

REALNETS PRESENTS

# Building Air Quality

Health & Property  
Technology



REALNETS™

The image features a dark gray background with several decorative orange elements. In the upper right, there is a curved line that ends in a solid orange dot. To its right, a thin orange oval is partially visible. In the lower left, a long, sweeping orange curve extends across the bottom of the frame.

Welcome.

# What is Realnets?

We're a Chicago-based IT and property technologies agency and we've been busy over the last year helping businesses and property owners adjust and adapt during the pandemic.

## OUR COVID PROJECTS:

- POS systems for outdoor dining
- Touchless intercoms & access systems
- Temperature detecting cameras

# Why are we hosting this event?

As businesses and schools are looking to reopen, ventilation has become central to the conversation.

We wanted to bring the most knowledgeable people we know about the subject together to answer your burning questions.

Are you  
ready for  
crowds  
again?



# Will this matter after COVID?

COVID-19 is likely to have a lasting impact on our awareness of viral transmission.

Being able to offer better air quality is a unique benefit that may resonate with clients more now than it would have previously.

Studies are also showing that there may be a financial incentive for improving environmental controls.

Studies have shown **elevated CO<sup>2</sup>\* levels & temperature controls<sup>3</sup>** in indoor environments can have **an impact on cognitive abilities.**

It's estimated the **regular flu cost employers more than \$21 billion in lost productivity** during the 2017-18 flu season<sup>1</sup>

<sup>1</sup><https://www.beckershospitalreview.com/quality/flu-cost-employers-21b-last-season.html>

<sup>2</sup><https://yaleclimateconnections.org/2016/07/indoor-co2-dumb-and-dumber/>

<sup>3</sup>[https://www.hsph.harvard.edu/magazine/magazine\\_article/healthy-buildings-on-the-horizon/](https://www.hsph.harvard.edu/magazine/magazine_article/healthy-buildings-on-the-horizon/)

The background is a solid dark gray. It features several abstract orange lines. At the top, there is a curved line that ends in a small orange circle. To the right, there is a large, irregular orange loop. At the bottom, there is a long, sweeping orange curve that spans across the width of the page.

Our panel.



**REALNETS™**



Brian Schoen is the **President** of **Realnets** which has been providing the Chicagoland area IT and PropTech solutions for over 20 years.

Brian has a unique perspective of the evolving technology landscape and the practical needs of property owners, restaurateurs, and businesses of all sizes.





# AIRTHINGS

FOR BUSINESS



Martin McGloin is the Head of Product for Airthings for Business. Airthings is a Norwegian PropTech scale-up that was recently listed on the Oslo Stock Exchange.

Airthings for Business provides a comprehensive indoor air quality (IAQ) monitoring and insights solution for commercial buildings. Airthings has developed a range of wireless and battery operated IAQ devices, Airthings has been recognized by TIME Magazine as one of the Best Inventions of 2019.



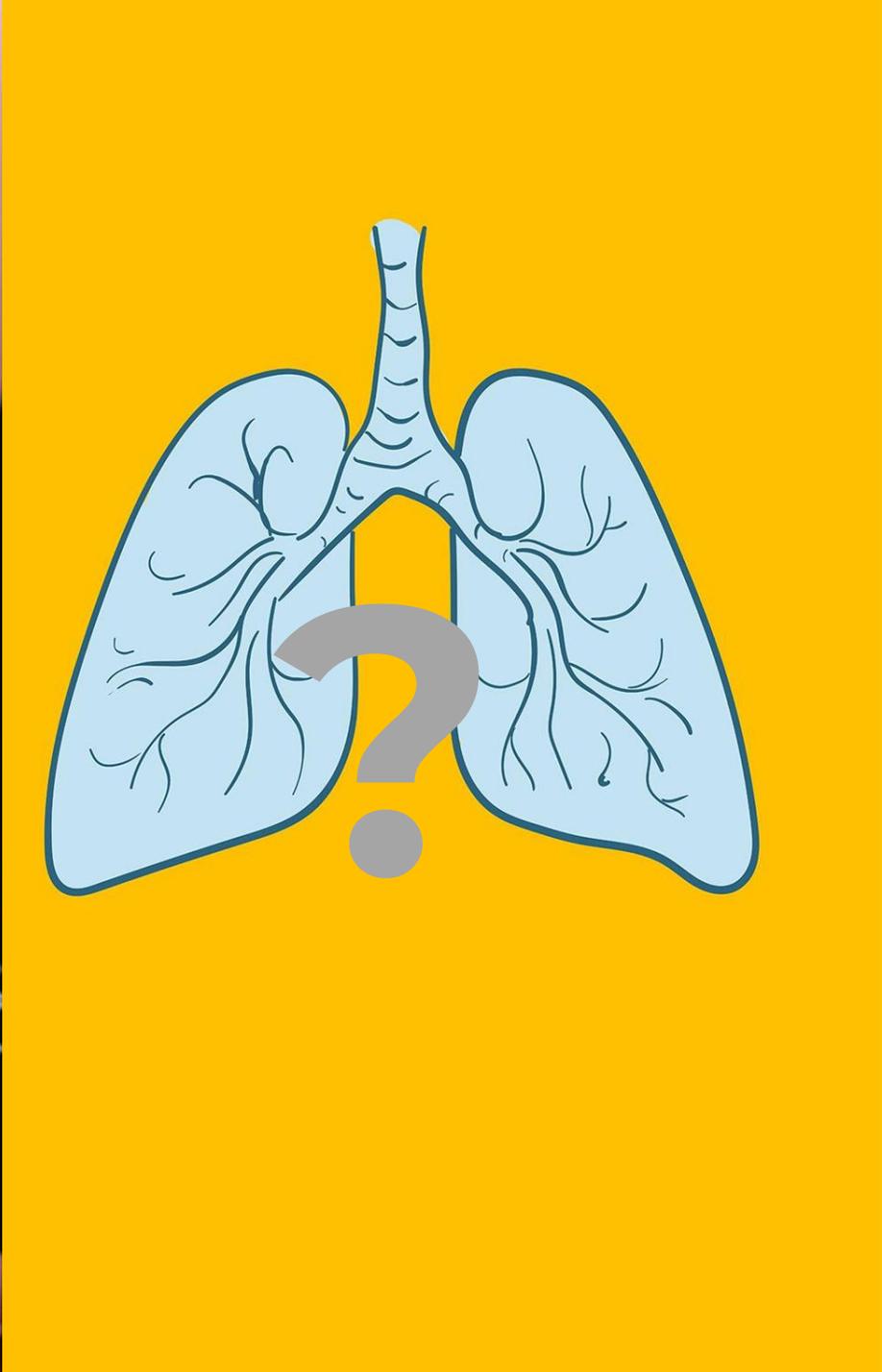
**TIME  
BEST  
INVENTIONS  
2019**



**AIRTHINGS**  
Breathe better. Play better.



**CHAMPIONS  
CHESS TOUR**  
AIRTHINGS MASTERS



Graphic detail

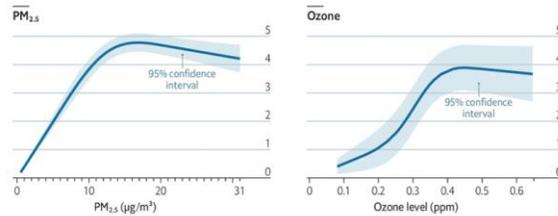
Daily chart

## Exposure to air pollution is linked to an increase in violent crime

Dirty air may be even more dangerous than previously thought

### Soot to kill

United States, air pollution and associated increase\* in violent crime†, %



Source: "The effect of pollution on crime: Evidence from data on particulate matter and Ozone" \*Relative to no pollution †Murders, rapes

## Air pollution significantly raises risk of infertility, study finds

Exclusive: With 30% of infertility unexplained, pollution could be an 'unignorable' risk factor, scientists say



▲ The analysis of 18,000 couples in China found that those living with moderately higher levels of small-particle pollution had a 20% greater risk of infertility. Photograph: China News Service/China News Service via Getty

Exposure to air pollution significantly increases the risk of infertility, according to the first study to examine the danger to the general population.

<https://www.theguardian.com/environment/2021/feb/17/air-pollution-significantly-raises-risk-of-infertility-study-finds>

## Air pollution linked to higher risk of irreversible sight loss

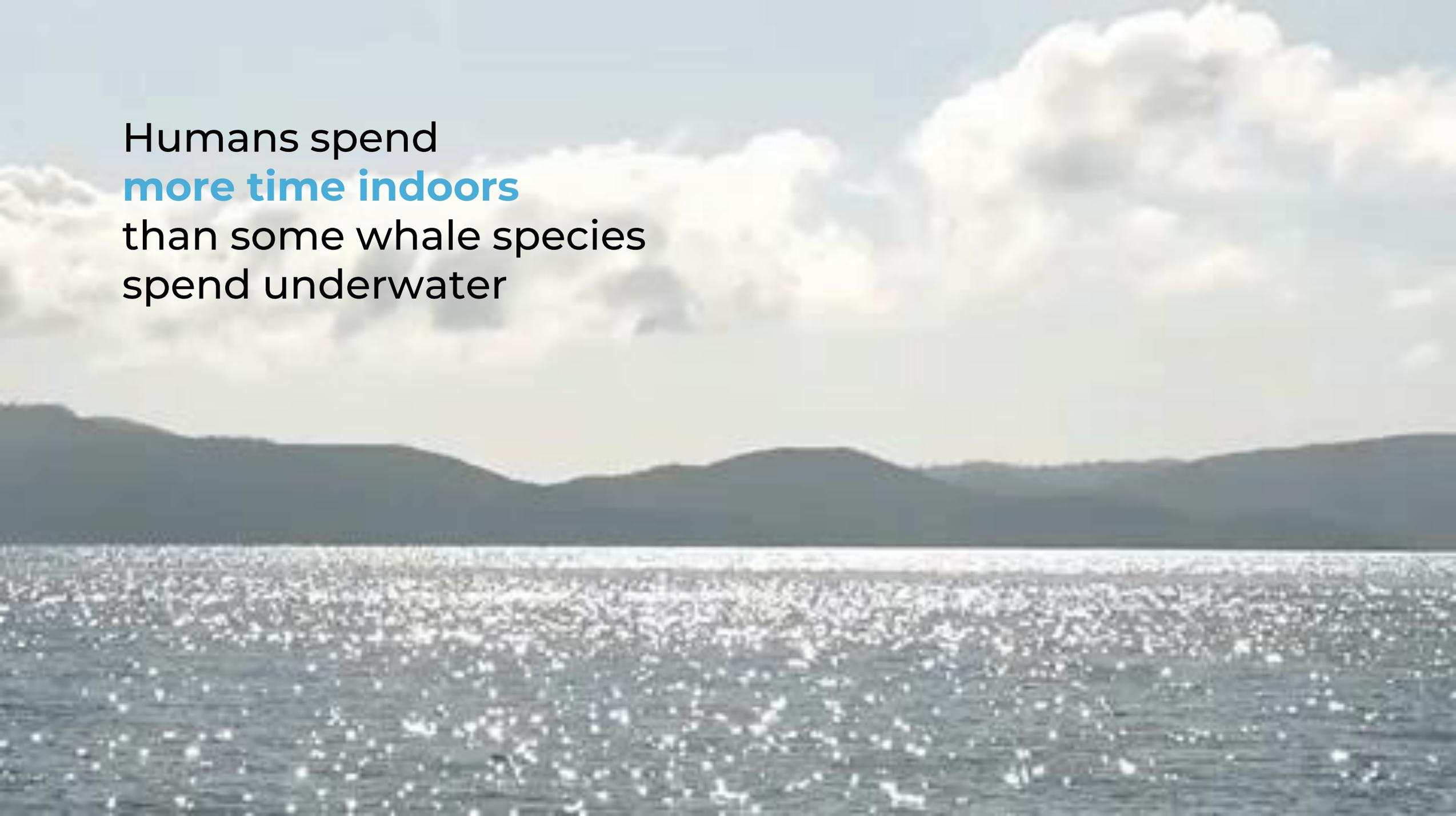
Large UK study found small pollution rise associated with more cases of age-related macular degeneration



▲ Air pollution is being linked to an increasingly wide range of diseases. Photograph: by Grzegorz Polak/Getty Images

Small increases in air pollution are linked to an increased risk of irreversible sight loss from age-related macular degeneration (AMD), a large UK study has found.

<https://www.theguardian.com/environment/2021/jan/26/air-pollution-linked-to-higher-risk-of-irreversible-sight-loss>

A scenic landscape featuring a vast body of water in the foreground, with a range of dark mountains in the middle ground. The sky is filled with large, white, fluffy clouds. The water's surface is shimmering with sunlight, creating a dense pattern of bright white reflections.

Humans spend  
**more time indoors**  
than some whale species  
spend underwater

This awareness trend has been rising for years, but **last year “everyone” started thinking:**

**“What is in the air I am breathing”?**

Conventional office environment

vs.

# Increased ventilated office



**OVERALL COGNITIVE  
ABILITIES**



**101%**

INCREASE



**STRATEGIC  
THINKING**



**288%**

INCREASE



**INFORMATION  
USAGE ABILITIES**



**299%**

INCREASE

Source: Associations of Cognitive Function Scores with Carbon Dioxide, Ventilation, and Volatile Organic Compound Exposures in Office Workers: A Controlled Exposure Study of Green and Conventional Office Environments  
Environmental Health Perspectives • volume 124 | number 6 | June 2016

# Covid-19 has made the Invisible Visible

**91%**

Consider IAQ important in the prevention of COVID-19

**74%**

Said IAQ information would make them feel more comfortable with returning to the office at least part-time

**77%**

Said proof about a hotel's IAQ would impact their decision on where to stay

**66%**

Said info on school's IAQ would impact their confidence that it's safe to return

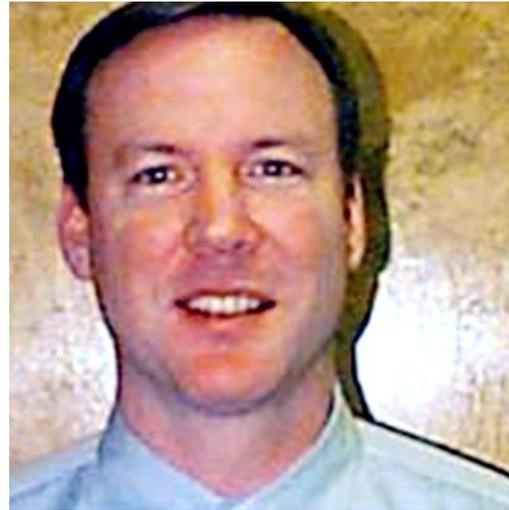
**76%**

Think a rating on a building's IAQ would help them feel better about being in that building. Of those 81% were full-time employees

**52%**

Said they would be willing to pay more to stay at a hotel that could prove they have IAQ standards

# MADDOCK INDUSTRIES, INC.



Matt Maddock is the President of Maddock Industries, and he has over 37 years of experience in the HVAC business as a manufacturer's representative and consultant.

He was the *former president of Illinois ASHRAE*. He has been partnering with Airthings for the past two years and has performed many of their product installations in the Chicago area.

# How can HVAC professionals make the best possible impact?

HVAC professionals play a crucial role in shaping the efficiency, productivity, health, and success of a building and its occupants.

1. **Maximize short-term efficiency** by selecting indoor air quality monitoring systems that are easy to install and operate.
2. **Ensure integration** of new indoor air quality solutions with existing HVAC and building automation systems so data can be shared easily.
3. **Maximize long-term efficiency** by choosing a system that gathers data on multiple aspects of indoor air quality, presenting it in one central dashboard.
4. **Be proactive** by discussing indoor air quality and its impact with engineers, building owners, and facility managers, and collaborate to implement the optimal solutions.
5. **Guarantee compliance** with current and future indoor air quality legislation, including maximum radon concentrations, acceptable temperature ranges and CO<sub>2</sub> levels.

*By adopting this approach, HVAC professionals will add value beyond installing and maintaining ventilation equipment. They can become trusted partners and establish more rewarding, longer-lasting business relationships with building owners and managers.*

MADDOCK INDUSTRIES, INC.



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Discussion.

How has the PropTech landscape  
changed over the last 10 years?

What is driving people to adopt  
new air quality measures?

How do we identify & measure problems?

How can tech help HVAC teams & Property  
Managers work together?

What investments can I make to  
improve air quality?

Your questions?

Thank you.

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