Thrive

ARC Training Centre for Advanced Building Systems against Airborne Infection Transmission (THRIVE)

ANNUAL REPORT 2025

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1. Introduction

The ARC Training Centre for Advanced Building Systems against Airborne Infection Transmission (THRIVE) formally commenced on 31 August 2023.

Our **vision** is to **lead** the advancement of knowledge and technological infrastructure development, in pursuit of **clean and healthy indoor air environments**, that improve mental cognition and foster productivity. To **achieve** this, we are committed to building collaborative and innovative **partnerships** with the scientific community, governmental bodies, industry stakeholders, and the public.

Our **mission** is to **design and engineer** building systems which facilitate high quality indoor environments. These systems will **effectively control** airborne pathogens and pollutants, while **enhancing thermal comfort** and **optimising energy efficiency**, and ultimately, will empower building occupants to reach their full potential.

THRIVE's Fields of Science include:

- aerobiology
- aerosol science
- architecture
- computational fluid dynamics
- building design and engineering
- data science
- environmental economics
- environmental science
- law
- machine learning
- public health
- signal processing and artificial intelligence

THRIVE Social Media Accounts:

- Website: https://thriveiaq.com/
- LinkedIn: https://www.linkedin.com/company/thriveiaq/
- YouTube: https://www.youtube.com/@thriveIAQ

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2. THRIVE Researchers in 2025

Centre Director
Distinguished Professor Lidia Morawska, Queensland University of Technology (QUT)

Associate Directors
Associate Professor Lindy Burton, Charles Darwin University
Professor Geoff Hanmer, ARINA and The University of Technology Sydney
Professor Jason Monty, The University of Melbourne
Professor Zoran Ristovski, QUT

Centre Manager
Mr Rafat Alam, QUT

Operational Staff
Ms Chantal Labbe, Research Support Officer, QUT

Academic Researchers – Associated Academic/Adjunct Staff
Professor Richard Brown, Faculty of Engineering, QUT
Professor Giorgio Buonanno, University of Casino and Southern Lazio, Italy
Professor Laurie Buys, Australian Catholic University, Queensland
Professor Robin Drogemuller, Faculty of Engineering, School of Architecture & Built Environment, QUT
Professor Clinton Fookes, Faculty of Engineering, QUT
Emeritus Professor Keith Grimwood, Griffith University, Queensland
Dr Rohan Jayaratne, School of Earth and Atmospheric Sciences, QUT
Professor Amanda Kennedy, Faculty of Business & Law, QUT
Adjunct Professor Prashant Kumar, Global Centre for Clean Air Research (GCARE), University of Surrey
Scientia Professor Guy Marks AO FAHMS, Burnet Institute
Adjunct Associate Professor Wendy Miller, School of Earth and Atmospheric Sciences, QUT
Dr Sara Omrani, School of Architecture & Built Environment, QUT
Professor Alexander Paz, QUT and Chair, Queensland Department of Transport and Main Roads, Queensland Government
Associate Professor Thomas Rainey, Faculty of Engineering, QUT
Adjunct Professor Heidi Salonen, Adjunct Professor, Aalto University, Finland
Adjunct Professor Tunga Salthammer, Fraunhofer WKI, Germany
Associate Professor Robyn Schofield, The University of Melbourne
Professor Kirsten Spann, Centre for Immunology and Infection Control, Faculty of Health, QUT
Adjunct Professor The Hon Robin Scott, Former Member of Victorian Parliament
Professor Boguang Wang, Jinan University, China
Professor Hao Wang, Jinan University, China
Dr Tharindu Fernando Warnakulasuriya, Faculty of Engineering, QUT
Professor Maosheng Yao, Peking University, China

Honorary Research Fellows
Dr Peter McGarry, Senior Occupational Hygienist and Manager Specialist Services, HSW Division, The University of Queensland
Dr Hamesh Patel, Mote New Zealand

Postdoctoral Researchers
Dr Enoch Adotey
Dr Robert Groth

Dr Kevin Kevin
Dr Martin Larbi
Dr Xiangdong Li
Dr Henry Oswin
Dr Dwan Vilcins

Partner Investigators
Mr Marc Dunn, Samsung Electronics Australia
Mr Paul Hoertz, Trane Technologies
Ms Pat Keady, Handix Scientific
Mr Graeme McLeish, QED Environmental Services
Dr Heike Neumeister-Kemp, Mycotec
Dr Hamesh Patel, Mote NZ
Dr Greg Picker, AREMA
Dr Andrew Poslinski, Trane Technologies
Mr Ken Schoeneck, Trane Technologies
Mr Ian Searle-Crossley, Amazon Web Services
Mr Robert Sharon, Blue IoT
Mr Kurt Sterzl, Amazon Web Services
Ms Plum Stone, The Safer Air Project
Mr Scott Tew, Trane Technologies
Dr Tim van der Graaf, Versuni
Dr Zubin Varghese, Trane Technologies
Mr Mark Vender, AIRAH
Mr Simon Witts, VA Sciences

Doctoral Students (ARC Funded)
Punsara Dharaka (QUT-based; Supervisor: Enoch Adotey, Lidia Morawska, Tunga Salthammer)
Kavindi Gunasinghe (QUT-based; Supervisor: Henry Oswin, Lidia Morawska)
Udita Gupta (QUT-based; Supervisor: Lidia Morawska, Richard Brown)
Ashkan Jahandari (QUT-based; Supervisor: Lidia Morawska, Rohan Jayaratne)
Dilani Madhubhashini (QUT-based; Supervisor: Enoch Adotey, Lidia Morawska, Tunga Salthammer)
Mohammad Sarmadi (QUT-based; Supervisor: Lidia Morawska, Sara Omrani)
Samitha Wijewantha (Supervisor: Henry Oswin, Enoch Adotey, Lidia Morawska)
Hongzhi Zhang (QUT-based; Supervisor: Lidia Morawska, Karren Sullivan)
Bingnan Zhao (Supervisor: Harshana Gammulle, Lidia Morawska)

Doctoral Students (UoM Funded)
Tony George (UoM-based; Supervisor: Jason Monty, Robyn Schofield)
Salman Khan (UoM-based; Supervisor: Jason Monty, Robyn Schofield)
Diego Rojas (UoM-based; Supervisor: Jason Monty, Robyn Schofield)

Doctoral Students (Other Funded)
Geoffrey Hanmer (Supervisor: Richard Brown, Lidia Morawska)
Justine Hupkes (Supervisor: Richard Brown, Lidia Morawska)

Masters' Students
Robyn Meldon (Supervisor: Lidia Morawska, Richard Brown, Enoch Adotey, Greg Bell)
Robert Sharon (Supervisor: Lindy Burton, Lidia Morawska)

Postgraduate Completions, PhD
None

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Postgraduate Completions, Masters
None

Research Assistants
Shajil Romeo

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3. Major Research Events & Highlights

- On 4 February 2025, Professor Richard Brown, Simon Witts (Director of VA Sciences and industry partner of THRIVE) and Ms Justine Hupkes (PhD student) from THRIVE **visited the Melbourne City Council House 2 (CH2) Building.** They were given a tour by Rob Adams (former City Architect of Melbourne), Garry Ormston (Senior Project Advisor, CH2 Building), and Paul Di Nello (Senior Project Architect, CH2 Building). The CH2 Building is designed to save energy, water and greenhouse gases, with advanced ventilation systems to reduce pollutants and airborne infection transmission. Ms Hupkes will be researching how effective ventilation systems in the building contribute to these benefits.

- Dr Enoch Adotey participated in the '**Safer Air Squad**' hosted by the **Aspley State School** on 16 February 2025.

- It was an honour to **host Her Excellency The Governor-General, the Honourable Ms Sam Mostyn AC**, at THRIVE, QUT on 24 February 2025. Her Excellency was thrilled to hear about the groundbreaking research and innovative work happening here at THRIVE. We're proud to share our passion for advancing knowledge in indoor air quality (IAQ) and making a real-world impact. The conversation was inspiring, and we are so grateful for the opportunity to showcase the incredible strides our team is making.

- The **World Health Organization** hosted the **'2nd WHO Global Conference on Air pollution and Health**', in Cartagena, Columbia from 25-27 March 2025. This conference focussed on accelerating action for clean air, clean energy access, and climate change mitigation. It leveraged insights from the COVID-19 pandemic, from experts who explored solutions to improve indoor environments, reduce health risks, and align air quality goals across sectors and regions. Professor Lidia Morawska presented in two sessions at the conference. One session titled, "*Healthy indoor spaces: Improving indoor air quality to protect our health*". Indoor air pollution is a global health challenge affecting billions. This session examined pollutants, health impacts, and mitigation strategies in diverse settings. She also presented at a session titled, "*Bridging air pollution, health and climate: Tacking black carbon and ultrafine particles*", where she gave an overview of the exposure and health effects of ultrafine particles (UFPs). Black carbon and UFPs present significant health and climate risks. This session reviewed the latest evidence on exposure and health effects, highlighted actionable mitigation strategies, and encouraged collaboration across sectors. Discussions focussed on how integrated approaches can achieve measurable health benefits while driving progress in air quality and climate action.

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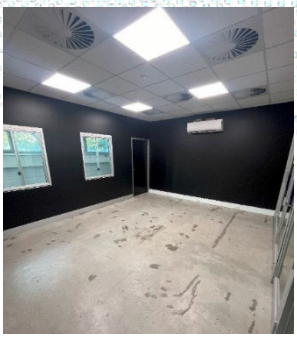
- THRIVE is pleased to have co-hosted the "**Stanford Forum on Sustainable and Healthy Buildings with a Focus on Indoor Air Quality**" at **Stanford University** from 31 March to 1 April 2025. The Forum was led by Professor Milana Trounce of Stanford University Faculty of Medicine, and Professor Lidia Morawska, Centre Director of THRIVE at the Queensland University of Technology. Leaders from science, public health, industry, and government convened to explore how we can align IAQ and energy efficiency in the built environment. Amid the escalating risks of pandemics and climate-related disasters such as wildfires, the need for buildings that promote human health and environmental sustainability is more evident than ever. Scientific evidence highlights the crucial role of clean indoor air in bolstering resilience to such challenges and improving overall human well-being. This invitation-only event brought together leading experts in building design, certification, air monitoring, science, and government to figure out how to make clean indoor air happen for all. We tackled tough questions around IAQ performance standards, implementation feasibility, cost, and design—and explored how we can align clean air and energy goals for the sake of not only human health but also the health of our planet. Whether through regulatory approaches or market transformation, we aim to move towards a future where healthy, resilient, and sustainable buildings become the norm.

- **The fluid mechanics** group at **The University of Melbourne** boasts extensive laboratory floor space with world-leading wind and water-tunnel facilities and state-of-the-art instrumentation for experimental measurement of fluid flow. In support of the ARC THRIVE ITTC, the University of Melbourne has completed the construction of an IAQ test space, complete with HVAC simulator and imaging instrumentation for air flow measurement and humidity and temperature control. This new facility will be key to the Centre and to higher degree research students with an excellent foundation for high quality experimental research. Additionally, the fluid mechanics group owns and operates a wide array of imaging systems for particle image velocimetry and particle tracking and other anemometry systems such as hot-wires and laser doppler anemometry. The group will now be capable of state-of-the-art experiments relating airflow to IAQ, incorporating HVAC optimisation and sensor technology.



- Some of our researchers congregated at a recent **PhD Research Philosophy meeting**. The group has been getting together in a series of meetings to discuss how to successfully conduct and complete a PhD research program, have fun, and build a legacy. The first meeting was held on 17 February 2025 and was led by the Academics and Supervisors. The second meeting was held on 14 April 2025 and was led by the PhD students. The third meeting for the year took place on 23 October 2025.

(Image, back row: Mr Antoine Geray. Second row: Ms Savinda Heshani, Dr Hedy Wang, Ms Samitha Wijewantha, Ms Dilani Madhubhashini, Prof Lidia Morawska, Dr Ren Estaquito, Hongzhi Zhang, Dr Robert Groth, Dr Henry Oswin. Front row: Ms Kavindi Gunasinghe, Mr Punsara Dharaka, Ms Udita Gupta, Mr Bingnan Zhao. On the screen: Dr Xiangdong Li, Mr Salman Khan of The University of Melbourne)

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- A forum titled "**What our children breathe – air quality in educational institutions**" took place on 12 May 2025 at Lublin University of Technology (**LUT**), supported by The National Centre for Research and Development in Poland. Professor Marzenna Dudzinska (LUT, Politechnika Lubelska) welcomed delegates to the forum, and Professor Lidia Morawska (QUT) presented a discussion on the importance of good IAQ in schools. An overview of the discussion is presented below. Watch the live broadcast of the conference.

- The Australian Institute of Refrigeration, Air Conditioning and Heating (**AIRAH**) held their annual 2025 **Indoor Air Quality Conference** at the Melbourne Convention & Exhibition Centre on 26-27 May 2025. Attendees and presenters represented a wide range of disciplines, including engineering, health policy, occupational hygiene, and academia. This year's conference had over twenty presenters, including several international speakers: Professor Max Sherman and Professor Richard Shaughnessy, both from the US, delivered keynote talks. A preceding workshop on ventilation and carbon dioxide on 25 May 2025 also featured Professors Lidia Morawska (QUT) and Pawel Wargocki (DTU), Dr. Andy Persily (NIST), and several Australian experts. A recording of this session will be made available to registered participants who were unable to attend. For more information about the conference: https://www.airah.org.au/IAQ. he THRIVE UoM team is currently working with AIRAH on a 3-5 day Professional Education Program for Building Services Engineers and Facilities Managers. The program was advertised at the AIRAH conference and will launch in the first quarter of 2026. Stay tuned for more information.

- More work is being done by members of our team from the Global Centre for Clean Air Research (GCARE) to **advocate for IAQ regulations in the United Kingdom**. With the Government soon set to launch its Clean Air Strategy, the All-Party Parliamentary Groups for Carbon Monoxide and Health hosted an event in Parliament earlier in mid-May 2025 that examined how the Strategy can set the necessary goals and framework for addressing indoor air pollution. Chaired by Wera Hobhouse MP, the session considered how tackling indoor air pollution can be embedded into health and care policy – focusing on the importance of using data, communications between local services, and education to improve IAQ. Others who contributed include Jonathan Kane (Kane International Limited), Stephanie Trotter, OBE (CO-Gas Safety), Professor Sarah West (SEI – Stockholm Environment Institute), Francesca Brady (GO AQS), Isabella Myers, and Professor Prashant Kumar (University of Surrey).

- This year's **MIST Project event** was hosted by Delft University of Technology on 2 June 2025, where leading experts gathered to shape the future of healthy indoor environments. Among the speakers was our Centre Director, Professor Lidia Morawska, who walked about the seven lessons from the COVID-19 pandemic for ventilation and IAQ: did we have to learn them the hard way? This is a great step forward for healthy air in schools, offices, healthcare clinics, and public spaces. More information about this year's event. Meet the core research team leading MIST's scientific and outreach efforts and discover the network of collaborating partners contributing their expertise from across sectors.

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- An interdisciplinary **THRIVE Forum** titled, "**Indoor Air Quality in Schools**" was held at QUT on 17 July 2025, for relevant to experts from many fields and to anyone involved with buildings, from academics to leaders tasked with maintaining a safe and resilient internal environment of schools. Students, teachers and other staff spend a very large proportion of their time in school buildings. As more research points to how IAQ directly impacts both physical health and cognitive performance, legislating standards in public buildings, including schools, is an important step toward addressing a problem that many may overlook—poor ventilation and indoor air quality at schools. Big questions discussed at the forum include:
  - What do we know about the quality of air in Australian school buildings? What pollutants are of concern? How are they linked to health and cognitive outcomes?
  - Can we achieve a balance in building performance with respect to indoor air quality, thermal comfort, and the energy needed to support this for specific school / classroom types and specific climate(s)?
  - What additional risks will climate change pose with the increased frequency of episodic pollution events, rainfall intensity, and frequency and duration of heat waves? What is the impact of these changes on indoor air quality? What additional efforts will be required to protect students and staff?
  - Can school building mechanical systems be optimised to address dynamic IEQ risk and carbon emissions?
  - Should new school buildings be mechanically ventilated?
  - Do we need more R&D? More regulation? More collaboration between all stakeholders, including occupants?

  >130 participants between those who attended face-to-face and those connected virtually attended the Forum. The details of the lectures are as below:

  - Professor Lidia Morawska, Queensland University of Technology, "Introduction to the Symposium"
  - Ms. Robyn Meldon, Department of Education Queensland, "Do we need more R&D? More regulation? More collaboration between all stakeholders, including occupants?"
  - Professor Geoff Hanmer, ARINA and THRIVE, "Can we achieve a balance in building performance with respect to indoor air quality, thermal comfort, and the energy needed to support this for specific school/classroom types and specific climate(s)?"
  - Mr David Thornton, COO, Somerset College, "IAQ insights from Somerset College"
  - Associate Professor Wendy Miller, QUT and THRIVE, "State of Indoor Air in Australian Schools"

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- On 24 July 2025, members of the THRIVE team travelled to the Gold Coast to **visit the Somerset College**. The program included presentations by Mr David Thornton (COO, Somerset College), Mr Peter Evans (Managing Director, b2bResourceSmartSchools), Mr Bob Sharon (Founder and CEO, BlueIoT), Dr Mike Woodrow (Business Manager, AiroFresh International), and D/Prof Lidia Morawska of QUT (Director, THRIVE). The visit also included a comprehensive site tour showcasing the College's real-time CO_2 monitoring, air purification technology, and emerging smart detection systems designed to support student wellbeing. These programs not only contribute to a healthier school environment, but they also create rich, STEM-focused learning opportunities for our students and demonstrate how schools can lead by example in creating safer, more sustainable communities. We are excited to be part of this collaboration with QUT, Somerset College, Blue IoT, Aerofresh International and b2bResourceSmartSchools for their shared interest and expertise. Overall, it was a very successful site visit to Somerset College, who are leading the pack for IAQ monitoring and practical application in schools. Big thank you to Somerset College for hosting us! View a short video created by Somerset College of the visit.

- **A PhD student from Polytech Clermont in France, Antoine Geray**, conducted a visit with THRIVE from 1 April to 31 July 2025. The title of Antoine's project was "Study and collection of bioaerosols for the quantification of indoor airborne infection risk". Bioaerosols (airborne particles that carry microorganisms) are highly variable particles, being generated from a range of sources, both anthropogenic and environmental. Depending on their origin, they can range in size from less than 100 nm to more than 100 µm and be composed of anything from soil to saliva. Collecting bioaerosols is an essential technique in aerobiology, enabling us to quantify the amount of particular bioaerosols (i.e. respiratory particles) present within different environments, and to characterise various aspects of them such as their size and composition. Using bioaerosol sampling to target respiratory particles within indoor environments can improve our understanding of the transmission of respiratory diseases, which can potentially aid in the development of improved infection control measures. In this work a novel bioaerosol sampling method was developed, in which air was drawn air through ice, with the particles being sampled into the meltwater. Microbial culture and PCR can then be used to quantify and characterise the microbial content of this meltwater, with the assays either targeting pathogens of interest, or microflora common to the human respiratory tract. Initial testing of this approach yielded positive results, although there is scope for further optimisation to enable its practical application.

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I want to say that this internship was an unforgettable experience, forever etched in my memory, and this is thanks to all of you.

I wish to express my deep gratitude to Distinguished Professor Lidia Morawska for hosting me in her laboratory and offering this unique opportunity. I also thank Chantal Labbe, who took the time to exchange with me through numerous emails before my arrival, answering each of my questions regarding life in the laboratory and thus putting me in the best conditions to come to Australia.

I would like to extend a huge thank you to Dr. Henry Oswin, who accompanied me throughout this internship. His pedagogy, patience and clear explanations allowed me to progress not only from a professional point of view, but also on a personal level. Thanks to him, I was able to gain autonomy, confidence, and deepen my scientific reflection.

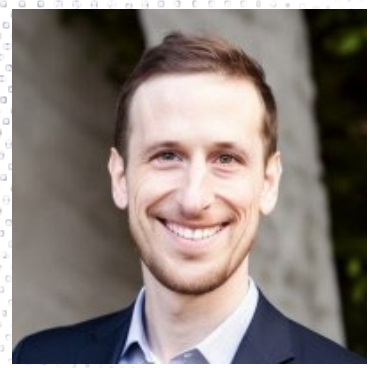
I also thank each of you, members of the laboratory. I will really miss you. Here, I discovered a true work atmosphere, driven by a mentality that I will not forget. A true spirit of mutual aid, respect and kindness reigns there.

This internship also allowed me to open my eyes to the beauty of diversity. No matter where we come from, no matter our cultures, our origins or our personal stories: in the end, we are part of the same world. And it is precisely this diversity that makes the wealth of our world. Our differences are strengths, they allow us to learn from each other, grow, open our minds and build greater things together.

By leaving, I keep in myself not only knowledge and skills, but above all this deep conviction: it is by valuing our differences and working together that we build a better world. In four months, I tried to learn a little from each of you and I thank you for everything you have given me. You are truly wonderful people, never change. I sincerely hope that our paths will cross one day.

– Antoine Geray

- **Founder of Kaiterra Liam Bates**, a global leader in air quality monitoring, management and analytics, gave a presentation at QUT on 18 August 2025. Liam is a seasoned expert on air quality, sensor technologies, standard development, and building code, he oversees technology and data analytics at Kaiterra. Liam serves on the International WELL Building Institute's technical advisory boards for both the Performance and Air Concepts as well as the American Industrial Hygiene Association's Indoor Air Quality Task Force. He frequently speaks at international conferences on air quality monitoring and management, including USGBC, ASHRAE, IAQA, and the World Economic Forum. Liam has a deep passion for storytelling and knowledge sharing – prior to working in environmental monitoring, he spent several years traveling the world as a documentary producer and presenter. Watch the webinar



- An amazing event was organized by the International WELL Building Institute on 20 August 2025 – the **WELL 2025 Sydney Flagship Summit**. A great opening presentation was given by Professor Christhina Candido (Director SHE Lab), and a compelling presentation by Plum Stone (The Safer Air Project). The session titled, "Resilience and response in the face of IEQ threats" was moderated by Mark Vender (AIRAH),

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and included presentations by Liam Bates (Kaitera), Ben Gill (CEO of Plasma Shield), and Adam Garnys (CETEC). Many thanks to Jack Noonan (Head of APAC at the International WELL Building Institute) for the invite. Moving forward, this is another important step towards on the pathway for clean air for all.

- A great **visit** on 2 September 2025, **by Dr Kazukiyo Kumagai**, leader of the Air Quality Section of the California Department of Public Health to THRIVE headquarters at the Queensland University of Technology in Brisbane. He gave a presentation titled “Improving indoor air quality in California”, visited our lab, and then had a discussion involving our researchers, partners, academics and some of our colleagues from the government.

1. Pictured from L-R: Lidia Morawska and Kazukiyo Kumagai; 2. pictured from L-R): Mohammad Sarmadi, Ashkan Jahandari, Kazukiyo Kumagai, Udita Gupta, Dilani Madhubhashini, Samitha Wijewantha, Punsara Dharak

- ‘**Healthy Indoor Air: A Global Call to Action**’, UN General Assembly High-Level Side Event 2025. An incredible week it was in New York at the United Nations General Assembly 2025, with the first-ever UN session on IAQ *‘Healthy Indoor Air: A Global Call to Action’* held on 23 September 2025. It was a defining moment when the Global Pledge was first signed by Mr. Ervin Ibrahimović (Deputy Prime Minister and Minister of Foreign Affairs of Montenegro), and Inger Andersen (Under-Secretary-General, UN and Executive Director, United Nations Environment Programme (UNEP)). The Global Pledge now has over 165 signatures from organizations from all over the world – an international effort to formally recognize clean indoor air as essential to health and well-being, building on the World Health Organization's 2021 declaration that clean air is a basic human right.

Australian delegates speaking at the event included Anna-Maria Arabia OAM (The Australian Academy of Science, Chief Executive), Academy Fellow and our Centre Director D/Prof Lidia Morawska FAA FTSE (Queensland University of Technology), co-chair of The Global Commission), Prof Bronwyn King AO (Special Advisor, Clean Air at Burnet Institute), our partner Plum (Victoria) Stone (The Safer Air Project), alongside international speakers such as Prof Joseph Allen (Harvard T.H. Chan School of Public Health), Rachel Hodgdon (CEO and President International WELL Building Institute), Dr Georgia Lagoudas (Science Policy Leader, Brown University Pandemic Center), Dr Sotirios Papathanasiou (Founder, GO AQS),

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José Luis Castro (WHO Director-General Special Envoy for Chronic Respiratory Diseases), Dr Katherine H. Walsh (Boston Public Schools), and many more.

- During the session, the International WELL Building Institute ***'Global Commission on Healthy Indoor Air'*** was announced, an initiative led by the to combat the worldwide indoor air crisis. As co-chair, D/Prof Lidia Morawska will help lead the Commission in elevating a global call to action that places healthy indoor air at the forefront of public health and policy priorities; build global awareness by highlighting the urgent human and economic costs of unhealthy indoor air; establish a *Global Framework for Action* with clear prescriptions across key pillars of market transformation; and catalyse country-specific National Blueprints in collaboration with local stakeholders to strengthen indoor air quality efforts around the world. The Commission's Framework will be released by the end of 2026, alongside National Blueprints published on a rolling basis.

The WELL Showcase Event "I**mproving Indoor Air Quality to Unlock Human Health, Organizational Performance and a Sustainable Future**" took place the following day on 24 September 2025. More on this to come. View a recording of the event (starts at 54 mins into the video) | For the full story, more photos and to read Lidia's UN speech | More information on the Global Pledge and sign it here | More about the Global Commission on Health Indoor Air

- On 9 October 2025, Professor Giorgio Buonanno of the University of Casino and Southern Lazio, Italy, and Adjunct Professor of ILAQH, QUT, gave an invited guest lecture to ILAQH titled "Secondary aerosol generation from surface and air disinfection: environmental and occupational perspectives". Prof Buonanno's research contributions fall into the aerosol metrology, the characterization of urban atmospheric pollution, the particle emissions from industrial plants and commercial devices and the IAQ, in the airborne transmission of respiratory pathogens. If you missed out on the webinar, you can now watch it on YouTube.

- We supported and co-organized the **2025 Clean Indoor Air for ALL Conference**, alongside the Clean Air Society of Australia and New Zealand (CASANZ), which took place in Melbourne from 13-15 October 2025. This conference brought together global experts to tackle the critical challenges of IAQ. IAQ is a fundamental determinant of human health, safety and well-being, yet the challenges we face in improving air quality are more complex than ever. This conference will focus on bridging the gap between public health and occupational health, ensuring IAQ management strategies protect both the general population and workplace environments. The program explored key themes like:

  👉 Health impacts of indoor air.
  👉 Climate change and disaster recovery.
  👉 Low-cost monitoring technologies.
  👉 Governance and systemic change.
  👉 Plus a special forum led by Distinguished Professor Lidia Morawska, and the release of THRIVE's State of Indoor Air in Australia Report.

  For more information

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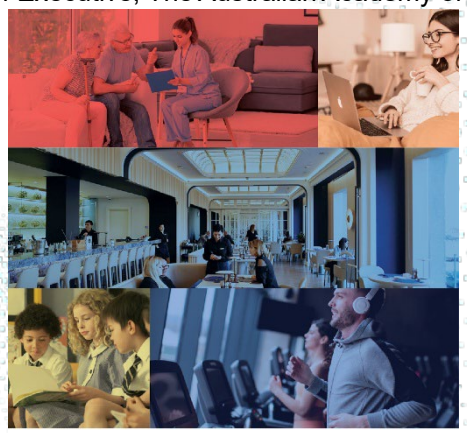
- We launched the **State of Indoor Air in Australia 2025 Report** on 13 October 2025. Led and authored by A/Prof Wendy Miller and D/Prof Lidia Morawska, this is the first national report to collate the scientific evidence of indoor air quality in Australian buildings.

  Australia has been producing State of the Environment reports for more than two decades, yet it has not, until this report, undertaken to quantify the state of indoor air. The scientific evidence of the importance of IAQ for occupant health is unequivocable, as is the evidence quantifying the health, social and economic costs of poor IAQ. Translating this evidence into policy and practice is challenging in the absence of data about the current status of air inside Australian buildings of all types.

  At the launch, we provided an overview of the report's findings: key insights from the scientific papers reviewed, and what this means for what is known, and unknown, about indoor air quality in different building classes, as well as how this informs the development of a national strategy on clean indoor air.

  The day continued with three sessions exploring what this report means for science, for practice, and for policy. Guest speakers included Ms Anna-Maria Arabia (Chief Executive, The Australian Academy of Science), Prof Brendan Crabb AC (Chief Executive, Burnet Institute), Mr Liam O'Brien (Assistant Secretary, Australian Council of Trade Unions (ACTU)), Mr Nicholas Burt (CEO, Facility Management Association of Australia (FMA)), the Hon Ted Baillieu (former Premier of Victoria) and the Hon Robin Scott (former member of Victorian parliament). They were joined by other experts in panel discussions chaired by Wendy and Lidia

  The data presented in this report is helpful in:
  👉 providing insights into the range of IAQ conditions in different building classes over time;
  👉 highlighting some of the key contributors to, and impacts of, poor air quality;
  👉 quantifying the importance of source control, ventilation and filtration as strategies for improving IAQ;
  👉 presenting multi-disciplinary approaches in study design and implementation; and
  👉 providing solutions or strategies that could be applied to buildings of the same class, or between buildings in different classifications.

  This report acts as a baseline report for IAQ and as a catalyst for multi-jurisdictional and transdisciplinary discussion and debate that leads to the development and implementation of a national strategy for IAQ. It is hoped that this report will be augmented periodically with more data as it becomes available, enabling improvements in indoor air quality to be tracked over time, and the impact of interventions to be evaluated. Download a copy of the report.

- A new **report** was launched on 5 November 2025 by **The Australian Academy of Science titled *"Indoor air: the science of indoor air and pathways to improve indoor air quality in Australia"***, which provides the latest scientific evidence on the issue and explores the policy pathways to improve indoor air quality in Australia. It includes a call for a phased approach to establish enforceable indoor air quality performance standards in public buildings, beginning with monitoring and a workplace reporting standard. The report was officially launched by the Assistant Minister for Health and Aged Care The Hon Rebecca White MP at The Safer Air Project's second annual conference 'Safer Shared Air. Making the Invisible Visible' at Parliament House in Canberra. Academy Fellow, world-leading expert on indoor air and winner of the 2025 Prime Minister's Prize for Science, Distinguished Professor Lidia Morawska FAA FTSE, is the lead expert for the Academy's new report. Download a copy of the report.

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- On 7 November 2025, **Professor Tunga Salthammer** of the Fraunhofer WKI in German, and Adjunct Professor of ILAQH, QUT, gave an invited guest lecture to ILAQH titled “Predicting partition coefficients and vapor pressures of environmentally relevant organic compounds”. If you missed out on the webinar, you can now watch it on YouTube.

- On 1 December 2025, **Professor Prashant Kumar** of the Global Centre for Clean Air Research (GCARE) at the University of Surrey, for his presentation titled: “Indoor Environmental Quality in Schools: Actions and Challenges”**.**

- THRIVE and QUT (Queensland University of Technology) are **transforming** our 13-year-old Science and Engineering Building (**P Block**) into a “**living laboratory” to demonstrate existing buildings can meet proposed global indoor air quality standards.** This $3.4 million project will integrate advanced sensors, AI, and smart systems to improve public health and influence future building performance standards worldwide. Poor air quality in indoor environments – where research shows people spend up to 90% of their time – contributes to respiratory disease (including asthma and lung cancer), heart disease, infectious disease transmission, and cognitive impairment, in addition to potential impacts from carcinogens. *“Every drop of water we drink and every piece of food we put in our mouth is highly regulated – yet the indoor air, which we take into our lungs 12 times a minute, is not regulated at all.” – Distinguished Professor Lidia Morawska*

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4. Awards & Achievements

- Professor **Jason Monty**, THRIVE's Associate Director Research Programs and Transformation of THRIVE was appointed in **early 2025**, **Head of School** of Electrical Mechanical and Infrastructure Engineering at **The University of Melbourne**.

- Our Centre Director, Professor **Lidia Morawska** has been awarded "**The 2024 President's Prize**" from the Australian Institute of Architects on **21 February 2025** at customs house in Brisbane. The President's Prize has been in existence for over 20 years and provides an avenue for the Queensland President to recognize individuals or organizations for their support of the architectural profession.

- Our Centre Director, Professor **Lidia Morawska**, has been awarded a **Doctorate Honoris Causa** from Lublin University of Technology (LUT) in Poland for her globally significant work in air quality research and its effect on human health and the environment. The award, which recognises outstanding achievements and contributions in fields including science, technology, the economy, and society, was presented on **13 May 2025**, following the discussion forum on 12 May 2025 titled, "What our children breathe – air quality in educational institutions", at which she was guest of honour. In honouring Professor Morawska, LUT highlighted the widespread impact her research has had on the world over a career spanning more than three decades. As part of the Doctorate Honoris Causa, LUT has published a book (in Polish and English) that honours Professor Morawska's career with reviews of her achievements. Read more from QUT Media | Read more from LUT Media | Watch the ceremony.

- Dr **Alex Mikszewsk**i, PhD graduate of THRIVE's ARC Linkage Project "Making Australia resilient to airborne infection transmission" completed his degree at the Queensland University of Technology (QUT) in 2024. His PhD thesis is titled, "*Quantitative Risk Assessment for Airborne Transmission of Disease".* On **22 May 2025**, he received the **QUT Outstanding Doctoral Thesis Award for 2024**. Congratulations Alex!

- Professor **Lindy Burton**, THRIVE's Associate Director of Communication at THRIVE, joined the Faculty of Arts and Society in her new role as Professor of Architecture at **Charles Darwin University** on **14 April 2025**. Lindy's industry practice specialises in the education and health sectors. She was invited to teach at QUT as an industry expert and has held a continuing academic position there since 2008, teaching in a range of subjects including technical documentation, project management, studio and professional practice. Her current research is in the field of design for healthy buildings. Congratulations to Lindy! Read more here.

- Congratulations to Professor **Bo Xia**, THRIVE's Associate Director for Industry Engagement, on the award of an **ARC Future Fellowship grant** titled, "Naturally Occurring Retirement Communities: Our Future for Ageing in place?" A summary for the project: *More than 90% of older Australians wish to age in place for as long as possible. However, our current community environments do not make it easy for*

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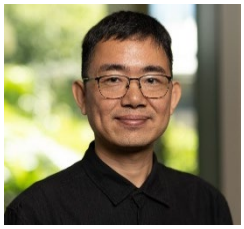
older people with reduced mobility and strength as they are mainly planned, designed, and managed for young families. The project aims to understand how Naturally Occurring Retirement Communities (NORCs), a new option for ageing in place favoured by an increasing number of older Australians, influence their independent living and well-being. This project will generate new knowledge about the origin, evolution, and dynamic behaviour of NORCs in Australia, and develop government policies to support the future growth of NORCs, leading to an improved quality of life for older Australians. For more information.



- Our Director D/Prof **Lidia Morawska** was elected a **Fellow of the Australian Academy of Technological Sciences and Engineering (ATSE)**, as an *Air pollution paradigm-shifter.* ATSE brings together Australia's leading experts in applied science, technology and engineering to provide advice on how to achieve sustainable solutions.

  "This recognition reflects the importance of science in protecting human health and the environment. I am honoured to contribute to global efforts that make our air cleaner and our spaces safer." – Lidia Morawska

  Read more from QUT Media | See the list of 35 new ATSE fellows

- Our Director, **D/Prof Lidia Morawska was awarded the Prime Minister's Prize for Science 2025 by our Prime Minister The Hon Anthony Albanese MP** in Canberra on **3 November 2025**. Distinguished Professor Morawska is an expert in air quality and its impact on human health and the environment. Her pioneering research has transformed how the world understands air pollution and airborne transmission of disease.

  Prof Morawska studies ultrafine particles – tiny pollutants small enough to enter the bloodstream. Her discoveries reshaped the World Health Organization's global air quality guidelines and helped align the European Parliament's Ambient Air Quality Directive for cleaner air across Europe.

  During the COVID-19 pandemic, Prof Morawska led an international group of nearly 240 scientists who showed that the virus spreads mainly through the air. Their work prompted health authorities to recognise airborne transmission and change infection control strategies, helping to save countless lives.

  Prof Morawska also investigates how airborne particles behave indoors. Her findings improve air quality in schools, workplaces and public buildings, creating safer and healthier environments.

  She is the Director of the International Laboratory for Air Quality and Health at Queensland University of Technology and a Vice-Chancellor Fellow at the University of Surrey's Global Centre for Clean Air Research. Prof Morawska inspires the next generation of scientists to tackle the world's most pressing challenges.

  "The driving force for my work is scientific curiosity, but my purpose is to improve health, improve lives and improve the wellbeing of society. Science without purpose is not enough. There's still a long way to go – I'm not looking back on what has already been done but looking forward to how much is still to be done." – Lidia Morawska.

  More from PM Prize Department | More from QUT Media | Watch the PM Prize Department video

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5. Government Interactions & Engagement

- 2025 – 26 Pre-Budget Submission: A "**Clean Indoor Air for Australians**" National Strategy. Submitted by Professor Lidia Morawska on behalf of THRIVE, the Australian Research Council Training Centre for Advanced Building Systems Against Airborne Infection Transmission and its partners.

- Our Centre Director D/Prof Lidia Morawska, is named **co-chair** of the **Global Commission on Healthy Indoor Air**, an initiative led by the International WELL Building Institute to combat the worldwide indoor air crisis, announced at the United Nations General Assembly first-ever high-level side event on IAQ '**Healthy Indoor Air: A Global Call to Action**' on 23 September 2025. As co-chair, D/Prof Morawska will help lead the Commission in advancing a Global Framework for Action and catalysing the development of national blueprints to strengthen IAQ efforts around the world. The Commission will:

  - Elevate a global call to action that places healthy indoor air at the forefront of public health and policy priorities.
  - Build global awareness by highlighting the urgent human and economic costs of unhealthy indoor air.
  - Establish a Global Framework for Action with clear prescriptions across key pillars of market transformation.
  - Catalyse country-specific National Blueprints in collaboration with local stakeholders.

  The Commission's Global Framework for Action will be released by the end of 2026, alongside National Blueprints published on a rolling basis. Find more information on the Commission | Download overview | Watch the recording of the event

- On 5 November 2025, a **meeting** took place with the **Minister's Advisor Mark Nelson (Office of the Hon Amanda Rishworth MP)** to discuss protecting workers and others from poor quality indoor air in workplaces. The four-person delegation that we part of the meeting included: our Centre Director D/Prof Lidia Morawska (Queensland University of Technology), John Byron (Queensland University of Technology), Liam O'Brien (The Australian Council of Trade Unions), Marie Boland (Safe Work Australia), Nicholas Burt (Facilities Management of Australia), and Bronwyn King (Burnet Institute).

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6. Peer Reviewed Publications

Chapters in Books

Kennedy, A., Morawska, L. and Adotey, V. Clearing the air: Navigating regulatory frameworks for indoor air quality control. Air Pollution and the Brain. Eds. Katja Kanninen, ISBN 978-3-031-99304-6, 2025. https://link.springer.com/book/9783031993015

Journal Articles (Refereed)

Trounce, M., Anderson, D., Bahnfleth, W., Bates, L., Bhangar, S., Bolin, R., Chen, W., Chwalek, S., Frank, S., Greene, J., Hartke, J., Kumagai, K., Lagoudas, G., Malmstrom, E., McGrady, S., Metzger, C., Mikszewski, A., Nall, D., Owens, B., Salas, J., Taylor, S., Vernon, W. and Morawska, L. AI as a Catalyst for Synergistic Gains in Indoor Air Quality and Energy Efficiency. *Building and Environment,* 289: 114069, 2026. https://doi.org/10.1016/j.buildenv.2025.114069

Fan, Y., Chen, Z., Zheng, M., Li, Y., Liu, X., Li, J., Li, X., Monty, J. and Morawska, L. Directional effects of human and door motions on the transport of aerosols across a doorway. *Indoor Air,* **Accepted 12 October 2025, In Press.**

Li, X., Kevin, K., Lam, W.K., Ooi, A., Bates, S., McGain, F., Morawska, L., Kainer, M. and Monty, J. Mitigating airborne infection transmission in the common area of inpatient wards – A case study. *Fluids,* 10(10): 267, 2025. https://doi.org/10.3390/fluids10100267

Oswin, H.P., Glachant, L., Lekamge, S.A., Alinaghipour, B., Khan, S.B. and Morawska, L. Using Indoor CO_2 Concentration Thresholds to Understand and Improve the Air Quality of Public Buildings: A Practical Approach. *Energy and Buildings,* 347(Part A): 116254, 2025. https://doi.org/10.1016/j.enbuild.2025.116254

Tay, G.T.P., Niazi, S., He, C., Morawska, L., Bell, S.C., Spann, K. and Ristovski, Z. Viable Viruses in Airborne Particles Detected during Cough by Participants with Acute Respiratory Viral Infections. *Journal of Hospital Infection,* 164: 18-26, 2025. https://doi.org/10.1016/j.jhin.2025.07.005

Lekamge, S.A. and Oswin, H. Exploration of a practical approach to providing RH corrections to low cost sensor networks. *Npj Climate and Atmospheric Science,* 8: 227, 2025. https://doi.org/10.1038/s41612-025-01115-8

McGarry, P., Morawska, L., Lekamge, S.A. and Witts, S. Addressing actual and community expectations on CO_2 concentrations within indoor spaces – A reasonably practicable methodology using CO_2 concentration to assess ventilation quality to indoor spaces. *Indoor Environments,* 2(3): 100101, 2025. https://doi.org/10.1016/j.indenv.2025.100101

Shoubridge, A.P., Brass, A., Crotty, M., Morawska, L., Bell, S.C., Qiao, M., Woodman, R.J., Whitehead, C., Inacio, M.C., Miller, C., Wang, YU., Holden, C.A., Corlis, M., Larby, N., Worley, P., Elms, L., Sims, S., Wesselingh, S.L., Flynn, E., Papanicolas, L.E., Taylor, S.L. and Rogers, G.B. Effect of germicidal UV light on the incidence of acute respiratory infection in long-term aged care. *JAMA Internal Medicine*, 185(9): 1128-1135, 2025. https://doi.org/10.1001/jamainternmed.2025.3388

Landy, S.A., Jamriska, M., Menon, V.J., Lee, L., Magnin-Bougma, I., Subedi, D., Barr, J.J., Monty, J., Kevin, K., Gunatilaka, A., Majumdar, S.S., Delaire, M., Marks, G.B., Stewardson, A.J., Morawska, L., Edwards, B.A. and Subbarao, K. Ultraviolet Radiation vs Air Filtration to Mitigate Virus Laden Aerosol in an Occupied Clinical Room. *Journal of Hazardous Materials,* 487: 137211, 2025. https://doi.org/10.1016/j.jhazmat.2025.137211

Lekamge, S., Jayaratne, E.R., Fooks, C., Gammulle, H. and Morawska, L. Dual-Purpose Smoke Alarms: Integrating low-cost $PM_{2.5}$ sensors for combined fire detection and indoor air quality monitoring. *Aerosol Science & Technology,* 59(10): 1239-1249, 2025. https://doi.org/10.1080/02786826.2025.2457327

Morawska, L., Asbach, C. and Patel, H. Application of $PM_{2.5}$ low-cost sensors for indoor air quality compliance monitoring. *Aerosol Science & Technology,* 59(10): 1210-1220, 2025. https://doi.org/10.1080/02786826.2025.2457326

Aganovic, A., Buonanno, G., Cao, G., Delmaar, C., Kurnitski, J., Mikszewski, A., Morawska, L., Vermeulen, L.C. and Wargocki, P. Comparative Assessment of Airborne Infection Risk Tools in Enclosed Spaces: Implications for Disease Control. *Infectious Disease Modelling,* 10(1): 338-352, 2025. https://doi.org/10.1016/j.idm.2024.11.003

Editorial Articles, Other Professional Publications (Letter, Note or Review), Media Articles

Morawska, L. Aerosol scientists: drivers of change to clean the air and improve public health. *Aerosol Science & Technology,* **Accepted 30 October 2025, In Press.** https://doi.org/10.1080/02786826.2025.2583862

Bennett, J., Halley, C., Boulic, M., Kvalsvig, A., Baker, M., Plagmann, M., Telfar-Barnard, L. and Morawska, L. Invisible and ignored: Why indoor air quality deserves our attention. Public Health Communication Centre, Aotearoa, 11 September 2025. https://www.phcc.org.nz/briefing/invisible-and-ignored-why-indoor-air-quality-deserves-our-attention

Morawska, L., Jalaludin, B., Miller, W. and Dodd, B. Australian classrooms have worse air quality protections than many pet shelters and greenhouses. Croaky Health Media, 19 June 2025. https://www.croakey.org/australian-classrooms-have-worse-air-quality-protections-than-many-pet-shelters-and-greenhouses/

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Haddrell, A. and Oswin, H. The role of carbon dioxide in airborne disease transmission: a hidden key to safer indoor spaces. The Conversation, 16 April 2025. *https://theconversation.com/the-role-of-carbon-dioxide-in-airborne-disease-transmission-a-hidden-key-to-safer-indoor-spaces-229142?utm_medium=article_clipboard_share&utm_source=theconversation.com*

Other – Refereed Scholarly Conference Abstracts

Morawska, L., Asbach, C. and Patel, H. Indoor Air Compliance Monitoring Using Low-Cost $PM_{2.5}$ Sensors. 2025 Clean Indoor Air for ALL Conference, Clean Air Society of Australia and New Zealand (CASANZ), Melbourne, Australia, 13-15 October 2025.

Li, X., Monty, J. and Morawska, L. Comparison of mixing ventilation against underfloor air distribution systems for airborne infection control in a lecture theatre. 2025 Clean Indoor Air for ALL Conference, Clean Air Society of Australia and New Zealand (CASANZ), Melbourne, Australia, 13-15 October 2025.

Adotey, E., Salthammer, T. and Morawska, L. Understanding the physical fragmentation of plastics into inhalable airborne microplastics. 2025 Clean Indoor Air for ALL Conference, Clean Air Society of Australia and New Zealand (CASANZ), Melbourne, Australia, 13-15 October 2025.

Hupkes, J., Gupta, U., Estaquio, R.P., Brown, R., Lustro, J.R., Li, Z. and Morawska, L. Optimal Placement of CO_2 Sensors to Monitor Indoor Air Quality and Ventilation Effectiveness. 2025 Clean Indoor Air for ALL Conference, Clean Air Society of Australia and New Zealand (CASANZ), Melbourne, Australia, 13-15 October 2025.

Zhao, B., Grange, S.K., Gupta, U., Larbi, M. and Morawska, L. Enhancing Existing BMS Capabilities for Indoor Air Quality Optimization. 2025 Clean Indoor Air for ALL Conference, Clean Air Society of Australia and New Zealand (CASANZ), Melbourne, Australia, 13-15 October 2025.

Gupta, U., Miller, W., Brown, R. and Morawska, L. Critical review of literature assessing indoor air quality (IAQ) in green buildings. Healthy Buildings 2025 Asia, India, 18-21 August 2025.

Morawska, L., Asbach, C. and Patel, H. Application of $PM_{2.5}$ low-cost sensors for indoor air quality compliance monitoring. Healthy Buildings 2025 Europe, Reykjavík, Iceland, 8-11 June 2025.

Morawska, L., Miller, W., Grange, S., Oswin, H., Larbi, M., Gupta, U. and Zhao, B. First real-world exemplar of implementing a Blueprint Indoor Air Quality Standards. Healthy Buildings 2025 Europe, Reykjavík, Iceland, 8-11 June 2025.

Morawska, L., Asbach, C. and Patel, H. Indoor Air Compliance Monitoring Using Low-Cost $PM_{2.5}$ Sensors. 2025 Indoor Air Quality Conference, Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH), Melbourne, Australia, 26-27 May 2025.

Patel, H., Jayaratne, E.R., Wells, B., Lynch, D. and Morawska, L. The History of the KOALA: From Outdoors to Indoors and Beyond. 2025 Indoor Air Quality Conference, Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH), Melbourne, Australia, 26-27 May 2025.

Reports – Commercial & Other

The Australian Academy of Science inc. Morawska, L. Indoor air; The science of indoor air and pathways to improve indoor air quality in Australia. ISBN 978-0-85847-894-7; November 2025. *https://doi.org/10.82202/2wqh-zh14*

Miller, W. and Morawska, L. State of Indoor Air in Australia 2025. Prepared for the ARC Training Centre for Advanced Building Systems Against Airborne Infection Transmission (Thrive). October 2025. *https://thriveiaq.com/our-impact/state-of-indoor-air-in-australia-report-2025/* (13/10/2025).

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7. Plenary/Keynote Conference Presentations

Lidia Morawska

- Invited Plenary Presentation, 'ACIPC Lunch and Learn Webinar', 24 February 2025. Presentation: *Follow up questions from the last webinar*
- Invited Plenary Presentation, 'The 2nd Global Conference on Air Pollution and Health', World Health Organization, Cartagena, Colombia, 25-27 March 2025. Presentation 1: *Overview of the exposure and health effects of ultrafine particles;* Presentation 2: *Overview of Health Impacts of Indoor Air Pollution Exposure: communicable and noncommunicable*
- Invited Plenary Presentation, 'Stanford Forum on Sustainable and Healthy Buildings', Stanford University, 31 March – 1 April 2025. Presentation: *From Science to Policy: mandating indoor air quality for public buildings*
- Invited Plenary Presentation, 'Art-Science Symposium CSA-UTAS event', Centre for Safe Air, Hobart, Tasmania, 2 May 2025. Presentation: *Air quality: ignorance, dogmas and politics*
- Invited Plenary Presentation, '6th Workplace and Indoor Aerosols Conference (WIAC2025)', "Particle Pathways: Exploring the Nexus of Indoor Air Pollution and Airborne Diseases", Gaeta Castle, Gaeta Italy, 6-8 May 2025. Presentation 1: *Evaluation of the Naneos Partector 2 Pro ultrafine particle monitor to support WHO's 2021 good practice statements;* Presentation 2 (Plenary): *Translating scientific knowledge into policies that ensure clean indoor air*
- Invited Plenary Presentation, 'Symposium on air quality in schools', Lublin University of Technology, Poland, 12 May 2025. Presentation: *Dlaczego dobra jakości powietrza wewnątrz jest tak ważna?*
- Invited Plenary Presentation, 'Honoris Causa Doctorate', Lublin University of Technology, Lublin, Poland, 13 May 2025. Presentation: *The science of air that helps us thrive*
- Invited Plenary Presentation, 'AIRAH Indoor Air Quality Conference 2025, 'AS1668.2, ASHRAE 62, and CO_2 – Is 800 ppm CO_2 a good idea? Or not...', Melbourne, Australia, 25 May 2025. Presentation: *800 ppm CO_2 is a good requirement*
- Invited Plenary Presentation, University in Rzeszow, Poland, 27 May 2025. Presentation 1: *Fascynacja powietrzem: może być zaraźliwa!;* Presentation 2: *Energia, technogia, regulacje: jak z tego zrobić czyste powietrze*
- Invited Plenary Presentation, TPM (Society of Friends of Science), 28 May 2025. Presentation: *Czym oddychają nasze dzieci – jakość powietrza w placówkach edukacyjnych*
- Invited Plenary Presentation, Annual MIST Meeting, Delft, The Netherlands, 2 June 2025. Presentation: *Seven lessons from the COVID-19 pandemic for ventilation and indoor air quality: did we have to learn them the hard way?*
- Invited Plenary Presentation, 'Workshop 636: "Ventilation and air cleaning: a new era begins", Healthy Buildings 2025 (HB2025) Conference, Reykjavik, Iceland, 8-11 June 2025. Presentation: *Ventilation and air cleaning: a new era begins*
- Invited Plenary Presentation, 'Women in Research Webinar: Good Writing and Publishing Habits – Strategies for Being Productive' Curtin University, Perth, Australia, 26 June 2025. Presentation: *How to write a good paper?*
- Invited Plenary Presentation, 'Pathogen air sampling symposium', Burnet Institute, Level 3 Djeembana Seminar Room, Melbourne, Victoria, 28 July 2025. Presentation: *Understanding and reducing the spread of respiratory pathogens through the air*
- Invited Plenary Presentation, 'WELL Summit', International WELL Building Institute, Sydney, New South Wales, 20 August 2025. Presentation: *Resilience and response in the face of IEQ threats*

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- Invited Plenary Presentation, 'ACTRA-SETAC (AU) Meeting', The Australian College of Toxicology & Risk Assessment and SETAC AU, Wellington, New Zealand, 25-28 August 2025. Plenary Presentation: *From Science to Policy: mandating indoor air quality for public buildings;* Keynote Presentation: *Airborne microplastics: their origins and characteristics*
- Invited Plenary Presentation, 2025 Webinar/Conference 'Combating Infectious Disease Challenges; Have we gone twenty steps forward or backwards?', 20th Annual Conference Combating Infectious Disease Challenges, Health Watch USA 2025, 29 August 2025. Presentation: *Understanding and reducing the spread of respiratory pathogens through the air*
- Invited Plenary Presentation, 'Building Contract Management (BMC) Category Council Meeting', Albert Street, Brisbane, Australia, 3 September 2025. Presentation: *From Science to Policy: mandating indoor air quality for public buildings*
- Invited Plenary Presentation, 'Healthy Indoor Air: A Global Call to Action', United Nations General Assembly, New York, USA, 23-24 September 2025. Presentation: *3-minute speech. Watch the recording of the session*
- Invited Plenary Presentation, '2025 Clean Indoor Air for ALL Conference', Clean Air Society of Australia and New Zealand (CASANZ), Melbourne, Australia, 13-15 October 2025. Plenary Presentation Opening: *Indoor Air in Australia: past and present;* Plenary Presentation Closing: *Indoor Air in Australia: future*
- Invited Plenary Presentation, 'Safe Work Month 2025', The University of Queensland, Brisbane, Australia, 31 October 2025. Presentation: *State of Indoor Air in Australia*
- Invited Presentation, 'Prime Ministers Prize for Science 2025 Awards', Canberra, Australia, 3 November 2025. Presentation: *Acceptance speech*
- Invited Plenary Presentation, 'Safer shared air: Making the invisible visible' conference, Parliament House Theatre, Canberra, ACT, 5-6 November 2025. Presentation*: State of Indoor Air and Academy Report*
- Invited Plenary Presentation, 'ACC-AQSM Annual Meeting', 27-28 November 2025. Presentation: *ACC-AQSM*

Geoff Hanmer

- Professor Geoff Hanmer, ARINA and Associate Director for Professional Development and Programs at Thrive, gave a guest seminar at the Queensland University of Technology in Brisbane, on 11 March 2025.

Wendy Miller

- Invited Plenary Presentation, '2025 Clean Indoor Air for ALL Conference', The Clean Air Society of Australia and New Zealand (CASANZ), Melbourne, Victoria from 13-15 October 2025. Presentation title: *State of Indoor Air in Australia*

Henry Oswin

- Invited Presentation, 'Pathogen air sampling symposium', Burnet Institute, Level 3 Djeembana Seminar Room, Melbourne, 28 July 2025. Presentation title: *Overview of air sampling approaches and devices.*

Hamesh Patel

- Invited Presentation, 'Clean Air Society of Australia and New Zealand NZ Branch Technical Meeting', June 2025. Presentation title: *Measuring Black Carbon in Urban Environments: A Key Tool for Source Identification and Improved Air Quality Management*
- Invited Presentation, 'UConn Health - School of Medicine Seminar Series', May 2025. Presentation title: *Use of Scanning Electron Microscopy for Air Pollution Analysis – Studies from New Zealand*
- Invited Presentation, 'National Air Quality Working Group Meeting', March 2025. Presentation 1 title: *PM Speciation & Source Attribution.* Presentation 2 title: *Black Carbon Monitoring in New Zealand*

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8. Media Appearances

Lidia Morawska

Many media appearances / interviews, for example:

- Mirage News on 12 December, "QUT Building Retrofit Sets Global Indoor Air Standard"
- QUT Media Release on 12 December, "QUT retrofits building to set global benchmark for indoor air quality"
- Multicultural Affairs Queensland, Department of Women, Aboriginal and Torres Strait Islander Partnerships and Multiculturalism on 11 December, "'Ask for help'. PM's science prize winner Lidia Morawska shares a simple message for new migrants"
- Public Radio, BeFM, South Korea on 2 December, "The Heart Risks of Korea's Growing Fine Dust Problem"
- The Australian Academy of Science on 1 December, "2025 in review: a future focus for Australian science"
- Mirage News on 19 November, "QUT Sustainability Innovation Lauded Nationally"
- Climate Control News by Sandra Rossi on 12 November, "IAQ call to action"
- Nature on 10 November, "Meditations from an air quality master"
- ABC Radio National – Sunday Extra with Julian Morrow, on 9 November, "Prime Ministers Prize for Science 2025 award"
- RRR Radio with Dr Vyom Sharma on 9 November, "Prime Ministers Prize for Science 2025 award"
- ABC Radio Adelaide mornings with Paul Gough on 7 November, "Prime Ministers Prize for Science 2025 award"
- 4BC Breakfast Radio with Sofie Formica on 6 November, "Prime Ministers Prize for Science 2025 award"
- ABC Radio Sydney with Renee Krosch on 6 November, "Prime Ministers Prize for Science 2025 award"
- The Australian Academy of Science on 5 November, "Time to act to improve the air we share indoors"
- AusDoc with Jamie Thannoo on 5 November, "Prime Ministers Prize for Science 2025 award"
- ABC Radio Adelaide mornings with Rory McClaren on 5 November, "Prime Ministers Prize for Science 2025 award"
- 7 News Brisbane Afternoons Program with Marlina Whop on 4 November, "Prime Ministers Prize for Science 2025 award"
- Women's Agenda on 4 November, "Distinguished Professor Lidia Morawska awarded $250,000 Prime Minister's Prize for Science"
- Chanel 7 with Nats Levi on 4 November, "Prime Ministers Prize for Science 2025 award"
- Chanel 10 with Lawrence Jeffcoat on 4 November, "Prime Ministers Prize for Science 2025 award"
- ABC AM with Alison Xiao on 4 November, "Prime Ministers Prize for Science 2025 award"
- ABC Radio Brisbane Breakfast with Craig Zonca and Loretta Ryan on 4 November, "Prime Ministers Prize for Science 2025 award"
- ABC Radio National with Robyn Williams, Breakfast program on 3 November, "Prime Ministers Prize for Science 2025 award"
- QUT Media Release on 4 November, "Prime Ministers Prize for Science 2025 award"
- ABC News Online with Olivia Willis, on 3 November, "Aerosol physicist Lidia Morawska wins 2025 Prime Minister's Prize for Science"
- The Australian Academy of Science on 3 November, "Academy Fellow receives top national science prize"
- The Courier Mail with Ellen Ransley on 3 November, "Qld scientist recognised for world-changing Covid breakthrough"
- Senator the Hon Tim Ayres, Minister for Industry and Innovation and Minister for Science on 3 November, "Celebrating the 26th Prime Minister's Prizes for Science"

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- Australian Government, Department of Industry, Resources and Sciences on 3 November, "2025 Prime Minister's Prize for Science" with YouTube video highlights.
- QUT Real Focus and The Conversation on 31 October, "Darwin residents are worried about toxic chemicals and gas leaks. We need laws to protect clean air"
- Australian Associated Press | The Mercury Lithgow | The Border Mail | Canberra Times with Tom Wark on 31 October, "Science awards put Aussie pioneers in rarefied air"
- The Guardian with Donna Lu, Assistant Editor, Climate, Environment and Science on 30 October, "Australian scientist who alerted world that Covid is airborne wins top science prize"
- The Australian with Natasha Bita, Education Editor on 30 October, "Australian Prime Minister's Prizes for Science 2025: full list of winners"
- Sky News with Julia Seymour on 27 October, "Prime Ministers Prize for Science 2025 award"
- Education HQ with Grant Quarry on 23 October, "Not cool: little movement in addressing poor indoor air quality in our schools"
- AIRAH HVAC&R News on 22 October, "New campaign prioritises indoor air quality"
- Body + Soul with Hayley Hinze on 21 October, "Does burning candles indoors harm your air quality? Experts explain"
- Phys.org by Lisa Lock on 14 October, "Australia's first national report on indoor air quality reveals urgent need for action"
- QUT Media Release on 14 October, "Australia's first national report on indoor air quality reveals urgent need for action"
- The Australian Academy of Science on 13 October, "Speech: Academy Chief Executive on the State of Indoor Air in Australia report"
- Cosmos Magazine with Matthew Agius on 5 October, "The unseen killer particles we breathe"
- The Australian Academy of Science on 30 September, "Message from the President"
- QLD's Regional Drive Radio Show on 30 September, "UN Side Event on Indoor Air Quality"
- Morning Star on 26 September, "From Australia to the World: The Scientist Leading a Movement for Healthy Indoor Air"
- The Safer Air Project on 25 September, "Australian Public Health Advocate to Lead Global Air Quality Commission"
- AIRAH HVAC&R News on 24 September, "Australia leads IAQ action at Climate Week"
- Morning Star on 24 September, "Global Commission on Healthy Indoor Air Launches at the United Nations To Drive Action To Improve Indoor Air"
- Australian Academy of Technological Sciences & Engineering (ATSE) on 24 September, "Game-changing Australians join prestigious ATSE Fellowship"
- QUT Media Release on 24 September, "Three QUT researchers named ATSE Fellows"
- Air Quality Matters Podcast with Simon Jones on 23 September, "From the UNGA Side Event on Indoor Air Quality"
- QUT Media Release on 23 September, "QUT world indoor air expert speaks at UNGA event & co-leads global commission"
- The Australian Academy of Science on 18 September, "Australia to lead first-ever United Nations indoor air quality global pledge"
- The Australian Academy of Science on 18 September, "The case for clean indoor air"
- ABC Radio on 19 August, "23 big ideas to boost Australia's productivity"
- ABC News on 18 August, "23 big ideas to boost Australia's productivity"
- Podcast interview for Air Necessities on 14 August.
- World Socialist Web Site on 8 August, "Poor classroom air quality endangers students and educators in Australia"
- Julienne van Loon on 14 July.
- TU Delft with Isabelle Elias on 2 June, "Five years since Covid: are we prepared for a future virus outbreak?"
- De Ingenieur on 3 June, "Fighting respiratory infections in buildings"

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- Studio Rzeszów on 26 May, "Talks Rzeszów Info. Professor Lidia Morawska"
- Zycie Podkarpackie on 15 May, "Professor Lidia Morawska with an honorary doctorate from the Lublin University of Technology"
- QUT Press Releases on 15 May, "Prestigious prize for international air quality expert"
- Forum Akademickie on 14 May, "Prof. Lidia Morawska uhonorowana przez Politechnikę Lubelską"
- Kurier Lubelski on 14 May, "She is among the 100 most influential people according to Time. She received the title of doctor honoris Causa of the Lublin University of Technology"
- Przemyśl Naszemiasto on 14 May, "Prof. Lidia Morawska awarded an honorary doctorate from the Lublin University of Technology"
- Lublin University of Technology News on 13 May, "Prof. Lidia Morawska with the title of Doctor Honoris Causa of the Lublin University of Technology"
- Wyzsze Szkola on 9 May, "Prof. Lidia Morawska will talk about air quality and its impact on our lives"
- Standford Daily News on 20 April, "Experts call for action on indoor air quality standards at inaugural summit"
- The Australian Academy of Science on 17 April, "Global Talent Attraction Program"
- Climate Control News by Sandra Rossi on 12 March, "Few countries meet WHO guidelines"
- James Hasler-Bail on 24 February, "Fossil Fuel Advertising Documentary"
- Medical Republic with Mariella Attard on 13 February, "How to stop your waiting room going viral (in a bad way)"
- Air Quality Matters Podcast with Simon Jones on 6 February.
- The New York Times with Carl Zimmer on 4 February, "*¿Podría la gripe aviar propagarse por el aire?*"
- Aventine with Jamie Condliffe on 29 January, "Future pandemics"
- ABC Ballarat with Debbie Rybicki on 15 January, "A new animal shelter facility that has infection control mechanisms"
- New Scientist by Michael LePage on 1 January, "Will there be another pandemic after covid-19 and are we prepared?"

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9. Visits and Exchanges

- Adjunct Professor Tunga Salthammer, Fraunhofer WKI, Germany, 15 November 2024 – 15 February 2025
- Professor Yael Dubowski, Faculty of Civil and Environmental Engineering, Technion – Isreal Institute of Technology, 27 January 2025 – 10 February 2025
- Professor Richard Brown and Ms Justine Hupkes research visit at the University of Melbourne (meetings with Jason Monty, Kevin Kevin and Xiangdong Li); on 4 February visited the CH2 Building tour (Rob Adams, Garry Ormston, Paul Di Nello, Simon Witts) and CH2 Building meeting (with Garry Ormston, Paul Di Nello), 3 February 2025
- Dr Xiangdong Li, The University of Melbourne visiting Thrive QUT Office, 17-21 February 2025
- Dr Hamesh Patel, Visiting Research Fellow, Mote New Zealand, 3-4 April 2025
- Mr Antoine Geray, Visiting Research Student at Polytech Clermont, France, 1 April 2025 – 31 July 2025
- Prof. Yuan-Chung (Oliver) Lin, Distinguished Professor, National Sun Yat-sen University, Taiwan, 11 April 2025
- Mr Ren Paulo Estaquito, Visiting Research Fellow, University of Queensland, 14-25 April 2025
- Prof Rikke Jørgensen, Norwegian University of Science and Technology, Norway, 6-20 August 2025
- Dr Tobias Kramer, Postdoctoral Researcher, Center for the Built Environment (CBE), University of California, Berkeley, USA, 6 August 2025
- Mr Liam Bates, CEO and Co-Founder of Kaiterra, USA, 20 August 2025
- Ms Yao XIAO, Visiting Research Student, The University of Sydney, 22 August 2025
- Mr Kazukiyo Kumagai, Air Quality Section Chief, California Department of Public Health, USA, 2 September 2025
- Adjunct Professor Giorgio Buonanno, University of Cassino and Southern Lazio, Italy, 8-10 October 2025
- Chair Professor and Global STEM Professor Qingyan "Yan" Chen, Director of PolyU Academy for Interdisciplinary Research (PAIR), The Hong Kong Polytechnic University (PolyU), 17 October 2025
- Adjunct Professor Tunga Salthammer, Fraunhofer WKI, Germany, 17 October – 7 November 2025
- Dr Meng (Simon) Xiu, Visting Postdoctoral Research Fellow, Chengdu University of Information Technology, China, 17-20 October 2025
- Dr Hamesh Patel, Visiting Research Fellow, Mote New Zealand, 27-31 October 2025
- Professor Prashant Kumar, GCARE, University of Surrey, 27 November – 2 December 2025
- Professor Heidi Salonen, Adjunct Professor, Aalto University, Finland, 2-27 December 2025

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