

What you don't know can harm you

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Insight from Mark Bouldin, clean air expert at [Johnson Controls](#)

When it comes to tackling environmental, social and governance (ESG) issues, business leaders can often feel overwhelmed by a lack of knowledge, resources, or direction. With many plates to spin and new challenges to face, some businesses may neglect a crucial factor that can affect employee health, comfort, and productivity – indoor air quality (IAQ).

Considering that the average person spends about [90% of their time indoors and takes approximately 20,000 breaths each day](#), this is an area that requires everyone's attention. What's more, as we move further into the winter months, air pollution is set to increase thanks to the byproducts of burning wood, oil, and other materials to power increased heating, closed windows sealing in contaminants, and cold air trapping pollutants. And with IAQ linked to both short and long-term health effects, it's no wonder that the government is taking action.

Impending regulation will make monitoring and reducing indoor air pollutants a legal requirement. Businesses must act now to stay ahead of the curve. Choosing not to tackle IAQ could prove detrimental to employee health and productivity — and ultimately, to businesses' bottom lines.

A focus on occupant health and comfort

Although many businesses had no option but to invest in IAQ during the pandemic, focus may be starting to wane with the cost-of-living crisis providing new challenges to overcome. Even during COVID, IAQ 'strategies' were often simply opening windows for increased ventilation in hopes of tackling the problem. However, it has become clear that poor air quality links to poor health, with even [Chris Whitty calling for a push to understand the health impacts of indoor pollutants](#).

From acute health effects such as respiratory infections to chronic conditions including asthma, cognitive impairment and even cancer, indoor air pollutants carry risks for occupants. Now, the [Clean Air \(Human Rights\) Bill](#) is moving through the UK Parliament requiring public bodies and private organisations to reduce levels of harmful air pollutants and make clean air a right for all. Soon, most communal buildings will have to set targets, monitor air quality and report on it annually if the Bill is passed.

However, the impact of effective IAQ strategies and smart building tech investments goes far beyond fulfilling regulations. It brings a myriad of benefits for businesses, not just for occupant health but also for increased comfort. More efficient and automated HVAC helps to reduce harmful pollutants and adjust to occupant comfort needs. When employers and building managers focus on their occupants' health, wellbeing, and comfort this can help boost retention and employee morale, safe in the knowledge that their respiratory health and comfort is a priority.

Productivity and IAQ go hand in hand

The benefits of improving IAQ go far beyond health and regulatory pressures. A robust IAQ strategy is proven to boost productivity and give great ROI, minimising employee sick days and reducing 'brain fog' — especially important when the UK is perceived to have a productivity problem, having hit [a record high for employee sick days](#).

For instance, improved IAQ could [reduce respiratory infection cases by 10-14% and avoid up to £2.2bn in lost productivity](#). Minimising indoor air pollution can also power better quality of work. Studies show that the cognitive function of office workers can exhibit as much as a [61% increase](#) in a green building versus a conventional building, with a return of [\\$750 - \\$800 per employee per year](#). Although every employer wants to make their teams comfortable and do what they can to aid their employees' health, the productivity gains move IAQ improvements from just a wellbeing project to an area that can impact people, productivity, and profit.

The IAQ tech worth the investment

So, how can business and building managers improve their IAQ and build a strategy that can fulfil pending regulations? The first step to solving these challenges is knowing where you stand. Businesses don't need to do everything at once, and completing a basic IAQ audit is the perfect place to start. Then based on this insight, leaders can look to smart technologies such as IAQ monitoring to help mitigate the spread of viruses and infections and minimise subsequent sick days.

By actively monitoring levels of pollutants, managers can gain a true understanding of their IAQ. However, this is just half the battle. By working with specialist partners, leaders can analyse this baseline data and build out a full strategy that satisfies both business needs and regulations. Investing in IAQ technology such as smart mixed-air HVAC systems and demand-controlled ventilation (DCV) increases outdoor air circulation and works to reduce airborne contaminants. And thanks to the smart technology at its core, these strategies are only used when they are needed, reducing energy consumption and waste.

This is only the start of combatting poor IAQ. As well as ventilation and monitoring, new technology is being developed to disinfect spaces further. Innovative far UV-C for instance, makes it possible to disinfect people, air, and surfaces as occupants move throughout a building. Far UV-C uses a wavelength of light that is shorter than UV-A and UV-B rays and poses no harm to humans, whilst killing potentially harmful

bacteria and viruses.

IAQ is clearly moving from a nice-to-have wellbeing project to a business imperative. Having healthy and happy employees is just one part of the puzzle. From fulfilling regulatory duties to boosting profitability, managers can't afford to push indoor air pollution to the bottom of the agenda. Monitoring, analysing, and investing in IAQ could soon be a legal requirement. It's time for managers to step up and prioritise all three — people, productivity, and profit.