



ANNUAL REPORT

2023

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.



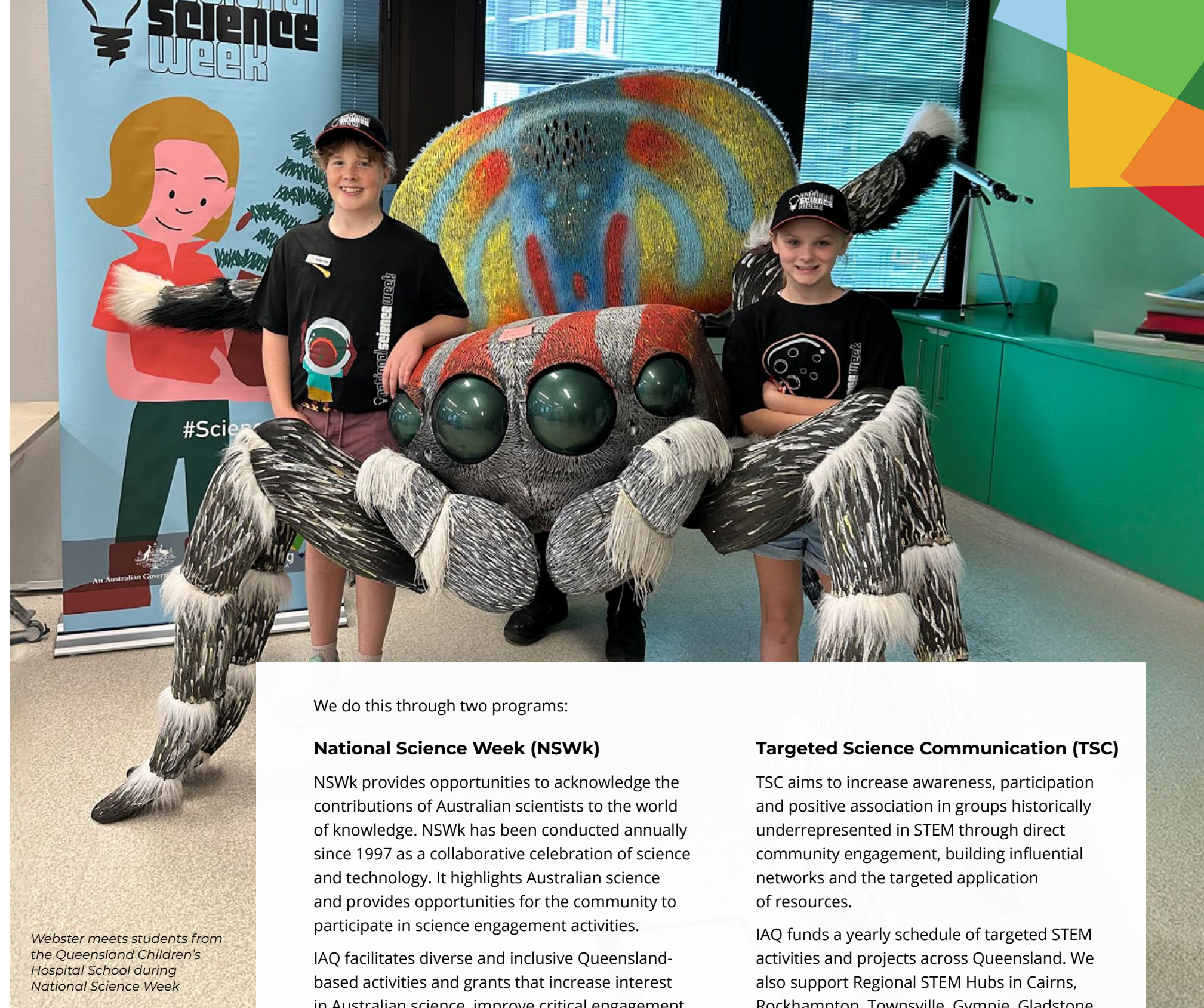
Improve communication between Australian scientists, the general public, businesses and governments.



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.



Webster meets students from the Queensland Children's Hospital School during National Science Week

We do this through two 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, present and emerging.

Front Cover Image: Closeup of a nanorobot being guided through a maze of vessels, carrying a payload of stem cells to repair damaged tissue in the brain.

OUR NEW HOST

The University of Queensland (UQ) is delighted to be the new host of Inspiring Australia Queensland (IAQ) and looks forward to building on the strong work and partnerships established by the previous hosts, Queensland Museum and CSIRO.

We are also pleased to warmly welcome the new Queensland Chief Scientist, Professor Kerrie Wilson, and eagerly anticipate a fruitful partnership with her and her team in 2024 and beyond.

Funding for IAQ from the Australian and Queensland Governments – via Questacon and Office of the Queensland Chief Scientist – helps showcase and celebrate the great science taking place right here in Queensland.

This year, we delivered a very impactful National Science Week (NSWk) in August and Targeted Science Communication (TSC) activities throughout the rest of the year.

Through an initiative called The Queensland Commitment, UQ's focus is firmly on underrepresented groups across regional, rural and remote Queensland, and on ensuring no one misses out on the opportunities offered by education. IAQ is a critical partner in this effort, providing essential access to STEM engagement for students and communities across our state. This is the first of our Annual Reports as host and we look forward to continually increasing the impact of this initiative.

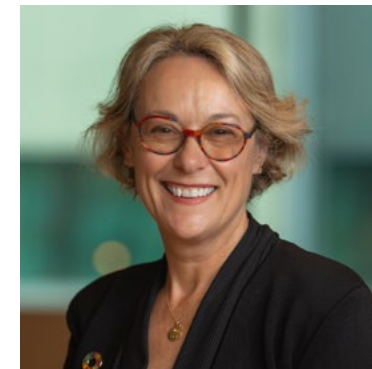
There are always opportunities to do more. That is why we invite you to join IAQ as a collaborator and advocate to help us extend the work already underway through partnership opportunities, regional STEM sponsorship opportunities, community event grants, regional STEM Hubs and National Science Week activities.

As students look to their parents, teachers and adults for guidance when selecting subjects and careers, we must have informed communities who understand the contribution that scientific knowledge makes to our well-being, environment and economy.

We look forward to continuing to develop productive partnerships with you all.

Professor Deborah Terry AO

Vice-Chancellor and President
The University of Queensland



I am thrilled to join the IAQ Reference Group as Chair and am delighted to participate in an initiative close to my heart.

I am a professional non-executive director, investor and innovation advisor with extensive global executive leadership experience spanning FTSE 100 multinationals, international C-suite roles in the public and private sector, venture capital, universities, and start-ups.

My current board positions focus on impactful organisations that are making the world a better place – helping members transition to low carbon futures at RACQ, providing healthcare to those in remote locations at RFDS (QLD Section) and providing university leadership. I am passionate about the use of science to support Australia economically and socially, making this real through engagement with over \$1B of venture capital here and overseas.

I have a DPhil (PhD) in particle physics from the University of Oxford, am the author of eight international patents and have published research in the areas of particle physics, medical physics, artificial intelligence, innovation, science communication and science policy. I am a Fellow of the Australian Academy of Technological Sciences and Engineering (ATSE).

I have seen the impact programs such as Inspiring Australia can have on people – the way science engages and interests them and lights them up to their potential. I am passionate about leaving no one behind, committed to ensuring IAQ continues to grow our engagement with regional Queensland, and excited about the potential for partnerships to achieve this.

Adjunct Professor Sarah Pearson

Chair
Inspiring Australia Queensland Reference Group



I am pleased to present the inaugural annual report of IAQ, highlighting our commitment to cultivating scientific curiosity and engagement. As the Queensland Manager for this impactful national initiative, I am eager to share the significant first steps we've made, particularly through our alignment with the objectives of Inspiring Australia.

State and Territory bodies, including Queensland, are playing a pivotal role in advancing the Australian Government's vision for a society actively engaged in and enriched by science through Targeted Science Communication and National Science Week activities.

This report provides insights into our achievements in these areas, showcasing the impact of collaborative efforts. Together, we are making significant progress towards a more scientifically engaged and enriched Queensland, especially those historically under-represented in STEM.

Thank you for your continued support, I look forward to advancing our shared mission in the coming years.

Dr Anita Milroy

Senior Manager
Inspiring Australia Queensland

MEET OUR INSPIRING AMBASSADORS



DR CHRISTINA ZDENEK

Christina is a former Fulbright Fellow, former professional basketball player and a 2021 ABC Top 5 Scientist. As a biologist at the University of Queensland, she builds knowledge about snake ecology, behaviour, venom effects, antivenom effectiveness, the human-wildlife conflict, and wildlife monitoring and conservation. Christina’s vision is to use science to promote a healthier relationship between humans and wildlife. She also has a passion for science communication and has devoted 15 years to working with Indigenous groups on Cape York Peninsula to save Australia’s only tool-using parrot, the Palm Cockatoo, successfully raising its conservation status twice.



Cape York Rangers
Image Credit: Dr Christina Zdenek



Dr Christina Zdenek with coastal taipan
Image Credit: Nick Hamilton



Palm Cockatoo
Image Credit: Dr Christina Zdenek

DR KATRINA WRUCK

A proud Mabuigilaig and Goemulgal woman with ancestral roots in the saltwater people of Mabuiag Island in the Torres Strait, Katrina is an early career researcher with a passion for finding innovative, green solutions for industrial problems. She has a cross-disciplinary background, drawing knowledge from the fields of industrial chemistry, process engineering and materials science. Katrina is currently a Postdoctoral Research Fellow at the University of Melbourne on a project focused on the remediation of contaminated sites in Antarctica. In addition to her research, Katrina is a passionate advocate for STEM outreach, impacting thousands of students through programs, teaching opportunities and community involvement.

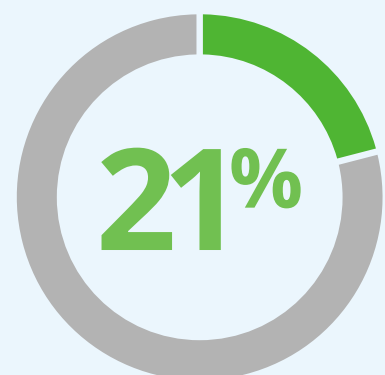


DR MARIEL FAMILIAR LÓPEZ

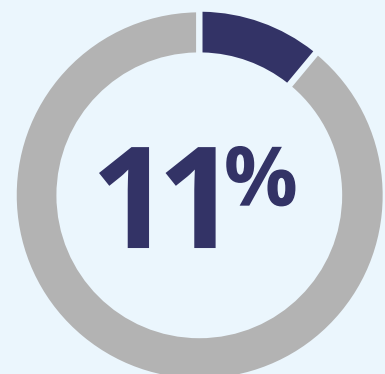
A wildlife biologist and experienced science communicator, Mariel has a deep passion for the environment. Born in Mexico City with Spanish heritage, she has carried out fieldwork in Mexico, USA, Spain and Australia. Mariel’s research focuses on combating the devastating Chytridiomycosis, an infectious fungal disease responsible for the mass global decline and extinction of amphibians. She completed her doctorate studies by investigating disease dynamics in endangered frogs in the UNESCO World Heritage-listed Gondwana Rainforests. Mariel co-founded the Shark Ecology Australia group (SEA) with Dr Johan Gustafson. They have undertaken several shark research projects and share their findings in forums and outreach programs throughout Australia and the world.



FAST FACTS



More than **1 in 5** Queensland households were aware of **National Science Week** in 2023

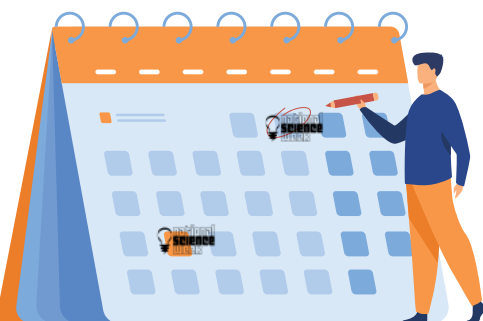


More than **1 in 10** Queensland households participated in a **National Science Week** event in 2023



5 ACTIVE REGIONAL STEM HUBS

\$671,250 for **THREE-YEAR** IAQ funding agreement achieved (2024 - 2027)

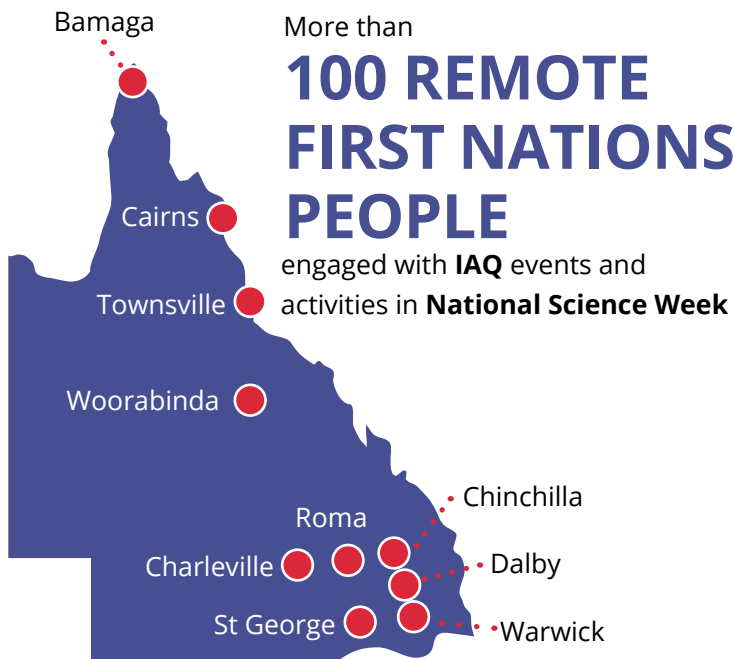


More than **250** **National Science Week** events registered in Queensland with over **6000** people engaged



THREE IAQ AMBASSADORS

representing First Nations, CALD and Women in STEM appointed for 2023/2024



IAQ IMPACTS

INSPIRING

Queenslanders to pursue STEM-related study and careers

PLATFORMING

STEM role models from underrepresented groups

SUPPORTING

regional, rural and remote science and STEM organisations

EDUCATING

Queensland about STEM's diversity and accessibility

COLLABORATING

with national and state organisations, industries, businesses and governments



NATIONAL SCIENCE WEEK

National Science Week (NSWk) 2023 was held from 12 to 20 August 2023.

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

NSWk is not restricted to schools and universities with events, activities, talks and shows designed to cater to every age group.

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.

In 2023, Queensland hosted over 250 events during NSWk, reaching more than 6000 people including:

- Brain Break Morning Teas as far north as Bamaga
- Play Matters in Central Queensland, including Woorabinda
- Mini STEM fairs at Queensland Children's Hospital School communities and campuses
- Street Science at the Ekka
- A STEM fair hosted by the Townsville IAQ STEM hub
- Science in the Pub by Ecosciences Precinct & Pint of Science
- Sharks, Jellies and Whales at the Gold Coast
- STEM in the Mary River launch event by the IAQ Gympie STEM hub

The 2024 NSWk grant round opened in October 2023 and Queensland seed grants will be made available in the first half of 2024.



Kieren Marr and Robyn Donnelly, InspireU collaborators at the Warwick Solar Farm tour for NSWk 2023.

Upcoming NSWk dates

2024: 10 – 18 August

2025: 9 – 17 August

2026: 15 – 23 August

2027: 14 – 22 August



Vikram (palaeontologist) at the Queensland Children's Hospital School



Michael Holmstrom (co-founder STEM punks) at the Queensland Children's Hospital School



Jay Ridgewell and collaborators at the Healthy Forests = Healthy Us day



'Let's Yarn about STEM' roadshow with Goondir Health Big Buddy team, InspireU and IAQ ambassadors.

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 2023, IAQ provided funding support across Queensland through Regional STEM Hubs (Toowoomba, Gympie, Gladstone, Rockhampton and Townsville). These hubs work to grow science engagement in their regions and promote the value of science, technology, engineering and mathematics. They are locally supported in Toowoomba, Rockhampton, Gladstone and Cairns by Partner Up Queensland (PUQ) Regional Science and Innovation Network co-ordinators.

TSC in 2023 included STEM careers road trips to regional and remote Queensland, *Wild Yeast Zoo* citizen science project at Woodford Folk Festival, an International Women's Day breakfast and *Future Science Talks: Comedy Edition* programmed for the 2024 Brisbane Comedy Festival.



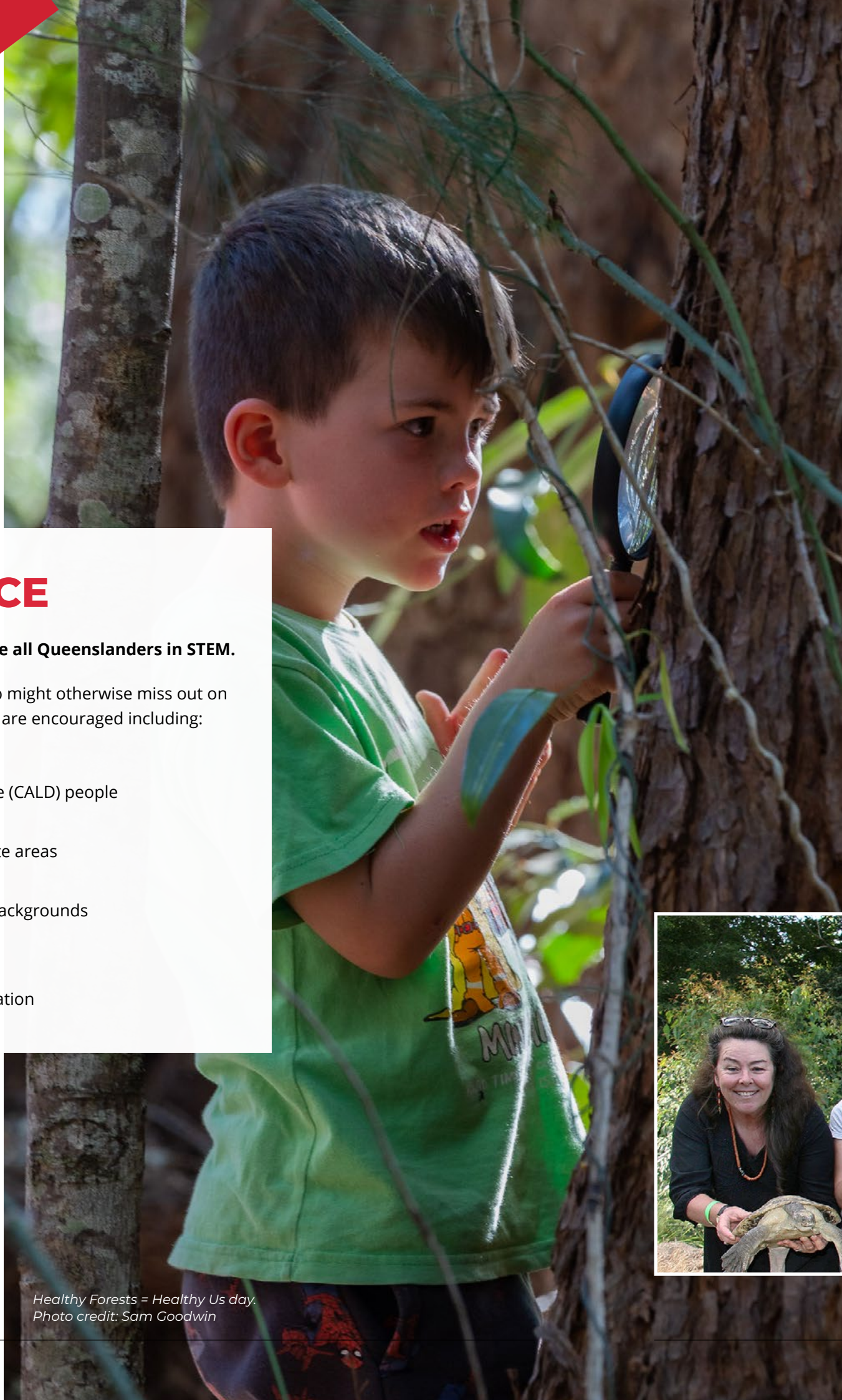
The Inspiring Australia Queensland team in Queensland's melon capital, Chinchilla

OUR AUDIENCE

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

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 and remote areas
- People with disability
- People from low socio-economic backgrounds
- Neurodiverse people
- LGBTIAQ+ people
- People facing age-based discrimination



Healthy Forests = Healthy Us day.
Photo credit: Sam Goodwin

Since 2017, more than half of our NSWk Seed Grant activity took place in regional 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* and the current review led by Australia's Chief Scientist, Dr Cathy Foley AO PSM. 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.



STEM in the Mary River, with all six species of turtle represented.
(Photo credit: Gympie STEM hub, Mary River Catchment Coordinating Committee)

OUR SUSTAINABLE FUTURE

IAQ is poised to grow in ambition and scale with a new three-year funding model commencing in 2024 providing greater surety, continuity and long-term strategic planning.

This presents an unprecedented opportunity for businesses and organisations to partner with IAQ and lead the charge in science engagement and participation in Queensland and promote the great science undertaken in our state.

Industry partnerships can support multi-year initiatives, deliver on IAQ's vision to inspire diverse audiences and accelerate its impact across education, regional outreach and cross-industry collaboration.

Industry partners can also support events and initiatives in their region that focus on specific local priorities as a way of engaging with their communities and schools.

Partnerships are unique and IAQ can customise benefits to meet an organisation's strategic needs and deliver strong Return On Investment (ROI).

Returns on Investment



Community enrichment



Networking, industry, government and university connections



Staff engagement opportunities



Contributing to Australia's National Science and Research Priorities



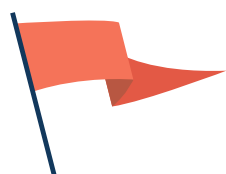
Facilitating social, economic and environmental benefits for all Australians



Increasing diversity and inclusion in STEM

JOIN US

Opportunities exist to partner with **IAQ** and guide the organisation toward an exciting future.



Our Flagship Programs

IAQ facilitates local programs and ongoing community science outreach that contribute to the overall Inspiring Australia strategy such as NSWk, Regional STEM Hubs and TSC events and activities.



Governance

The Inspiring Australia program in Queensland is funded by the Australian and Queensland Governments, hosted by The University of Queensland and governed by the IAQ Reference Group.



National Science Week Coordinating Committee

Grant administration, major events and general promotion for NSWk across Queensland are some of the activities overseen by a volunteer sub-committee.

The IAQ program relies on modest but critical funding from our core partners. In 2024, we are keen to talk to key stakeholders about supporting increased resources to enable broader reach and impact of the IAQ programs.

Please contact Dr Anita Milroy to explore this opportunity at inspiringqld@uq.edu.au

2023 FUNDING PARTNERS



An Australian Government Initiative



Queensland Government



THE UNIVERSITY OF QUEENSLAND AUSTRALIA



Queensland Museum is committed to science advocacy.

This commitment manifests in our ground-breaking scientific research; vibrant program of exhibitions, learning activities and major events including World Science Festival Brisbane; and support of initiatives such as the Queensland Women in STEM Prize, NSWk and IAQ, firstly as host (2012-21) and now as a member of the Reference Group.

Recognising the vital role of scientists and STEM professionals, we aim to foster a scientifically literate community. Our goal is to inspire not only young people to study science but also to encourage the community to view it as an exciting and diverse career path.

Programs like IAQ and NSWk play a crucial role in promoting science and cultivating interest in scientific careers. The success of these initiatives relies on a collaborative effort – a “Coalition of the Willing.” Despite changes and growing interest, our network of like-minded individuals and organisations remains connected.

The success of the national program, especially in Queensland, hinges on our collective efforts. Queensland Museum is ready to play a pivotal role in the next chapter of IAQ and anticipates new, exciting and mutually beneficial collaborations with longstanding and new partners.

As we navigate a renewed push for these programs, I am reminded of Henry Ford’s words: “Coming together is a beginning. Keeping together is progress. Working together is success.”

Dr Jim Thompson

CEO and Director

Queensland Museum

Member, IAQ Reference Group

2023 COLLABORATORS





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