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ESG and FM: Where IoT data delivers on efficiency and sustainability

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Environmental impact is increasingly crucial for businesses. Compliance is the new minimum requirement, with actual expectations rising to include a more active and decisive movement towards long-term sustainability and carbon neutrality. Data collection is rapidly becoming vital to this process. Accurate data allows benchmarking and progress tracking, providing insights into potential improvements. Smart technology is continuing its data management revolution, assisting in creating efficient, safe, and sustainable facilities management.

ESG compliance and FM

Environmental, Social, and Governance compliance is increasingly vital, covering several elements of a company's collective conscientiousness. Energy efficiency, sustainability, and carbon footprint are particularly crucial to ESG compliance, informing key stakeholders in evaluating business relations and commitments. Environmental concerns are global, and in facilities management, there is a widespread movement towards creative, sustainable, and long-term solutions to ESG demands.

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What are the benefits of IoT technology in FM?

IoT technology – particularly smart sensors – has numerous capabilities supporting efficient, sustainable, and accurate facilities management. Typically, smart sensors are small wireless devices that are placed throughout a facility to gather specific data. Forming an IoT network, these sensors can comprehensively monitor temperature, proximity, water, humidity, CO2, and motion, providing essential data for informed decision-making. These comprehensive datasets make optimization a measured, smart, and accurate data-driven process.

Smart sensors also present opportunities for detailed occupancy monitoring. Businesses often incur losses through inefficient space utilization and energy consumption. Utilizing data provided by temperature, motion, and proximity sensors that track the movement of people throughout a building, facilities managers can make adjustments to heating, ventilation, and air conditioning (HVAC) systems that will meet actual needs. Heating systems can be reduced or turned off where not required, airflow can be increased through changes to ventilation, or AC can be reduced in non-populated areas.

How do smart sensors help FM’s support businesses ESG goals?

Three crucial elements contributing to ESG targets are energy efficiency, sustainability, and carbon footprint. Smart sensors are incredibly useful in improving these areas due to their flexibility and the range of data produced.

Energy efficiency

Inefficient practices drain resources and negatively impact progress towards ESG goals – minimizing this waste is a vital target, especially when managing facilities or real estate. Establishing metrics such as energy use, energy waste, space use, and environmental conditions within a building all contribute significantly to this process.

Temperature, humidity, and CO2 sensors facilitate tighter control over factors such as air quality and overall environmental conditions. Maintaining consistent conditions reduces energy waste, especially loss through temperature. Smart sensors also enable remote monitoring, so facilities managers can continue to remotely optimize energy use.

Sustainability

Improvements to facilities management must be sustainable in the long term. Smart sensors significantly contribute to long-term ESG goals in several ways. Firstly, they last up to 15 years from application, so

long-term plans for ESG initiatives do not require constant updates to the technology enabling their progress. Secondly, smart sensors provide the data necessary for establishing clear priorities and targets. Having comprehensive datasets at hand, accessible instantly, even from remote locations, is invaluable – metrics are continuously tracked, giving real-time insights into potential improvements. This insight can then inform the priorities existing within any building complex.

Other areas, such as cleaning, can also become more sustainable with smart sensor technology. For example, occupancy monitoring can alert cleaning services staff, when areas are most used and require their attention. This optimization reduces cleaning waste and resources.

Carbon Footprint

Both energy efficiency and sustainability contribute to a building's overall carbon footprint. Currently, net zero should be a crucial goal for all businesses and the task of making buildings more sustainable has fallen on the shoulders of facilities managers worldwide. Fortunately, that burden has been lightened through the recent advancements in IoT technology. Through the use of wireless IoT sensors, facilities managers can reduce water, energy, and resource consumption and take significant strides towards the goal of net-zero carbon emissions for buildings.

Overall, IoT data from smart sensors fuels informed decision-making for facilities managers, providing the foundations for successfully meeting ESG goals.