



Cover photo

Annual Report 2025



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Research Infrastructure Network (AURIN)
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YEAR IN REVIEW

An Introduction from AURIN Director, Pascal Perez



While 2024 was a year of significant transformation for AURIN, 2025 stands as a year of consolidation.

Internally, the human and technological resources needed to deliver to our partners are now organised into four capabilities: Governance and Management, Engagement, the Enabling Platform and the Innovation Ecosystem. The latter is a crucial component in our ability to interact with academic, government and industry partners.

This interaction is governed by an Operating Model that clearly identifies three impact pathways through which AURIN intends to address industry and government challenges. To do this, AURIN will leverage its own resources and harness the innovative power of our academic network. This network has been formalised with the signing of five AURIN Node agreements with the following universities: The [University of New South Wales \(UNSW\)](#), [RMIT University](#), The [University of Queensland](#), The [University of Western Australia](#) and [Swinburne University of Technology](#). Since its official launch by [NSW Premier Chris Minns](#) in May 2025, the [Housing Analytics Lab](#) – hosted by UNSW and co-funded by AURIN – has attracted significant attention from industry and government amidst a national housing crisis.

In 2025, AURIN continued to unlock and share high-value commercial datasets with the urban research community, brokering new agreements with [Nearmap](#), [Quantium-Telstra](#) and [Ambient](#). We also strengthened collaboration between NCRIS-funded research infrastructure facilities and Cooperative Research Centres (CRCs), establishing co-investment arrangements with the [CRC for Reliable, Affordable, Clean Energy](#) (RACE for 2030) and exploring opportunities to support new CRC proposals in 2026.

The report highlights some of the research outcomes supported by AURIN this year, including a study led by The University of Queensland that established a consistent framework to assess the 'bikeability' of Australian cities. The outcomes will inform the [National Cycling Data Analytics Platform \(NCDAP\)](#), led by UNSW and supported by AURIN. AURIN also provided data to colleagues from [Monash University](#) to establish links

between flooding risks and disadvantaged communities, using catastrophic events in the Northern Rivers region. Meanwhile, colleagues from [Queensland University of Technology](#) demonstrated the impact of selecting specific data resolution for geospatial analysis of pandemics, such as COVID-19, on results and subsequent recommendations.

On the engagement front, AURIN has launched its digital Data Tales. The Data Tales herald the power of data, not only to provide evidence-based answers to urban challenges, but also to weave the data into engaging narratives for broader audiences. The first wave of Data Tales, for release in early 2026 leverages our partnership with [DSpark](#).

AURIN has also made significant contributions to the e-Research conference (AeRO25, Brisbane), the Architectural Science Association conference (ASA25, Melbourne) and the Locate25 conference (Brisbane), delivering our annual Peter Woodgate Award.

In 2025, AURIN contributed to two major collaborative initiatives amongst NCRIS-funded facilities: the [Coastal Australia Research Infrastructure \(COASTRI\)](#), led by [Integrated Marine Observing System \(IMOS\)](#), and the Australian Urban Climate Research Infrastructure (AUCRI), led by AURIN. These two initiatives were submitted for funding by the Australian Government in October 2025.

I would like to thank members of the AURIN Board, the Scientific Advisory Committee and the Industry Advisory Committee for their unwavering support and guidance. I'm also grateful to our industry partners, academic node leaders and colleagues for their commitment.

Finally, AURIN wouldn't have achieved so much this year without our passionate staff who believe in our mission and keep delivering National Research Infrastructure services.

YEAR IN REVIEW

Letter from the Chair of the Board, Chris Pigram AM, FTSE, PhD

As Australia continues to grapple with complex challenges, from housing affordability and climate adaptation to infrastructure planning and energy transition, the need for trusted data, robust research and collaborative partnerships has never been greater. In this context, AURIN's role as Australia's national urban research infrastructure has become increasingly important.



From a Board perspective, a major focus throughout 2025 was strengthening the foundations that will support AURIN's long-term success. The implementation of AURIN's new capabilities and Operating Model marks an important step in the organisation's evolution, creating clearer pathways between research, infrastructure and engagement.

Several developments during the year reinforce our confidence in AURIN's future direction. The continued growth of the AURIN Node Network is creating new opportunities for collaboration and research translation across Australia, while partnerships with universities, government agencies, industry and fellow NCRIS facilities are expanding AURIN's reach and impact.

On behalf of the Board, I would like to thank AURIN's staff, Scientific and Industry Advisory Committees, partners and stakeholders for their commitment and contributions throughout the year, as well as the AURIN leadership team for their direction during a period of significant organisational development.

As always, our gratitude goes to the University of Melbourne and the Australian Department of Education for their unwavering support of AURIN. With strong foundations in place, a growing national network and a commitment to real-world impact, I am confident AURIN will continue to support better decisions for Australia's cities, regions and communities.

A handwritten signature in black ink that reads "Chris Pigram". The signature is stylized, with the first letters of the first and last names being large and prominent.

PUBLIC SECTOR



WA.gov.au



Queensland Government



PUBLIC TRANSPORT VICTORIA



NSW GOVERNMENT



NGIS



Housing Australia



CITY OF MELBOURNE

Cancer Council
QueenslandAustralian Government
Bureau of MeteorologyAustralian Government
Geoscience Australia

Australian Bureau of Statistics

The AURIN Network

INDUSTRY SECTOR



WOOLPERT



Sydney WATER



SGS Economics & Planning



quantum



PEXA



OPTUS



NVIDIA



Nearmap



Infrastructure Sustainability Council



here



Green Building Council Australia

Green Building Council Australia



Geoscape



FRONTIER SI



Endeavour Energy

Endeavour Energy

DSpark
people.movement.insight.

Domain Group



Commonwealth Bank



AUSTRALIAN WATER ASSOCIATION



ALC

AUSTRALIAN LOGISTICS COUNCIL



Ambient

ACADEMIC SECTOR



21st Century Weather

ARC Centre of Excellence



THE UNIVERSITY OF WESTERN AUSTRALIA



THE UNIVERSITY OF QUEENSLAND AUSTRALIA



UNSW SYDNEY



THE UNIVERSITY OF MELBOURNE



THE UNIVERSITY OF SYDNEY



SWINBURNE UNIVERSITY OF TECHNOLOGY



RMIT UNIVERSITY

RDA
RESEARCH DATA ALLIANCEtern
Ecosystem Research InfrastructurePHRN
Population Health Research Network

NCI AUSTRALIA

IMOS
Integrated Marine Observing System

QUT



QCIF



PATREC

ARDC
Australian Research Data CommonsAUSTRALIAN ACCESS FEDERATION
AAAF.EDU.AU

Curtin University



UNSW City Futures Research Centre



UNSW City Futures Research Centre

UNSW City Futures Research Centre



AuScope

AuScope



ACCESS

National Research Infrastructure

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AURIN delivers a regular newsletter, the AURIN Auricle to a subscriber base of over 10000 researchers and decision makers.

We provide our audiences with updates on current and future partnerships, products and events. We optimise formats, layouts and content to ensure maximum reach, engagement and accessibility for a wide range of subscribers. These newsletters are a valuable resource for researchers, government, industry, and anyone interested in understanding more about current AURIN happenings.

Not a subscriber? Don't miss out!
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Follow us!

AURIN manages three regular social channels, LinkedIn, and our recently launched Bluesky and YouTube. Our different social channels allow AURIN to provide regular updates to our audiences, and we encourage open dialogue to share knowledge about AURIN data, research impacts and progress on addressing national challenges such as climate change, energy transition and demographic transformation.



[@AURIN](#)



[@AURIN-DRI](#)



[@aurin-dri.bsky.social](#)

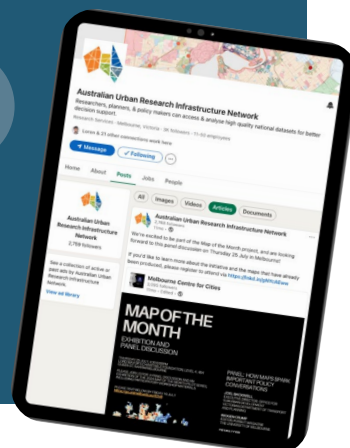
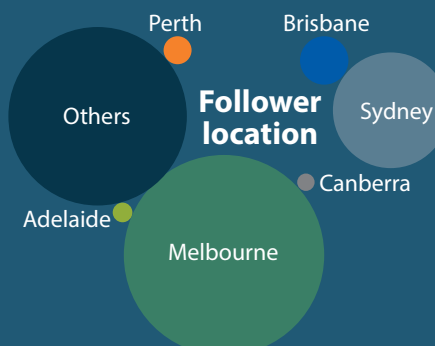
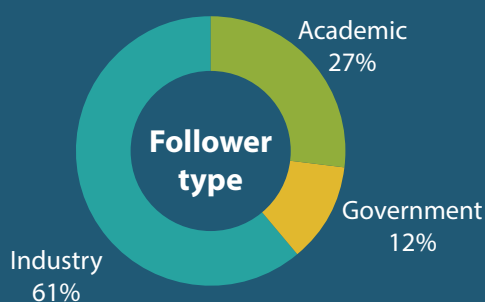


[@AURIN](#)

Followers growth
+1.2K
50% 2025 total increase
3.6K
Total followers

Impressions
>80K

Engagement rate
>11%



ABOUT AURIN

Providing data and tools to tackle Australia's biggest urban challenges

The Australian Urban Research Infrastructure Network (AURIN) is a national digital research infrastructure that provides researchers, government and industry with access to hard-to-get data, advanced analytical tools and expertise to support evidence-based decision-making on some of Australia's most complex challenges.

Funded by the Australian Government through [NCRIS](#) and headquartered at the [University of Melbourne](#), AURIN supports decision-making on pressing urban and regional challenges, including climate change adaptation, housing affordability, the

energy transition, demographic change and social infrastructure planning. These challenges matter because Australian cities are home to 90% of the population, generate 80% of GDP and contribute almost 60% of national carbon emissions.

Mission and vision

AURIN's mission is to enable high-impact research and evidence-based decision-making through access to critical datasets, analytical tools and collaborative digital research infrastructure.

Its vision is to support more liveable, sustainable, resilient and equitable Australian cities and regions through connected, impact-focused research and innovation. Since its establishment in 2010, AURIN has supported more than 24,000 users by providing access to hard-to-get data, performing hard-to-do analysis and providing technical expertise.

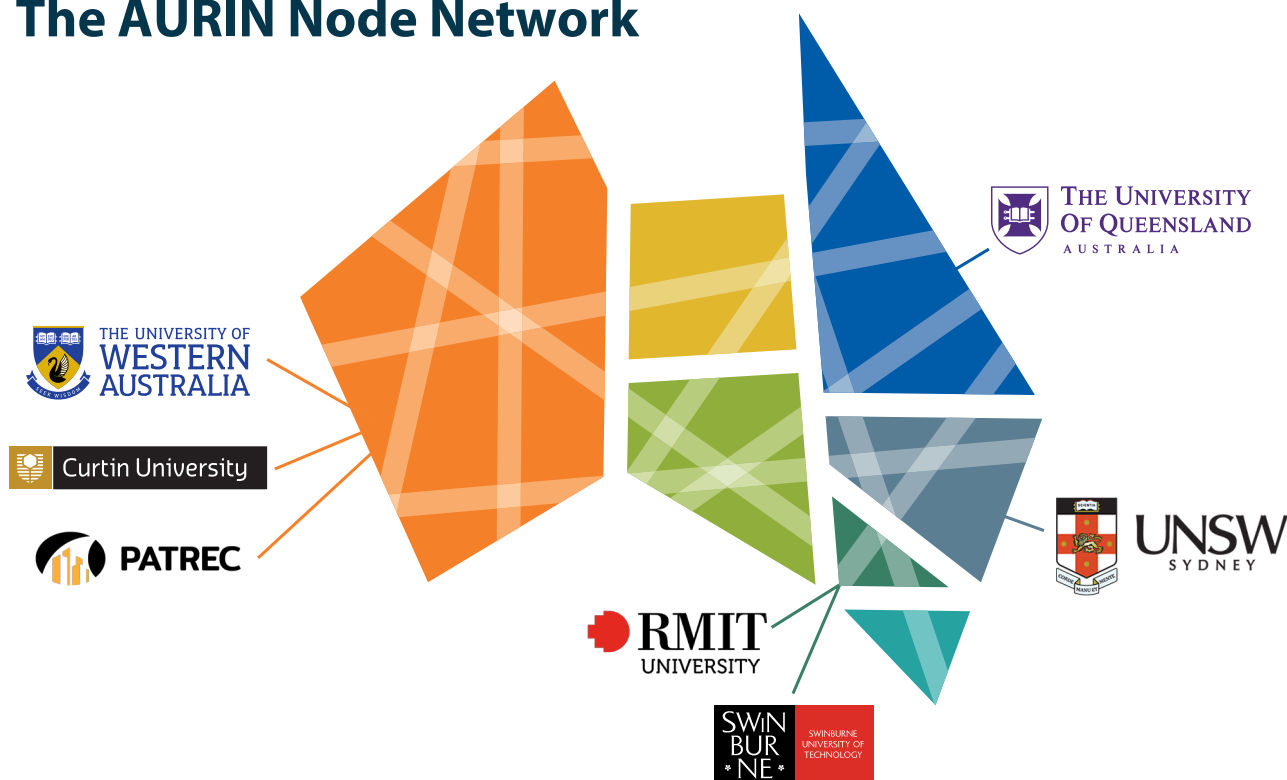
ABOUT AURIN

Nodes, partners and user community

At the centre of our approach is the AURIN Node Network, a collaboration of leading research institutions across Australia that work together to solve critical urban and regional challenges, such as housing, transport and environmental health.

AURIN combines a central headquarters (AURIN HQ) hosted by the University of Melbourne with a distributed network of partner Nodes across Australia, including the [UNSW Node \(Sydney\)](#), [WA Node \(Perth\)](#), [URBANiQ Node \(Brisbane\)](#), the [RMIT Urban Dynamics \(RUDY\) Node](#) and [Swinburne Node \(Melbourne\)](#). The AURIN Node Network expands national capability by pooling resources, aligning research strengths and connecting expertise across jurisdictions, disciplines and sectors.

The AURIN Node Network



A national growing Node Network

In Western Australia, the AURIN WA Node, delivered in partnership with the [Planning and Transport Research Centre \(PATREC\)](#), is supporting research to address challenges such as climate change, energy transition and demographic transformation in cities, regional centres, infrastructure systems and local communities. Supported by co-investment from the [WA State Government](#), the [University of Western Australia \(UWA\)](#) and [Curtin University](#), the AURIN WA Node will initially focus on needs identified by the WA government, including battery-electric school buses, mapping circular economy pathways in WA and carbon accounting for new residential developments. Over time, the Node will develop analytical tools, indicators and projections to support integrated land-use and transport planning, resilient infrastructure and sustainable communities.

‘By connecting research infrastructure with practical policy needs, the AURIN WA Node ensures that WA remains at the cutting edge of climate resilience and sustainability efforts, while allowing for economic and social growth.’

Professor Sharon Biermann, Director of PATREC



Meanwhile, Queensland’s [URBANiQ Node](#) – a collaboration between AURIN and the [Institute for Social Science Research](#) at the [University of Queensland](#) – is focused on improving urban health, liveability and equity outcomes. Its first projects explore how transport behaviours and environmental exposures shape health outcomes and how urban liveability can support equitable and healthy futures. Both projects are aligned with national and state priorities and will help inform planning for the 2032 Brisbane Olympic and Paralympic Games. URBANiQ collaborates closely with partners across sectors, including [Health and Wellbeing Queensland](#), [Brisbane City Council](#), the [Queensland Department of Transport and Main Roads](#), and the [Australian Institute of Health and Welfare](#). These partnerships will help ensure that research questions, data needs and outputs are shaped by those who will use them.

‘Developing the AURIN node – URBANiQ – at The University of Queensland presents a fantastic opportunity to work alongside fellow academics, policy makers, NGO’s and communities to harness Australia’s urban data research infrastructure and better understand how places can facilitate healthy and equitable outcomes for populations. As we establish URBANiQ, we are eager to collaborate with others across Queensland and Australia who share this mission.’

Dr Jon Olsen, Director of URBANiQ



ABOUT AURIN

A capability-led framework

AURIN is moving toward a clearer, more integrated Operating Model built around four core capabilities: Engagement, Enabling Platform, Innovation Ecosystem, and Governance and Management. Together, these capabilities describe how AURIN will connect people, data and tools to enable research, planning and innovation at scale.

The intent is to move beyond AURIN being understood primarily as a data provider. The future direction is to establish AURIN as Australia's Urban Research Infrastructure Network: a coordinated national capability that brings together trusted data, technical infrastructure, strategic partnerships, communications, governance and pathways to impact.

Each capability has a distinct role, but their value comes from how they work together.

- Engagement: brand, positioning, communications, visibility, storytelling, awareness.
- Innovation Ecosystem: partnerships, co-design, challenges, translation, pathways, impact.
- Enabling Platform: data, tools, services, access, technical expertise, user support.
- Governance and Management: strategy, stewardship, risk, policy, operating model, sustainability.

The capabilities are not separate business units operating in isolation. They are intended to function as an interconnected system: Engagement creates visibility and demand; the Innovation Ecosystem shapes partnerships and opportunities; the Enabling Platform delivers the data and technical capability; and Governance and Management ensures the system is strategic, accountable and sustainable.

Establishing the capabilities is therefore not just an internal restructure. It is a shift in how AURIN defines, organises and communicates its value. It provides a clearer way to prioritise activity, align resources, strengthen partnerships and demonstrate how national research infrastructure contributes to real-world outcomes.

Together, these capabilities enable AURIN to connect data, technology, expertise and partnerships to support nationally significant research and evidence-based decision-making.



IMPACT

Better decisions, stronger communities, smarter investment, sustainable Australia.

ENGAGEMENT

Positioning through branding and communications

-  Clear, consistent brand that communicates who we are and what we do
-  Targeted communications that reach and resonate with our audiences
-  Showcasing impact and success to build trust and visibility
-  Growing awareness, advocacy and engagement to expand our reach

ENABLING PLATFORM

The integrated platform that powers urban research

-  Trusted, diverse data brought together ethically and securely
-  Interoperable tools and services that enable end-to-end research
-  Scalable, secure infrastructure and robust architecture
-  Helping users access, understand and apply data with confidence

INNOVATION ECOSYSTEM

Strategic partnerships working together to deliver impact

-  Collaborative network of partners across government, academia, industry and communities
-  Co-designing solutions to real urban challenges
-  Aligning efforts and resources to deliver measurable impact
-  Building capability and fostering innovation across the ecosystem

GOVERNANCE

Strong leadership and accountability that underpins trust

-  Clear governance frameworks and decision-making
-  Ethical, legal and privacy compliance at the core
-  Transparency, accountability and responsible stewardship
-  Inclusive representation and consideration of community and stakeholder needs

Build awareness and trust

Provide the capability and infrastructure

Collaborate to create and deliver impact

Ensure trust, quality and accountability

AURIN
connecting people, data and tools to enable research, planning and innovation

OUR CAPABILITIES

Governance and Management: positioning AURIN for long-term success

Capability overview

The Governance and Management capability provides the organisational foundations that enable AURIN to operate effectively and deliver long-term value to Australia's research community. We bring together the functions required to sustain and guide the organisation. This includes governance, legal, finance, risk management, workforce planning, strategic planning and operational oversight.

Objectives and priorities

Governance and Management has three main priorities: securing AURIN's future, planning for long-term impact, and building a strong organisational culture. Tracy Baylis, the Governance and Management lead, says that helping AURIN understand and navigate the broader policy, funding and research environment ensures it remains well-positioned to seize emerging opportunities and deliver on its strategic objectives.

'AURIN's long-term success depends on our ability to demonstrate value and build strong relationships across the research infrastructure ecosystem,' said Tracy. 'That means continually showing how national research infrastructure contributes to better research, better decisions and better outcomes.'

Key achievements

Governance and Management has strengthened AURIN's ability to respond to the evolving needs of Australia's urban research community. Early outcomes have included greater organisational agility, increased cross-functional collaboration, enhanced knowledge sharing and stronger team cohesion.

With accountability for fostering AURIN's organisational culture, Governance and Management led the articulation of AURIN's values early in 2025. It later delivered the organisation's inaugural Culture Report, which provided valuable insights into workforce engagement and cultural alignment.

Governance and Management in action

During 2025, the Governance and Management capability led AURIN's engagement with key national policy and funding initiatives, including consultations on the [National Research Infrastructure \(NRI\) Roadmap](#), the [Strategic Examination of Research and Development \(SERD\)](#), the [Review of the National Competitive Grants Program \(NCGP\)](#) and the development of several critical NCRIS proposals. It also guided organisational thinking on emerging opportunities and challenges associated with technological developments such as data spaces and artificial intelligence.



Tracy Baylis,
Governance and
Management lead





OUR CAPABILITIES

Innovation Ecosystem: Bringing stakeholders together to understand and address urban challenges

Capability overview

The Innovation Ecosystem capability brings together AURIN stakeholders (decision-makers, researchers, and data and technology providers) to identify national urban challenges and the research solutions needed to address them. Through a collaborative network of partnerships with industry, government, academia and communities, the Innovation Ecosystem focuses on understanding the needs of end users, co-designing solutions and facilitating the partnerships, contracts, processes and governance required to turn them into reality.

Aaron Magri, the Innovation Ecosystem lead, affirms that, 'The Innovation Ecosystem is about bringing stakeholders and partners into AURIN so that they can use the infrastructure within the Enabling Platform to do research and translate it into industry and government impact.'

Aaron further explains, 'We position industry and government as end users within that ecosystem, and we also work with data and technology partners whose offerings we bring into AURIN. The operations and ongoing delivery from those partnerships are then handed over to the Enabling Platform. At a higher level, it's really about relationships, and about managing the processes and governance that make those relationships work.'

Objectives and priorities

The key objectives for this capability are to bring more research partners into the Innovation Ecosystem through the AURIN Node Network, to expand AURIN's infrastructure offerings through new partnerships with data and technology providers, and to clarify the pathway for research translation.

Jannat Maqbool, Business Development Manager at AURIN, says that the Innovation Ecosystem capability is critical to AURIN's Operating Model and evolution.

'Innovation Ecosystem helps the Enabling Platform to translate research into impact – you need people out there identifying problems and opportunities, creating spaces for conversation, figuring out what data is required, whether it needs to be curated or created, and then bringing that back in to enable research translation,' Jannat says.



Aaron Magri,
Innovation
Ecosystem lead



Jannat Maqbool,
Business Development
Manager



Key achievements

In 2025, we established AURIN's national Node Network – a network of institutions across Australia that pool resources and expertise to address shared urban challenges and align with AURIN's activities. The first five AURIN Nodes were officially established in 2025, including in New South Wales, Western Australia, Queensland and Victoria. In 2025, the Innovation Ecosystem also negotiated data agreements and hosted stakeholder workshops to understand potential challenges and future activities.

This year also saw the progression of our operating model, designed to better connect our national research infrastructure with real-world outcomes. Central to this model is a clearer set of impact pathways that help AURIN prioritise effort, support researchers and partners, and demonstrate value:

- Foundational support: maintaining AURIN's core infrastructure, data services, tools, expertise and user support so that researchers and partners can continue to access trusted national urban research capability.
- Breakthrough opportunities: identifying high-potential research opportunities where scarce, high-value data and focused AURIN support can unlock significant new insights, partnerships or translation outcomes.
- Strategic priorities: aligning AURIN's capabilities, partnerships and Node Network around nationally significant challenges, including climate change adaptation, energy transition and demographic transformation.

Together, these pathways strengthen AURIN's ability to move from access to impact, a key achievement of our Innovation Ecosystem.

Next steps

One of the exciting developments on the horizon for the Innovation Ecosystem capability is the inaugural round of our Breakthrough Opportunities. This impact-focused program will allocate high-value data to the most promising research projects. Beyond 2025, the Innovation Ecosystem capability will expand data offerings to include new datasets and establish new research infrastructure and data partnerships.

Innovation Ecosystem in action

In September 2025, AURIN brought together around 20 participants, including researchers, government representatives and industry stakeholders, through a housing-focused workshop hosted by the Housing Analytics Lab at UNSW.

The workshop explored some of Australia's most significant housing challenges. It provided an opportunity for stakeholders to share perspectives, identify priority issues and explore how research, data and digital infrastructure could support future solutions. The workshop helped validate housing as a priority challenge area for AURIN. It also demonstrated the value of AURIN's Innovation Ecosystem capability in creating connections between researchers and end users, helping shape future challenge-led research and strengthening pathways for research translation. Findings from the workshop are now being used to develop an industry white paper.

'The idea behind the workshop was to bring stakeholders together and understand where the problem and opportunity spaces are. That then informs the research infrastructure and data, which is what guides the research translation back to impact,' said Aaron, who leads the Innovation Ecosystem capability. 'The key learning is that we need to strongly partner with other organisations, such as peak bodies and specialist innovation groups, that focus on the subject matter. Working with them allows us to progress these problem and opportunity spaces using the research infrastructure and the research-industry-government partnerships that we can enable.'



OUR CAPABILITIES

Enabling Platform: providing researchers with the data and resources they need

Capability overview

The Enabling Platform is AURIN's engine room. While the Innovation Ecosystem focuses on bringing together the right partners and stakeholders to understand which problems need research solutions, the Enabling Platform provides the data, expertise and technical services needed to bring those solutions to life. It finds and curates hard-to-get datasets, makes them accessible to the researchers and supports them to solve real-world challenges.

Dr Loren Bruns Jr and Josh Clough, capability leads for the Enabling Platform, explain that AURIN's Enabling Platform is much more than just a repository or warehouse of data. Instead, they describe it as more of a library, with high-value resources along with expert support and guidance that ensures those resources are visible and usable.

'We aim to fill the shelves with 'bestsellers' and hire the best 'librarians' to make sure researchers are well supported to understand what each 'book' is about, helping to match the right data to the right person for the right project,' Josh says.



Dr Loren Bruns Jr,
Enabling Platform lead



Josh Clough,
Enabling Platform lead

Objectives and priorities

Loren explains that, 'The main purpose of the Enabling Platform is to give researchers access to high-value, hard-to-get data that allows them to do high-impact, hard-to-do things.'

This new emphasis on holistic research enablement has informed AURIN's shift in focus to providing expert support in the discovery, delivery, and usage of unique, high-value data and away from AURIN's traditional role as a data provider for thousands of self-serve datasets.

'We want to be a lot more targeted in terms of what we're providing,' says Loren. 'We want research outputs to have a life beyond the end of a project. It's not just about helping researchers access data. It's about helping them create solutions that can continue delivering value and informing decisions long after the original research has finished.'

Key achievements

For the Enabling Platform, 2025 was a year of consolidation and putting the right pieces in place to set the foundations for long-term success, defining the platform's purpose, identifying the researchers and partners it serves, and developing a more strategic framework for managing data and services.





2025 also saw the continued delivery of new and existing high-value datasets, such as: [DSpark](#) mobility data to understand when, why and how people move; [Nearmap](#) high-resolution imagery products; [Geoscape](#) location intelligence data; [Ambient](#) transport noise data and updated [National Health Services Directory](#) data from [Healthdirect](#). The team also undertook significant preparatory work to support future access to [Quantium-Telstra](#) mobility data and [Domain](#) property data.

Next steps

Looking ahead, the Enabling Platform will continue to expand AURIN's portfolio of high-value data assets while strengthening the services that support researchers to use them effectively. Upcoming priorities include the rollout of new datasets, including Domain and Quantum-Telstra data, continued improvements to the user experience of AURIN's Enabling Platform, and ensuring unique and high-impact datasets are easily visible.

Enabling Platform in action

AURIN's work with DSpark mobility data demonstrates how the Enabling Platform turns high-value, hard-to-get data into research-ready evidence. Initial awareness may begin through accessible examples such as Data Tales, but the real value lies in the pathway that follows. That is, researchers move from discovering what the data can reveal, to consulting with AURIN experts about their research questions, to receiving tailored support that helps them access and apply data that would otherwise be difficult or impossible to access and use.

'Researchers come to us with their research questions, and we help them understand what is possible with the data and how it could support their research,' says Josh.

The Enabling Platform team can undertake custom data extractions on researchers' behalf, managing the complexity of interacting with the DSpark API and reducing the technical burden on research teams. This hands-on expert support enables researchers to work with sophisticated mobility data without needing to build specialist skills to interact with the API themselves.

By combining high-value data access, technical extraction services and domain expertise, the Enabling Platform is creating a repeatable model for transforming complex commercial datasets into usable research assets that support high-impact urban research.



OUR CAPABILITIES

Engagement: connecting people and infrastructure to shape urban research

Capability overview

The Engagement capability helps ensure Australia's urban research community can access, understand, and benefit from AURIN's national digital research infrastructure, including its data, tools, platforms, and expertise. It builds awareness, trust, and sustained participation across AURIN's stakeholders.

Engagement activities span academia, government, industry, and fellow NCRIS research infrastructure partners, and help strengthen collaboration in solving Australia's major urban and regional challenges, including housing, transport, health, climate adaptation, land use, and energy transition.

We focus on community building, research impact visibility, leadership in spatial data science and urban analytics, stakeholder engagement, and the communication of fit-for-purpose research solutions that support evidence-based decision-making and real-world outcomes.



Emma Joughin,
Engagement lead

Objectives and priorities

Engagement helps ensure that research outputs are visible and accessible. Its activities help users understand how to apply AURIN's resources to their work. Emma Joughin, who leads the Engagement capability, says that 'Engagement helps researchers discover relevant datasets, analytical tools and specialist expertise. The goal is that every researcher or potential partner can see themselves in what AURIN offers, and how we can support their work.'

Engagement ensures consistent messaging across all AURIN activities. It translates technical achievements into compelling stories that resonate with researchers and policy audiences, reinforcing AURIN's position as a leading voice for the Australian urban research community.

'Engagement runs across everything we do,' says Emma. 'The role of the capability is to pull together all of those opportunities into a cohesive strategy – to promote the AURIN name and ensure we maintain our status as Australia's leading urban digital research infrastructure.'

Key achievements

Engagement maintains a presence at national conferences and sector events. In 2025, this included attendance, exhibition, and speaking appearances at gatherings including the [Planning Institute of Australia National Congress](#) and the [eResearch Australia conference](#). These events are opportunities to advocate for research infrastructure, share the outcomes of AURIN-supported projects, and amplify the work of AURIN's partners.

AURIN's engagement is a 2-way process. Beyond promoting AURIN's capabilities, it is also about listening and continuously adapting in response to the evolving needs of the researchers, planners, and decision-makers it serves.

Initiatives include events, programs and collaborative activities designed to strengthen skills, showcase opportunities and encourage dialogue.

AURIN's national network of collaborators, partners and nodes remains central to its engagement. This network enables AURIN to work more closely with researchers tackling nationally significant urban issues and support access to specialist data, tools and expertise that may otherwise be difficult to obtain.

Next steps

One of the exciting developments on the horizon for Engagement is the upcoming release of Data Tales. This new approach to data storytelling will be an ongoing series of well-crafted data stories developed in-house by AURIN's data science team in partnership with data partners.

AURIN will release a series of [Data Tales in 2026](#). Each will present data and analysis in a format that is interactive, accessible and engaging. Readers will be able to zoom in on their own neighbourhood and understand how urban research affects their daily lives. Topics include [mobility around major events](#), [urban heat vulnerability](#) and other research.

Engagement capability in action

One of AURIN's standout initiatives in 2024–25 was the Urban Data Futures program, which brought together 19 final-year Master of Data Science students from the University of Melbourne to work on real-world urban data challenges. What began as a mentoring initiative evolved into a structured professional experience that gave students direct exposure to applied urban data science, industry engagement, and collaborative research practice.

Over one semester, students worked closely with AURIN data scientists Dr Masoud Rahimi, Dr Hao Chen and Dr Bradley Greig on a series of capstone projects focused on emerging challenges in urban data management, analysis, validation and discovery. The program combined technical mentoring, practical problem-solving and hands-on learning with exposure to the kinds of challenges faced by researchers, government and industry. Students also presented their final projects at AURIN HQ, to a judging panel made up of academic, government and industry representatives, providing valuable professional experience before entering the workforce.

The [Urban Data Futures](#) initiative focuses on equipping emerging researchers with practical skills in areas including geospatial analysis, Python programming, machine learning, GenAI, data visualisation, and relational and non-relational databases. The aim is to bridge academic learning with practical application and prepare students for careers in data-driven decision-making.





OUR CAPABILITIES

Geospatial leader Professor Zaffar Sadiq Mohamed-Ghouse recognised for a career of collaboration, innovation and mentorship

Professor Zaffar Sadiq Mohamed-Ghouse, Vice President and Director, Advisory and Innovation at Woolpert, has been recognised with one of the Australian geospatial sector's highest honours, receiving the 2025 Peter Woodgate Award for his outstanding contributions to the geospatial community.

Jointly presented by AURIN and the Geospatial Council of Australia, the award honours the late Peter Woodgate, a pioneer in geospatial science, former AURIN Board Chair and President of the Geospatial Council. The award celebrates individuals who embody leadership, collaboration, mentorship and innovation.

For more than two decades, Zaffar has helped shape geospatial science in Australia and internationally by building partnerships, championing new ideas and investing in the next generation of professionals.

"This award is very special to me, as it is named after my guide, friend, and philosopher, Dr Peter Woodgate. I deem it a great privilege and honour to be the third recipient of this prestigious award. The recognition motivates me to contribute more to the Geospatial Community and continue Dr Woodgate's legacy," Zaffar said.

Zaffar has forged strong relationships between Australian and international geospatial organisations, establishing Memoranda of Understanding between the Surveying and Spatial Sciences Institute (SSSI) and leading organisations in the UK, China, the Open Geospatial Consortium and the ASEAN Federation of Land Surveying and Geomatics.

Mentorship has been a defining feature of his career. He established the inaugural SSSI mentoring program in 2009–10 and continues to mentor PhD students and early career researchers through the Australian Academy of Technological Sciences & Engineering's Industry Mentoring Network in STEM (IMNIS).

Internationally recognised for pioneering the 'Future of Geospatial Ecosystem' concept, Zaffar has also co-founded the Private Sector Network of the United Nations Global Geospatial Information Management (UN-GGIM), contributed to the Geospatial Knowledge Infrastructure program, and continues to support international geospatial standards and collaboration.

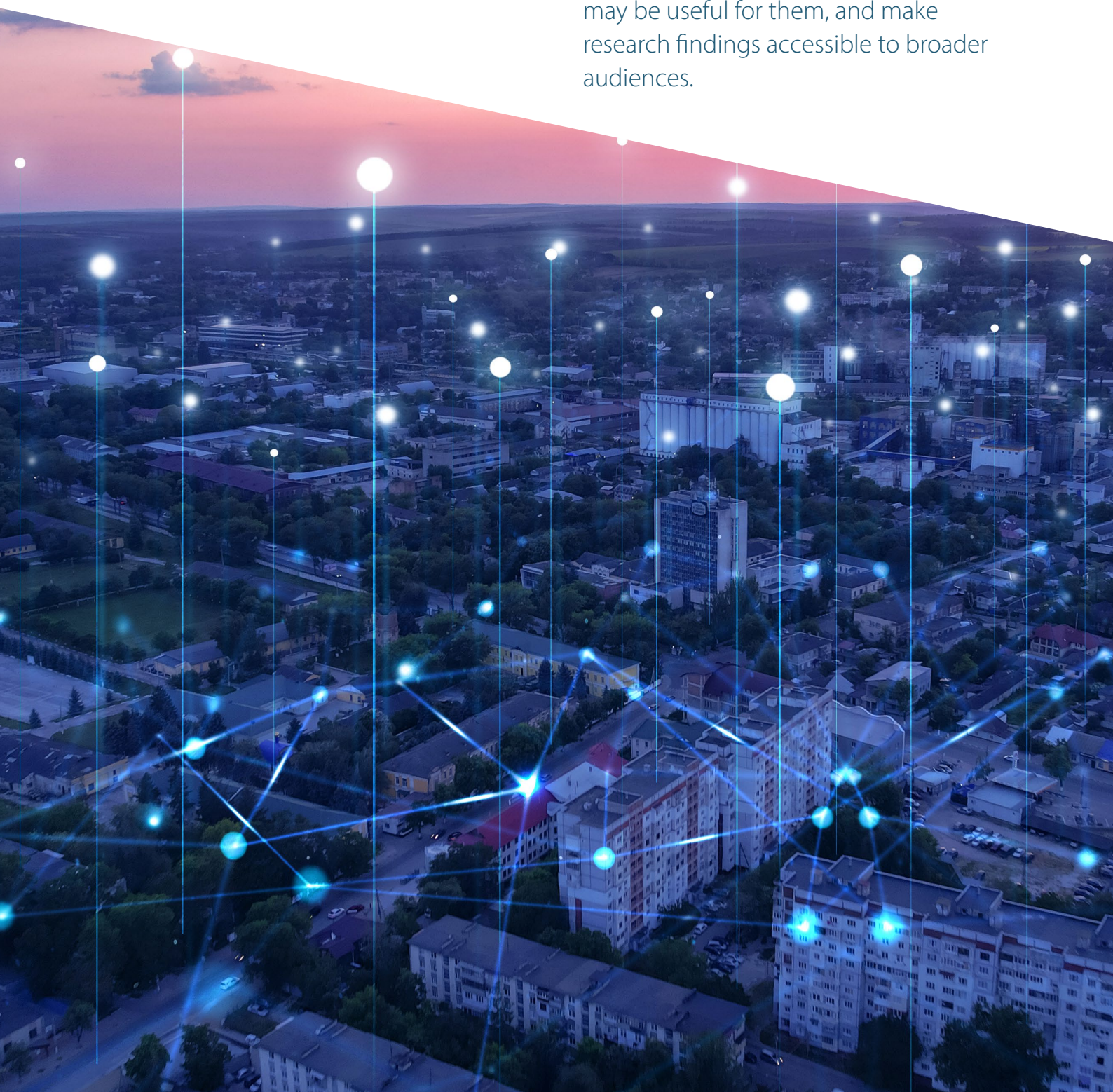
Director of AURIN, Pascal Perez, said Zaffar's recognition is well deserved.

"Peter Woodgate was a trailblazer for Australia's Space and Spatial Information industries, with unwavering enthusiasm and ambition. As a champion of geospatial science, Zaffar embodies many of the qualities that Peter stood for, and AURIN is pleased to present this award to him as a truly deserving recipient," Pascal said.

Learn more on the [AURIN website](https://www.aurin.org.au).

RESEARCH IMPACT

Our impact stories and Data Tales showcase how AURIN's data, expertise and partnerships are helping address real-world urban challenges. They demonstrate the combined impact of AURIN's new capabilities, provide an entry point for researchers seeking to understand how AURIN's data may be useful for them, and make research findings accessible to broader audiences.



RESEARCH IMPACT

Understanding bikeability to shape healthier, more connected cities

Using spatial data and support available through AURIN, researchers from the University of Queensland developed a new approach to understanding what makes neighbourhoods more bikeable and how cities can better support cycling.

Across Australia, cities are looking for safer, easier ways to support cycling. 'Bikeability' describes how well an area supports cycling through its infrastructure, safety, environment and access to everyday destinations. However, differing definitions, indicators and approaches have made it difficult for planners to understand which factors most influence cycling behaviour.

To address this challenge, [the research team examined](#) what truly drives bikeability and how to measure it consistently across cities. They identified four key components of bikeability: infrastructure, safety, ambient environment and accessibility. Using AURIN's nationally consistent datasets, the team mapped indicators such as bikeway density, traffic conditions, land use and access to destinations, before applying machine learning techniques to identify which factors had the greatest influence on cycling activity.

The findings revealed that destination accessibility, air quality, bikeway separation from traffic and bikeway density were the strongest drivers of cycling levels. While cycling infrastructure remains important, access to destinations and broader urban design also play a critical role in encouraging people to ride. 'Accessibility

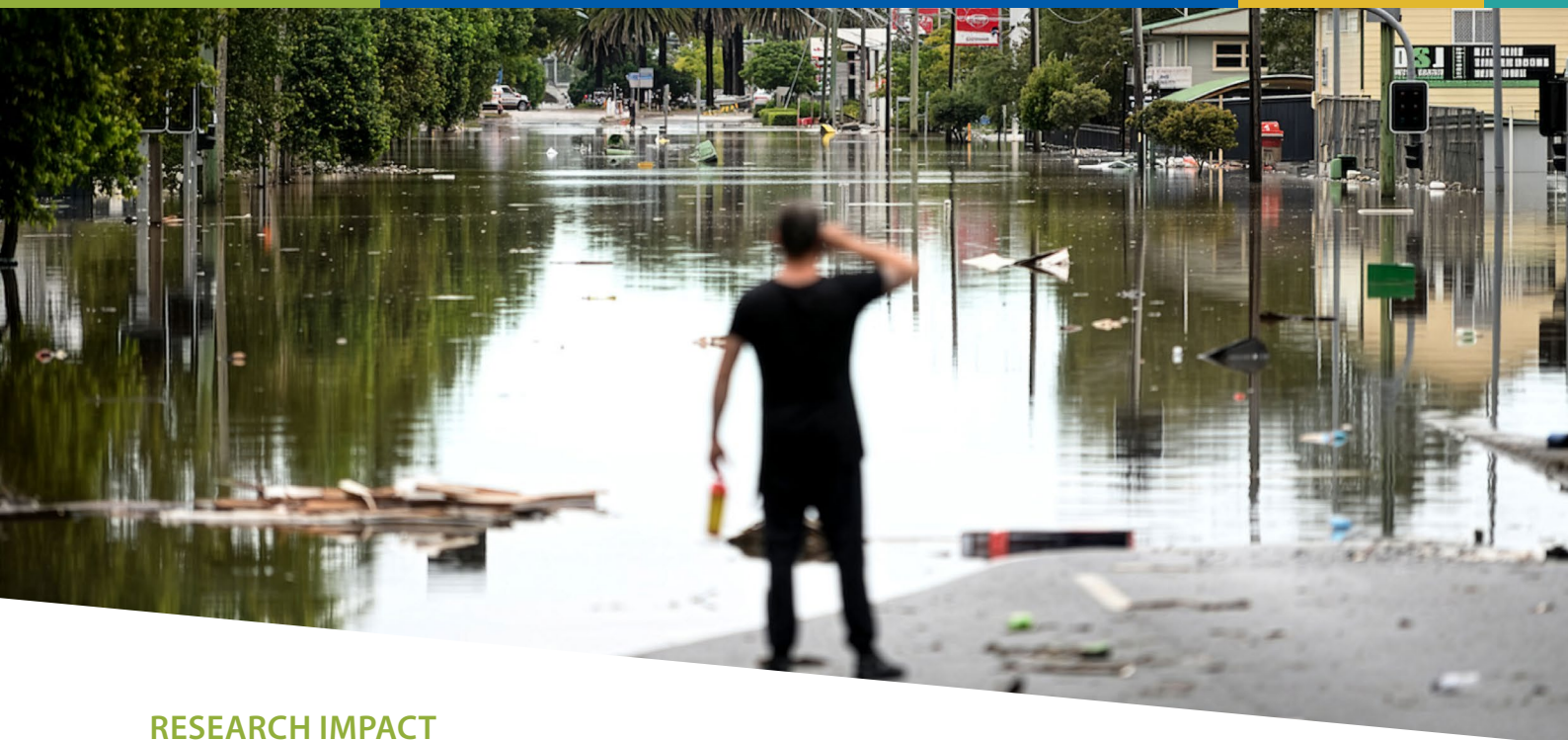
explained around a quarter of all variation in cycling levels in the cities we studied,' project lead, Senior Lecturer Scott Lieske said. 'That gives us confidence that we're measuring something real and meaningful for planners.'

Using AURIN's rich spatial datasets, the team refined several components of the accessibility index and tested it across Sydney, Melbourne and Brisbane. They found that good destination access often matters more than the amount of bike infrastructure alone.

'AURIN gave us the spatial foundations to make this possible,' said Scott. 'Clean, consistent datasets meant we could test our ideas across multiple cities, not just in one specific context.'

As Australian cities seek to create healthier, more connected and sustainable communities, this research provides valuable evidence to inform future transport and urban planning decisions. It also demonstrates how AURIN's digital research infrastructure enables researchers to combine diverse datasets and analytical approaches to better understand complex urban challenges.





RESEARCH IMPACT

Climate-related disaster risk in Australia: Are risks higher for disadvantaged households?

Using geospatial, socioeconomic and property market data through AURIN's Data Portal, researchers from Monash University investigated how climate-related disasters affect different communities and whether disadvantaged households bear a greater share of the burden.

Australian cities are facing more frequent and severe heatwaves, bushfires and floods due to climate change. However, not all communities bear the burden equally. Households already experiencing disadvantage often have fewer available financial resources when disasters strike.

To better understand this unequal burden, the [research team analysed](#) the 2022 floods in the Northern Rivers region in New South Wales. Combining flood mapping, socioeconomic data and property market information, they compared how communities experienced and recovered from the disaster. The comprehensive analysis, linking demographic, flood-risk and property-level data, was made possible through AURIN's Data Portal, which provided access to crucial data from the Australian Property Monitor. This included property sales, sale prices and property features.

The research found that the most flood-prone areas were already more disadvantaged before the flood, with lower incomes, higher unemployment and more single-income households than wealthier coastal

communities. Following the floods, heavily affected areas experienced house price declines of up to 27% and a sharp rise in property listings, suggesting widespread distress sales and financial hardship.

For many lower socio-economic households, limited insurance cover, high repair costs and a lack of savings reduce their ability to recover, leaving some residents with little choice but to sell before markets recovered.

'The strength of this analysis came from being able to integrate geospatial flood mapping with detailed property-level data through AURIN', said researcher, Dr Antonia Settle from Monash University. 'That combination allowed us to examine climate impacts at a level of granularity that is rarely possible in Australia.'

The findings highlight how climate-related disasters can deepen existing social and economic inequalities, helping governments and planners develop more equitable approaches to disaster preparedness, recovery and resilience. It also demonstrates how AURIN's data infrastructure enables researchers to combine diverse datasets to address complex environmental and social challenges.

RESEARCH IMPACT

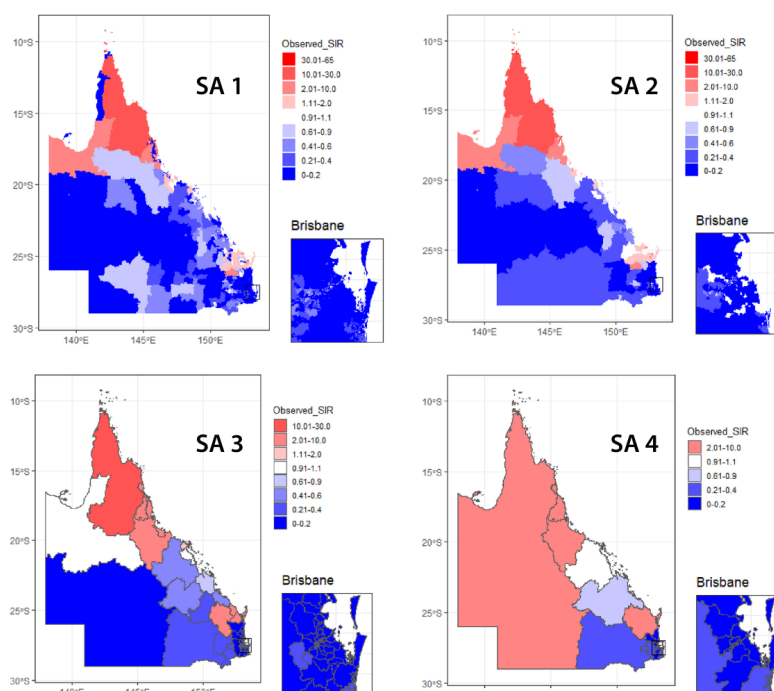
Improving spatial analysis for disease risk detection: A COVID-19 case study

Using spatial data and analytical capabilities supported by AURIN, researchers from Queensland University of Technology investigated how the choice of spatial scale can influence the detection of disease hotspots and the interpretation of public health risks.

During COVID-19, public health agencies relied heavily on data to understand where the virus was spreading and who was most at risk. Understanding disease spread by location helps researchers understand where and why disease clusters may be emerging, informing public health decision-making. However, disease data are typically aggregated into geographic regions to protect privacy, and factors such as data resolution and geographical boundaries can significantly influence the patterns that emerge and the conclusions drawn from them.

To better understand these effects, [researchers analysed](#) COVID-19 incidence data across Queensland using different statistical geography levels, from small areas (Statistical Area Level 1, SA1) through to much larger regions (Statistical Area Level 4, SA4). They found that coarser spatial scales tended to mask disease hotspots and increase uncertainty. In contrast, finer scales revealed clearer patterns of disease incidence and provided more precise information about where risks were concentrated.

The analysis identified SA2 as the optimal scale for modelling COVID-19 incidence, providing the best balance between spatial resolution, model stability and interpretability. 'SA2 still gives a good amount of detail about pockets of high and low incidence, whereas SA3 takes it a step too far because it averages over a much larger area, and we start to lose important detail,' said Dr Aiden Price, Senior Research Associate at Queensland University of Technology.



Choropleth maps of the observed Standardised Incidence Ratios from the LA COVID-19 data at multiple aggregate levels in Queensland, Australia.

The findings highlight the importance of selecting appropriate spatial scales when analysing disease risk. More accurate spatial modelling can help governments and health agencies identify vulnerable communities, allocate resources more effectively and target interventions where they are needed most.

The research also demonstrates the value of AURIN's digital research infrastructure in supporting advanced public health analysis. 'AURIN supports collaborations and builds networks and expertise across the environmental health space, [...] putting impact at the forefront to enable researchers to conduct more meaningful work,' said Aiden. By enabling access to high-quality spatial data, analytical tools and collaborative expertise, AURIN helps researchers generate more reliable evidence to inform public health policy and decision-making.

RESEARCH IMPACT

The early-phase electric vehicle transition in Melbourne

Using spatial, socioeconomic and infrastructure data available through AURIN, RMIT University researchers investigated the factors driving electric vehicle uptake across Melbourne.

Car and van transport accounts for a significant share of greenhouse gas emissions, yet more than 98% of Australia's 20 million registered vehicles are powered by fossil fuels. Many countries are encouraging a transition to electric vehicles and a phase-out of fossil-fuel transport. However, Australia does not have an electric vehicle target or a statutory regime for vehicle emissions standards. As a result, understanding where electric vehicles are being adopted and how governments can support a fair transition remains a challenge.

To better understand this issue, [researchers conducted](#) a socio-spatial analysis of electric vehicle uptake across Melbourne. They analysed motor vehicle registration data alongside housing, energy and demographic datasets accessed through AURIN. The analysis examined how factors such as housing, energy access, car ownership, access to charging infrastructure and household solar installations influence electric vehicle adoption.

The study found that electric vehicle uptake was highest in areas with higher household incomes, higher rates of home ownership and greater reliance on private vehicles. Electric vehicles were more

popular in middle- and outer-suburban locations, where car ownership and daily car use are generally higher. The research suggests that by 2030, electric vehicle growth may be strongest in outer-suburban areas, particularly to the west, north and south east of Melbourne.

The study also highlighted the significant environmental and economic benefits of greater electric vehicle uptake. It estimated that a transition to 10% electric vehicles on Australian roads could reduce carbon emissions by almost 700 tonnes per day and save around \$200 million annually in commuting fuel costs alone.

By combining vehicle registration, socioeconomic and infrastructure datasets, the research provides valuable insights into Australia's electric vehicle transition and the policies needed to support equitable adoption. It also highlights the value of AURIN's growing transport data capabilities. Through the [Green Australian Vehicle Ownership \(GreenAVO\)](#) Capability project, AURIN is developing a nationally significant dataset to help track electric vehicle adoption, understand infrastructure needs and support a faster, fairer transition to low-emissions transport.





RESEARCH IMPACT

School provision, workforce distribution, housing, and the staffing of schools in Sydney

Using housing, workforce and demographic data available through AURIN, researchers investigated how housing affordability influences the distribution of teachers across Sydney.

Teacher shortages are a growing challenge worldwide, with UNESCO projecting a global shortfall of 44 million teachers by 2030. In Australia, rising housing costs are making it increasingly difficult for essential workers, including teachers, to live close to where they work. In Sydney, more than 90% of teaching positions are located in areas where median rents or house prices are unaffordable on a teacher's salary.

To [better understand this challenge](#), Professor Scott Eacott (UNSW and the University of Saskatchewan) developed a novel measure called the Workforce Catchment Area (WFCA). The WFCA examines where teachers live and work and how factors, such as housing affordability, transport costs and commuting patterns, influence workforce distribution. Using large-scale datasets, such as those available through AURIN, it provides policymakers with accurate information to support targeted, tailored solutions to teacher shortages.

Using Sydney as a case study, the research examined commuting patterns and the factors affecting teachers' ability to work where they are needed, including housing and transportation costs. Property sales and rental data from Australian Property Monitors were accessed through AURIN.

The analysis found that Sydney's teacher shortages are not simply the result of insufficient workforce supply. Instead, rising housing and transport costs are contributing to an uneven distribution of teachers, making it more difficult for schools in some areas to attract and retain staff.

The findings provide valuable evidence to help policymakers better understand the relationship between housing affordability and workforce availability. By identifying where barriers to workforce participation exist, the WFCA can support more targeted and effective responses to teacher shortages. The research also demonstrates the value of AURIN's data infrastructure in supporting policy-relevant analysis.



RESEARCH IMPACT

Same city, different worlds

If a picture tells a thousand words, a map can tell a million.

[AURIN Data Tales](#) are a new series of interactive stories that bring together data, analytics and visual storytelling. Designed to showcase the power of AURIN's national digital research infrastructure, each Data Tale explores real-world examples to make complex research findings accessible to a broader audience.

The first story in the Data Tale series, [Same City, Different Worlds: A Tale of Two Suburbs](#), draws on findings from the [Australian Institute of Health and Welfare's 2025 report](#) and research into access to essential services across Australia's major cities. The story explores a simple but important question: as Australian cities grow, are some communities being left behind?

Australia's cities are becoming larger and more densely populated, but access to essential services is not always keeping pace. In many outer suburbs, residents face reduced access to healthcare, childcare, public transport and other services that support daily life. This can increase reliance on private vehicles, raise household costs and reinforce existing social and economic disadvantage.

To explore this challenge, the Data Tale compares two Perth suburbs: Mount Lawley, located close to the Perth CBD, and Willetton, located further from the city centre. By combining Census data with information on public transport, healthcare services, childcare facilities and other community infrastructure, the analysis reveals stark differences in accessibility.

The research found that Mount Lawley benefits from higher population density, a greater mix of dwelling types, better access to public transport, and substantially higher access to healthcare and early childhood services. In contrast, Willetton has a higher proportion of detached housing and significantly lower access to many essential services, despite having a comparable age profile and a diverse community.

The story highlights a broader pattern found across Australia's major cities. Access to essential services tends to be concentrated in inner urban areas, while many outer suburbs and growth corridors experience lower levels of accessibility. The findings suggest that increasing urban density alone is not enough. To create more equitable and liveable communities, housing growth must be accompanied by investment in healthcare, childcare, transport and other essential services.

Same City, Different Worlds demonstrates how AURIN's data, analytical capabilities and visual storytelling can help researchers, planners and policymakers better understand urban challenges and support evidence-based decision-making. This is the first in a growing series of AURIN Data Tales, with new stories planned for 2026 that will explore critical issues affecting Australian cities and communities.

AURIN BOARD AND COMMITTEES

AURIN Board

The AURIN Management Board plays a crucial role in setting strategic objectives and ensures AURIN fulfils its commitments and obligations as an NCRIS-funded project.

Led by the Board Chair, Dr Chris Pigram, our Board members are: Professor Pascal Perez (Director, AURIN); Professor Mark Stevenson (Professor of Urban Transport and Public Health at the [University of Melbourne](#)); Lesley Arnold (Director of [Geospatial Frameworks](#)); Austin Ley (Manager Economy & Business, [Campaspe Shire Council](#)); Peter Francis (Managing Partner, [FAL Lawyers](#)); Professor Jodie Smith (Branch Head at [Geoscience Australia](#));

Dr Ian Oppermann (Co-founder of [ServiceGen](#) and Industry Professor, [University of Technology Sydney](#)).

Members Linda Kristjanson, Greg Tucker and Alison Rose retired in 2025. They have served as valuable members of our governance team, contributing their wealth of experience and insights to AURIN's mission. Their expertise and dedication have been instrumental in shaping our organisation's strategic direction.



AURIN BOARD AND COMMITTEES

Industry Advisory Committee (IAC)

The IAC brings together leaders across the geospatial industry to advise AURIN on strategic priorities and opportunities that will lead to high-value outcomes for industry stakeholders, as well as champion and develop networks of engagement between AURIN and the private sector and advise AURIN on the data and technical developments required to meet current and future industry demands.

Members of AURIN's IAC are: Michele Adair (CEO, [Housing Trust](#)); Helen Bell (Senior Manager, Research, [Green Building Council of Australia](#)); Kylie Hargreaves (Chair, [Australian Alliance for Energy Productivity](#)); Dr Zaffar Mohamed-Ghouse (Director, Advisory & Innovation, [Woolpert Asia-Pacific](#)); Dr Hermione Parsons (CEO & Managing Director, [Australian Logistics Council](#)); and Julian Szafraniec (Principal, [SGS Economics & Planning](#)).

2025 saw the retirement of three of our IAC members, Patrick Hastings (Acting CEO, [Infrastructure Sustainability Council](#)); Iain Russell (Industry CTO Enterprise & Government, Telstra); and Dr Ian Oppermann (Co-Founder, ServiceGen; Industry

Professor, [UTS](#)), who served as IAC Chair during his tenure. We thank them for their valuable contributions and unwavering support of AURIN's mission.

In 2026, the IAC will welcome new members Dr Nicola Nelson (Head of International and Industry, [Australian Water Association](#)); Toby Kent (CEO, [Infrastructure Sustainability Council](#)); Anita Arbogast (Director, Arbogast Consulting) and Carlos Gamez (Director, [Nova Energy Consulting](#)).

AURIN is incredibly grateful to these members for their time, and we look forward to working with the IAC as AURIN strengthens our relationships and collaborations with industry organisations and associations.



AURIN BOARD AND COMMITTEES

Scientific Advisory Committee (SAC)

The SAC brings together leading experts across the urban and social sciences to provide independent advice on strengthening AURIN's research infrastructure to meet scientific priorities and emerging opportunities.

Members of our SAC for 2025 are: Sharon Biermann ([UWA](#), Director, [PATREC](#); Professor of Transport Research); Lisa Bush ([Geoscience Australia](#), Head, NLI Branch); Shaun Copley ([ABS](#), Assistant Director, Geospatial Solutions; Assistant Director, [Australian Climate Service](#)); Jonathan Corcoran ([UQ](#), Deputy Associate Dean (Research); Faculty of Science and Fellow, [Academy of the Social Sciences Australia](#)); Matt Duckham ([RMIT](#), Director, Information in Society EIP; Professor, Geospatial Science); Chris Pettit ([UNSW](#), Director, [City Futures Research Centre](#); Professor of Urban Science); and Marie Truelove ([CSIRO Data61](#), Head of Product Management)

Ellie Torabi (DITRDCA, Director) resigned from the SAC in August 2025. We thank her for her valuable contributions and her unwavering support of AURIN's mission.

In 2026, we will be joined by Professor Allison Kealy (Director, the [Innovative Planet Research Institute at Swinburne University of Technology](#)); Prudence Lawrence (Assistant Director, Geospatial Technical Lead, [Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts \(DITRDCA\)](#)); and Dr Cathy Etherington (Senior Data analyst, [Australian Institute of Health and Welfare](#)).

SAC members bring a wealth of experience from academia and government, ensuring a diverse range of perspectives that are integral to AURIN's growth. Their knowledge allows AURIN to better support urban and social scientists throughout Australia.



LOOKING AHEAD

Next steps for AURIN

AURIN enters 2026 with strong foundations and growing momentum. Over the coming years, we will continue to expand access to high-value datasets, strengthen support for researchers, and build partnerships that help translate research into practical solutions.

Key priorities include launching the Breakthrough Opportunity program, expanding the AURIN Node Network, rolling out new datasets such as Domain and Quantum-Telstra, and growing the Data Tales series to showcase how urban data can be used for a variety of purposes. AURIN will also continue investing in the organisational capabilities, partnerships and funding opportunities needed to support the organisation in the long term.

Looking further ahead, AURIN's vision is to maintain our position as an indispensable part of Australia's national research infrastructure ecosystem. This vision is reflected in major collaborative initiatives such as AUCRI and COASTRI, which signal a future in which urban, environmental and climate research infrastructure is more connected. Initiatives such as these will ensure researchers and decision-makers better understand and respond to the challenges facing Australia's cities, regions and communities.



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AURIN acknowledges the Traditional Owners of the land on which we work, learn and live: the Wurundjeri Woi Wurrung and Bunurong peoples of the Eastern Kulin Nation, and pays our respects to their Elders past and present.

For enquiries about this report, please contact support@aurin.org.au

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