Johnson Controls

OpenBlue
Healthy Buildings

A Philosophy In Action

When we build with intention and intelligence, a building becomes more than a structure. It becomes a place to learn, to grow, to celebrate and even to heal. To make this possible, we must invest – not just in buildings, but in Healthy Buildings. They form a framework that supports healthy people, healthy places and a healthy planet in tandem. To explore healthy building solutions at work, take a tour of the Main Street below.

Key: Healthy People | Healthy Places | Healthy Planet

Dining and Retail
Building a healthier hustle and bustle

- Sensors monitor supplies of hand sanitizer and masks for employees and customers.
- Remote diagnostics identifies hidden mold and alerts property owners to take prompt action.
- Smart metering assesses the efficiency of a busy restaurant or store at peak hours and suggests energy-saving improvements.

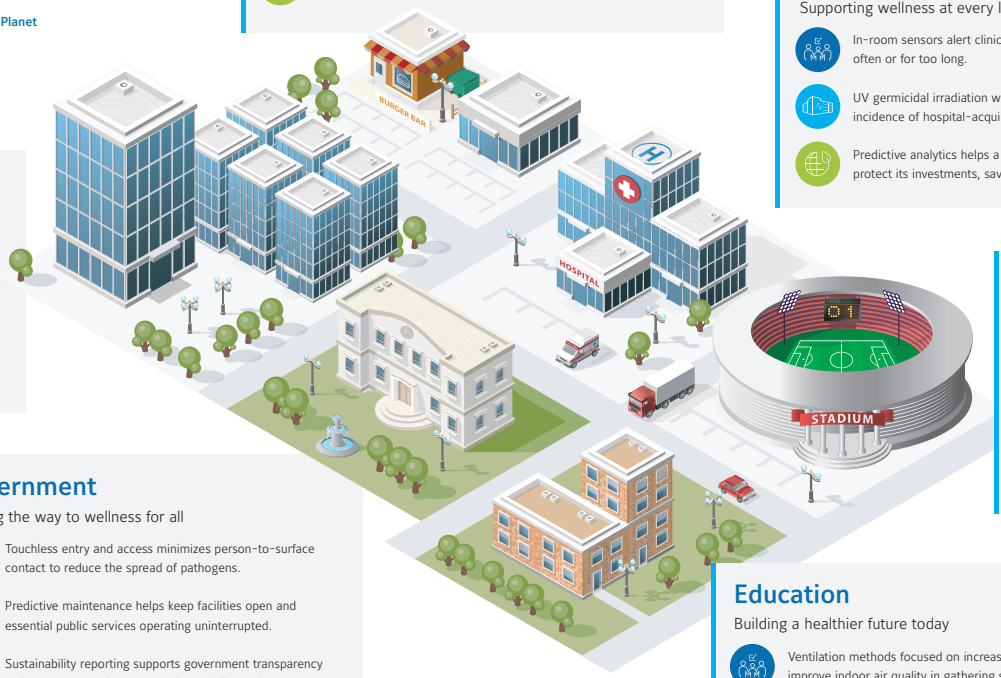
Mold begins to grow in untreated damp areas within 24 to 48 hours.[3]

The Blueprint of the Future

Hospital
Supporting wellness at every level

- In-room sensors alert clinicians when a patient is out of bed too often or for too long.
- UV germicidal irradiation weaken airborne pathogens, lowering the incidence of hospital-acquired infections.
- Predictive analytics helps a facility with myriad complicated systems protect its investments, save energy and reduce emissions over time.

UV-C units in patient rooms can reduce airborne pathogens by more than 40%.[2]



Office Space
Keeping workers healthy and productive

- AI-driven smart lighting and temperature controls optimize employee comfort and wellness, boost productivity and cut energy use.
- Air-quality sensors both inside and outside collect and analyze data continuously, displaying it on a public dashboard.
- Cloud-based software monitors systems, equipment and energy sources to predict consumption and suggest efficiency improvements.

32% of workers say better lighting would make them happier at work.[1]

Large Public Venue
Safe gatherings in smart spaces

- Thermal imaging at entrances screens event attendees to identify those with symptoms of illness.
- Video monitoring systems (VMS) for access control and surveillance help identify potential dangers or threats.
- Central Utility Plant (CUP) analyzes building systems and power sources, using predictive algorithms to reduce both costs and emissions.

Government
Leading the way to wellness for all

- Touchless entry and access minimizes person-to-surface contact to reduce the spread of pathogens.
- Predictive maintenance helps keep facilities open and essential public services operating uninterrupted.
- Sustainability reporting supports government transparency and encourages private enterprise to follow suit.

The most efficient federal buildings have cut operating costs by 23% since 2003.[6]

Education
Building a healthier future today

- Ventilation methods focused on increased outdoor air circulation improve indoor air quality in gathering spaces like gyms and cafeterias.
- Unified data analysis provides a comprehensive view of operations across a multi-building campus.
- Tracking carbon emissions ensures compliance with sustainability regulations and established goals.

Students at poorly ventilated schools miss 16% more days due to respiratory symptoms.[5]

82% of Americans support temperature screenings to protect public health.[4]

1 The Harsh Reality of UK Office Lighting, Staples, 2018.
2 American Journal of Infection Control, 2018.
3 U.S. Environmental Protection Agency, 2012.
4 FLIR/Harris Polls, July 2020.
5 Toyinboi et al. Modeling Associations between Principals' Reported Indoor Environmental Quality and Students' Self-Reported Respiratory Health Outcomes Using GLMM and ZIP Models, 2016.
6 U.S. General Services Administration, as of 2019.

The power behind **your mission**