





Inspiring
AUSTRALIA
Queensland

ANNUAL REPORT

2024



WHO WE ARE

Inspiring Australia Queensland (IAQ) is working now to meet the challenges of our future, contributing to the Australian Government's vision for an Australian society engaged in and enriched by science.

Founded in 2010, we are a vital link in Australia's science, technology, engineering and maths (STEM) ecosystem, a crucial pillar in the national Inspiring Australia strategy to improve the communication, appreciation and understanding of scientific knowledge in Australia.

The Inspiring Australia network is a collaboration between the federal, state and territory governments and host organisations. It comprises local leaders who work with all levels of government, business, community groups and formal and informal educators to increase STEM engagement through strategic planning, networking, providing grants and coordinating activities to support the development of scientifically engaged communities for the benefit of Australia's future.

We aim to:



Increase community engagement with the sciences, through activities and events.



Increase positive public sentiment and awareness of the contributions and achievements of Australian scientists and innovators.



Improve communication between Australian scientists, the general public, businesses and governments.



Enhance focus on building skills and capability in STEM and digital literacy in Australian schools and communities.



Increase engagement and participation of a diverse range of Australians, especially those historically under-represented in STEM.



Students, educators and community members participate in a BioBlitz at the Amaroo Elbow Bushland.

Photo credit: DDSW STEM hub

We do this through two overarching programs:

National Science Week (NSWk)

NSWk provides opportunities to acknowledge the contributions of Australian scientists to the world of knowledge. NSWk has been conducted annually since 1997 as a collaborative celebration of science and technology. It highlights Australian science and provides opportunities for the community to participate in science engagement activities.

IAQ facilitates diverse and inclusive Queensland-based activities and grants that increase interest in Australian science, improve critical engagement with key scientific issues, spark inspiration and elevate the value of science as perceived by the public, particularly among historically underrepresented cohorts.

Targeted Science Communication (TSC)

TSC aims to increase awareness, participation and positive association in groups historically underrepresented in STEM through direct community engagement, building influential networks and the targeted application of resources.

IAQ funds a yearly schedule of targeted STEM activities and projects across Queensland. We also support Regional STEM Hubs in Cairns, Rockhampton, Townsville, Gympie, Gladstone and Toowoomba to nurture community collaboration and grassroots science engagement including citizen science.

Inspiring Australia Queensland acknowledges First Nations peoples as the Traditional Custodians and first scientists, makers, and innovators of this land; and their continuing connection to Country. We pay our respect to the Elders past and present.

Front Cover Image: Image of a Palm Cockatoo in support of the NSWk school theme for 2024 'Species Survival – More than Sustainability' courtesy Dr Christina Zdenek.

QUEENSLAND SCIENCE

I extend my heartfelt congratulations to Inspiring Australia Queensland for their efforts in fostering participation in science and advancing understanding of science across Queensland. This annual report highlights the diverse range of engagement initiatives that connect Queenslanders from all backgrounds to science, technology, engineering and maths (STEM).

This year, I had the pleasure of participating in several National Science Week events, including Soapbox Science at the Queensland Museum, where I witnessed firsthand the enthusiasm and impact science engagement programs have on our communities.

As students look to parents, teachers and mentors for inspiration in choosing subjects and shaping their career paths, it is essential that a broad array of community members recognise and understand the vital role science plays in our health, environment and economy. Inspiring Australia Queensland's initiatives are key to fostering a culture where the public values science and its contributions.

By enhancing science communication and engagement, we foster more individuals to appreciate and actively participate in the scientific discourse that shapes our society today. This is particularly important when trust in science is being diminished by misinformation and disinformation.

I warmly invite you to join Inspiring Australia Queensland as a collaborator and advocate, helping to expand the great work already underway. Through partnership initiatives, regional STEM sponsorships, community event grants, regional STEM Hubs, and National Science Week activities, together we can make science and science engagement even more accessible and impactful across Queensland.

My sincere gratitude goes to all those involved in actively showcasing Queensland science over the past year and going forward. Your dedication makes Queensland a leader in science engagement, education and community empowerment, and this influences STEM enrolments in schools and universities, and the broader STEM workforce. We look forward to continuing our collaborative efforts to connect, inspire, and engage Queenslanders through the transformative power of science.

Professor Kerrie Wilson

Queensland Chief Scientist
Department of the Environment, Tourism, Science and Innovation



L-R. Dr Sarah Pearson, Professor Kerrie Wilson, Professor Deborah Terry AC

My two years as Chair of the Inspiring Australia QLD Reference Group (IAQRG) have been nothing short of inspiring. We've supported so many innovative STEM initiatives for Queenslanders, and whilst I have only attended a few, the ones that I have been to demonstrated the impressive reach and impact across our beautiful state. One of my favourites was the Future Science Talks – Comedy Edition, at the Brisbane Comedy Festival. A huge shoutout to the 15 brilliant Queensland scientists who fearlessly took the stage, blending 80% science with 20% comedy, guided by the talented comedian and science communicator David Crisante.

As I step into my new role as Chancellor of UNE, I'm excited to pass the IAQRG baton to the exceptional Dr Christine Williams. Christine, a former Queensland Chief Scientist, who is actively involved in two ARC Centres of Excellence — Chair of EQuS (Engineered Quantum Systems) and a member of QUBIC (Quantum Biotechnology) Advisory Committee. We are so lucky to have her leading this important program of work.

Christine begins just in time for the 2025 UN International Year of Quantum Science and Technology, and the National Science Week Schools theme of 'Decoding the Universe, exploring the unknown with nature's hidden language.'

I'm looking forward to watching the next chapter of Inspiring Australia Queensland under Christine's stewardship, and am sure the impact will continue to grow, supporting QLD's transition to new economies and new jobs based on STEM.

Dr Sarah Pearson

Chair 2023-4
Inspiring Australia Queensland Reference Group



L-R. IAQ Reference Group. Jacqueline Steel, Dr Sarah Pearson, Dr Anita Milroy, Lauren Stephenson and Dr Jim Thompson PSM

2024 has been a great year of engagement and outreach and our first ever outback launch of National Science Week in Cloncurry, NW Queensland.

More than 200 community members joined researchers, local industry representatives and scientists for a STEM fair. The event was a great success due to the support of the University of Queensland and the Cloncurry Shire Council.

Colin Saltmere AM, provided an inspirational keynote around the successful commercial combination of traditional and contemporary First Nations biotechnology, and in collaboration with the Australian Institute of Bio and Nano technology (AIBN).

Professor Rick Valenta, from the Sustainable Minerals Institute opened the event on and the 'Sound of Symmetry' national grant winners provided a thought provoking lunch time concert around music and its ability to represent complex concepts in mathematics.

We're looking forward to discussing our ideas for more innovative and inspiring STEM engagement in 2025 very soon. Thank you to our volunteers and collaborators, and welcome to those joining us for the first time in 2025.

Dr Anita Milroy

Senior Project Manager
Inspiring Australia Queensland

INSPIRING AMBASSADORS



Dr Christina Zdenek

DR CHRISTINA ZDENEK

As an IAQ ambassador, Christina visited some of the most remote communities in Queensland on Cape York, including Bamaga and Injinoo. She presented and engaged with eight classes, covering years 1–6 across the two primary schools. The topic was the conservation of a local, endangered species — the Palm Cockatoo — which they were leading a research project on in the area. This included making firebreaks around 300+ year-old nesting trees to save them from unnaturally hot bushfires lit at the wrong time of the year.

Christina also participated in an Under 8's community day at Ferny Grove State School where students, parents, family, teachers and other community members could discuss all aspects of Australia snakes, including snake bite prevention and treatment. 'Netflix', the woma python was a great ambassador and ready to engage with anyone who was gentle.

Christina is currently working on a game around snakes where players become the snake, Game designer Dr Ariel Macy and Adjunct Professor Corey Tutt from Deadly Science are expert collaborators on this novel game.



Under 8s Community Day Ferny Grove School with Netflix the Woma python



Dr Christina Zdenek at Injinoo School, Cape York



Dr Christina discussing the Palm Cockatoo project with school students in Cape York



For more information on how you can support Christina's work to save the endangered Palm Cockatoo, please scan the QR code to the left.



Dr Katrina Wruck YAOTY 2025

DR KATRINA WRUCK

2025 Young Australian of the Year! Congratulations!

Trip 1: Tagai State College, Waiben (Thursday Island), April 2024 Career Yarns with Years 7–12 and visit to Mabuylgiw Ngurpay Lag, Mabuig Island (Prep–Year 6).

Trip 2: Kaziw Meta Boarding School, Waiben (Thursday Island), August 2024 National Science Week at Kaziw Meta and Tagai State College (Years 6–12), including produce garden unveiling, soil testing, science workshops, networking, and cultural dancing.

Trip 3: Tagai State College comes to QUT, July 2024 University entrance yarns, tour of Oodgeroo Unit and Central Analytical Research Facility, QUT.



With the Kaiw Meta team



Young Australian of the Year Award



A budding First Nations Scientist!



Dr Mariel Familiar López

DR MARIEL FAMILIAR LÓPEZ

As part of her ambassador duties, Mariel participated in several events including:

Her journey into STEM as a wildlife biologist at Women's Day breakfast hosted by the Zonta Club of Warwick; as an expert exhibitor at the mini STEM fair for the outback launch of National Science Week in Cloncurry, and as a team who delivered a bespoke event at the Science@Heart in Dubbo, NSW.

Mariel is a passionate believer in sustainability and has been instrumental in establishing a project reusing ex-laboratory microscopes and slides in regional, rural and remote communities.



Mariel (L) with Amy Beckett in Warwick

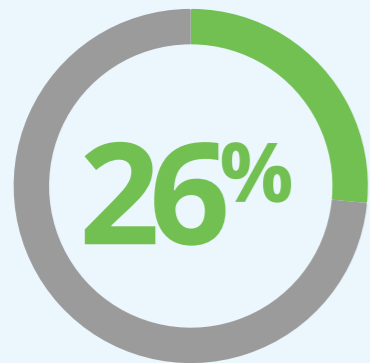


With the team in Dubbo at Science@Heart

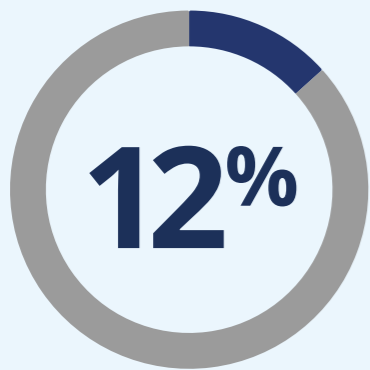


Cloncurry Wedgetail Eagle Sculpture at Chinaman Creek Dam

FAST FACTS



More than **1 in 4** Australian households were aware of **National Science Week** in 2024



12% of Australian households had someone participate in **National Science Week** event in 2024



6 ACTIVE REGIONAL STEM HUBS

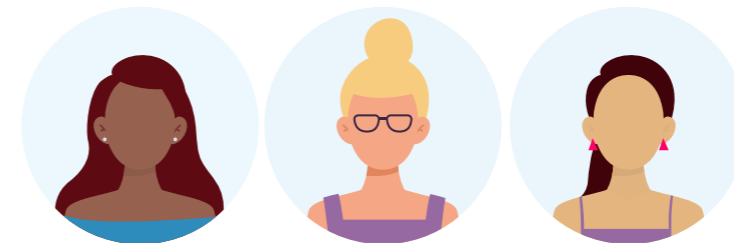
IAQ FUND ESTABLISHED

to help reach more Queenslanders

Tax deductible donations

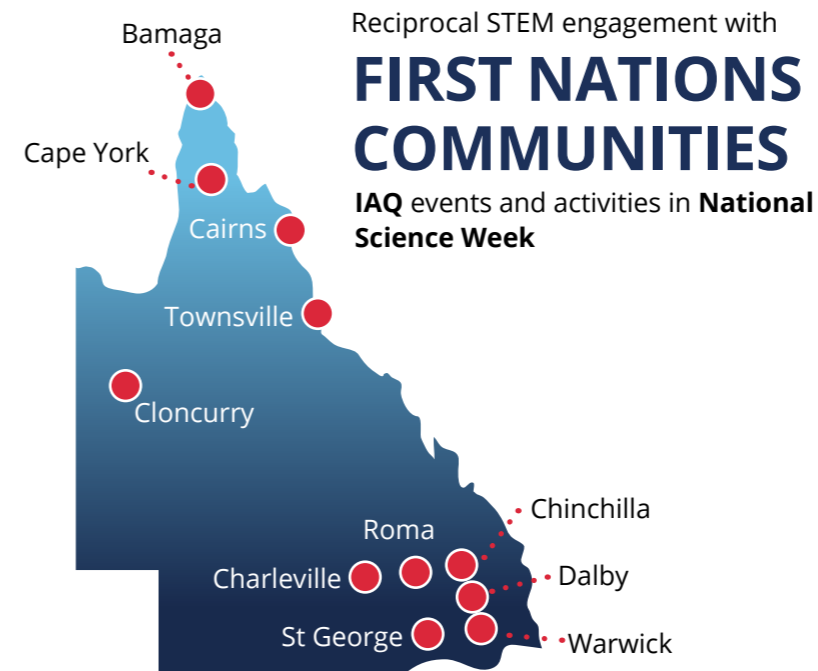


More than **320** National Science Week events registered in Queensland with over **17,000** people engaged



THREE IAQ AMBASSADORS

Engaging Queenslanders in contemporary research



FIRST NATIONS COMMUNITIES

IAQ events and activities in **National Science Week**

2205 SUBSCRIBERS

to the **IAQ** newsletter



IAQ IMPACTS

INSPIRING

Queenslanders to pursue careers and study with STEM

AMPLIFYING

STEM role models from underrepresented groups

BACKING

regional, rural and remote science and STEM organisations

INFORMING

Queenslanders about diversity and accessibility in careers with STEM

COLLABORATING

with national and state governments, industries, businesses, researchers and communities



NATIONAL SCIENCE WEEK

National Science Week (NSWk) 2024 was held from 10 to 17 August 2024.

NSWk is Australia's annual celebration of science and technology and thousands of people of all ages – from students and scientists to chefs and musicians – get involved in science events across the nation.

It provides an opportunity to acknowledge the contributions of Australian scientists to the world of knowledge. It also aims to spark an interest in science pursuits among the public and to encourage people to become fascinated by the world in which we live and to consider careers with STEM.

In 2024, Queensland had over 320 events registered for NSWk, reaching more than 17,000 people including:

- Lots of Brain Break Morning Teas in workplaces, schools and libraries
- Play Matters in Townsville
- Launch and STEM fair in Cloncurry
- Twilight STEAM Zone Science Market at Rainbow Beach
- Minjerribah (North Stradbroke) Research Station Open Day and Cultural Tours
- A STEM catapult competition hosted by the Townsville IAQ STEM hub
- Science in the Pub by Ecosciences Precinct & Pint of Science
- Chinchilla Fossil Finders presented by Future Makers Queensland Museum
- Bioblitz by the Darling Downs and South West STEM hub
- Science in the Tap Room in Far North Queensland
- From pixels to pills: 3D printed medicines
- The sound of symmetry mathematics and music collaboration with music ensemble Topology, UQ Science and UQ Music
- Future Science Talks – Comedy Edition
- Sustainable Futures: Integrating Tradition and Modern Science in the Torres Strait



Above: Outback STEM fair, National Science Week 2024 launch in Cloncurry, North West Queensland



Cloncurry Deadly Dancers opening National Science Week STEM Fair



Colin Saltmere AM, and local Mitakoodi Elder Ronald (Hombre) Major



Professor Tech and the line up for VR experiences and challenges



Performance of the 'Symmetry of Sound' with musical ensemble Topology



Word cloud from evaluation comments



Future Science Talks – Comedy Edition at the Brisbane Comedy Festival (80% science, 20% comedy). L-R Dr Ken Dutton-Regester, Dr Rebecca McElroy, Luis Villegas-Aguilar, Dr Victor Gallegos-Rejas, Alise Fox. Image courtesy David Crisante

TARGETED SCIENCE COMMUNICATION

From the concrete jungle of Queensland’s metropolitan cities to the wide, open plains of its regional and remote towns, IAQ believes everyone in our state should have access to the toolkit of ideas, inspiration and skills that STEM affords.

In 2024, IAQ provided funding support across Queensland through innovative programs such as Future Science Talks: Comedy Edition, at the Brisbane Comedy Festival in May and also in Townsville, Cairns and the Gold Coast during National Science Week 2024.

The *Wild Yeast Zoo* citizen science project at Woodford Folk Festival was a great hit and some very interesting yeasts have been gathered and are currently in the ‘zoo’ awaiting further research.

Women and girls in STEM were a focus for the Zonta International Women’s day breakfast in Warwick, and the UNIQ You fundraising breakfast supporting more girls in STEM through scholarships and industry mentors. Collaboration and support of these initiative are key to raising the number of women and girls in STEM.

An innovative ‘snake game’ is currently under development utilising the skills of Dr Christina Zdenek and a partnership with Adjunct Associate Professor Corey Tutt, from Deadly Science.

We’re also preparing a Quantum Careers poster for release in 2025 for the UN year of Quantum and Qld’s future STEM careers!



Wild Yeast Zoo at Woodfordia: ARC Centre of Excellence for Synthetic Biology. Co-sponsored by Inspiring Queensland and Inspiring New South Wales.



OUR AUDIENCE

We have a clear ambition to engage *all* Queenslanders in STEM.

In addition to University researchers at all stages of their career, and the community at large, we diligently act to ensure those who might otherwise miss out on opportunities to engage with science are encouraged including:

- First Nations people
- Culturally and Linguistically Diverse (CALD) people
- Women and girls
- People living in regional, rural and remote areas
- People living with disability
- People from low socio-economic backgrounds
- Neurodiverse people
- LGBTIAQ+ people
- People facing age-based discrimination



STEMM Strolls

Grow Networks
Find Mentors
Foster Collaboration

Women in STEM
AUSTRALIA

womeninstemm.au

Since 2017, more than half of our Seed Grant activity has taken place in regional, rural and remote areas.

We creatively engage new audiences that don't traditionally connect with science through activations, partnerships, and in-person and online events.

We are aligned with *Australia's National Science and Research Priorities*. This review highlights four key priorities identified by the Australian public that cut across traditional discipline and sector boundaries:

- Ensuring a net zero future and protecting Australia's biodiversity
- Supporting healthy and thriving communities
- Enabling a productive and innovative economy
- Building a stronger, more resilient nation

These priorities set out the 'what' and 'why' for Australia's science and research efforts over the next decade and reflect input from a wide range of people and organisations engaged in Australian science and research.

Australia's National Science and Research Priorities reinforce how important science and research are to Australia's future economic prosperity, meeting current and future challenges and driving new industries that foster secure, well-paying jobs.



*Inaugural STEMM Stroll, Sunshine Coast, in partnership with Women in STEM Australia
Image courtesy Dr Nikki Simms-Chilton*



CAREERS WITH STEM

Partner with IAQ for a brighter future for Queensland

At IAQ, we achieve remarkable results with limited funding, thanks to our dedicated volunteers who tirelessly work to ensure their communities have ample opportunities to engage in STEM activities and events. However, we aim to extend our reach to traditionally under-represented groups, and to do so, we need your support.

Our mission is to increase funding to bolster our capacity to support the numerous volunteers and volunteer groups across Queensland. This is where businesses and organizations can make a significant impact. By partnering with IAQ, you can take the lead in advancing science engagement and participation in Queensland, while highlighting the outstanding scientific achievements in our state.

Industry partnerships with IAQ can support multi-year initiatives and achieve mutual objectives, such as inspiring diverse audiences to pursue career opportunities in STEM and filling crucial job roles across Queensland. Each partnership is unique, and IAQ can tailor benefits to meet your organization's strategic needs, ensuring a robust Return On Investment (ROI).

Together, we can foster job readiness and build a future where everyone has the opportunity to thrive in STEM careers. Your support will help equip the next generation with the skills and knowledge they need to succeed in a rapidly evolving job market.

By partnering with IAQ, businesses can not only achieve their own strategic objectives but also play a crucial role in shaping the future of STEM education and job readiness in Queensland.

Returns on Investment (ROI)



Community impact and corporate social responsibility



Networking, industry, government and university connections



Employee engagement and meaningful volunteer experiences



Innovation and collaboration



Brand visibility and recognition



Talent pipeline diversity and inclusion

INSPIRE QUEENSLAND

Join forces with IAQ: Sponsor, volunteer or become an ambassador for a brighter tomorrow supporting Queenslanders to achieve their STEM career aspirations.

Partnering with IAQ is easy and there are three main ways to get involved:

As a financial **sponsor** or donor, you directly support critical programs that inspire the next generation of STEM leaders. **Volunteering** your time in a local STEM hub or on a National Science Week committee provides hands-on support and a tangible impact in your community. As an **ambassador** (post-doctoral, doctoral candidate or student), you can champion our mission and help amplify our efforts.

Each role is essential and offers personal and professional rewards, from enhanced community presence to the satisfaction of making a meaningful difference. Join us in fostering a future where everyone has the opportunity to thrive in STEM fields. Your involvement will not only benefit IAQ but also contribute to a brighter, more innovative future for all.

Sponsor benefits include, but are not limited to: branding on all newsletters, website, annual report and special events. Invitation to exclusive Queensland STEM networking events.

Donations are welcome at any time and are tax deductible, please scan the QR code below.



Donate to help all Queenslanders to achieve their STEM career aspirations

2024 FUNDING PARTNERS



Rear Cover Image: Extracellular vesicles: potential to be leveraged and engineered to provide a new paradigm of therapeutics that outperform conventional pharmaceuticals
Image courtesy Associate Professor Joy Wolfram YTP 2024



I am honoured to take on the role of Chair of the Inspiring Australia Queensland Reference Group beginning in January 2025.

With a robust background in science and innovation, I am deeply committed to fostering public engagement in STEM.

I believe in the power of citizen science to bring research into the hands of everyday people, making science accessible and exciting for all Queenslanders.

My goal is to facilitate the building of strong connections between scientists, organizations, businesses, and students. I am particularly passionate about supporting women and girls in STEM and entrepreneurship, as they are the future of innovation.

Through our collective efforts, with Government, Universities, Industry and Community we aim to inspire the next generation of scientists and innovators.

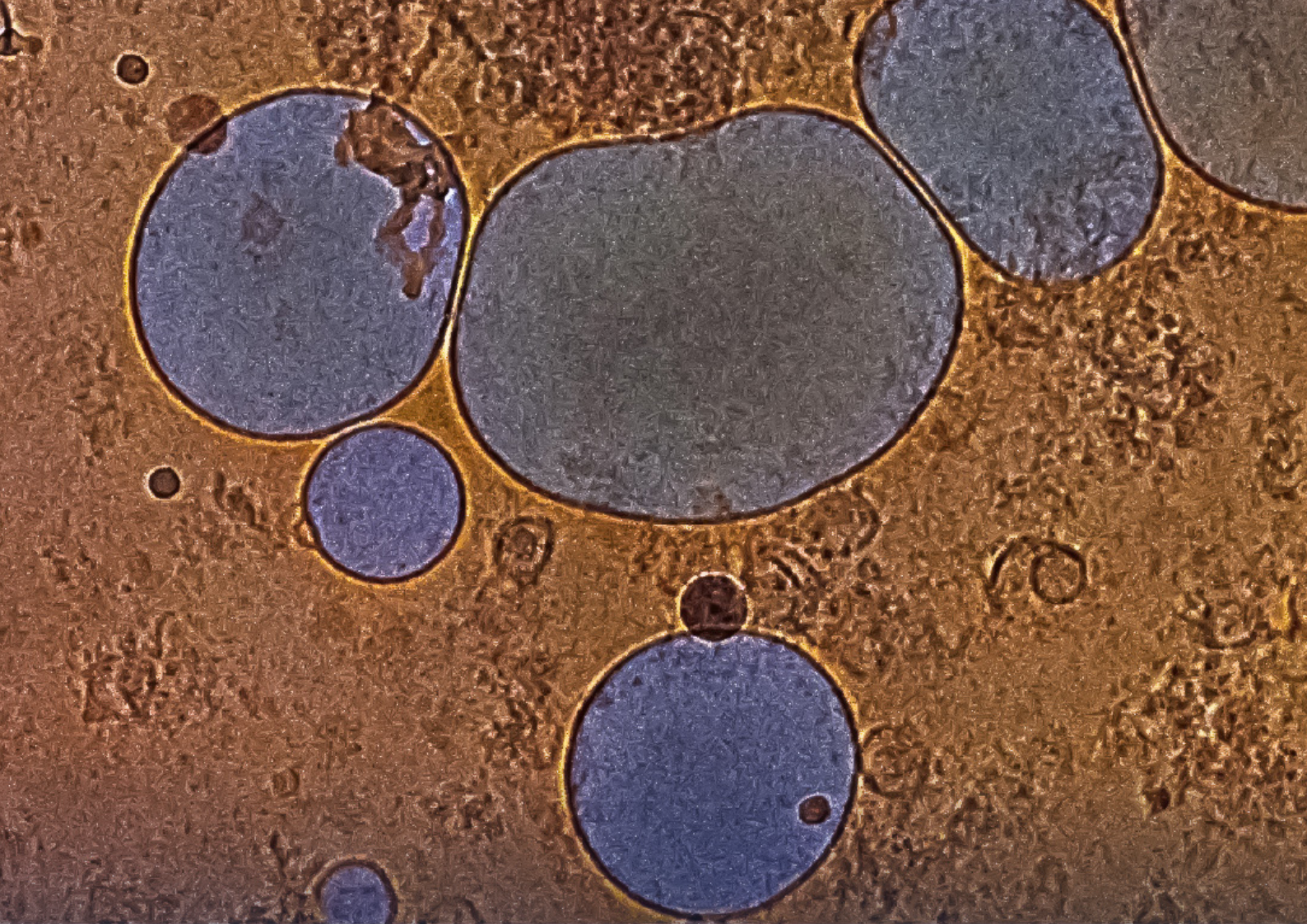
Together, we will drive substantial growth in STEM participation and innovation in Queensland and contribute to fostering a culture of curiosity and creativity.

Dr Christine Williams

Incoming IAQ Reference Group Chair 2025
Inspiring Australia Queensland Reference Group

COLLABORATORS





200 nm



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