

NEWS

17 November 2025

Announcement of the Prime Minister's Prize for Science 2025 Award

Our Centre Director, Distinguished Professor Lidia Morawska was awarded the Prime Minister's Prize for Science 2025 by the Hon Anthony Albanese MP in Canberra on 3 November 2025. Included below is Lidia's

acceptance speech.

Prime Minister,

This is the most significant prize I have ever received, and I am extremely proud, grateful and honoured to have been selected. My achievements were compared with those from all sciences; many considered more exciting than the invisible air we breathe.

A nuclear physicist by training, I have dedicated my life to the science of air and the impact of its quality on human health and the environment. The complexity of this interdisciplinary field of science never ceases to fascinate me and inspire me to explore further.

But beyond scientific fascination, what motivates me every day is the utility of this knowledge to directly serve people. We all live on planet Earth. We each have but one life to live. Helping to keep this planet habitable, with a clean atmosphere, and filling our indoor spaces with air free of pollution, is the foremost purpose and aim of my scientific work.



Ex scientia omnia – all things from knowledge. My dream is that the science we generate is the basis for the decisions that shape our society and enhance the way it functions.

I fully recognise that everything I accomplished was possible because of the generous support I received. Thank you to my university, Queensland University of Technology; to the Australian Research Council; to my Australian and oversees colleagues across disciplines, and to my students for being part of this incredible journey. And above all, thanks to my family, represented here by my daughters, Alina and Eliza, and granddaughters, Ava and Penelope: what would life be without you!

Thank you! – Lidia Morawska

Newly elected Fellow of the Australian Academy of Technological Sciences and Engineering

We are excited to announce the election of our Centre Director D/Prof Lidia Morawska as 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. Many congratulations Lidia!

"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 | View the full list of new ATSE fellows



Launch of Thrive's State of Indoor Air in Australia 2025 Report

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 indoor air quality (IAQ) for occupant health is unequivocal, 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 of the State of Indoor Air in Australia 2025 Report held on the first day of the CASANZ



State of Indoor Air in Australia 2025

Clean Indoor Air for ALL Conference in Melbourne on 13 October 2025, we provided an overview of the report's findings: key insights from the scientific papers reviewed, the significance of what is known and unknown about indoor air quality in

different building classes, and 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), Mr Nicholas Burt (CEO, Facility Management Association of Australia), 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: from provides insights into the range of IAQ conditions in different building classes over time; f highlights some of the key contributors to, and impacts of, poor air quality; f quantifies the importance of source control, ventilation and filtration as strategies for improving IAQ;

presents multidisciplinary approaches in study design and implementation; and
provides solutions or strategies that could be applied to buildings of the same class, or between buildings in different classifications.

This report acts as a catalyst for multijurisdictional and transdisciplinary discussion and debate that leads to the development and implementation of a national strategy for IAQ. It is expected 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.

<u>Download the report</u> | <u>Watch the launch on YouTube</u>

Clean Indoor Air for ALL 2025 Conference, 13-15 October 2025

On day 1 of the Clean Indoor Air for ALL 2025 Conference, Francine Manansala, President of CASANZ (Clean Air Society of Australia and New Zealand), reaffirmed why indoor air quality (IAQ) is a growing priority for CASANZ and how collaboration across research, science, policy and industry is essential for achieving healthier, safer environments for everyone. The day progressed with the launch of the 'State of Indoor Air in Australia 2025' report by D/Prof Lidia Morawska and A/Prof Wendy Miller. The day ended with a fireside chat, at which highlights and reflections were shared from 'Healthy Indoor Air: A Global Call to Action', the inaugural high-level side event on healthy indoor air that took place at UN Headquarters in September.

Day 2 started with an opening plenary from Dr Maria Neira, formerly of the World Health Organization, reminding us why IAQ is central to global health. Dr Neira acknowledged that Australia can be the world leader in IAQ, backed up with decades of scientific work conducted by Australian scientists. Dr Neira's address set the tone for the day, challenging us to think about how science, policy and public awareness must work hand in hand to ensure clean indoor air for everyone, everywhere. From here, the conference continued with sessions exploring measurement and monitoring, health impacts, climate influences, and governance.

The conference was packed with insightful panels and presentations, in particular the Politics Panel which sparked some fascinating discussions about how IAQ intersects with policy and public health. It was a powerful reminder that clean air is not just a technical issue – it is also a social and political one.

We would like to thank all the amazing speakers and panellists for the interesting talks and discussions, and special thanks to CASANZ for organising an amazing conference! Below is a group photo taken on the first day of the conference.



Read more from QUT Media | Read a speech from Anna-Maria Arabia, Academy Chief Executive, on the State of Indoor Air in Australia Report

Visit by Dr Kazukiyo Kumagai, leader of the Air Quality Section of the California Department of Public Health

Dr Kazukiyo Kumagai, leader of the Air Quality Section of the California Department of Public Health, visited Thrive headquarters at QUT in Brisbane on 2 September. He gave a presentation titled "Improving indoor air quality in California", followed by a visit to our lab and a discussion with our researchers, partners, academics and government colleagues. Thank you Kazukiyo Kumagai for visiting us and we hope to see you again soon!





1. Lidia Morawska and Kazukiyo Kumagai. 2. L–R: Mohammad Sarmadi, Ashkan Jahandari, Kazukiyo Kumagai, Udita Gupta, Dilani Madhubhashini, Samitha Wijewantha, Punsara Dharaka)

Thrive research team visits the iconic Council House 2 Building in Melbourne

Members of the Queensland University of Technology team – Prof Richard Brown, Ms Justine Hupkes, Dr Peter McGarry and Mr Shajil Romeo – continue to work on the iconic Council House 2 (CH2) building project, with Ms Justine Hupkes travelling to Melbourne in October to check on progress. The CH2 building is Australia's first Green Star rated building to be awarded 6 stars, incorporating unique ventilation strategies designed to

optimise indoor air quality (IAQ) and energy efficiency to reduce pollutants and airborne infection transmission. Officially opened in 2006, the CH2 building was designed to set new standards for high occupant comfort and low energy by using a mix of natural and mechanical ventilation strategies.

Ms Hupkes is researching the effectiveness of the unique ventilation strategies in a real-world environment, and is investigating the buoyancy-driven design of underfloor air distribution (UFAD). In August 2025, with the assistance of Dr Xiangdong Li and Mr Tony George from the University of Melbourne, the team calibrated and deployed 99 monitors within the CH2 building. Monitors were attached to poles of two different lengths to accommodate the wave ceiling heights



within the CH2 building and were also distributed across the floor. This allowed the vertical profiles of CO_2 and temperature in the building to be analysed. Data were collected for one week on each floor, with monitors communicating with the base station and with live monitoring through the cloud database.

The winter campaign has now concluded, and a summer campaign is planned for February 2026, following the same process. This will allow the indoor air behaviour and ventilation strategy to be analysed under both heating and cooling conditions.

(L–R: Prof Richard Brown, Ms Justine Hupkes, Dr Shajil Romeo and Mr Tony George)

AIRAH Indoor Air Quality 2026 Conference announcement

AIRAH recently announced the 2026 Indoor Air Quality Conference, taking place in Cairns, Queensland, from 31 August to 4 September 2026. Building on the success of IAQ25, this flagship event will unite leaders, researchers and practitioners from across industries to share insights and practical solutions that improve indoor environments and occupant well-being. Save the date and don't miss your chance to be part of Australia's national conversation on indoor air quality at IAQ26 in topical north Queensland. More information



Advocacy for indoor air quality regulations in Aotearoa New Zealand

On a recent trip to Wellington, Aotearoa New Zealand, to participate in the first ever joint Society of Environmental Toxicology and Chemistry Australasia (SETAC AU) and the Australasian College of Toxicology & Risk Assessment (ACTRA) Conference 2025 held from 25-28 August, our Centre Director D/Prof Lidia Morawska met with colleagues from the University of Otago, Massey University, and the Building Research Association of NZ (BRANZ). Together they published a briefing titled "Invisible and ignored: Why indoor air quality deserves our attention". This briefing describes the vital but neglected area of IAQ and the need for a national agency and enforceable standards to raise performance in this area. Points from the briefing included:

← We think a lot about the food we eat and the water we drink, but rarely do we consider the air we breathe, especially when we are indoors where we spend around 90% of our lives.

- Freathing is essential to survival. We can live weeks without food, days without water, but only minutes without air.
- Every breath draws in not just oxygen but also invisible pollutants (dust, fungi, pathogens, chemicals, particulates, and carcinogens) that can harm our health and impact our productivity.
- The evidence is clear that clean indoor air reduces illness, improves cognitive function, increases productivity and prevents the spread of respiratory infections. The challenge is that air remains invisible, undervalued, and largely absent from building codes and health policy.
- F Aotearoa New Zealand needs to establish a national authority to drive a comprehensive indoor air quality strategy, coordinating surveillance, research, guidelines and policies to provide clean air for all. Read the briefing

Thrive webinar of Professor Giorgio Buonanno

On 9 October 2025, Professor Giorgio Buonanno, Thrive partner from the University of Casino and Southern Lazio, Italy, gave a lecture titled "Secondary aerosol generation from surface and air disinfection: environmental and occupational perspectives" at QUT in Brisbane. Prof Buonanno has been an Adjunct Professor at QUT, and his research contributions encompass aerosol metrology, characterisation of urban atmospheric pollution, particle emissions from industrial plants and commercial devices, and indoor air quality in the airborne transmission of respiratory pathogens. If you missed the webinar, you can now watch it on YouTube.



'Healthy Indoor Air: A Global Call to Action', a UN General Assembly High-Level Side Event 2025

An incredible week was had 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). The Global Pledge now has over 165 signatures from organisations from all over the world – an international effort to formally recognise 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.



(L–R) University of Melbourne Professor Jason Monty, Founder Safer Air Project Plum Stone, QUT Professor Lidia Morawska, Australian Academy of Science Chief Executive Anna-Maria Arabia OAM, University of Melbourne Honorary Professor Bronwyn King AO, University of Melbourne Professor Rebecca Bentley, University of Melbourne Professor Christhina Candido, Australian Academy of Science Events and Outreach Manager Lisa Crocker and Australian Academy of Science Director of Philanthropy Kate Groves. View a recording of the event (starts at 54 minutes into the video) | Read the full story and Lidia's UN speech and see more photos | Sign the Global Pledge here

Launch of the Global Commission on Healthy Indoor Air

During the same UN session, the International WELL Building Institute announced the formation of the *Global Commission on Healthy Indoor Air*, an initiative to combat the worldwide indoor air crisis. With D/Prof Lidia Morawska as co-chair, 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; 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 "Improving 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. More about the Global Commission on Healthy Indoor Air

Team member spotlight

Mr Hongzhi ZHANG, Thrive PhD student, Queensland University of Technology

I grew up in Linshu County, Shandong Province, China, a region known for its fertile plains, cultural traditions, and resilient communities shaped by both agriculture and history. During my middle school years, I first noticed how the classroom environment could affect my learning efficiency. In crowded, poorly ventilated rooms, the heat and stagnant air often made it difficult to stay focused. Later in university, when I had more freedom to choose between indoor and outdoor study spaces, I realised how rising temperatures - and their interaction with indoor air conditions – could still influence my concentration.

My experiences as part of a university musical band provided another perspective: during hot summers, we needed air conditioning and ventilation to calm our anxiety and regain focus, while in spring, even without high outdoor temperatures, a sealed rehearsal room quickly turned from productive to sluggish until we opened the windows. These personal observations sparked my interest in the intersection between the indoor environment and human performance.



Academically, I trained in Preventive Medicine at the undergraduate level and went on to complete a master's degree in public health. Now as a PhD student at QUT and a member of THRIVE, my research focuses on epidemiological approaches to examine how indoor air pollution and environmental factors, in the broader context of climate change, affect children's health and development. I aim to provide scientific evidence that not only deepens our understanding of these interactions but also informs healthier, more resilient learning environments.

Outside of research, I enjoy playing the guitar, and music remains an important way for me to both relax and connect with others. I am excited to be part of the THRIVE team, and I believe that with perseverance, collaboration, and steady effort, we can achieve meaningful breakthroughs.

New publications



Oswin, H.P., Glachant, L., Lekamge, S.A., Alinaghipour, B., Khan, S.B. and Morawska, L. Using Indoor CO₂ Concentration Thresholds to Understand and Improve the Air Quality of Public Buildings: A Practical Approach. Energy and Buildings, 347(Part A): 116254, 2025.

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.

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.

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