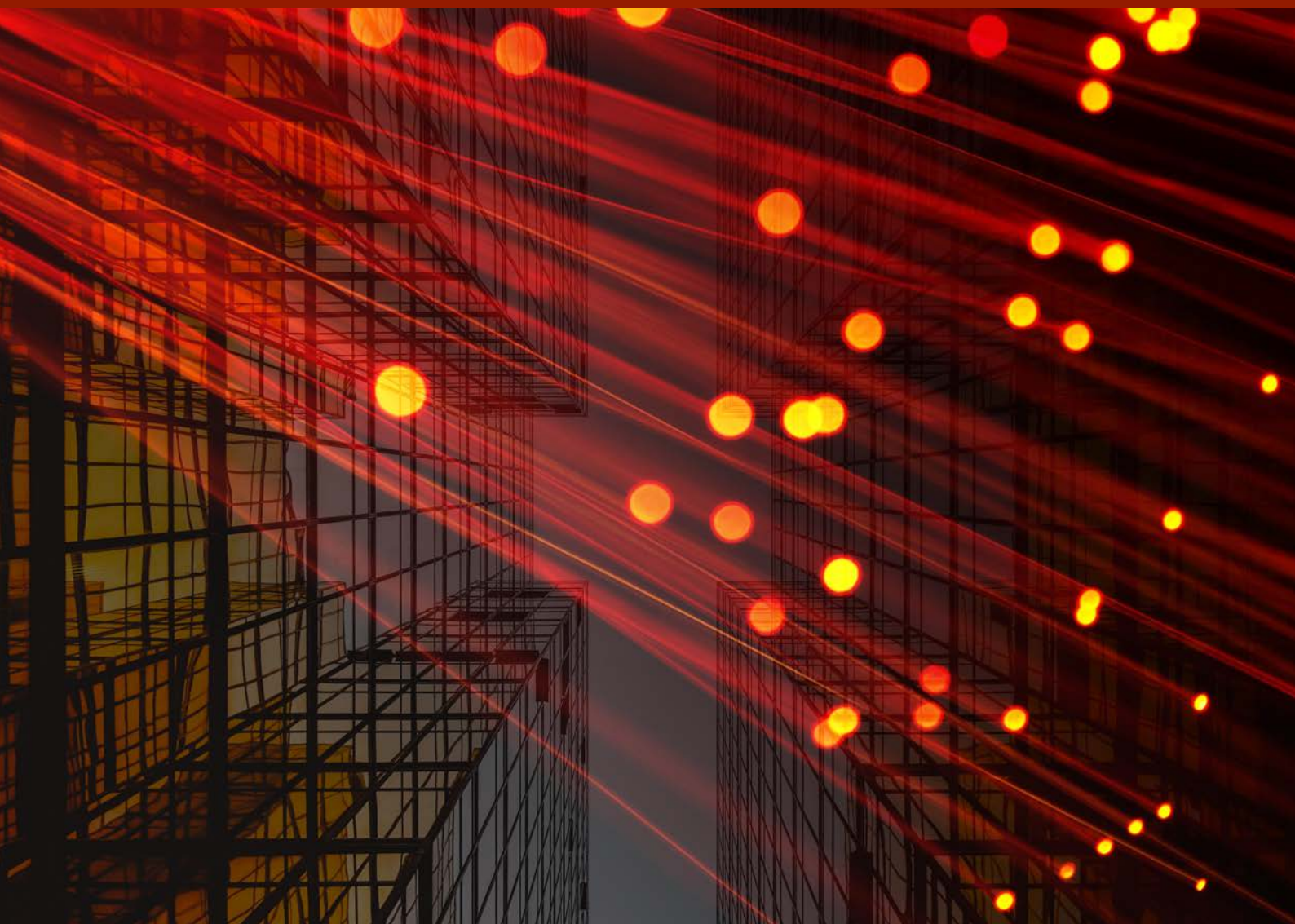


Research Strategy

People, Partnership, Impact

greatercities.au



Acknowledgement of Country



The Greater Cities Commission proudly acknowledges Australia's First Peoples as the Traditional Custodians of the lands and waters of what we call the six cities.

We pay respect to Elders past and present.

We recognise and value the extraordinary and ongoing contribution of First Nations peoples and communities to Australian life, and how this enriches all Australians.

We embrace the spirit of recognition, working towards ensuring both an equal voice and equity in all aspects of our society.

Original Artwork by Zachary Bennett-Brook c. 2022.

About this Strategy

The Greater Cities Commission's Research Strategy outlines how we will approach our research and where we intend to focus our efforts

The Strategy sets the direction, priorities and processes for the Commission's research which will help to address emerging risks and opportunities across the Six Cities Region. We will identify and trial place-based ways to move towards more sustainable and equitable futures and, in the process, support achievement of the UN Sustainable Development Goals.

We understand the strategic opportunity that the Commission has to commission, convene, and coordinate research across the Six Cities Region. We are collaborating closely with other parts of government, industry, local communities and research partners to deliver outcomes that will transform planning and development across the six cities.

While some areas and projects are clear now, others will emerge through open collaboration with partners and the market to solve specific issues. We will support and invest in research where we believe we can add value or build on the great work of others.

We will take a transdisciplinary approach, looking at the big questions and challenges from a whole-of-system perspective. Most importantly, our approach to research involves an end-to-end process.

Our commitment begins with identifying research needs and extends to driving the implementation of research outcomes with our stakeholders, ensuring we optimise our investment and help deliver real change across our region.

We also see research as key to building the city region's innovation ecosystem, where we can pilot, demonstrate and scale new technologies, products, and services, as well as new governance approaches.

At the Commission, we play a critical role in shaping the conversation about the future of our cities and the Six Cities Region. Our research will provide us with new insights and evidence on how best to enhance the liveability, sustainability and productivity of our region, enabling people and nature to thrive alongside each other. A core responsibility is to share these insights with stakeholders and the wider community nationally and globally.

By design, the Strategy will evolve alongside the development of the Region and City Plans. We welcome ongoing feedback on our research program and look forward to collaborating across state, local and federal government, and with industry and community partners on research that supports the growth of our region.

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Research position statement

The Greater Cities Commission invests in research to:

- extend the evidence-base to inform strategic city planning across the Six Cities Region
- enhance the growth and competitiveness of our innovation districts
- provide thought leadership and insights on key issues that impact our cities and region.

We do this by:

- taking a transdisciplinary, systemic approach to research
- leveraging our strengths to collaborate and connect research needs and impacts across government, industry and the community
- focusing on research impact, ensuring our research provides new insights and practical outcomes to inform investment, policy settings, and planning and development approaches
- valuing end-to-end engagement with our research partners, co-developing research questions and approaches, and ensuring we involve those who will own and/or be impacted by the outcomes of our research
- placing ethics, inclusivity, and collaborative, cross-sectoral relationships at the core of our research approach.

Research priorities

Region shapers	Impact	Priority areas
An embedded First Nations voice	New ways to embed First Nation voices, sustainability, cultural practices and place making into city plans.	<ul style="list-style-type: none"> Embed First Nations voices into city planning New approaches to integrate First Nations art and cultural heritage into city planning Leverage traditional land and waterway practices into city planning Explore new commercial opportunities for First Nations knowledge and innovation Opportunities for place-making and designing with country
A connected Six Cities Region	Identified costs and benefits of digital and physical infrastructure. Innovative socio-economic models for connecting communities across the region.	<ul style="list-style-type: none"> Enable digital transformation and connectivity Explore socio-economic benefits of fast rail Leverage research to support business cases for investment of state-wide significant projects Determine the impact of a more connected city on quality of life, tourism, 24 hour economy, service industries and social cohesion
Housing supply, diversity and affordability	New models for housing affordability and home ownership. Socio-economic benefits identified to inform investment.	<ul style="list-style-type: none"> Revised housing models and targets for city planning Social and economic benefits of affordable, diverse and sustainable housing The concept of home for diverse communities New models of home ownership for diverse life stages, cultural needs and inter-generational living Innovation in smart sustainable homes
Inclusive places linked to infrastructure	Guidance for design and implementation for place-based planning incorporating social & physical infrastructure outcomes.	<ul style="list-style-type: none"> Equitable access to local infrastructure and services Community perceptions of importance and connection to place Creating more walkable neighbourhoods Mixed-use local infrastructure Active transport routes and accessibility Achieve greater social equity in cities Collaborate on Women's Safety Charter Enhance safety and mobility in cities Recreational amenity and public space for communities
Powering local jobs and economies	New industry opportunities. Insights and direction of future industries, jobs and skills. New models for servicing growth in cities.	<ul style="list-style-type: none"> Comparative advantage of cities Future jobs and economic growth Decentralised versus centralised service models Circular economy at local, city and regional scale Transition to an innovation and knowledge economy Integrated city transport options (e.g. 15, 30 minute and 90 minute cities) Productivity and liveability for last mile freight within cities and across the region
Climate-resilient green cities	Guidance towards net zero. Adaptive planning and investment pathways. Climate change adaptation, circular economy and blue-green infrastructure solutions.	<ul style="list-style-type: none"> Socio-economic impacts of climate change Inter-dependency risks of critical infrastructure Impacts on public health Climate change mitigation, adaptation and investment pathways Decarbonising future transport Design for circular economy Pathways to net zero Blue/green infrastructure solutions Resilient cool materials Smart sustainable buildings and materials

Our Role

The Commission has a unique role as a connector and collaborator across the Six Cities Region, working with government, research institutions, industry, and community groups to identify and collectively address research needs at local, city and regional scales.

We recognise that sometimes we will be best placed to lead or convene research, and at other times our efforts may be better directed to advise and influence research through our involvement in steering committees or advocating for change. In some cases, we will seek to identify and leverage the relevant research and insights of others. (See Figure 1.)

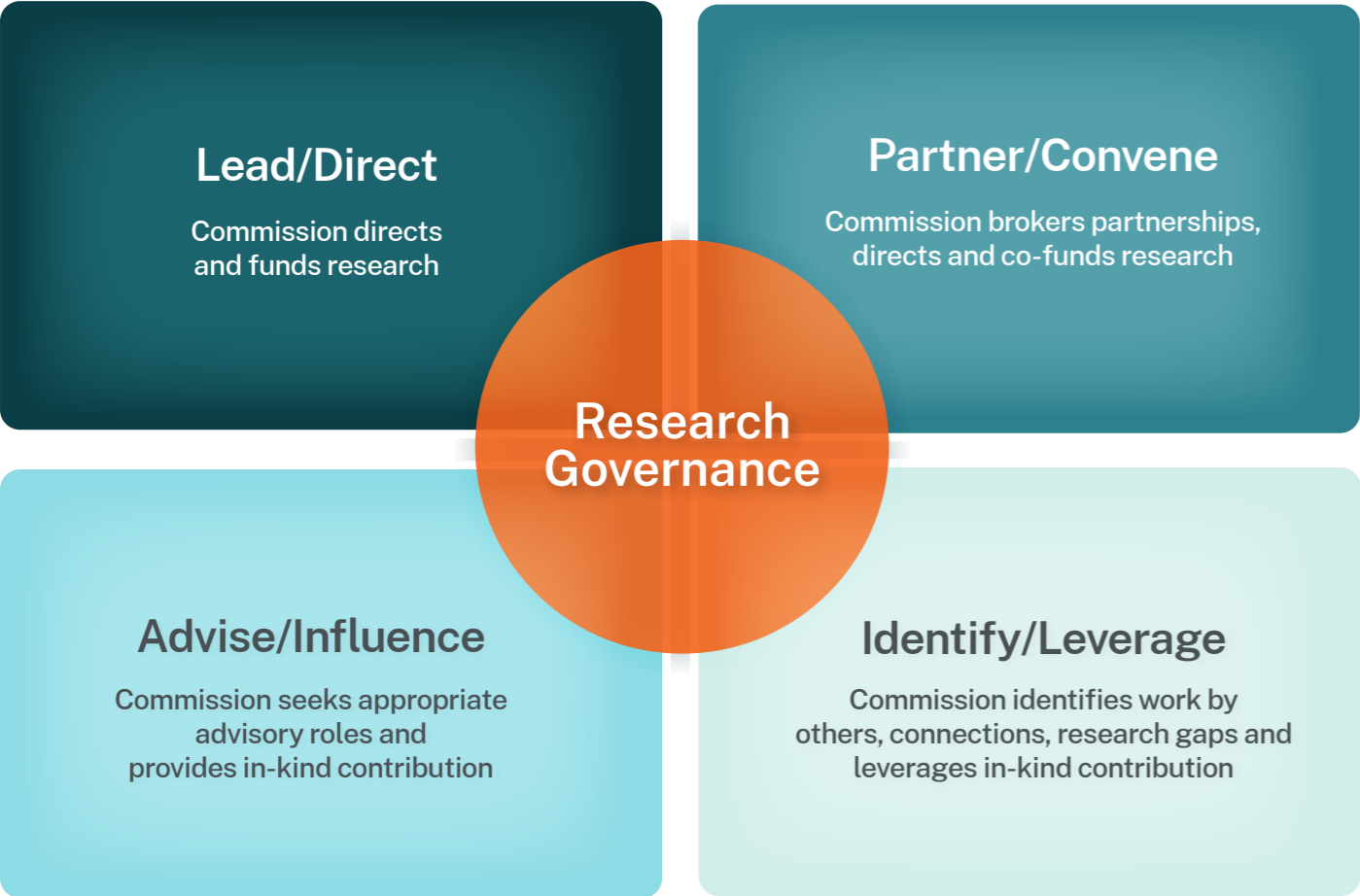


Figure 1: Spectrum of the Commission’s research governance roles



Our Approach

We will work closely with our partners who share common challenges, identifying opportunities for collaboration at different scales across our cities and region. We approach the development of our research program with an open mindset. We cannot foresee all the future research that will be needed across the region. We plan to co-develop priority research projects as needed, in response to rapidly changing environmental, socio-cultural, economic and geopolitical situations.

Transdisciplinary approach

The complex nature of city and regionally oriented research means we need to take a transdisciplinary approach that seeks input, collaboration and integration of diverse perspectives and knowledge to co-design research questions with those most impacted by the research.

Our approach (as shown in Figure 2) seeks three kinds of outcomes.

1. We want to improve the **situation**.
 - **Improving the situation** in a tangible way means that the research leads to a discernible shift, such as an investment in new social infrastructure at a local scale or a change in policy at a city scale or an industrial-scale reduction in waste at a regional level.
2. We want to produce research **outputs** that enable others to effectively use and build on our insights.
 - **Capturing new insights and knowledge** in accessible ways and making them available for research project partners/communities as well as others who might build on, apply or adapt what we've learned. Examples include:
 - developing tools and frameworks to support city planning
 - developing policy papers for government to influence city planning
 - developing information packs or online platforms to inform, engage and share expertise with and from local communities
 - publishing thought leadership pieces or peer-reviewed research papers to contribute to global conversations.
3. Along the way we want to facilitate mutual **learning** about how to do things differently.
 - **Facilitating transformational and mutual learning** involves designing projects where everyone involved learns from each other, including researchers learning from participants, and the insights gained extend beyond the life of the project, so participants do things differently and the impact extends to future projects.

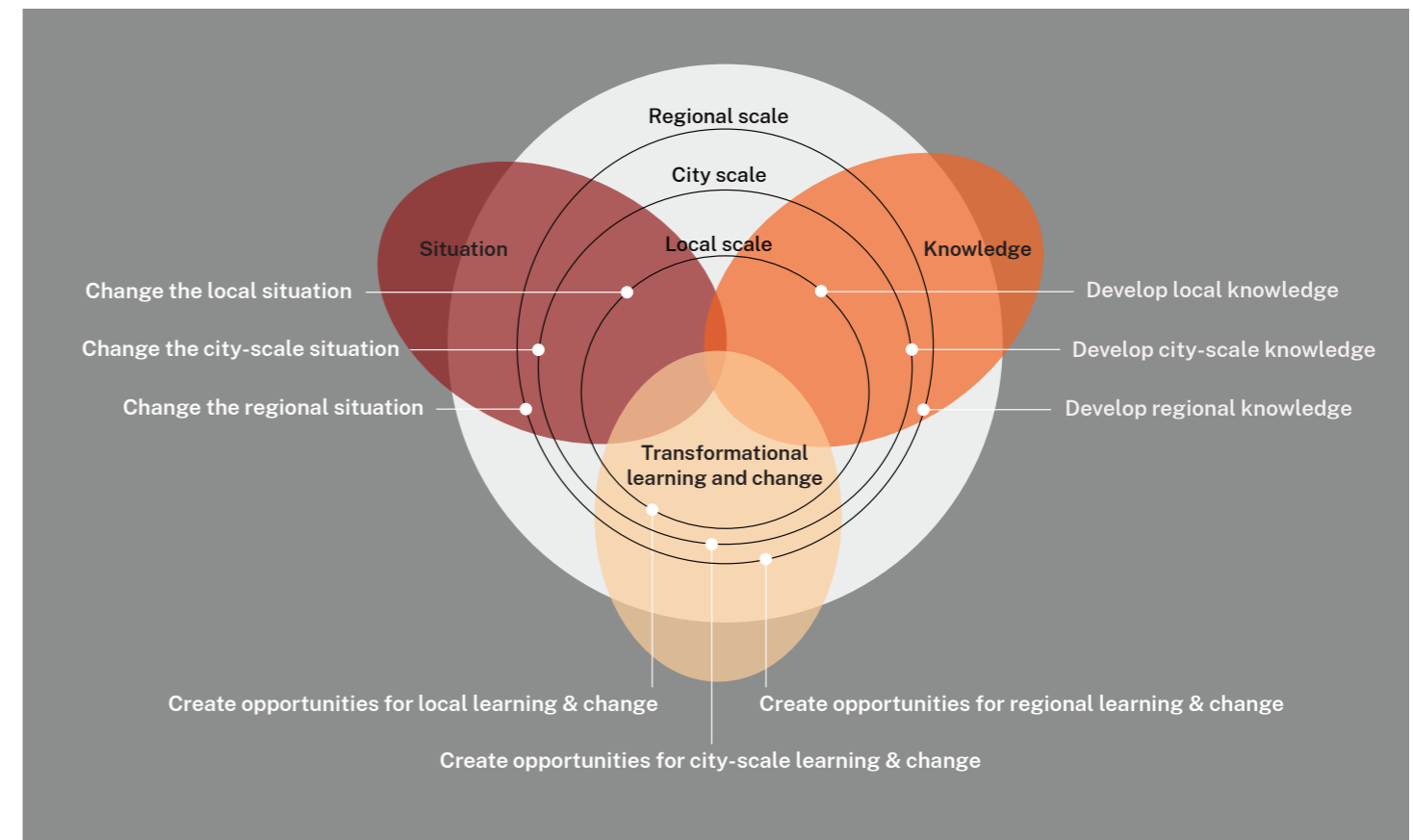


Figure 2. Transdisciplinary approach to research and expected outcomes (Adapted from Mitchell et al., 2015)

Commitment to research impact

We are committed to end-to-end delivery of impactful research. This means we invest as much in the translation and implementation of research and the development of accessible and appropriately designed knowledge resources for our communities and designing spaces for learning, as we do in the research itself.

It is imperative that our research directly contributes to new directions for investment through new policy and planning decisions, new initiatives for

innovation districts and the development of practical tools and approaches for local government and industry. Our research outcomes should also inform wider community and stakeholder conversations on a range of challenges and opportunities that will impact our region. At the end of the day, we want our research to contribute to the potential for people and nature to thrive right across our Six Cities Region.

This kind of research has a particular set of characteristics, orientations, and enablers. It's about having an open and curious mindset, thinking in systems, valuing storytelling and sharing insights, as well as the willingness to be vulnerable and to fail and learn along the way.

Our Partners

To address the complex challenges facing our region, the Greater Cities Commission's transdisciplinary, system-oriented research will draw on expertise and the lived experience of people from a broad range of sectors, industries and communities, local and global. We will seek new and diverse partnerships to extend our thinking and leverage well developed research programs from our local and global partners to deliver impacts across the Six Cities Region.

Government and Industry

We will partner with local, state and federal government and industry groups to develop collaborative research projects to better characterise the broader challenges and opportunities facing the Six Cities Region. Our research will align with relevant state government strategies including transport, infrastructure, climate change and net zero. Working collaboratively across government agencies will be key to optimising both our research investment and resourcing. Engagement with industry groups, including peak bodies and advocacy groups, will be key to driving research outcomes from inception through to implementation.

Community

We will seek community involvement whenever possible in the design and delivery of research which impacts physical and social infrastructure in their local communities. Our approach will ensure diverse populations are well represented in the research process.

The Commission's Youth Panel will provide guidance to the research program and reflect priority issues for their demographic. Other groups and panels, such as the Commission's Women's Safety Charter, will play a key role in identifying where the Commission's research can add value.

Universities, research and learning institutes

We will draw on the expertise and knowledge from the region's world-class universities, research and learning institutes to partner on relevant research projects. Our research program will support each of these universities as distinct places of learning to connect with local communities and industries. In response to the need for developing future local talent, skills and employment opportunities, our university research partnership network will collaboratively develop a region-wide undergraduate and postgraduate research program where students will have the opportunity to gain practice-based, transdisciplinary experience working on cutting-edge city and regional issues.

Global partners

There is much to learn from, and share with, our global partners with a similar size and population to the Six Cities Region such as London, Vancouver, Singapore, Shanghai, San Francisco and Randstad. We are eager to strengthen these global research partnerships and to undertake collaborative studies. We want to exchange data, expertise, lessons learned and information on benchmarking and measurements.



Priority research areas

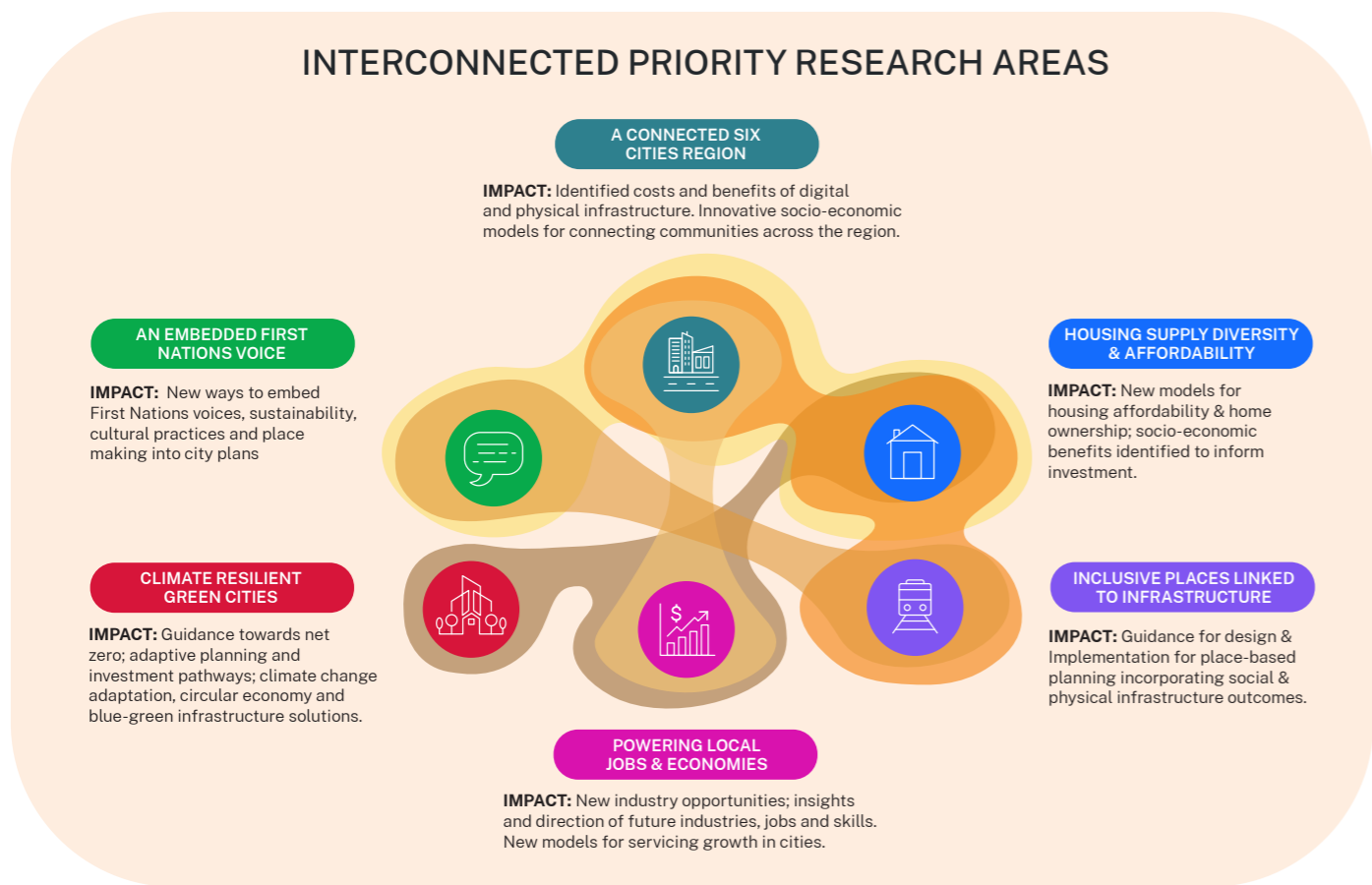


Figure 3. Interconnected priority research areas

An embedded First Nations voice

Challenge statement

How do we embed First Nations peoples’ knowledge, systems thinking and innovation into regional planning?

Our research program will identify how we can acknowledge, respect, embed and leverage First Nations peoples’ knowledge into our Region and City Plans, policy making and innovation districts. First Nations people have a wealth of experience in systems thinking developed over 65,000 years, offering rich insights and approaches.

Working in close partnership with First Nations communities, potential topics to explore:

- identify approaches to embed First Nations’ voices into city planning
- explore new approaches to integrate First Nations peoples’ art and cultural heritage into city planning
- investigate ways to leverage traditional land and waterway practices into city planning
- explore new commercial opportunities for First Nations peoples’ knowledge and innovation
- identify opportunities for place-making and designing to care for Country
- seek tri-nation partnership (Australia, NZ, Canada) and research opportunities.

A connected Six Cities Region

Challenge statement

How do we strengthen physical and digital connectivity for people in our region through innovative governance structures and new technologies?

Our region offers new opportunities for enhanced connectivity through multi-modal forms of transport, including fast rail, three international airports and three deep water ports. High quality digital access is critical for participation in all aspects of life. Planning for transformations needs to deliver digital and transport technologies that facilitate people’s diverse modes of participation with those technologies. The research program will inform the investment required to deliver optimal value of this critical city infrastructure to residents and visitors to our region.

Potential topics to explore:

- investigate ways to enable digital transformation and enhanced connectivity for our people
- understand the broader socio-economic benefits of fast rail and implications for urban planning
- leverage the research of key transport and infrastructure government agencies to support the business case development for investment in state significant projects
- determine the impact of a more connected city on quality of life, tourism, 24 hour economy, service industries and social cohesion.

Housing supply, diversity and affordability

Challenge statement

How do we provide a range of ‘home’ options that put people at the centre of achieving greater diversity and affordability in housing supply and ownership?

Working closely with our government partners in housing, our research program will inform the planning for future homes from a supply, affordability and diversity perspective. The research will encompass social, economic and environmental considerations for delivering both the concept of home (a place that offers a sense of agency, belonging and community) as well as existing and future housing stock.

Potential topics to explore:

- revise housing models and targets for city planning
- explore the social and economic benefits of affordable, diverse and sustainable housing
- explore the concept of home for diverse communities including life stage, cultural needs, multi-generational living, and community housing
- develop new models of home ownership which reflect diverse needs of the population
- investigate cutting-edge innovation in smart sustainable buildings and materials that contribute to more resilient and adaptable homes.

Inclusive places linked to infrastructure

Challenge statement

How do we develop local, social infrastructure to improve equity and amenity in our communities and cities?

Our research will inform planning for culturally relevant place-making and consider proximity and access to transport and local services, to ensure local centres and neighbourhoods are vibrant and value and celebrate cultural diversity and heritage to support greater equity for successive generations.

Potential topics to explore:

- seek to understand our region’s diverse communities, including what connects them to their local area, enhancing social cohesion and access to public transport, local services (e.g. health and wellbeing, learning and education, goods and retail) and recreation
- undertake longitudinal studies of community perceptions of place and local connection
- explore density around transport stations and implications for creating more walkable neighbourhoods
- investigate models for shared or mixed-use local infrastructure that promote community well-being and economic outcomes
- leverage research undertaken by transport and infrastructure agencies to explore alternate approaches to enhancing active transport routes and accessibility for diverse communities
- identify novel approaches to achieve social equity in our cities
- identify collaborative research projects that support the Greater Cities Commission Women’s Safety Charter

- explore economic benefits of enhanced safety and mobility within and between cities
- investigate new approaches to enhance recreational amenity and public space for community engagement.

Powering local jobs and economies

Challenge statement

How do we define the local and global comparative advantages of our cities and region currently and over time to ensure we leverage them for productivity, liveability, and sustainability outcomes?

This research will improve our understanding of the strengths of our cities and how best to leverage comparative advantage for the ecological, social and economic benefit of our communities and industries. These advantages include nature-based strengths and socio-cultural strengths as well as physical infrastructures (e.g. co-located industries and transport). Our innovation districts will act as ‘sandboxes’ for showcasing innovation, trialling new technologies and approaches, and building an innovation ecosystem within and across the innovation districts in each region.

Potential topics to explore:

- Understand the unique comparative advantage within each of our six cities and the region as a whole for resilient future jobs and economic growth
- clarify the benefits of decentralised versus centralised service models for new and existing product and service delivery (post pandemic supply chains)
- explore opportunities for comparative advantage within and across the network of innovation districts in areas like a circular economy, pathways to net zero, technology specialisation and adjacent industries



Solar farm, Greater Newcastle

- understand the transition to an innovation and knowledge economy and its contribution to economic growth
- investigate the potential for jobs and growth opportunities through integrated city transport options (e.g. 15, 30 90 minute cities)
- investigate productivity and liveability implications of first and last mile freight within cities and across the region.

Climate-resilient green cities

Challenge statement

How do we address the risks and opportunities of climate change, and manage our natural resources to enable more circular, sustainable solutions?

Our research will support opportunities to promote and enable a faster transition to net zero 2050 and beyond for the region, working closely with our government partners. We will assess the climate change impacts across the region to inform both mitigation and adaptation strategies to better protect communities, infrastructure and property from weather and climate-related risks. Beyond climate, our research will explore decarbonising cities and circular economy opportunities at local, city and regional scale to achieve planetary sustainability goals.

Potential topics to explore:

- identify the socio-economic impacts of climate change on the cities and region, including inter-dependency risks of critical infrastructure and services and impacts on public health
- investigate climate change mitigation and adaptation solutions and investment pathways to achieve greater rates of implementation and enhanced liveability outcomes
- understand the wider implications of the electrification of transport, homes, industry and businesses and explore new technologies and approaches to decarbonise future transport
- identify and design circular economy opportunities across the six cities (including industrial lands and innovation districts)
- explore and trial tools, technologies and approaches to achieve net zero emissions by 2050
- investigate and pilot blue/green infrastructure solutions to reduce climate impacts and improve amenity and integrate into our Region and City plans
- explore innovation in resilient cool materials to reduce urban heat and improved amenity
- understand the impact of smart sustainable buildings and homes on delivering climate-resilient green cities and how innovation districts can showcase leading-edge sustainable buildings.

Innovation districts

Innovation districts create an environment for diverse interactions between individuals, organisations, and institutions. They bring together collaborators, including citizens and people from academic, industry and government sectors, to actively work on research initiatives, bridging local interests with national economic/research agendas and international trade opportunities.

Each innovation district has three key elements:

- **economic assets** including the institutions and organisations that cultivate and support an innovation-rich environment
- **physical assets** including public parks and city-owned infrastructure
- **networking assets**, the formation of strong ties in and around the district to build social capital and robust communities of practice.

Research will contribute to the growth of our interconnected ecosystem of innovation districts. We can use innovation districts as **sandboxes** for innovative approaches to:

- **showcase innovation** in new technology, products and services that enhance jobs and economic growth
- learn from **global demonstration sites** for sustainability such as actions towards net zero, and contributions to the UN Sustainable Development Goals
- facilitate innovation in **digital transformation and world-class governance**
- create an environment to enable the growth of innovation districts including models for **accessible housing and transport for key workers**
- enable **innovation ecosystems** and experimental and experiential learning cultures which are inclusive and equitable.

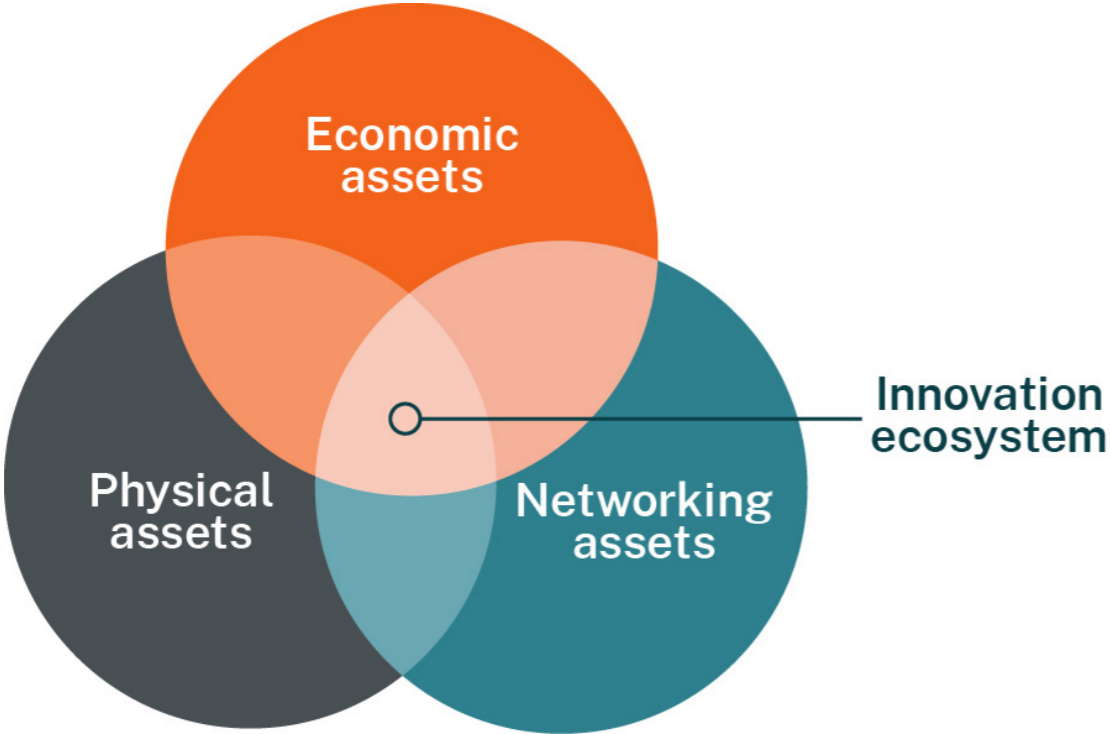


Figure 4. Innovation ecosystem (adapted from the Brookings Institute)



For further information and collaboration opportunities, please contact the Research Team at: research@gcc.nsw.gov.au

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