SIEMENS

SMART buildings interact, learn, and adapt

Leverage smart, connected technologies to create a dynamic, agile workplace

New worker generations plus activity-based and hybrid working models are changing the way we are using and operating in the workplace.

Productivity, retention, health and wellbeing is crucial for organisations to stay ahead of the competition when it comes to the race for talent. Also, Environmental, Social and Governance (ESG) factors are making sustainability accountable and impacting decision-making across all stakeholders.

At Siemens we can support you with a human-centric workplace experience that drives occupant productivity and space efficiency, as well as deliver smart technologies and services that maximise resource efficiency, energy consumption and sustain overall building value.

Our SMART buildings offer new interactions between people, space and services:

- Increasing environmental performance
- Maximising space and use of assets
- Improving wellbeing and productivity
- Empowering people and facilitating greater collaboration
- Creating more efficient lifecycle operations
- Reducing costs and delivering resilience

What is a SMART building?
SMART buildings harness and integrate multiple technologies to deliver advanced interactions across subsystems, better and more efficient use of resources, greater intelligence and optimised performance.

A SMART building means a connected, automated building, one that has the ability to share data across disparate building systems. Data that can then be stored, mined and analysed to provide real insight into business operations.

The result is a dynamic, agile workplace, offering flexible and hybrid working. A building designed to deliver carbon targets, reduce overall energy consumption, maximise energy usage and support your organisation's green credentials.

IoT sensors, integrated building management systems, analytics platforms, workplace apps, artificial intelligence and digital services are just some of the technologies and systems that enable new ways of working and more innovative business models.

Your SMART building will house multi-disciplinary, fully integrated, smart solutions rooted in connectivity, sustainability, safety and employee empowerment. All backed by workplace analytics to help shape future workplace strategies.

Our focus is to work collaboratively with our customers, discover your key value aspirations and offer visionary solutions that further enhance your workplace.

How will my SMART building work?
Key to your smart workplace is an intelligent IoT infrastructure that collects, stores and analyses data using smart sensors. Sensor technology will monitor unused work areas and help you manage the costs of unoccupied space by interfacing with heating, cooling and lighting systems to minimise operational overheads.

By analysing usage rates, you can implement space design changes, deliver the right-size meeting rooms, collaborative areas and open spaces, increasing user productivity and optimising available facilities. Using real-time location services you can track equipment, improving asset utilisation and employee productivity.

- Smart sensors provide valuable data
- Real-time data is collected and managed in the cloud
- Advanced data delivers actionable insights
- Data and insights are available anytime, anywhere

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A key element of your SMART building is an advanced BMS platform that will deliver a single, comprehensive view of site activities by integrating all building systems. Interoperability will deliver:

- HVAC optimisation to reduce energy consumption and lower CO_2 emissions
- Automated lighting, air conditioning and heating in line with occupancy
- Precise control of humidity, CO_2 levels and VOCs to improve air quality and occupant health
- Control of blinds and shutters to maximise daylight and manage sunlight

Empowering your people and facilitating interaction

Complementing your SMART building is an innovative workplace mobile app, built specifically to provide occupants with the latest data on their working environment, as well as the real benefits of on-demand control for every user.

The smart app integrates directly with your systems such as building management, lighting and your IoT network.

All relevant data is collected, and advanced machine learning customises user experience and drives operational efficiencies. So your people can navigate the workplace faster, stay informed on space limitations and get directions to secure locations across your site with turn-by-turn navigation.

The app is deployed to building users to provide access to relevant information at all times, including room/desk availability and booking, site navigation, location of co-workers and adjustment of temperature and ventilation.

Cloud-based analytics platform

Siemens' cloud-based data management platform is designed to help you optimise building performance and achieve your energy, sustainability, and system performance targets.

It seamlessly integrates complex sources of data from energy consumption, system performance, and sustainability, delivering a holistic view of your building performance.

It will collect data from the on-site building systems, in particular the HVAC plant controlling the building environment. Data on plant performance, environmental conditions and energy usage will be taken to the cloud hosted platform for analysis and processing. This will then be displayed by the system in graphical format either on the local workstation or on associated mobile devices.

Typical data available on a live dashboard of results includes power and water consumption, plant run time, tenant billing information, fault detection diagnosis and air quality both inside and outside the building.

A building isn't SMART unless it's safe

The safety of your people, your workplace and your assets is vital. This encompasses a fusion of protection measures including physical, personnel and cyber security.

The integration of multiple security systems and fire safety technologies will improve situational awareness, facilitate an effective response to any incidents and deliver a systematic approach to counter disruption, damage, loss of assets and reputation.

- Safeguarding your investment
- Ensuring regulatory compliance
- Increasing resilience and lowering risk

Siemens takes a holistic approach to cyber security, ensuring all our systems are 'Secure by Design'. This protects your people and assets at all times by delivering in-depth defence of our technologies, solutions and services.

Digital services and system performance monitoring

- New digital services via remote connection now provide seamless support to improve the performance, availability and efficiency of your SMART building
- Utilising a secure, managed connection enables access to your systems, and facilitates a mix of remote and manned response to enhance service delivery

| Software | Technology | Smart | BMS | Security | Fire | | Design | Integrate | Deliver | Support | Finance |

Contact us for a consultation and discover more: smart-spaces.gb@siemens.com

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