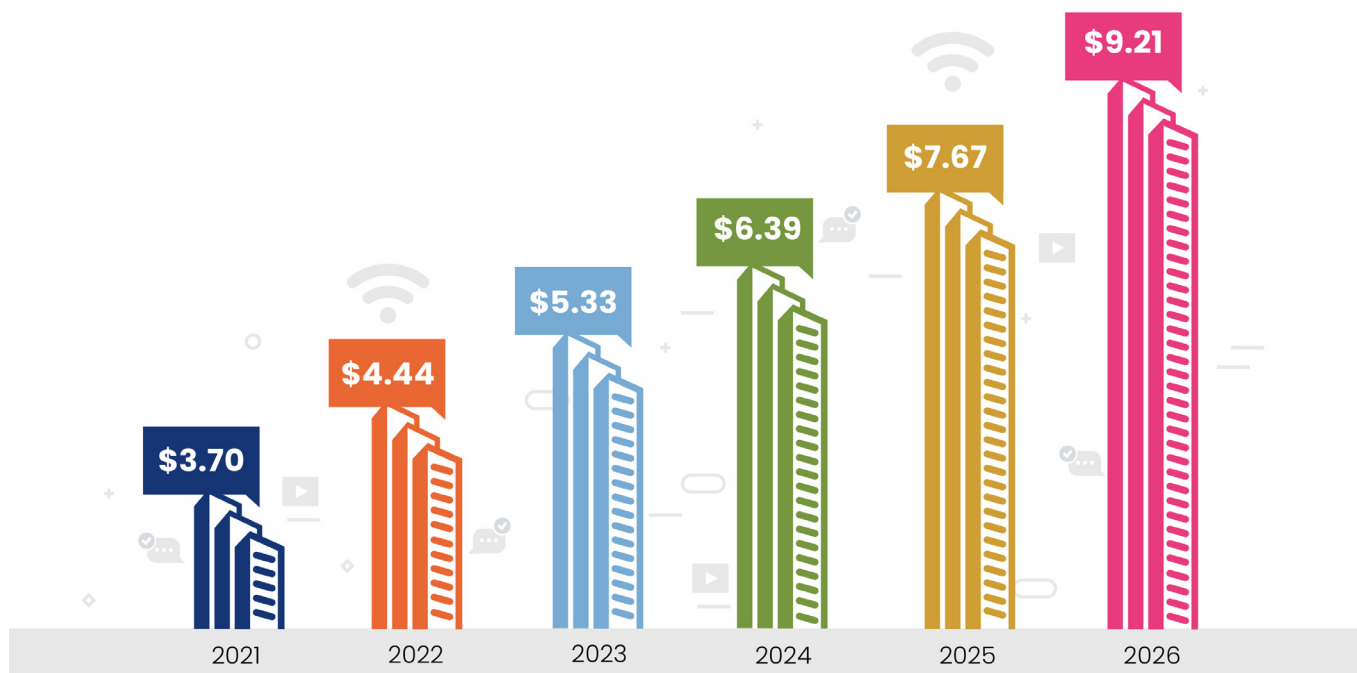
Building technologies are evolving rapidly, with many market-ready, tried-and-tested smart building solutions capable of delivering performance improvements, across a range of building and people centric applications are now available. With widespread sensor rollouts and modern building equipment organizations have the means to harvest huge volumes amounts of data regarding equipment performance, environmental conditions, maintenance requirements, occupancy levels and more. Furthermore, COVID-19 has resulted in increased levels of investment in IoT as a result of the pandemic, with organizations leveraging IoT technologies for a wider variety of use cases, as well as increasingly to gain a competitive edge. In their October 2021 survey, IoT Signals, Microsoft report that 44% of the organizations surveyed now expect to increase their investment in IoT as a result of the pandemic (vs. 31% in 2020).⁷

Memoori’s own research into the market for IoT in smart buildings has revealed that many building owners and businesses have already taken their first steps on the journey towards developing more sophisticated holistic smart buildings.

Through investment into the core communications infrastructure, systems and Internet of Things (IoT) sensors to gather, collate, process, and analyze ever richer data-sets and ultimately to make more informed decisions about how their buildings perform.

Many others are yet to take their first steps on this journey however, and taken as a whole real-estate market in general is somewhat “late to the party” in terms of mainstream adoption of solutions that digitize assets and maximize the value of data being generated. Many facilities managers, CIOs and CFOs have developed a solid understanding of the value potential of smart building data, but the wider business still often lacks an understanding of how to make effective use of data from the built environment. Memoori’s latest research estimates that growth in the market is set to be robust, with the global digital workplace market in commercial office space expected to grow at an impressive 20% CAGR through to 2026, from \$3.7 billion in 2021 to \$9.2 billion by 2026.⁹

Global digital Workplace Market Office Buildings 2021-2026 (\$Bn)



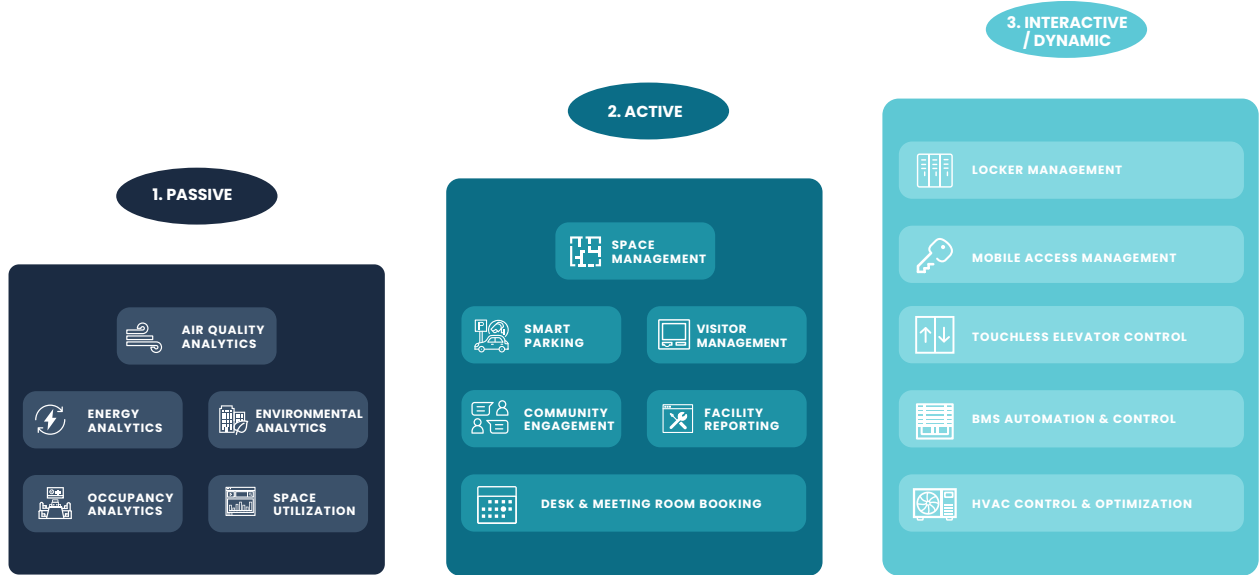
⁷IoT Signals (Edition 3), Microsoft, October 2021
⁹ <https://memoori.com/new-working-practices-fuel-growth-in-the-digital-workplace-market/>



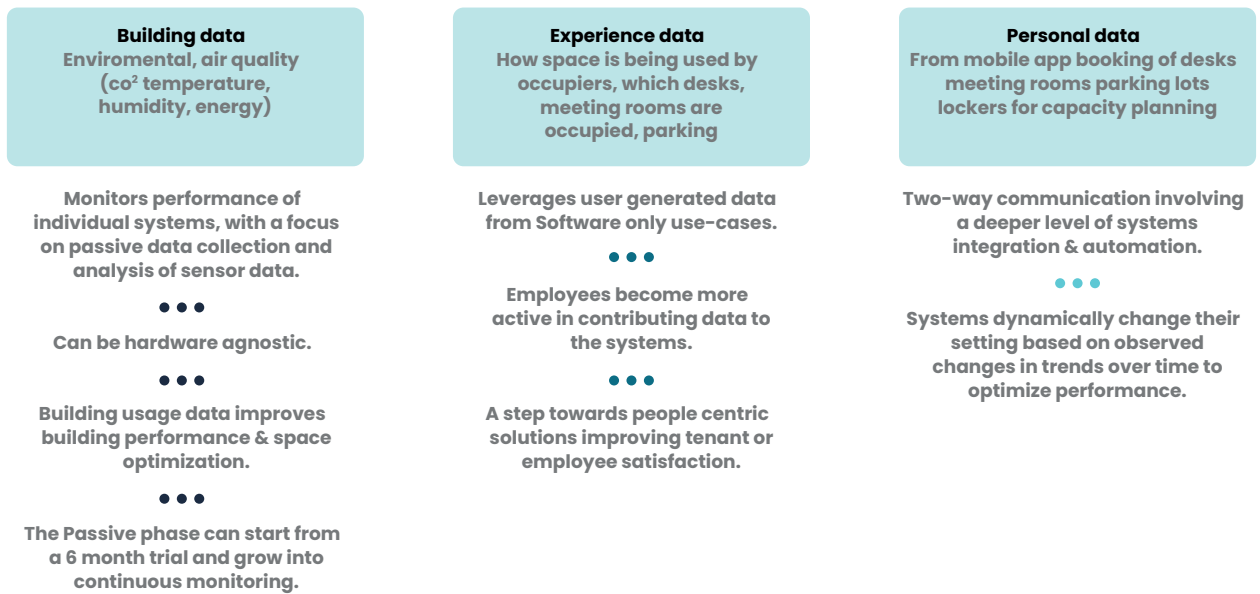
2

From Passive to Dynamic The Smart Building Development Journey

Applications & Use Cases



Key Characteristics



Understanding The Smart Building Development Journey

The smart building development journey can eventually lead to the delivery of genuinely interactive and transformative experiences for tenants and building users, **but the smart building development process should be seen as an iterative journey, rather than a single one-off technology delivery project.**

The three phases end-users will typically need to work through to achieve a holistic smart building experience, are broken down in a market model developed by Memoori & Spaceti, which is shown above.

This model identifies 3 key phases as follows:

1. **Passive:** Whereby IoT sensors are embedded into individual building systems or the fabric of the building itself in order to gather and analyze systems performance, environmental and/or space utilization data.
2. **Active:** Where, data by building users is inputted into software systems such as desk or meeting room software, augments data from IoT sensors, and is used to drive analytics and systems settings.
3. **Interactive / Dynamic:** Where data from both IoT sensors and software systems is integrated into a single interactive solution; with automated IoT data collection and software-based user inputs being used to provide a much more granular view of building performance as well as dynamic systems responses.

While the aspiration of building owners and tenants may be to achieve the kinds of holistic, interactive and dynamic performance that can be achieved in phase 3 of this model, very rarely will they have the necessary skills, awareness or systems integration capabilities required at the start of their delivery journey to achieve this.

End-users often have an idea of what their key priorities and overall delivery aspirations are at the beginning of smart building development project, but many underestimate the challenges and prerequisite datasets required to deliver on their vision. It can be extremely challenging if not impossible to foresee what the ideal smart building specifications and systems architecture would look like before you take your first steps on the journey of a smart building solution development.

Pre-planning systems elements including data inputs, interfaces, functionality requirements, systems access requirements, rules and definitions of user roles will likely seem an overwhelming and unfathomable exercise at the start.

Therefore, instead of jumping in at the deep-end seeking to develop a fully integrated, holistic smart building from scratch, end-users should begin their smart building development journey at either the Passive Phase (Phase 1) or Active Phase (Phase 2).

Many market-ready, tried-and-tested smart building solutions capable of delivering performance improvements, across a range of building and people centric applications are now available. Users should work with hardware vendors, software providers and smart building professionals to identify bite-sized portions of their overall vision to develop and test over time, **focusing initially on the features, functionality and user interactions that matter most to the business or its building users.**

A smart building project is a journey, and clients should not expect to be able to deliver a fully-fledged holistic system all in one go.

Landlords and property owners might also begin their smart building development journey with the intention of developing their own custom, in-house smart building data management and reporting solution, but such an approach can often prove costly and ineffective.

Connecting multiple building systems, enterprise applications and third-party platforms and enabling them to interact either automatically or manually lies at the heart of any smart building system, but in-house digital teams often lack the prerequisite expertise to facilitate effective integration. They may lack in areas such as operational technology communications protocols, IoT device integration and security, which may in turn lead to poor quality data outputs, a lack of end user confidence in systems outputs, and even an increased risk of a cybersecurity breach.

These challenges also highlight the importance of focusing (at least initially) on the solutions that align with organizational priorities for a business' buildings and its users, and deliver the greatest value to the business and its employees. This should include evaluation of the relative criticality of different data streams, any specific systems requirements around real-time data processing and low latency, and efforts to standardize, structure and "tag" data with metadata, any streams deemed to be of important to make them easier to integrate, process and analyze.

A platform-based approach

With a platform-based approach to smart building data management and reporting, it is not only realistic, but also advisable to initially focus on key priority areas, delivering returns and business value as soon as possible, before subsequently adding additional modules, tools and functionality as your level of experience improves, the value proposition of initial investments is effectively tested, and further potential enhancements and use-cases emerge.

A platform-based approach also provides the critical integration tools, a "single pane of glass" view of data being generated by multiple systems, and the kinds of analytics and reporting tools required to effectively make sense of the ever-growing volume of data being generated by building and business systems.

With a smart building platform established to manage data integration, reporting and analytics, accompanied by either passive or active means of data gathering, building stakeholders can then seek to integrate new data sources, features and modules.

Enhancements may seek to improving the means of user feedback and reporting, gather richer datasets related to building performance or delivering value, enhanced user experiences and improved performance to an ever-increasing range of building users through the inclusion and integration of new functionality into the system.

Trials & Pilots

Rather than rolling out smart building solutions to the whole enterprise in one go, the smart building development process should be treated as a constant learning experience. **An iterative development and testing approach with regular feedback loops should be used to effectively test and piloting the technology in situ.** By trialing smart building solutions at an appropriate scale, building owners and tenants can collect feedback from critical stakeholder. In summary pilots can provide an effective means to:

- Test and validate pre-conceived notions about how the system may work and the quality of systems outputs.
- Encourage participation, collaboration and engagement from colleagues across multiple departments.
- Gain feedback on system functionality, user interfaces and reporting requirements from critical stakeholders including building managers, employees, and visitors.
- Effectively demonstrate the value proposition and prove the business case to both management and building users.
- More effectively test and validate the security credentials and integration capabilities of hardware from a variety of solution providers, thereby mitigate against cyber risks and the risk of potentially wasted investment into incompatible technologies on large scale rollouts.

The process of piloting the technology, combined with the stakeholder engagement and feedback gained can be used as a proof of concept, building trust and belief amongst stakeholders in the overall aims of the smart building initiative, as well as assurance in the quality of system, its outputs, and the value-add offered by the technology. Once solutions have been effectively trialed at scale, learnings and systems enhancements that further enhance the value add offered to the business and its building users can be expanded to additional sites or territories.

The solution needed testing at scale to fully understand the capabilities and limitations of the system and how it worked for our organization, and whether it fulfilled our specific quality requirements. The development exercise has been an iterative journey – learning as we go, delivering future transformation capability and adaptability.

Mikael Arne Fogemann,
Executive Director, Head of
Nordic Real Estate at PFA

Evolving System Demands & Expectations

Generating standardized reports and metrics to effectively measure and report on the ongoing performance is a critical element of any technology delivery project, helping to demonstrate returns on investment and validate plans for future expansion or enhancements.

While, at the start of a smart building project, some end-users may not yet have developed a clear vision of how they will measure ongoing performance, many will already have a clearly established view of the kinds of pre-defined or industry-standard Key Performance Indicators (KPIs) they wish to measure. KPIs and metrics can allow for comparative assessment of performance before and after a project, or assist in the benchmarking of one building or space against another. Such an approach is particularly effective in the case of solutions focused on to operational efficiency, demonstrating performance improvement over time, as well as returns on investment and cost savings.

The reporting and measurement of more intangible deliverables such as building user satisfaction or comfort may however, require end-users to work with smart building technology professionals and systems providers to develop new metrics, KPIs and active/interactive feedback or reporting tools within the system. Not knowing exactly what metrics or KPIs you might use to gather feedback and measure performance over time is not necessarily essential in this case, as pilots or trials of the smart building technology in question can help reveal the kinds of data and reporting that may be possible, providing a richer body of evidence that demonstrates value and maintains user confidence.

The ability to change and adapt is what we are buying, not just a means to measure traditional commercial real estate KPIs, we are aiming for a holistic and transformational approach.

Mikael Arne Fogemann,
Executive Director, Head of
Nordic Real Estate at PFA

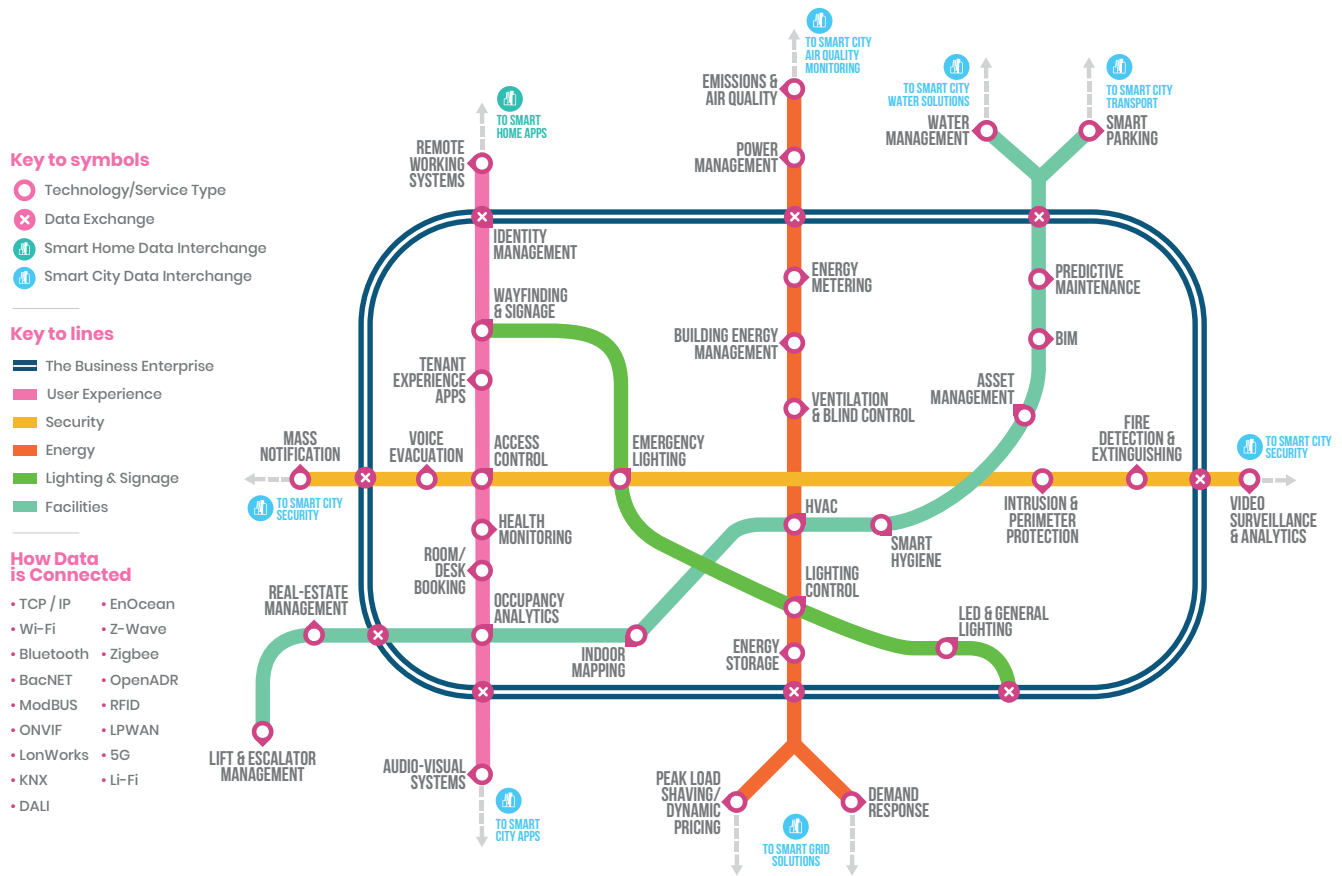


3

Drivers, Outcomes & Deliverables

IoT and Data Analytics solutions have matured significantly over the last five years and have been effectively deployed in buildings of all kinds to drive value and enhanced building user experiences in an ever-increasing range of application areas.

The Internet of Things in Smart Commercial Buildings 2020



The sheer variety of different user pain points and challenges that can be addressed through the use of these technologies, and the potential interactions between application areas is perhaps best summarized by Memoori’s infographic shown above.

Which of these application areas tenants and building owners seek to prioritize and deliver first along their smart building journey will depend heavily on a variety of factors including the strategic priorities of the enterprise, the characteristics, needs and wants of its building users as well as the age and nature of the buildings in question.

IoT and Smart building investment drivers have traditionally focused on improving the energy and sustainability performance of buildings, with incentives including cost savings, the ability to effectively demonstrate improved ESG performance to building users, shareholders and/or customers, and the need to comply with increasingly stringent building energy efficiency performance and reporting regulations.

Recent years have seen a growth in both the maturity of the technical solutions and an increased market demand for solutions designed to address a much wider range of business applications, with a selecting of the emerging priorities drivers for adoption including:

- Differentiating building offerings in an increasingly competitive market - with a focus on areas such as:
 - human comfort and personalized control of user environments (e.g. improved room/desk booking functionality, or personal control of environmental features such as heating or lighting).
 - the development of new human-centric services.
 - the development of unique, engaging, and interactive experiences for building visitors.
- Improving health, wellbeing & productivity outcomes and building user satisfaction as well as helping to attract & retain talent.
- The hybridization of space and workplace transformation, using occupancy and location analytics to explore new means of effectively transforming single to mixed use assets and interactive spaces.
- Technology being leveraged to support “Work from anywhere” (HQs, Co-working, Hotels, Homes etc.).

An alternative analysis of the differing use-cases and applications which could form the start point of an organization’s smart building journey, this time defined by Smart Building attribute, is taken from Memoori’s 2020 study into the Market for Occupancy Analytics & In-Building Location Based Services.¹⁰



¹⁰ <https://memoori.com/portfolio/occupancy-analytics-in-building-location-based-services/>

Use Cases Defined by Smart Building Attributes



As previously stated, any organisation first embarking on their smart building journey should focus on their own organisational and building user priorities, adding lower priority functionality once critical business priorities have been addressed.

Case Study: Warner Music Group

- Warner Music's initial pilot with Spaceti involved using smart technologies to transform their unique Spanish office building, built in 1835 into a space that was truly "special" for artists to visit and work in – creating more collaborative and creative spaces that really appealed to their both artists and employees.
- Initial development priorities included:
 - 24/7 Room Booking & Access Functionality
 - Smart Lockers
 - Partner/visitor/employee access integration
- Workplace transformation is naturally not the core business of Warner Music, so after initially considering in-house development or even fully outsourced development of a custom solution, Warner Music eventually agreed to partner with Spaceti. They saw that there was a lot of crossover on what Spaceti had helped other clients to achieve and their aspirations for the project, and the white label version of the Spaceti App already had much of the key functionality they were looking for. They were also impressed with the track record of the company and their prior experience working with other companies with similar requirements.
- The project has seen Warner Music partnering with local flexible workspace designers Utopicos, along with SALTO Systems (next-generation locking solutions) and Spaceti to work with them on developing their concept as well as the overall co-working strategy and technology integration approach.

“Spaceti proved incredibly quick to engage with and understand our vision and systems requirements. The scope and aspirations of our project have changed immensely over time, but Spaceti have been a creative, flexible and adaptable over the course of the project, working with us step-by-step and often coming up with new suggestions for systems enhancements that could help streamline the process.”

**Sergio Mendez, Head of Artists Services & Institutional Relations,
Warner Music Group**

The COVID-19 Pandemic created demand for new tools, systems and smart building strategies

The relative priority given to these different needs and priorities by business owners has also seen a significant shift in recent years. The COVID-19 pandemic has forced organizations across the globe to re-evaluate their real-estate and smart building strategies. The behaviors of building users and space utilisation requirements have changed significantly in buildings of all types, with increasing demand for flexible and adaptable spaces, as well as more flexible leasing terms amongst tenants.

The pandemic introduced new challenges for organizations seeking to manage space (and distance) over the course of the pandemic, the basic patterns of work and indoor space demand have continued to fluctuate wildly. Now, after a period of unprecedented disruption in demand for indoor space, organizations are turning their attention to solutions that can support a smooth return to traditional working environments. We have noted a marked increase in the demand for more flexible, adaptive spaces, as well as ever increasing demand amongst tenants for more flexible leasing terms. This findings are backed up by the results of JLL's November 2021 Global Flex Space Report, finding that 41% of tenants expect to increase their use of flex space as part of a post-pandemic work strategy.¹¹

Building user expectations have also shifted, moving beyond the provision of comfortable environments to also encompass the provision of more clean and healthy environments. It is therefore of little surprise that organizations are prioritizing solutions that effectively support the transition to hybrid working as well as focussing on providing safe and healthy environments for building users to maintain trust and confidence amongst the workforce and building visitors.

Old ways of configuring an office are no longer the way to go – we managed to convince the board based on the data we were seeing that more flexible seating solutions were required. Flexible leasing will be required to remain relevant, as well as providing flexibility and convenience for our tenants in exchange for higher rents in what is an increasingly competitive market.

Mikael Arne Fogemann,
Executive Director, Head of
Nordic Real Estate at PFA

¹¹ <https://www.us.jll.com/en/trends-and-insights/research/the-future-of-flex>

Case Study: Red-Thread

- For US Based workplace transformation and audiovisual systems integrator specialists Red-Thread, partnership with Spaceti has been focussed on ensuring a safe return to the work place for American workers.
- The KPIs for their businesses performed a 180-degree shift as a result of the pandemic, changing from a focus on driving maximum utilization to effective tracking of separation of building users – with new occupancy caps of between 25 and 50% in force in their buildings in light of COVID-19.
- Red-Thread’s smart building concept was on developing a cloud-based software offering that wasn’t heavily reliant on internal IT resources, that also avoided adding additional complexity or risk to their operations.
- Key deliverables for the project included:
 - A new Space Management & Personal Booking App to help Red-Thread define new social distancing occupancy caps, and define and control what spaces (desks, parking spaces, meeting rooms) are reservable based on their social distancing guidelines.
 - Contact Tracing reports to help Red-Thread get accurate data about possible infections spread if someone gets infected in their space.
- Moving forward, Red-thread are also exploring opportunities for their business in improving environmental performance and sustainability with the insights on space utilisation they have gained over the course of the project, as well as new ways to democratize the data, providing “Digital Healthchecks” to improve confidence and build trust amongst building users about the way data is being gathered and used.

“The early phases of the pandemic created some intriguing challenges for our business. We understood that what was keeping people away was concerns over the health and safety of our indoor environments, so we worked with Spaceti to develop a digital health-check to improve user confidence. It was all about democratizing the data and conveying the information in a way that helped to build trust in a safe return to the office”.

John Mitton, CTO – linking workspaces and technology, Red-Thread

4

A Call to Action

We hope that this white paper has armed you with an improved understanding of the kind of best-practice development strategies and learnings from prior systems implementations that can assist you in taking the first step in developing your own holistic smart building solution.

Readers of this whitepaper are eligible for a free consultation with Spaceti's building digitization experts and a one-month trial of the Spaceti platform. Please follow the links below to get in touch.

Formed in 2016, Spaceti took first prize in the fourth annual MIPIM Startup Competition in 2019.¹² Spaceti offers an all-in-one platform for building digitization that can work stand-alone, or be integrated together with a sensor network to act as a complete smart building IoT solution.

“Once we had begun our dialogue, Spaceti were quick to understand our overall vision and delivery roadmap. Since then, we’ve grown and evolved together.”

**Mikael Arne Fogemann,
Executive Director, Head of Nordic
Real Estate at PFA**

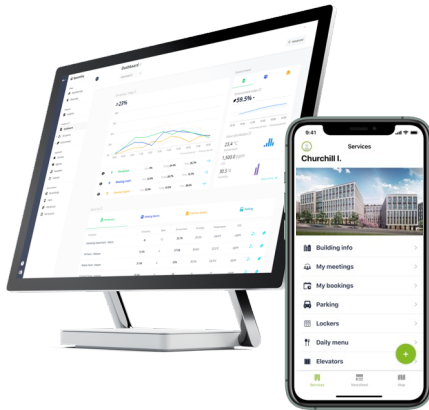
At its core, Spaceti is a Software-as-a-Service (SaaS) space management technology platform used by landlords and property managers to gather and manage all of their data in one place. Spaceti offers its client adaptability and scalability, with a range of flexible, interoperable modules which allow clients to customize their solution based on their key organizational priorities.

Spaceti can work with clients to develop and test their smart building development vision, selecting software modules and compatible devices from their portfolio ecosystem to further enhance the performance of spaces over time.



¹² <https://placetech.net/news/spaceti-wins-mipim-startup-competition/>

The Spaceti Space Management SaaS Platform (Software Subscription)



Community engagement
(newsfeed/events)

Resource management & booking
(meeting rooms, restaurants, gyms, parking spaces, etc)

Building/user administration and management

Real-Time maps

Property/Incident reports

Services
(food menus, discounts, etc.)

+ Optional Tenant Modules



Space occupancy
utilization, people counting analytics, data-driven cleaning



Smart parking
booking, utilization analytics, billing



Environmental, Social Governance
Integrates smart meter, occupancy & air quality data



Air quality analytics
& alerts CO2, temperature, humidity, etc.



Touchless Access
& elevators control



Smart Lockers
access, allocation, billing



Meeting Room Displays

+ Optional Hardware Integrations

Approved Vendor Hardware



Occupancy



Location



Air Quality



Parking

Approved Vendor Hardware



Wireless Current Sensors



Pulse Meters
(water, gas or electric usage)



People Counting



Smart Lockers



Access Control

As well as providing their suite of sensor devices, Spaceti works with an approved vendor eco-system of hardware providers to ensure guaranteed compatibility, ease of integration and scalability for IoT devices. It works with clients to select the most reliable, and secure sensors as part of their smart building solution rollouts, with approved vendors for applications including energy & gas metering, occupancy analytics (desk/room sensors), air quality management (temperature, humidity, CO², etc.), and smart parking as well as partnerships with office solution providers such as Cisco cameras, Gantner and other smart lock providers, and access control systems such as HID, Salto, or Brivo.

We hope that this white paper has helped to guide you through the steps required to develop a truly holistic smart building.

**To take the first step on your
Holistic Building Experience journey contact
Spaceti for a free consultation and 1 month trial:**



Spaceti Ltd.
Herikerbergweg 238
Amsterdam
North Holland
1101 CT, Netherlands

Tel: +1 (203) 560-8650
Tel: +420 800 661 133
www.spaceti.com



Memoori Research AB
Pipersgatan 26
11228 Stockholm
Sweden

Tel: +46 8 501 64 177
www.memoori.com