



5

outcomes of
hypersmart
solutions

How an integrated approach to
smart buildings delivers success

The power behind **your** mission

Johnson
Controls





It pays to be smart. Smart technologies allow us to improve energy efficiency, cut costs, and boost operational efficiency, which drives productivity and profits. Smart buildings help people feel comfortable in the workplace and they benefit our planet too, allowing us to strive for – and achieve – ambitious sustainability targets. They also enable compliance with today's regulations and prepare us for a better tomorrow.

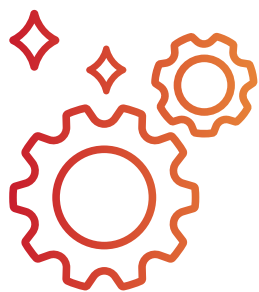


Introduction

Business leaders are forever juggling multiple priorities. There are the practical steps that they need to take to facilitate in person, hybrid, and remote working for employees, ensuring they have the right tools in place to support staff and give them the best possible experience wherever they work. Equally, they need to stay focused on meeting ambitious targets when it comes to profit and sustainability, all while staying compliant with regulations. The question is, how are organisations able to deliver on all these objectives? When it comes to the buildings in which they operate, the key is taking a hypersmart approach to smart technology.

But to achieve the desired outcomes, hypersmart solutions need to be planned, implemented, and supported effectively. Everything from the quality of the air employees breathe, to the platforms which allow them to book meeting spaces, relies on a perfect blend of effective operational value management, seamless applications, and predictive analytics to find faults quickly and save downtime. An integrated approach leads to success across five key areas: **productivity, operations, sustainability, health and safety, or security.**

These five areas are inextricably linked – you can't think about employee productivity without also considering their health & safety, for example. Any single lens focus on the priorities that benefit only one department should be avoided, since it dramatically reduces the potential for business-wide benefits that can be derived from smart technologies. Instead, hypersmart solutions should break down departmental siloes, helping everyone achieve their goals, together. When every use case is connected to a single platform, every problem becomes easier to solve, thanks to fresh insights and predictive analytics.



1 Productivity

Productivity is a priority for every organisation. If employees aren't provided with the right tools and environment to foster productivity, they will be unable to work to the best of their ability.

By making employees more productive, smart solutions deliver meaningful business outcomes, driving revenue and innovation. This could be as straightforward as saving time for occupants and third parties, allowing them to use intuitive applications to book meeting rooms, order food, or simply navigate the building more effectively using wayfinder applications – time saved means more capacity for work, collaboration, and for conversations that spark innovative ideas.

Smart solutions also improve employee's experience of work, which in turn leads to positive working outcomes and staff retention. Experience is dictated by many different factors, one of which is air quality – with a constant flow of clean air being shown to improve productivity by **8-11%**, as well as limit the spread of diseases, as we've seen clearly in the wake of the COVID-19 pandemic. Another factor is whether people feel in control of the space they occupy,



with the tools to adapt spaces to suit their individual requirements, be that smart flexible desks, temperature and lighting control based on occupancy, or flagging maintenance issues. This is especially important as many businesses downsize their office spaces to accommodate remote and hybrid forms of working. This trend means businesses must prioritise flexible solutions that empower employees to make the most of spaces; occupants will increasingly expect information about the environment that they'll be working in to help them work more comfortably and effectively. Building decision-makers understand the potential of smart solutions in delivering this change – of those surveyed by Johnson Controls, **40% would be treating employee experience as a priority in the next year.**



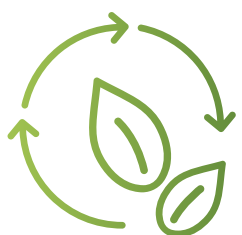
2 Operations

Operational efficiency is the other side of the coin to productivity – while the former helps businesses make more money, efficiency saves them money.

A smart technology platform can use data sets to optimise building performance– reducing energy costs by ensuring that you don't over-service a building based on full capacity settings when the majority of occupants are working to a hybrid model. A range of IoT solutions can provide data on the usage of different spaces, informing building controls systems to take appropriate actions. Likewise, user applications make the people who occupy buildings into sensors in their own right, sharing input on whether a room is at the right temperature or has sufficient airflow, for example.

These same principles apply to maintenance. Sensors and Systems can provide real-time data in smart buildings, sharing what's working and what isn't. This allows building managers to identify and prioritise faults and provide maintenance contractors with clear information on what precisely needs to be fixed. Predictive AI and machine learning (ML) models can also foresee issues with critical equipment, maximising uptime and ensuring the least possible impact on business as usual. This saves both time and money, and through predictive analytics can be used to build a compelling case for the ROI associated with smart building initiatives.





3 Sustainability

A hypersmart approach to buildings allows sustainability objectives, for example net zero targets, to be incorporated into every aspect of your business development journey.

We spend 90% of our time inside, while 40% of the world's CO2 emissions are generated by buildings – so making them more efficient is critically important if we are to prevent global temperature rises of 2°C or more this century.

Business intelligence tools help decision makers determine what technologies and equipment need investment in the short, medium, and long term, identifying when upgrades should take place to not only save money, but also reduce buildings' whole-life carbon footprints. Protecting our planet's environment is a marathon, not a sprint, and we need to put the right tools in place to continually optimise our buildings for sustainability.

Smart solutions will also help businesses stay compliant with the sustainability regulations we can soon expect to see. Currently compliance is more of an issue when it comes to health and safety, but we expect carbon emissions and other environmental criteria will be addressed directly in building and workplace regulations. By implementing hypersmart solutions, businesses can stay ahead of the curve on sustainability, ensuring compliance for decades to come.



4 Health and safety

The health and safety of building occupants is a key area where hypersmart solutions can deliver positive outcomes.



Of course, efficiency and cutting costs are priorities for a building's operations and maintenance, but the wellbeing of its occupants should take precedence above all other considerations. Without healthy employees, a business can't achieve any of its goals. It's no surprise, then, that health and safety was the top priority of the building decision-makers we surveyed: **59% of respondents planned to prioritise it within the next year.**

Smart solutions allow the monitoring and control of everything from air quality to the occupancy and capacity of buildings. COVID-19 has made us all more aware of the need to keep spaces ventilated and to avoid overcrowding, which could worsen the spread of viral infections, but filling a building with too many people also poses risks from a fire safety perspective. We found that **56% of building decision-makers** used technologies that helped make quick adjustments to things such as air flow and social distancing, and to monitor and control occupancy levels.



5 Security

Security should underpin every aspect of a hypersmart solution. The importance of global collaboration and remote working is rapidly accelerating, demanding security that encompasses a whole range of networks, platforms, buildings, and people.

The connectivity of smart buildings has many benefits, but it also potentially leaves systems vulnerable to threats. For example, IoT devices enable businesses to effectively collect real time data on the operations of their buildings but are also potential avenues for exploitation from hackers and cybercriminals, since each device could be compromised and used to access other parts of a network.

There are a range of smart solutions that can be employed to combat security threats. With electronic, physical, managed, or hosted access controls, security professionals can manage and restrict access to critical areas, facilities, and systems, wherever they are in the world. The need for these solutions is pressing – a huge **87% of building decision-makers** said they would have found it harder to keep their buildings safe without smart technology.



Conclusion

Ultimately, hypersmart solutions are the basis of business success: they help companies make money, save money, and remain compliant with regulations. However, a truly smart approach to buildings goes beyond these core drivers. For example, technologies can be leveraged to protect our environment by meeting sustainability targets or ensure superior ventilation and a supply of clean air to a building. The most prominent framework for assessing these criteria is SmartScore, which covers a smart building's technological foundations, user functionalities, and outcomes. With OpenBlue, Johnson Controls' suite of smart building solutions, we can help you deliver on the SmartScore criteria, giving decision-makers the confidence to invest in a transformative smart building initiative.

Of course, ensuring the right outcomes are achieved at the right price takes strategy. Businesses should take the time to plan out their implementation of smart solutions globally, identifying the problems that individual teams struggle with and finding the right technologies to solve them. A hypersmart approach should support all users, all at the same time, but that doesn't mean that its implementation requires a huge shift in infrastructure on day one – businesses can still be pragmatic about what solutions can be implemented quickly and deliver measurable results. From there they can expand out to more use cases. Above all, smart solutions allow businesses to find synergies and create environments that connect people, making them healthier, safer, and more productive.



1 Productivity



2 Operations



3 Sustainability



4 Health and safety



5 Security

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