

The Global Smart and Sustainable Buildings Market 2025-2035

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Abstracts

The global market for smart and sustainable buildings is experiencing rapid growth, driven by increasing awareness of environmental issues, the need for energy efficiency, and advancements in technology. This market encompasses a wide range of solutions and technologies aimed at improving building performance, reducing energy consumption, and enhancing occupant comfort and well-being. Smart buildings integrate various systems and technologies to optimize operations, including building automation systems, energy management systems, lighting controls, HVAC systems, and security and access control. These systems are increasingly interconnected through Internet of Things (IoT) platforms, allowing for real-time monitoring, data analysis, and automated decision-making. The use of artificial intelligence and machine learning algorithms is further enhancing the capabilities of smart buildings, enabling predictive maintenance, personalized comfort settings, and more efficient resource allocation.

Sustainable buildings, on the other hand, focus on minimizing environmental impact through energy-efficient design, renewable energy integration, water conservation, and the use of eco-friendly materials. Many smart building technologies contribute to sustainability goals by optimizing resource use and reducing waste. The convergence of smart and sustainable building practices is creating a new paradigm in the construction and real estate industries, often referred to as 'smart green buildings.'

The market for smart and sustainable buildings is being driven by several factors. Government regulations and building codes promoting energy efficiency and sustainability are becoming more stringent in many countries. Rising energy costs and the need to reduce carbon emissions are pushing building owners and operators to adopt more efficient technologies. Additionally, there is growing demand from tenants

and occupants for healthier, more comfortable, and more environmentally friendly spaces. There is increased focus on indoor air quality, touchless technologies, and space utilization monitoring to ensure safe and healthy environments. Remote monitoring and management capabilities have become more critical as building operators seek to minimize on-site staffing.

Looking to the future, the smart and sustainable building market is poised for continued growth. The integration of renewable energy systems, such as solar panels and energy storage, is expected to become more prevalent. Advanced materials, including self-healing concrete and smart windows, will contribute to improved building performance and longevity. The concept of 'digital twins' – virtual replicas of physical buildings – is likely to gain traction, enabling more sophisticated simulation and optimization of building operations. The future outlook for smart and sustainable buildings also includes greater integration with smart city initiatives. Buildings will increasingly interact with urban infrastructure, participating in demand response programs for energy management and contributing to more efficient transportation systems.

As technology continues to advance, we can expect to see more sophisticated AI-driven building management systems that can learn and adapt to changing conditions and user preferences. The use of robotics for building maintenance and cleaning is likely to increase. Additionally, the integration of biophilic design principles – incorporating nature into the built environment – is expected to become more common, supporting both sustainability goals and occupant well-being. However, challenges remain in the widespread adoption of smart and sustainable building technologies. High initial costs, concerns about data privacy and cybersecurity, and the complexity of integrating various systems are ongoing issues. There is also a need for standardization in the industry to ensure interoperability between different systems and technologies.

The Global Smart and Sustainable Buildings Market 2025-2035 provides an in-depth analysis of the rapidly evolving global smart and sustainable buildings industry. As urbanization accelerates and environmental concerns intensify, the demand for intelligent, energy-efficient, and environmentally friendly buildings is soaring. Key technologies include adaptive facades, smart windows, advanced insulation materials, building automation systems, and energy harvesting solutions. These are expected to see increased adoption as buildings strive to meet sustainability goals and regulatory requirements. Building automation systems form the core of smart buildings, covering HVAC control, lighting management, security, and energy monitoring. AI and machine learning are enhancing these systems, enabling predictive maintenance and efficient resource allocation.

Advanced construction materials such as self-healing concrete and phase change materials are reshaping the industry, improving building performance and durability. Energy efficiency remains crucial, with innovations in thermal and sound insulation, smart HVAC systems, and energy harvesting technologies helping to reduce carbon footprints and meet energy codes. IoT and smart sensors are transforming building management, optimizing performance through occupancy detection, air quality monitoring, and more. Emerging technologies like smart coatings and advanced lighting solutions further enhance building functionality and energy efficiency.

Report contents include:

Smart building technologies overview

Smart windows and adaptive facades

Building automation systems

Advanced construction materials

Energy efficiency solutions

IoT and smart sensors in buildings

Artificial intelligence in building management

Smart lighting technologies

Market forecasts and growth projections

Competitive landscape analysis. Profiles of over 400 companies including ABB Ltd., AGC Inc., AkzoNobel, Alerton, Argil Inc., BASF SE, Belimo Holding AG, Bosch Security Systems, Bisly Inc., Cambridge Electric Cement, ChromoGenics AB, Cisco Systems Inc., ClearVue Technologies Limited, Control4 Corporation, Crestron Electronics Inc., Daikin Industries Ltd., Delta Controls Inc., EDGE Technologies, Ecobee Inc., EControl-Glas GmbH & Co. KG, Emerson Electric Co., Electrified Thermal Solutions, Gentex Corporation, Google, Guardian Industries, Halio Inc., Hanergy Holding Group Ltd., Heliatek, Honeywell International Inc., Johnson Controls International plc, Kinestral Technologies

Inc., KONE Corporation, Legrand SA, Leviton Manufacturing, LG Electronics Inc., Lutron Electronics Co. Inc., Microsoft, Miru, Mitsubishi Electric Corporation, Nanoco Group Plc, Next Energy Technologies Inc., Nippon Sheet Glass Co. Ltd., Next Sense, OSRAM, Otis Elevator Company, Oxford PV, Panasonic Corporation, Perovskia Solar, Quantum Materials Corporation, Research Frontiers Inc., Renesas, Saint-Gobain, Samsung Electronics Co. Ltd., Sch?co International KG, Siemens AG, Saule Technologies, SCHOTT, Somfy, Sunamp Ltd., Tewke, Ubiquitous Energy, Velux Group, View Inc., Ventive, Vitro Architectural Glass, and Zumtobel Group. These companies represent a diverse range of technologies and solutions across the smart and sustainable buildings value chain, from building materials and automation systems to energy management and IoT platforms.

Regional market insights

Regulatory and policy impacts

Future outlook and emerging trends

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