FUTURECITIES CRC

Participant Prospectus

FUTURE CITIES CRC:
SMART, CONNECTED, SUSTAINABLE, RESILIENT & HEALTHY

FUTURE CITIES
Cooperative Research Centre

Accelerating the transition to a productive, connected, sustainable, resilient and healthy urban future.

The proposed CRC will be Australia's national research and innovation hub for the future of cities. We will engage with government, industry and community to undertake research aimed at developing and implementing integrated science-based policy and practice solutions to current and future urban challenges, including how Australia can:

- Manage its urban population flows
- Understand what the smarter, connected, sustainable, resilient and healthy cities of the future may look like
- Develop and integrate new technologies, systems, materials and AI/IoT
- Design, plan and implement smart, integrated construction and infrastructure
- Enable data driven urban design, planning and policy innovations
- Establish standards and protocols for privacy, interoperability, and data quality and accessibility
- Ensure equity, affordability and socio-economic harmony in cities
- Map carbon and microclimate hotspots in cities and devise approaches to mitigation

- Facilitate deep engagement with communities and understand and act upon their aspirations for change
- Develop world leading expertise and capacity building including to service global needs
- Take a leading international role in the delivery of smarter, connected, resilient, sustainable and healthy cities and urban regions.

THE CHALLENGE:

With over half of the world's population now living in urban areas, cities consume 75% of the world's natural resources, 80% of the global energy supply and produce approximately 75% of the global carbon emissions.[1] The UN Sustainable Development Goals, World Urban Agenda and Global Alliance for Building and Construction agenda, among many, have recognised the need for serious investment in making our cities future ready.

The Australian Government is also recognising the challenge and is currently exploring how to navigate transitioning to smart, sustainable, resilient, healthy and regenerative cities of the future.

It is imperative that Australia anticipates these disruptions and leads the push towards a globally competitive industry and services sector. A multi-disciplinary and collaborative approach to research and innovation can effectively underpin this.

Australia is also experiencing increasing urbanisation, with a population growth double the OECD average. Around three quarters of Australians live and work in our 21 largest cities, generating the vast majority of GDP. Our cities and regions must be globally competitive to attract investment and visitors.

Australian cities will also be influenced by emerging disruptive technologies (electric vehicles, cloud computing, IoT, AI, etc). Implementation of these technologies will require careful planning and policy development in order to maximize benefits and mitigate social and economic risks.

THE OPPORTUNITY

For Australian Governments: the property sector is already the Nation's biggest employer[2], urban innovation can provide further opportunities for economic growth and smart integration of systems will lead to improved productivity from our assets and resources. We need quality evidence for policies.

For Australian industry: Australian smart city technology and service providers will have significant business growth opportunities in the rapidly developing global Smart Cities market. Lucrative opportunities are forecast in the Asia Pacific region in smart energy, smart building and eco-friendly construction technology and smart transportation.

The US$622BN smart cities market is anticipated to surpass US$1TN in 2019 and take a leap to US$3.48TN by 2026 end. Over a 10-year assessment period 2016-2026, the market will showcase staggering growth at a CAGR of 18.8%.[3]

[1] UNEP-DTIE Cities and Buildings initiative

[2] Source: Property Council of Australia, Jan 2018

[3] Smart Cities Market: Global Industry Analysis and Forecast 2016-2026 (Persistence Market Research 2017)

RESEARCH PRIORITIES & PROGRAM AREAS

Our multi-disciplinary, collaborative and holistic approach will bring together leading minds in the country from science, engineering, urban informatics, smart systems, social sciences, health, design, planning and policy/ governance fields to work with industry and governments to deliver high quality research to underpin our pathway to more smart, sustainable, resilient and healthy cities and regions of the future. We will also focus on next generation technologies, smarts, materials, tools and knowledge to enable our industry to compete globally.

The four key program areas will be structured as follows:

Program 1 - Smart Urban Systems

This program will identify opportunities for next generation technologies, smart systems, IoT/AI opportunities, integrated energy demand and supply technologies, new materials and smart infrastructure to accelerate the transition to future cities.

Program 2 - Integrated infrastructure

Major reports point toward an infrastructure deficit and disruption in most countries in the world. This program will link with Program 1 intelligence and Program 3 data to develop decision-making tools to enable infrastructure solutions for cities and regions that meet growth demand and the sophistication of markets and technologies.

> "Cities succeed and perform best when all tiers of government, the private sector and the community, work together to deliver a shared vision for their city."
>
> **Australian Government**
> **Smart Cities Plan**

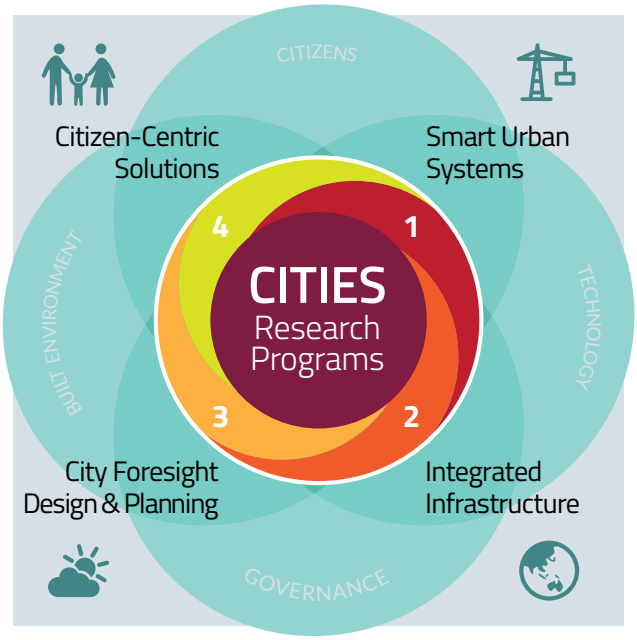
Program 3 - City Foresight, Design & Planning

Growth in the level and importance of data has now been realised. This program will enable better collation, accessibility, interoperability and analytics to underpin design, planning and policy innovations.

Program 4 - Citizen-Centric Solutions

People are an integral part of the journey towards a smart sustainable, resilient and healthy future for cities. This program will conduct multidisciplinary research to better understand community aspirations, consumer decisions, behavior and motivation while improving the health, well-being and liveability of our cities. The program will work with Living Laboratories around the country to trial, test, intervene and report on consumer insights and behavior change triggers.

These programs will be highly inter-linked to optimise outcomes addressing grand urban challenges, and maximise positive and measurable environmental, social and economic impacts.



WHY A CRC?

The Australian Government's Cooperative Research Centres (CRC) Program supports industry-led collaborations between industry, researchers and the community, focussing utilisation and uptake of research outputs towards improving the competitiveness, productivity and sustainability of Australian industry entities, and in line with government priorities. The CRC Program offers grant funds to support medium to long term collaborative research of up to 10 years.

This CRC is well placed to build on the legacy created by the CRC for Low Carbon Living - in particular, the national network of skilled research providers who have proven their ability to work collaboratively with industry and government organisations to deliver quality solutions with well thought through utilisation and translation plans.

STRUCTURE OF THE PROPOSED CRC

The CRC will be a Company limited by guarantee, employing a governance model following ASX good governance principles. The CRC's Board will be led by a Chair who is independent of all participants in the CRC, and the majority of board members will be independent of our research provider organisations.

Australian Govt DPMC – Smart Cities Plan (2016): Policy Priorities

We will work with forward-thinking industry partners and peak-bodies to tackle industry-wide issues that are unlikely to be addressed by individual organisations and businesses acting alone.

We will work with Australian Government at all levels, to support the development of smart city and regional strategies for achieving economic, social and environmental ambitions for Australia, while contributing to global imperatives and targets.

We will build a network of state-based regional research nodes working collaboratively, leveraging local initiatives and research investment to maximise the exchange of best-practice ideas and solutions.

We will collaborate internationally with other related networks and initiatives, particularly in the Asia Pacific region, China and India.

We will bring together researchers, businesses, industry peak bodies and city leaders to address the problems that our cities face. We will also develop and test new ideas, products and services in real-world urban living labs, then implement and utilise the research that has the greatest potential to advance sustainable urban development, liveability and economic growth.

WHY PARTNER WITH US?

By participating in the CRC our partners can:

- Ensure end-user and industry needs are represented and prioritised for research
- Use the CRC's outputs and research findings to advance your own organisations capabilities
- Access leading researchers and academics focusing on the major challenges for industry
- Be part of a network of the industry's leading organisations, including private and government entities
- Obtain significant leverage on your contribution: on average more than $150m worth of resources are pooled in a fully-funded CRC
- Be at the forefront of developments in the sector
- Enhance credibility with clients and be recognised as an organisation that supports and delivers significant benefit to Australia
- Provide input into the skills and training required for the next generation workforce in your industry
- Have access to postgraduate and HDR students to support your organisation
- The CRC aims to be a registered charity and have tax-free status. In addition, eligible Australian participant entities should be able to claim the Research and Development (R&D) tax incentive offset from its contributions to the CRC, making R&D investment through the CRC better value for money for our industry partners and a viable proposition for smaller firms and SMEs.

HOW TO ENGAGE WITH US

All participants must contribute resources to the CRC

Applications must demonstrate the ability to at least match (in cash or in-kind) the level of CRC Program Funding requested and provided. Cash Contributions, particularly from industry, will be viewed favourably and may result in an application for funding being deemed more suitable.

There are no restrictions on Commonwealth government departments or agencies becoming participants in a CRC and making contributions to support its activities.

PARTNERSHIP LEVEL	CONTRIBUTION VALUE (PER ANNUM)	ENGAGEMENT LEVEL & TYPICAL PARTNER TYPES
Core	$150k+ pa	Nomination & selection of strategic and priority projects. **Partners**: Major industry, government stakeholders & research providers*.
Supporting	$25k to $150k pa	Requests for focussed projects. **Partners**: Mid-level industry, government, consultants & research entities.
Other	<$25k pa	Access to project outputs and research findings. **Partners**: Industry SMEs, peak bodies, local government, community & other research users.

* Note: further discussion on levels of cash and in-kind contributions will be required for core research providers

WHEN IS THIS HAPPENING?

The partnership is planning to submit its application for funding to the CRC Programme in the 20th CRC selection round expected to open May-July 2018. Application and selection processes for CRCs are streamlined with a simple Stage 1 (on-line) application. The shortlisted Stage 1 applicants are required to submit a full business case Stage 2 (on-line) application and be interviewed. Successful 20th round CRC bids would commence operation in July 2019.

CONTACT US

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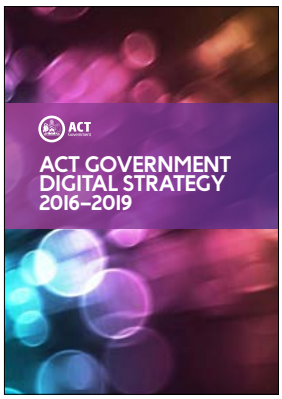
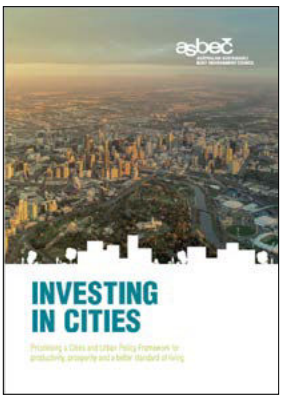

ACT
ACT GOVERNMENT DIGITAL STRATEGY 2016–2019

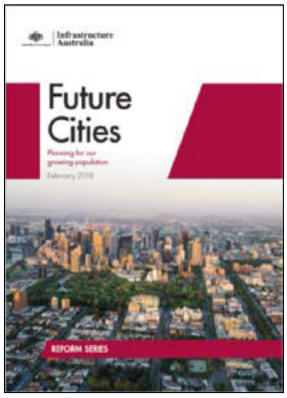

STATE PLANNING COMMISSION
THE BLUEPRINT FOR SOUTH AUSTRALIA'S PLANNING & DESIGN CODE
INTRODUCTORY PAPER

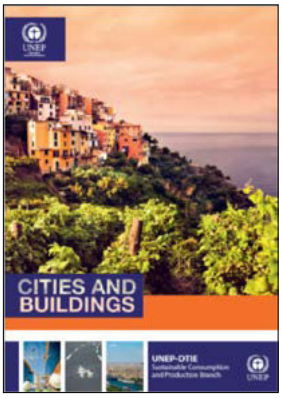

future transport 2056
FUTURE TRANSPORT STRATEGY 2056
NSW

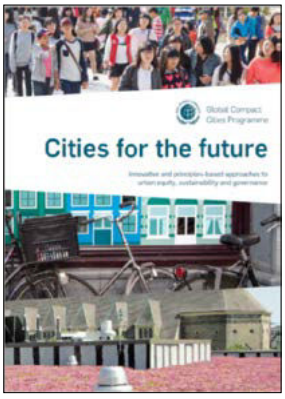

asbec
INVESTING IN CITIES

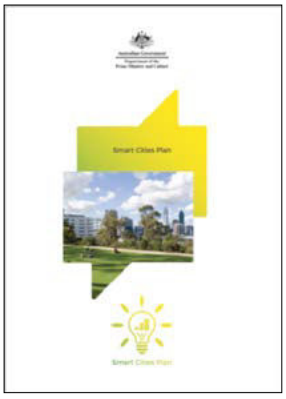

Perth and Peel@3.5million
March 2018

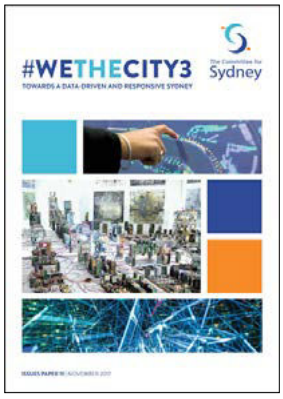

Productivity Commission
Transforming Regional Economies
Overview & Recommendations
December 2017


Infrastructure Australia
Future Cities
Planning for our growing population
February 2018
REFORM SERIES


UNEP
CITIES AND BUILDINGS
UNEP-DTIE
UNEP

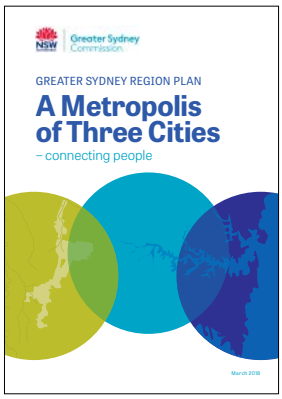

Cities for the future

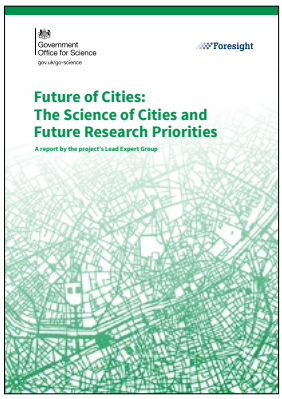

Smart Cities Plan

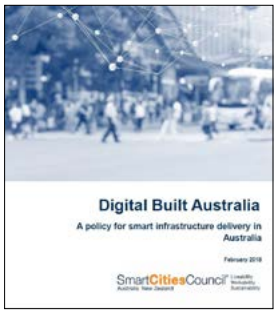

#WETHECITY3
TOWARDS A DATA-DRIVEN AND RESPONSIVE SYDNEY
The Committee for Sydney


Smarter Infrastructure for Queensland
Discussion Paper
September 2017
ADVANCE QUEENSLAND
Queensland Government


THE 30-YEAR PLAN FOR GREATER ADELAIDE
2017 Update

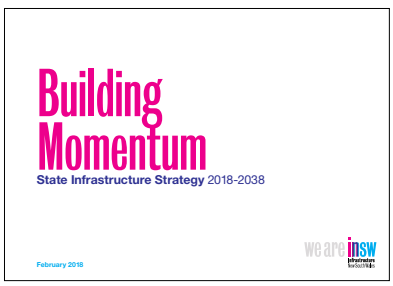

Greater Sydney Commission
GREATER SYDNEY REGION PLAN
A Metropolis of Three Cities
– connecting people
March 2018


Government Office for Science
Foresight
Future of Cities:
The Science of Cities and Future Research Priorities
A report by the project's Lead Expert Group


Digital Built Australia
A policy for smart infrastructure delivery in Australia
February 2018
SmartCitiesCouncil


VISION 2030
Living Darwin


PLAN MELBOURNE
2017–2050
A GLOBAL CITY OF OPPORTUNITY AND CHOICE
SUMMARY
VICTORIA


Building Momentum
State Infrastructure Strategy 2018-2038
February 2018
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