Getting smarter with Smart Buildings – Accreditation for standardisation

Smart building accreditation and standardisation will boost tech adoption at a time where we need it more than ever

Smart means different things to different people

The pandemic has led to a surge in demand for Smart building technology – from HVAC systems that eliminate toxins, to remote management of building systems, lift technology, Smart windows and more. Property owners, developers and occupiers are increasingly interested in using these innovative solutions to mitigate the risk of infection, and manage the movement and comfort of their employees.

Even before Covid, demand for Smart office solutions was growing exponentially, and with the virus likely to remain a factor, making touch free, intelligent systems all the more important, we expect this sector to continue to develop at pace. Whilst there is strong and growing demand for "Smart buildings", there isn't always clarity about what exactly this means, for occupiers, owners and developers, with consequential widely varying impacts on capital costs. With the spectrum of "Smart" covering everything from building management systems, lighting controls, lifts, room booking systems and much more, there is a need for specification of what Smart actually is, as well as the opportunity to formalise differing levels of Smart enablement for different requirements. With Covid safety requirements now being impacted by many of these property technologies, the push for formalisation of "Smart enablement" can only continue.

This is particularly relevant for today's offices where evolving tenant demands and an uncertain economic backdrop mean developers and their consultant teams have to walk a tightrope between providing the right level of specification and amenity offer in their product, and ensuring that the project remains financially viable, whilst responding to increased demands for flexibility of occupation. Detailed knowledge of what Smart buildings are, and what the related costs and benefits can be, is a key element in getting this balance correct.

Anecdotally, higher rental returns are available from Smart enabled office buildings as they provide a range of benefits to prospective tenants over other office space, including efficiency, sustainability, productivity and wellbeing benefits. Research into Smart buildings in New York City by MIT supports this, identifying a rent premium of up to 37%. As the market continues to shift towards expecting some Smart functionality, particularly in Central London, it is becoming a requirement for new office space rather than a nice-to-have. However, what "Smart" consists of, the benefits it provides, and its value for money has not yet been formalised. The adoption of standards and certification is now starting in the industry and could provide a framework for stakeholders to judge the "Smartness" of buildings against the cost of constructing them.
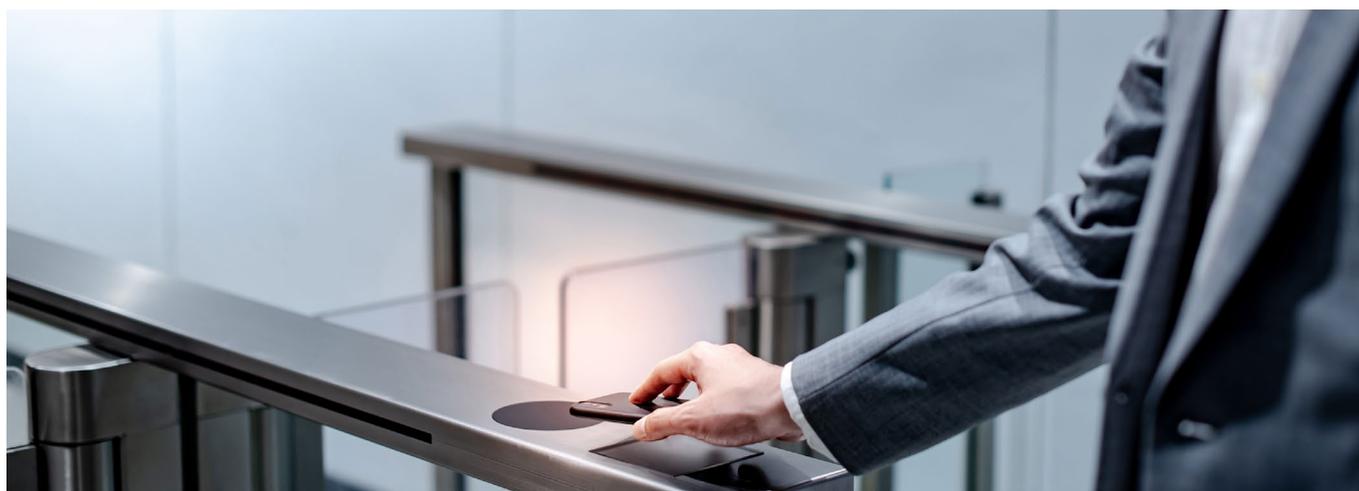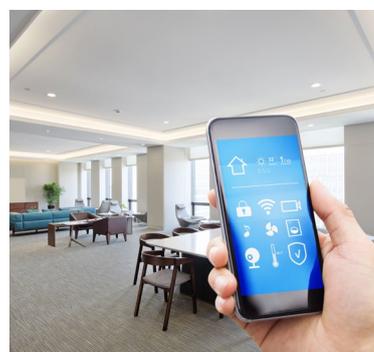
Certifying smartness and proving value for money

The "Smartness" of buildings is not currently certified in the same way as wellness or sustainability with accreditations such as WELL or BREAAM. This makes it more challenging to monetise the provision of these additional facilities and assess their benefits, as well as to manage expectations of Smart systems from a tenant. In the times of Covid, it also makes it more challenging to assure tenants of compliance to safety standards, as the standards have not yet been defined.

As such, effective standardisation and certification of the Smart building offering, and a scoring system for Smart buildings would be useful, both to clarify the benefits and to assist in pricing rent for various levels of Smart enablement. But due to the vast array of systems and technologies covered it could be challenging to certify in a way that is consistent across different elements of Smart functionality.

Core Five work with a number of consultants on the provision of Smart buildings, some of whom have already developed their own standards to respond to this lack of clarity in the wider industry. At the international level the EU are developing a "Smart Readiness Indicator" for buildings which will measure the capacity of buildings to use ICT and electronic systems to adapt the operation of a building to the needs of the occupants

and the energy grid. Here in the UK, WiredScore have pulled together a "WiredScore Smart Council" to develop a certification system for Smart buildings. With big names such as KPMG involved in the initiative launched in June 2020, they are looking to define a global standard for Smart buildings and develop a certification for use by both owners and users of the buildings. This would create institutional standards for Smart buildings for the first time, as well as recommend best practices for achieving different levels of building intelligence. As the benefits of Smart enablement for getting people safely and confidently back into offices become clear, we expect to see some certification of these categories of benefit as well, for example through a metric examining how "touch-free" the system is.

Smart enablement in offices is increasingly expected: formalising and certifying standards of Smart enablement could clarify requirements and benefits to clients, simplify selling for owners and provide standards to work to for developers. In the meantime, demand will continue to grow, and qualified expertise in Smart systems, their costs, and their benefits, will be increasingly necessary to the development of a successful offering in the office sector.

Case Study

On a recent large-scale commercial led development in the City of London, we have worked closely with the Client and design team to include a high degree of Smart enablement, whilst still meeting the project's stringent financial targets. The building will deliver a futureproofed, highly flexible physical infrastructure and network, allowing a deeper level of device connectivity and evolved WiFi design. In addition, several Smart use cases will be incorporated into the base build, with flexibility for extension into the tenant demises, such as space occupancy sensors, air quality monitoring and contactless entry. The building will provide app control for building users, enabling them to book a meeting room, order a coffee or adjust the environmental conditions within their space all via their own smart device. Smart enablement of the building is attracting a cost premium compared with a non-Smart building, however there are a number of operating cost benefits, such as reduced energy consumption and improved building efficiency. The premium for Smart enablement will depend on the level of flexibility included within the network and use cases provided. Typically, the capital cost premium will range between £2.00 to £4.00 per square foot compared to a non-Smart building, although as building systems continue to adapt to the Internet of Things and communicate in a common language, these cost premiums should start to reduce.

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Core Five are an independent cost consultancy with a passion for providing intelligent and reliable advice on some of the industry's most challenging projects. Please get in touch if you would like to discuss your project needs.

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