

Queensland Health

Cairns Health and Innovation Precinct

A tropical precinct led by research



Acknowledgment of Traditional Owners

The Cairns and Hinterland Hospital and Health Service respectfully acknowledges Aboriginal people and Torres Strait Islanders as this country's First People. We recognise them as the traditional and cultural custodians of the lands on which we work to provide safe and quality health services. We pay our respect to their elders past and present.

Foreword



A strategic combination of strength, geography, and collaboration

The Cairns Health and Innovation Precinct is a deliberate and strategic assembling of some of Australia's finest minds to meet the most pressing health challenges.

At its core, the Cairns Health Innovation Centre, is designed as a collaborative engine. It is a nexus where unmet clinical need in the tropics intersects with global technological capability, academic rigour, and deep community wisdom. Our unique value proposition is not just what we do, but how we do it - through a multi-stakeholder, co-design model that de-risks innovation and accelerates its path to meaningful impact.

Our location is our laboratory. Cairns is the gateway to the Asia-Pacific, with a demography that mirrors our neighbouring regions - diverse, rural, dispersed, and with a significant First Peoples population. The challenges we face here range from tropical diseases and marine envenomation to the complexities of delivering specialist care across vast distances are not unique to Far North Queensland. They are a microcosm of global health challenges. Therefore, a solution validated in our context has immediate applicability and commercial resonance across the tropical world.

Precinct master planning provides the framework for a multi-billion-dollar investment pipeline that will bring high value jobs to the region, a major uplift in regional domestic product and increased resilience.

Contact us today and be part of the leadership that takes Cairns, tropical health and innovation to the next level.

Leena Singh

Chief Executive, Cairns and Hinterland Hospital and Health Service

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Cairns as a health hub

Cairns Hospital is the major referral centre for healthcare in Tropical North Queensland – an area larger than the United Kingdom and home to a unique culturally and geographically diverse population.

The Cairns Hospital is the central foundation of the Cairns Health and Innovation Precinct, which brings together partners from diverse and interconnected sectors such as research, bio-technology, environment, education and entrepreneurship.

Cairns provides an already well-established hub for research, education and innovation, with partners across Australia and an international airport linking directly to the Asia-Pacific region. With direct flights to Port Moresby, Bali, Tokyo, Osaka, Singapore, Shenzhen, Hong Kong, Nadi, Christchurch and Auckland.

Research

For more than 30 years, Cairns Hospital has been an active partner in research and clinical trials. Researchers favour Cairns for the relatively easy access to the populations and cohorts that represent the health challenges being experienced in often more remote locations.

We are a sought-after research partner with acknowledged expertise in:

- Clinical trials, with over 1400 patients involved across areas such as cancer care, respiratory diseases, cardiology, renal medicine, urology, diabetes, intensive care and more
- Aboriginal and Torres Strait Islander health
- Tropical health and medicine
- Infectious diseases
- Health care data linkage and translational research.



◀ Cairns is the healthcare hub for the whole Tropical North Queensland.

273,000 km²
area covered

290,000
population

The Cairns Health and Innovation Precinct will be a hub for learning, innovation and research.



Artist impression, subject to change

Economic development

In 2026, the Queensland Government released the master plan for Cairns Hospital and committed to investing over \$1 billion over 5 years for Stage 1, laying the foundations for further significant investments in the Cairns Health and Innovation Precinct ¹. This is in addition to the other infrastructure and public services commitments made in the 2025-26 State budget to fund the Far North Queensland Regional Delivery Plan ².

The region has strong industry sectors in:

- Healthcare and social assistance
- Education and training
- Aviation
- Marine and defence
- Manufacturing and agriculture
- Tourism.

Master planning for the Cairns Health and Innovation Precinct provides the framework for a multi-billion-dollar investment pipeline that will bring high value jobs to the region and a major uplift in regional domestic product.

Investing in health services

The Cairns Health and Innovation Precinct already has extensive infrastructure in place including imaging, pathology laboratory, commercial and research linkages.



\$1.6 billion
health budget
(Cairns and Hinterland
Hospital and
Health Service)



Universities
and other
education
partnerships



New Master Plan
announced
>\$1 billion
to complete
Stage 1

Cairns Hospital expansion

The next phase of planning for the Cairns Health and Innovation Precinct was completed in 2025. This includes a new master plan for the hospital campus, a draft structure plan for the broader precinct, and business cases for catalyst investments.

These investments will expand surgical inpatient and outpatient services and deliver the Cairns Health Innovation & Surgical Centre as an integrated development connected to the Hospital. They will provide more car parking on the precinct, provide a safe location for the helipad, and the opportunity for a developer-led office building to consolidate health management activities alongside other precinct partners.

¹ <https://www.statements.qld.gov.au>
² <https://budget.qld.gov.au/regional-delivery-plans/far-north-queensland>

Cairns and Asia Pacific context

The Cairns Health and Innovation Precinct delivers a unique health offering for commercial partners, researchers and other institutions.

Our track record highlights our expertise across many medical domains, particularly in three key areas including: tropical health and medicine, rural generalist training, and First Peoples health challenges.

Cairns is closely linked with Asia and the Pacific region both culturally and with the international airport located just 6km (10 minutes) from the Cairns Health and Innovation Precinct.



'James Cook University is a proud strategic partner and looks forward to co-locating in the Cairns Health and Innovation Precinct to be part of leading research that translates to local, national and global impacts. Together we will deliver intergenerational advancements in health from research, including for First Nations people.'

Professor Simon Biggs
Vice Chancellor and President
James Cook University

▲
Cairns' Tropical Public Health Service was part of the initial Wolbachia mosquito trials to protect local communities from dengue fever, as part of the Bill and Melinda Gates Foundation funding of the World Mosquito Program. This has since seen the elimination of dengue locally which is being applied across the globe.

1.

Tropical health, medicine and research

Cairns' location as a regional health centre means it has developed a reputation for innovation, agility and a focus on outcomes.

Cairns Hospital is well-placed in developing health research for the Asia-Pacific region, with world-class research capabilities in tropical health and medicine. The health and lifecycle challenges faced by isolated communities and First Nations communities in the tropics have broad relevance in neighbouring countries, particularly in the areas of infectious diseases and tropical medicine.

With high burdens of disease across our diverse populations, we seek smarter and more effective ways of working through translating our research into practice to improve human health as well as researching to improve the implementation process. We know from experience that solutions that work in our area have applicability beyond our borders.

2.

Rural generalist centre for excellence

The Cairns and Hinterland Hospital and Health Service is expanding its ability to train and employ rural generalists across a range of disciplines to meet the needs of our diverse and dispersed population.

The precinct, functioning as a multidisciplinary rural generalist centre for excellence, will not only cater to local needs but also contribute to global health solutions, underscoring its global relevance and impact.

As a centre for excellence, and in partnership with universities, the rural generalist service model includes medical, allied health, nursing and Indigenous health workers as an innovative way to deliver care across rural and remote locations.

These clinicians have a broad scope and knowledge to provide primary care services, and may have additional skills like emergency medicine, obstetrics, anaesthetics, or mental health. We ensure they are uniquely prepared to care for small rural and remote communities.

3.

First Peoples health and research

The Cairns Health and Innovation Precinct is poised to address the healthcare challenges presented by the culturally diverse and regional population. It offers a significant opportunity to establish Cairns as a hub for tropical medicine and First Nations health and research.

Research into the environmental and health challenges associated with chronic disease, aging populations, and socio-economic factors affecting First Peoples are translatable to many Indigenous populations across the world.

As an established leader in this area, researchers and institutions actively seek to partner with us. Building upon our authentic partnerships with First Peoples communities and organisations to ensure that research is informed by the needs and priorities of First Peoples communities, we are establishing a First Peoples health research centre.

First Peoples involvement from the earliest planning stages right through to the end of the research, builds First Peoples ethics, values and approaches into the research process, which in turn provides opportunities to translate research into improved health and wellbeing.

Far North Queensland is home to Australia's second largest population of First Peoples residents (>46,000 people) and First Peoples represent 30 per cent of the patients of the Health Service.

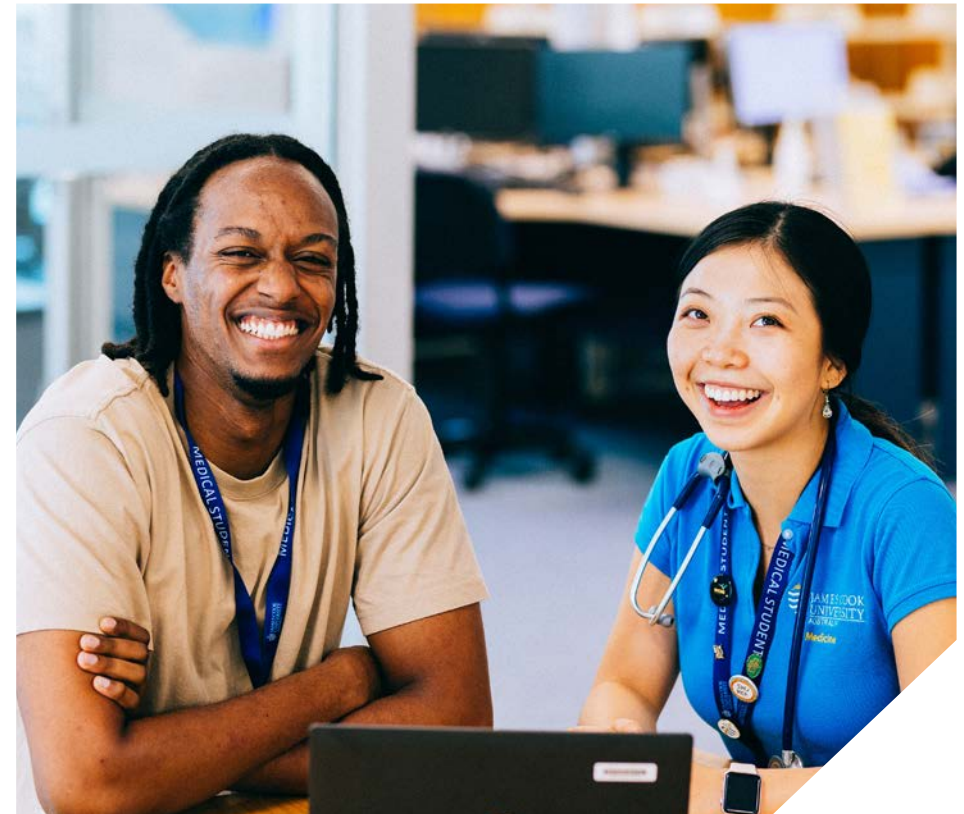
Research and clinical trials

Cairns Hospital has a distinctive research profile, influenced by its tropical location, demography, and infectious disease prospects.

For over 30 years, Cairns Hospital has participated in national and international clinical trials as an essential component of furthering healthcare.

There are over 60 clinical trials underway across a range of disciplines ranging across cardiology, dermatology, emergency medicine, infectious diseases, intensive care, oncology, paediatrics, renal and respiratory.

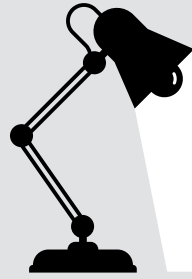
As part of the Australian Teletrial program, we improve access to, and participate in, clinical trials for rural, regional and remote patients.



Partnerships

Our clinical trials and research are based on partnerships with multiple universities with the premier university partner being James Cook University together with other tertiary partnerships including Central Queensland University. Leading medical research institutions are also key partners such as Menzies Institute for Medical Research, Kirby Institute and the Olivia Newton John Cancer Research Centre, along with large pharmaceutical companies.

Spotlight on clinical trials



Clinical trials: The validation engine for tropical health innovation

Clinical trials will be the critical validation engine within the Cairns Health Innovation Centre, transforming theoretical innovation into evidence-based practice.

We are moving beyond traditional trial participation to architect a next-generation, decentralised trials platform that is uniquely equipped to generate robust, generalisable, and equitable evidence for the real world, specifically, the tropical and remote world. Critical to this will be commercialising existing capabilities in Phase II/III clinical trials and then moving into Phase I trials.

Our unique value proposition: The FNQ living lab

For over 30 years, Cairns Hospital has been a trusted site for national and international clinical trials. The Cairns Health Innovation Centre will elevate this capability by integrating it directly with our innovation pipeline. We offer sponsors and Contract Research Organisations (CROs) a “living lab” - a unified ecosystem where novel devices from our Innovation Lab can be stress-tested in our Simulation Centre and then seamlessly transition into Phase II/III clinical trials with an expanding clinical team. This end-to-end integration drastically reduces the time and cost from concept to validated outcome.

Our most significant differentiator is our population. Far North Queensland's diverse demography, including the second-largest First Peoples population in Australia, representing 30% of our health service users, provides access to patient cohorts often underrepresented in clinical research. Successfully conducting trials here means generating data that is relevant to Indigenous populations across Australia and the Pacific, as well as to rural and remote communities globally. We don't just recruit patients; we engage communities, ensuring our research answers questions that matter to them.

The decentralised trials & teletrials advantage

As a leader in the Australian Teletrial Program, we have pioneered the infrastructure and methodologies to extend trial access beyond our tertiary hospital walls. Our model is built for decentralisation:

- **Hub-and-spoke network:** Cairns Hospital acts as the central coordinating hub for a network of rural and remote hospitals and Aboriginal Community Controlled Health Organisations (ACCHOs) across Cape York and the Torres Strait.
- **Technology-enabled:** Leveraging our strategic technology partnerships, we utilise secure, high-bandwidth connections for remote monitoring, tele-health consultations, and electronic data capture, ensuring data integrity and patient safety across vast distances.
- **Standardised protocols:** Our Simulation Centre plays a pivotal role, using simulated consent conversations and procedure rehearsals to standardise trial conduct across all sites, ensuring every clinician and Indigenous research navigator, regardless of location, delivers the protocol to the same high standard.

This approach not only dramatically improves recruitment rates and diversity but also answers a crucial scientific question - does this intervention work in the low-resource, remote settings where it is often most needed?

Integrated safety & pharmacovigilance

The Toxicology Centre of Excellence provides an unparalleled layer of safety and expertise for our trials platform. It acts as our dedicated pharmacovigilance unit, offering:

- **24/7 specialist support:** Real-time tele-toxicology advice for investigators managing complex cases or Adverse Events (AEs).
- **Tropical toxicology expertise:** Specialised monitoring for trials involving drugs or conditions with unique toxicological profiles in the tropics (e.g., antimicrobials, envenomation treatments).
- **High-fidelity data:** Prospective safety data is fed directly into our analytics engines, providing sponsors with deeply contextualised safety reporting.

A local approach to community-led and culturally safe research

Our trials are governed by the principles of our Indigenous Research and Design program. This is not an add-on but the foundation of our operational model.

- **Co-design:** Communities are involved in setting research priorities and designing trials from the outset, ensuring relevance and fostering trust.
- **Cultural governance:** All protocols, consent forms, and patient information sheets are co-developed with cultural advisors and ACCHOs. Our Innovation Lab creates digital tools for multi-language, culturally appropriate consent processes.
- **Benefit sharing:** We establish clear agreements regarding intellectual property, data sovereignty, and how communities will share in the benefits of research outcomes, whether through improved local services, commercial revenue sharing, or workforce development.

The Cairns Health and Innovation Precinct infectious diseases specialists are conducting world-leading research into the tropical disease Melioidosis endemic in Northern Australia and other tropical nations resulting in improved antibiotic therapy and reducing mortality rates.



Cairns Health and Innovation Precinct

The vision

There is a clear transition underway as Cairns Hospital progresses to a leading university hospital, building upon existing excellence in clinical services, research, education and innovation.

The precinct vision is to deliver an interdisciplinary technology-focussed, state-of-the-art precinct for education, training, research, and innovation that connects Cairns across Australia and into the Asia-Pacific.

The Cairns Health and Innovation Precinct will bring the best minds together to solve the immediate and future problems challenging the health system.

The Cairns Health and Innovation Precinct development will comprise several new multi-storey buildings that will house the Cairns Health Innovation and Surgical Centre; the James Cook University (JCU) Cairns Tropical Enterprise Centre, incorporating the JCU clinical school; along with the opportunity for a developer-led office building to consolidate health management activities alongside other precinct partners.

The precinct will continue to expand the well-established education and research in the traditional disciplines such as cardiology, medicine, renal and oncology, whilst also maximising its significant local expertise in tropical health and medicine, Rural Generalist training, and First People's health. By fostering partnerships and co-location, we challenge innovation across these domains.



Education and training outcomes

Expanded partnerships with universities and education providers are key to our future vision. The precinct already has established relationships with two universities and close linkages with other institutions for the education and training of health, science and other linked sectors.

Education and research facilities, and opportunities for private sector investment are strategically integrated throughout the precinct master plan, with a strong connection to the JCU site.

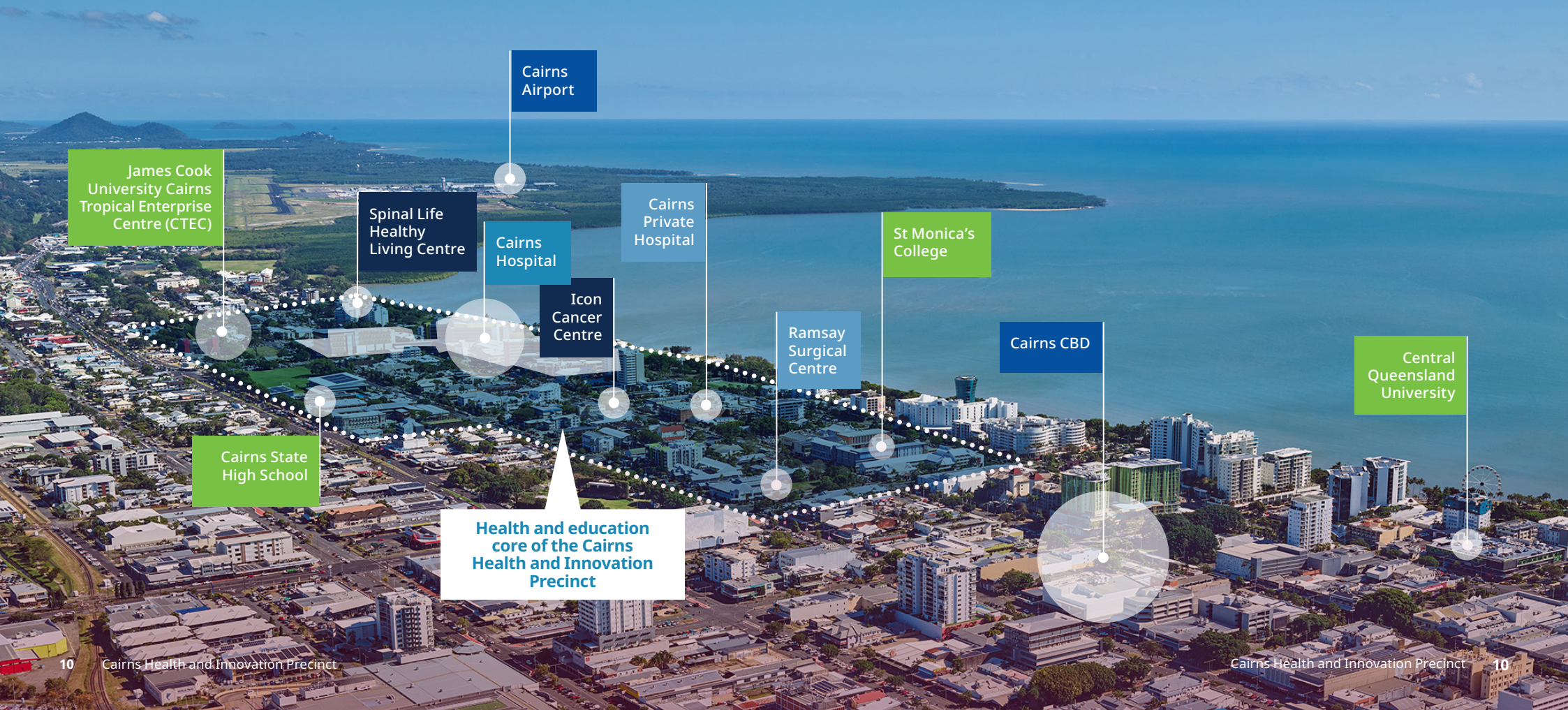
Cairns is at the forefront of rural generalist training. Our existing education partnerships and our location make it a centre of expertise for training medical, nursing and allied health staff.

Our healthcare education and training ranges from advanced specialist training, to rotations through our rural and remote area hospitals, clinical placements and pathways for Indigenous health worker training.

The investment in the precinct will create a significant opportunity to attract international universities, researchers, and a skilled workforce that will benefit the region and Australia.

'The Health and Innovation Precinct will be a major economic driver for Cairns, it will bring high value jobs to the region, increase visitor numbers and by incorporating modern placemaking design principles will contribute to enhancing the vibrancy of Cairns city. Furthermore, it will contribute to the resilience of key infrastructure to ensure the health and wellbeing of the community.'

Cr Amy Eden, Mayor
Cairns Regional Council



Health and education core of the Cairns Health and Innovation Precinct

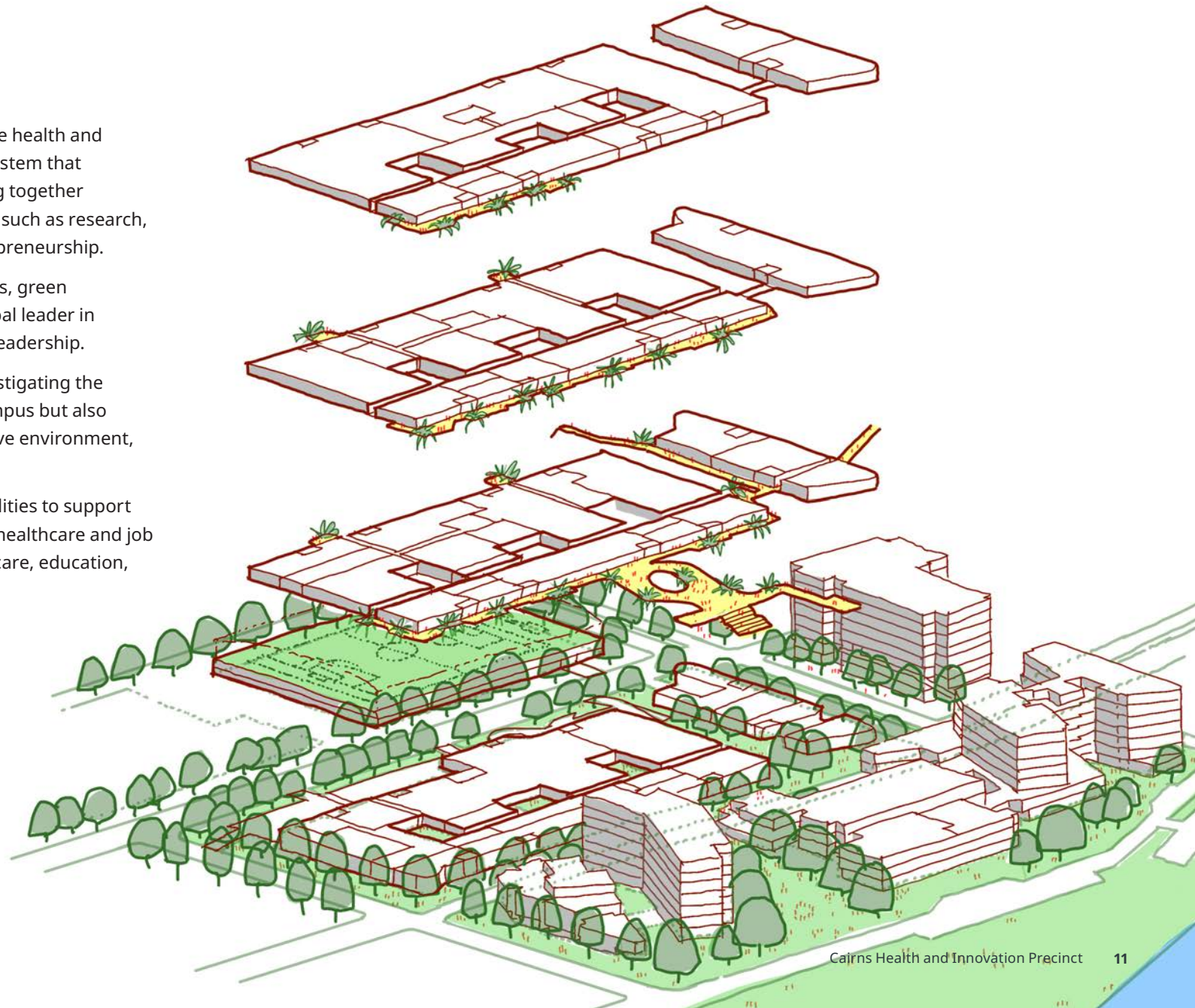
Developing the precinct

The precinct's development is about optimising the health and education core and fostering a collaborative ecosystem that nurtures dynamic growth and innovation, bringing together partners from diverse and interconnected sectors such as research, biotechnology, environment, education and entrepreneurship.

The precinct will comprise complementary facilities, green spaces, and connectivity to position itself as a global leader in interdisciplinary teaching, research, and thought leadership.

Development of the precinct is not just about investigating the current and future use of the existing hospital campus but also about creating a dynamic, vibrant, and collaborative environment, focused around the health and education core.

The precinct provides opportunities for future facilities to support social and economic growth, provide appropriate healthcare and job prospects, and lead innovation integrating healthcare, education, research, and industry.





Cairns Health Innovation Centre

At the precinct's core, the Cairns Health Innovation Centre integrated with expanded surgical inpatient and outpatient services will provide a purpose-built education, training, research and innovation centre and is critical to the hospital's transition to a leading university hospital.

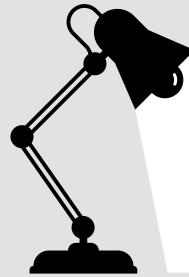
The Innovation Centre will be an interdisciplinary technology-focused, state of the art facility for world-leading education, training, innovation and translation of research into clinical practice.

It represents the next catalyst investment in the long-term development strategy for the Cairns Health and Innovation Precinct, and a focal point for engaging with and leveraging partnerships with education, research and the private sector.

The Cairns Health Innovation and Surgical Centre building will be connected via linkway to the existing Hospital and future acute services buildings, allowing for easy accessibility by staff and students.



Spotlight on Innovation Centre activities



The power of the Cairns Health Innovation Centre and its integration with the new surgical centre, existing Cairns Hospital, and future acute services buildings, lies in the intentional integration of four core elements, each feeding into and strengthening the others, creating a virtuous cycle that is greater than the sum of its parts.

1. The centre of innovation: The co-design workshop

This is the front door to the Centre, a portal to study, engagement, workshopping and innovation. This is where abstract ideas become tangible, field-ready solutions. It is structured as a product studio, inviting deep collaboration.

- **Technology enablers:** Our partnerships will provide the fundamental digital architecture that makes everything else possible. For example, the Cisco Next-Generation Innovation Institute Network offers the secure, high-bandwidth backbone for real-time collaboration, remote proctoring, holographic visualisation, and edge computing. This allows an engineer in Silicon Valley to observe a device being tested in a simulated Thursday Island clinic, or a specialist in Brisbane to guide a procedure in Cairns with zero latency. This infrastructure is a living lab for secure, reliable digital health solutions in low-connectivity environments.
- **Industry growth centres:** Partnerships such as with MTPConnect provides access to targeted grant funding, market intelligence, and a network of investors and corporate partners within the Medical Technologies, Pharmaceuticals, and Biotechnology sectors. They can help us de-risk early-stage development, connect our spin-out ideas with incubators, and accelerate the pathway to regulatory approval and market access for the solutions we co-create.

- **First Nations communities:** This is a critical partnership and is governed by principles of co-design and data sovereignty, established in partnership with Aboriginal Community Controlled Health Organisations (ACCHOs) and our Indigenous Research and Design program. Community members are inventors and project owners, ensuring solutions are culturally safe, embraced by communities, and effectively address real needs, thereby reducing issues like Discharge Against Medical Advice (DAMA) rates. Central to this will be the co-development of a Health-Equity Adjustment Score, this will open the opportunity to prioritise health inequalities for our marginalised populations and drive better outcomes across our region.
- **SMEs and start-ups:** Building links to JCU and other University business programs - co-staffed/run entry-level and community engagement programs - will enable us to offer a unique contract R&D service for smaller companies that lack the resources to test their products in tropical and remote conditions. Our ability to provide rapid prototyping, human factors testing, and generate validation data in these specific environments is a service that is hard to find anywhere else.

2. Toxicology centre of excellence (ToCE): The regional safety sentinel

The ToCE formalises and expands our existing clinical expertise into a 24/7 clinical research and advisory practice based service.

- **Clinical & research networks:** We are building formal partnerships with leading toxicology groups (e.g., Professor Jamie Seymour's team at JCU), poison information centres, and international research institutions in Papua New Guinea, Indonesia, and the Solomon Islands. This creates a powerful pan-tropical network for surveillance, research, and response.
- **Pharmaceutical partners:** The ToCE provides a platform for robust post-market surveillance of antivenoms and other toxicology-related pharmaceuticals. We can design and execute pragmatic clinical trials to answer urgent questions about dosing, efficacy, and safety in real-world settings, providing invaluable data to manufacturers.
- **Public health agencies:** We serve as an early warning system for climate-change-driven shifts in health risks, such as the southward migration of marine stingers. Data from our prospective envenomation registry is critical for state-wide public health planning and preparedness.

3. Surgical simulation & human factors centre: The collaborative training ground

This centre is the operational heartbeat and the primary engagement point for a wide array of partners. It is a shared resource for capability building.

- **Academic partners:** JCU and CQU are foundational strategic partners. With existing joint research appointments, we are supporting a robust Higher Degree Research pipeline for surgical innovation and sharing high-cost laboratory infrastructure. This collaboration ensures our research is academically rigorous and directly aligned with the regional health priorities.
- **Industry OEMs (MedTech & Pharma):** For original equipment manufacturers, our Simulation Centre offers an unparalleled service - 'tropicalisation' and validation. We aim to provide a training-as-a-service model, co-developing and delivering credentialed training programs for new technologies (e.g., robotic systems, advanced imaging). This derisks their market entry into regional and remote Australia and the Asia-Pacific by ensuring clinicians are expertly trained from day one. The data generated from these training sessions, how devices perform in simulated heat, humidity, and high-stress scenarios is immensely valuable for their R&D and regulatory submissions.
- **Government & Defence:** We offer contract training for agencies like the Australian Defence Force, focusing on austere environment medicine, trauma, and retrieval medicine, skills directly transferable to Defence operational needs. Similarly, partnerships with Retrieval Services Queensland ensure our simulation scenarios are grounded in real-world retrieval logistics.
- **Tourism & maritime industry:** We are developing paid, accredited safety training programs in partnership with entities like Surf Life Saving Australia and major tourism operators. These programs, focused on marine envenomation first response and trauma care, create a community-focused revenue stream while strengthening essential regional safety networks.

4. First Peoples health research & design: The ethical & cultural compass

This is not a separate element, but a golden thread woven through every activity at the Innovation Centre.

- **Partnership model:** We are moving beyond consultation to authentic partnership and shared ownership. This involves establishing formal agreements with representative bodies and ACCHOs that outline principles of intellectual property sharing, benefit repatriation, and community-led governance of research priorities. This model ensures that research and innovation directly translate into community benefit, building trust and ensuring long-term sustainability.



'Healing Spirit Hands'

Artwork produced for Cairns and Hinterland Hospital and Health Service by Jedess Hudson

Investing in the precinct

A compelling invitation to invest in and co-author the future

The Cairns Health and Innovation Precinct is more than a collection of integrated facilities and services; it is an invitation to partner with the broader Cairns and Asia-Pacific community to improve health, education and economic opportunity.

A living test bed for equitable, and impactful innovation. For industry partners, we offer de-risked access to new markets and invaluable validation data. For academic partners, we offer real-world research applications and a robust Higher Degree Research pipeline. For communities, we offer a seat at the table, ownership of solutions, and improved health outcomes.

Together we can be leaders and build the future of tropical health right here in FNQ.



'Cairns is attracting significant investment and Advance Cairns, as the region's leading advocacy and economic development body, is a strong advocate for the continued expansion and development of the Cairns Health and Innovation Precinct. A robust and growing economy relies upon a quality health ecosystem and the expansion of the CHHS services is a key plank of our advocacy for Northern Australia's most populous region.'

Nick Trompf, Chairman
Advance Cairns

Cairns and Hinterland Hospital and Health Service

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