

# Smart Buildings Are a Smart, Sustainable Investment

How smart, connected solutions can be beneficial when managing properties while also saving money and improving outcomes for tenants.

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Property investors and managers need to improve their business workflows using technology investments to optimize financial returns. Smart, connected solutions enable making better decisions faster, saving money, and improving outcomes for tenants while differentiating facilities in a competitive market. The goal should be incorporating data from all of these systems into a digital twin in order to understand and react in real time through autonomous, machine learning capabilities. For example, smart buildings today feature:



**Indoor air-quality monitoring.** Even before COVID-19, concerns were rising about indoor air quality and the impact of contaminants like CO<sub>2</sub>, CO, ozone, and volatile organic compounds (VOCs) on the health of workers, because exposure can lead to serious health effects including respiratory illnesses. In a post-COVID-19 era, this is a capability that corporate, institutional, and retail tenants will seek out. Being able to know and display real-time awareness of CO and other airborne particulate matter reassures staff and enables a fast facilities response.



**Advanced energy management.** Buildings are energy-intensive — of the C\$25.2 billion that Canadian commercial businesses and institutions spent on energy in 2017, heating and cooling comprised 63%. Smarter HVAC systems help minimize wasted heating and cooling, especially when integrated and automated through occupancy sensors, automated blinds, advanced variable air volume (VAV) systems, and chiller sequencing.



**Predictive asset maintenance.** Behind the scenes, complex assets from HVAC to elevators need repairs, leading to downtime. Predictive maintenance changes how the firm manages building operations. Instead of repairing on fixed calendar schedules, sophisticated solutions use the specific usage data of each asset to specify when work gets done, lowering downtime and costs.

U.S. Department of Energy experts reported that Internet of things (IoT) adopters could see 12% savings on scheduled repairs, 30% in reduced maintenance costs, and 70% through having fewer breakdowns. This isn't the future — it's already here, as elevator manufacturers such as ThyssenKrupp, Otis, and KONE use networked sensors for predictive maintenance systems to reduce downtime and unnecessary trips by service personnel for elevator repairs.



**Security.** Digital video surveillance is quite common (47% of Canadian real estate, property managers, and construction firms already use digital surveillance), but the rise of visual analytics and artificial intelligence (AI) is increasing capabilities rapidly. Both acoustic and visual data inputs can be used to train surveillance systems to immediately alert security and emergency personnel, accelerating response times.



**Water monitoring and maintenance.** Water leaks are low-frequency, high-consequence events for commercial and retail buildings. Despite preventive measures, tap water continues to pose high risks for businesses. North American insurers had tap water losses totalling more than \$2 billion over the past 10 years in commercial, institutional, and multi-unit residential buildings. Over 60% of water damage claims could have been mitigated or prevented, according to a Zurich Insurance study. They are often preceded by minor irregularities or fluctuations that, if caught in time by connected technology, would enable actions to minimize damage and disruption. Smart buildings use digital sensors with real-time analytics and alerts to avoid flooding events while minimizing the water cost of running taps and sinks.



**Building cleaning and supplies.** No one likes to think about washrooms, but tenant satisfaction matters. Using digital traffic and supply sensing in concert with cleaner tracking enables facilities management teams to improve conditions while reducing waste, which helps with costs and sustainability.

Everyone is about to demand more from their building management. Prospective tenants, municipal regulations, provincial building codes, and federal sustainability laws are going to become more rigorous, not less. Prepare now by investing in digital solutions.

Implementing best-in-class technologies now distinguishes your properties in both the short term (as employees, clients, and consumers demand air-quality improvements while CFOs demand lower operating costs) and the medium term (as we collectively navigate the new hybrid work environment and trend toward environmental, sustainability, and governance improvements).

## Message from Rogers for Business

**Smart Buildings Made Smarter: Rogers Smart Building & Construction solutions use data-driven insights to improve building efficiency, reduce costs, support sustainability, and enhance occupant health, safety, and security.**

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