







Setting European indoor air quality standards









Introduction

What is air pollution?

Air pollution is the presence in the air of a substance which has harmful or poisonous effects. This may include chemicals, gases, or particles in the air; toxins which can have a detrimental impact on health and wellbeing.

Indoor air quality, or IAQ, relates to air pollution found indoors.

We put mitigating climate change and the promotion of healthy, inclusive, and economically resilient businesses and communities at the heart of everything we do.

Our Delivering Social Benefit strategy identifies the five priority areas where we feel we can have the biggest impact; one of which is health and wellbeing.

Air quality provides the foundation for a healthy environment and has one of the most significant bearings on our wellbeing. Air pollution across Europe has reduced significantly over recent years, but it remains the continent's greatest environmental health risk. According to the European Environment Agency more than half of European cities are chronically polluted, and in 2020, they estimated that 400,000 Europeans die prematurely every year because of poor air quality.

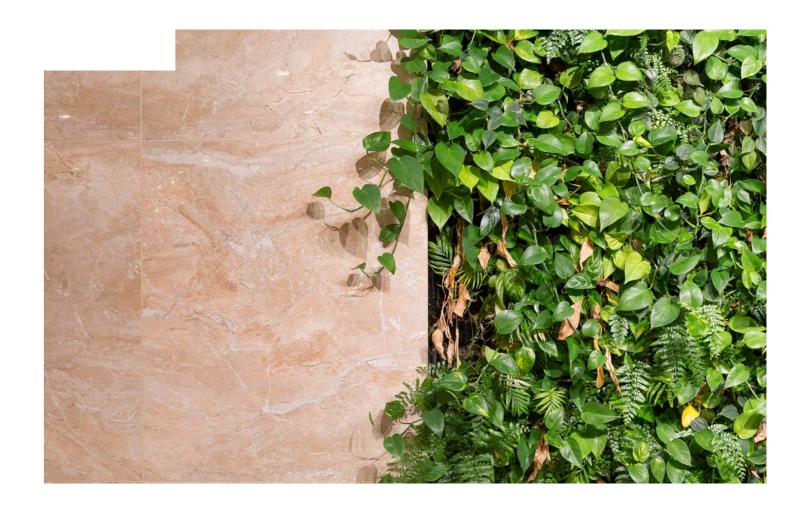
As a responsible investor, developer, and landlord, we can take steps to manage air quality within our properties, and minimise air pollution caused by our business activities, including demolition and construction projects, creating a safe and healthy environment for our people, tenants, and local communities.

We have implemented several projects, including being one of the first landlords to monitor and report on the indoor air quality of a shopping centre. We also provided mobile air quality monitoring equipment to employees to track air pollution on their commutes, enabling them to take healthier commuting routes. These projects helped us build a greater understanding of air quality's impact on our health, wellbeing, and productivity.

We are now progressing our activities and have established ambitious indoor air quality targets for our corporate offices, which is timely as we return to the office following the Covid-19 pandemic, with an ever-increasing knowledge about the role of air on our health.

Our indoor air quality standard will set out minimum requirements to maintain a healthy and productive workplace, and outline how we will measure it, and report on it to our people. It will also provide guidance to employees on ways they can contribute to improving air quality.

This work will help us to advance our own social benefit strategy and contribute to Goal 3 and Goal 11 of UN Sustainable Development Goals, which promote wellbeing and safe, resilient, and sustainable cities.







Maintaining healthy and productive workplaces

Our objective is to provide the safest, healthiest, and most productive workplace environment we can. Maintaining good IAQ is an essential way to benefit both employees and our business.

Good air quality allows our people to feel, happier, healthier, and more energised at work. For our business, this results in an enhanced performance and creativity, better retention of employees and less sickness days. Air quality affects us all equally and it therefore also provides a point of engagement between the business and our people.

Our IAQ standards will help us to:

- 1. Understand our indoor environments by continuously monitoring the IAQ of our corporate offices through the latest Internet of Things (IoT) air quality sensor equipment.
- 2. Set target levels for globally recognised pollutants that impact IAQ.
- 3. Report regular data and feedback to employees.
- 4. Provide guidance and support to maintain healthy and high performing workplaces.

Skärholmen Centrum, Stockholm

We were one of the first property companies in the world to monitor the indoor air quality of a retail portfolio, launching a monitoring programme at Skärholmen Centrum in Stockholm in 2019. Monitoring enabled us to identify ways to improve air quality to make it as healthy as possible for tenants and visitors.

We also trialled technology from the International Space Station to improve the energy efficiency of our air handling systems. The trial in 2020 enabled us to ensure premium air quality was delivered into the centre, whilst reducing energy usage by up to 60%.









Our standards



1. Define

We have defined the list of pollutants we will measure and determined an acceptable level of each to achieve optimum IAQ within our workplaces. This standard sets average maximum pollutant levels to maintain between 7am and 6pm on weekdays, to reflect regular building occupancy.

The key pollutants we will monitor are:

Pollutant	Max. acceptable amount
Carbon Dioxide	900ppm
Total Volatile Organic Compounds (TVOC)	300µg/m³
Particulate Matter (PM10)	15µg/m³
Particulate Matter (PM2.5)	5µg/m³
Temperature	20-24°C*
Humidity	40-60%*

^{*}Monitored for comfort and viral index



2. Monitor

We will install the latest IAQ sensors to provide live, uninterrupted, and robust data throughout the working day. These will be installed to cover at least 80% of the occupied space to ensure sufficient monitoring based on standard measurement guidance, for example, used by the WELL standard. We will also monitor local external air quality to assess the quality of air being brought in for ventilation.



3. Analyse and report

Regular analysis of local air quality performance against our standards will look to identify air quality trends, any pollutant issues and areas for improvement. Live data will be accessible via an online platform so that individuals can identify any issues with air quality on an ongoing basis, for example when using a meeting room. This will enable them to make simple adjustments to their workplaces as they are needed.

We will formally report on a quarterly basis to our people, feeding back to local teams and recommending required steps to improve or maintain healthy spaces.

We will also integrate air quality data into our wider Environmental, Social, Governance reporting, to inform our formal social benefit strategy.



4. Improve

We will use our robust data and analysis to identify required improvements, and work with onsite facilities teams to implement them. This may include changing cleaning products, for example, or rethinking office supply choices, as well as more technical improvements to our air handling systems.





Challenges and opportunities

Air quality is a fluctuating dynamic, made more complex by the different types of properties and air handling systems we use, and differing local and international regulations.



Fluctuating standards

Many local and global standards take different approaches in defining acceptable levels of pollutants. We have recognised local and global benchmarks, including from the World Health Organisation (WHO), in our approach, but have defined a standard that we can use across all our office locations. We will continue to monitor local and international guidance to ensure these are met.

Engagement

We don't own and manage all the buildings in which our offices are located, which makes it difficult to make fundamental changes to the air handling systems. We will need to build strong and transparent relationships with the onsite facilities teams and think of unique and creative solutions to address air quality in our workspaces.

Varying asset types

Each of our offices utilises different air handling systems so we require a personalised approach to onsite facilities management. We need to understand how each of our buildings is serviced, and to develop unique solutions to improve air quality based on the available data.

Data

Environmental data collection can be challenging, but by continuously monitoring our spaces with the latest IoT technology, we will generate accurate and consistent data to learn about our workspaces and track trends in air quality. This will ensure robust and transparent reporting, and enable appropriate improvement actions as well as better engagement with our people and the facilities teams we work with.

Training

We will provide training and motivate our employees to understand the importance of good air quality and simple actions they can adopt to create a healthier environment for all.