News

arbnco monitors air quality in schools as part of Government Covid-19 pilot

Scottish proptech has installed air quality monitors to help reduce Covid-19 transmission

Scottish proptech company arbnco has deployed its air quality monitoring system across 30 primary schools, after being chosen as a partner in a Government pilot that aims to improve ventilation and reduce the spread of Covid-19 in classrooms.

The 30 primary schools, located in Bradford, West Yorkshire, are taking part in the £1.85m trial to evaluate the effectiveness of two types of air purification devices. Research has found that Covid-19 mainly transmits via airborne particles, making enclosed spaces such as classrooms ideal breeding grounds for infection.

Classrooms in 10 schools have been fitted with high-efficiency particulate air (HEPA) filters, which trap particles such as dust, pollen and bacteria from the air. Eight schools have had UV light technology fitted on the walls, which cycles the air through an enclosed unit, exposing it to a UV germicidal light and inactivating microorganisms.

Both devices then pump the sanitised air back into the room after the filtration process. The remaining 12 schools will act as the control group with no devices installed.

arbnco was awarded a £288,000 contract to install its air quality monitors across all 30 schools. Data gathered from these monitors is being used to help evaluate the effectiveness of the two purification devices and how ‘clean’ the air is inside classrooms during the pilot.

arbnco’s monitoring sensors gather a range of data, including particulate matter, temperature, humidity, carbon dioxide (CO2), and total volatile organic compounds. The sensors are now live streaming data into a central platform every minute.

In addition to understanding how technology could help to reduce Covid-19 transmission and other cold and flu infections, the data gathered will provide insight on the quality of the air overall – which could have huge benefits for those with asthma and hay fever.

The pilot has been funded by the UK Health Security Agency, and is a collaboration between the Department for Education, the Department of Health & Social Care, Bradford Council and the Universities of Leeds, Bradford and York.

The initial research project will last for 15 months, but has the potential to be rolled out nationwide from 2022 if successful.

Schools Minister Nick Gibb MP said: “Ventilation has been a key part of the guidance we've provided to schools about how to keep schools safe and to minimise the risk of transmission.

“We're looking at air purifiers – that's what the pilot in Bradford is about – and we're also looking at CO2 monitors to see whether that's an effective way of helping schools to monitor the quality of the air in the schools.”

Simon West, COO and co-founder of arbnco, said: “We’re proud to be using our technology and expertise in what is one of most nationally significant projects in the fightback against Covid-19.

“Children are also particularly vulnerable to the effects of air pollution and this project has the potential to make our classrooms both safer and healthier. It’s not an overstatement to say that getting the air quality and ventilation right in our schools could be the key to improving the health and wellbeing of the nation as a whole.”

The Bradford schools pilot commenced in September 2021 with initial results expected by early 2022.

About arbnco

Established in 2015 in Scotland, arbnco now operates across the US and Europe. Its technology journey started with a team of scientific professionals focused on intelligent green building innovation and data analytics, which remains at its core. As the business grows within a dynamic environmental and commercial marketplace, arbnco will continue to reinvest in this research and development to bring the best proptech solutions to the market. It is committed to helping businesses better measure and report ESG performance and deliver the global transition to zero carbon.

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