



# The Science of CSIRO Urban Living Labs: pushing the boundaries

Dr Tim Muster | 12<sup>th</sup> December 2019  
Urban Design and Heat Mitigation in the Tropics

Acknowledging contributions from: Guy Barnett, Simon Toze, George Quezada, Nerida Horner, Magnus Moglia, Rachel Williams, Seona Meharg, Stephen Cook, Jacqui Meyers, Jacqui Stol, Brenda Lin.

Australia's National Science Agency





# Our Journey...

Australian cities are liveable BUT...  
...there are numerous impending challenges!



How do we get more CHANGE and INNOVATION into the urban development sector??

Study: Enablers and Constraints in Development

- Mixed methods study
- UDIA assisted nationwide survey





# Constraints



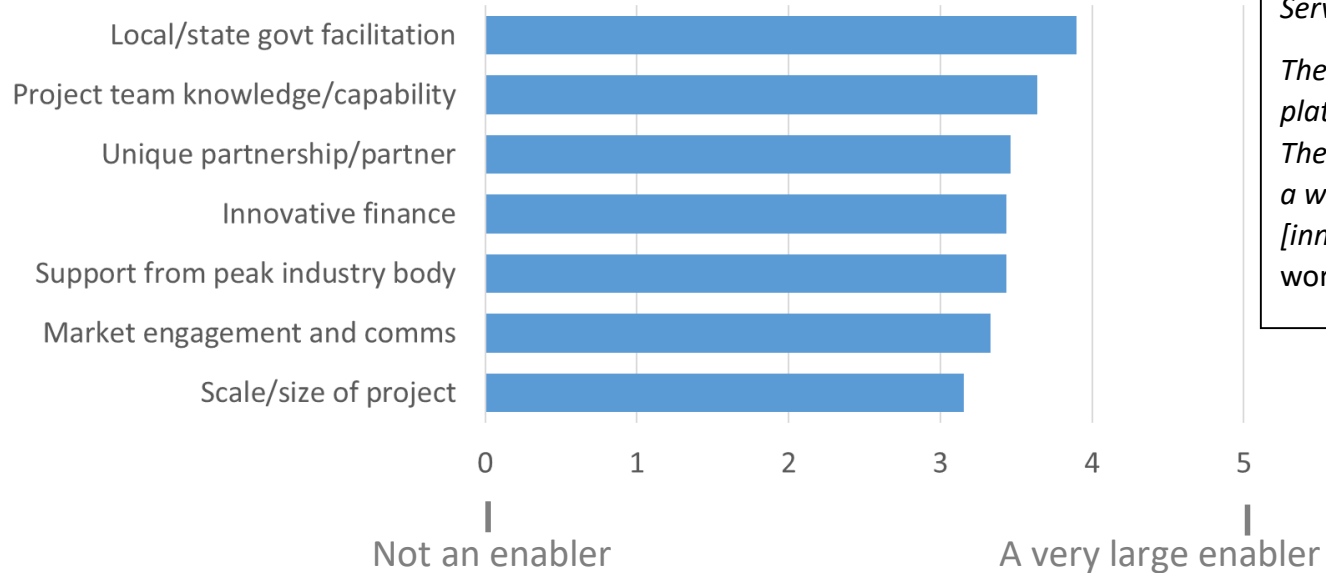
*When one thing goes wrong, then local government never want to get criticised for that again, even if there was lots of good... [Consultant]*

*...too many chances of someone saying no in the system and killing it before it gets to the ultimate decision maker [State Govt. Officer]*



# Enablers

*Government these days is looking at establishing an entity for an innovation zone to be covered if something goes wrong. No room in Australia to make a mistake. The way to deal with this is to have some vehicle to offset the risk [Workshop]*

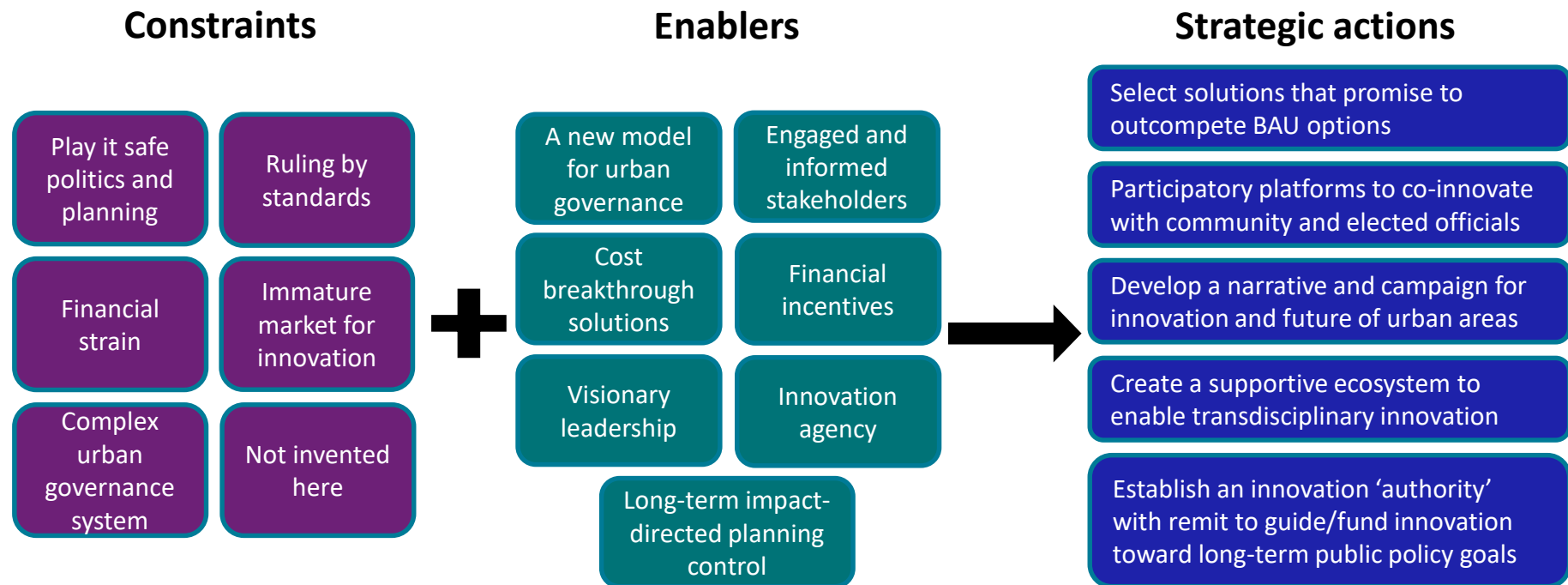


*Multi-stakeholder project board – Who’s on the board? Developer, Futurists, Consultants, Land authorities, Council, Servicing authorities. [Penrith workshop]*

*There needs to be a collaborative platform to understand innovation. There is no platform and workshops are a way to set up an environment where it [innovation] can be discussed. [Logan workshop]*



# Identification of strategic actions

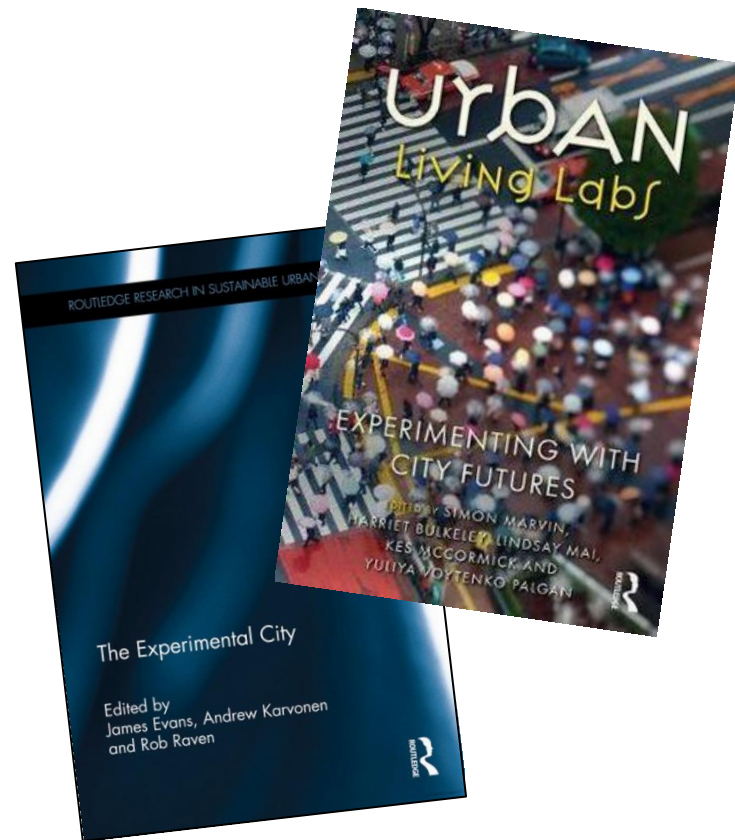






# Joining the Urban Living Lab Movement

- Place-based (real world)
- Experimentation and learning
- Participation and user involvement
- Leadership and ownership
- Evaluation of impact





# CSIRO Urban Living Labs



...PLACES where MULTIPLE STAKEHOLDERS come together in the interests of CHANGING from business-as-usual to a new LONG-TERM urban SYSTEM configuration and operation.

...Seek to tackle wicked problems that require multiple jurisdictions to solve.

...establish a portfolio  
...different contexts  
...increased mainstreaming.





# Scenarios: "bringing together"

LAND AND WATER  
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**Future Darwin**

How might Darwin build and maintain resilience in a range of plausible futures?

Report on workshop held in Darwin 9<sup>th</sup> and 10<sup>th</sup> of June 2016

July 2016

Prepared for the Northern Australia Development Office

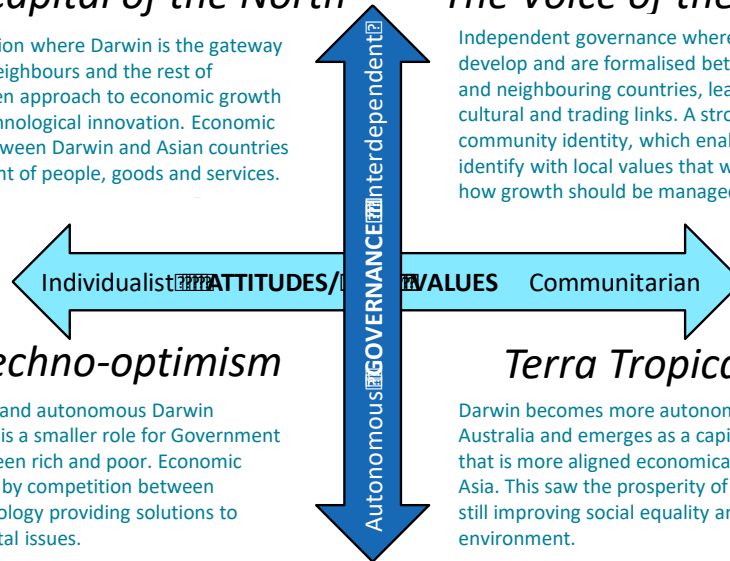


## Innovation Capital of the North

A much larger population where Darwin is the gateway between near Asian neighbours and the rest of Australia. Market driven approach to economic growth which encourages technological innovation. Economic unions are formed between Darwin and Asian countries to allow free movement of people, goods and services.

## The Voice of the Territory

Independent governance where stronger relationships develop and are formalised between Northern Territory and neighbouring countries, leading to improved cultural and trading links. A strong sense of local community identity, which enabled Darwin people to identify with local values that wanted to protect and how growth should be managed.



## Territory Techno-optimism

A highly individualistic and autonomous Darwin develops, where there is a smaller role for Government and growing gap between rich and poor. Economic prosperity determined by competition between individuals, with technology providing solutions to social and environmental issues.

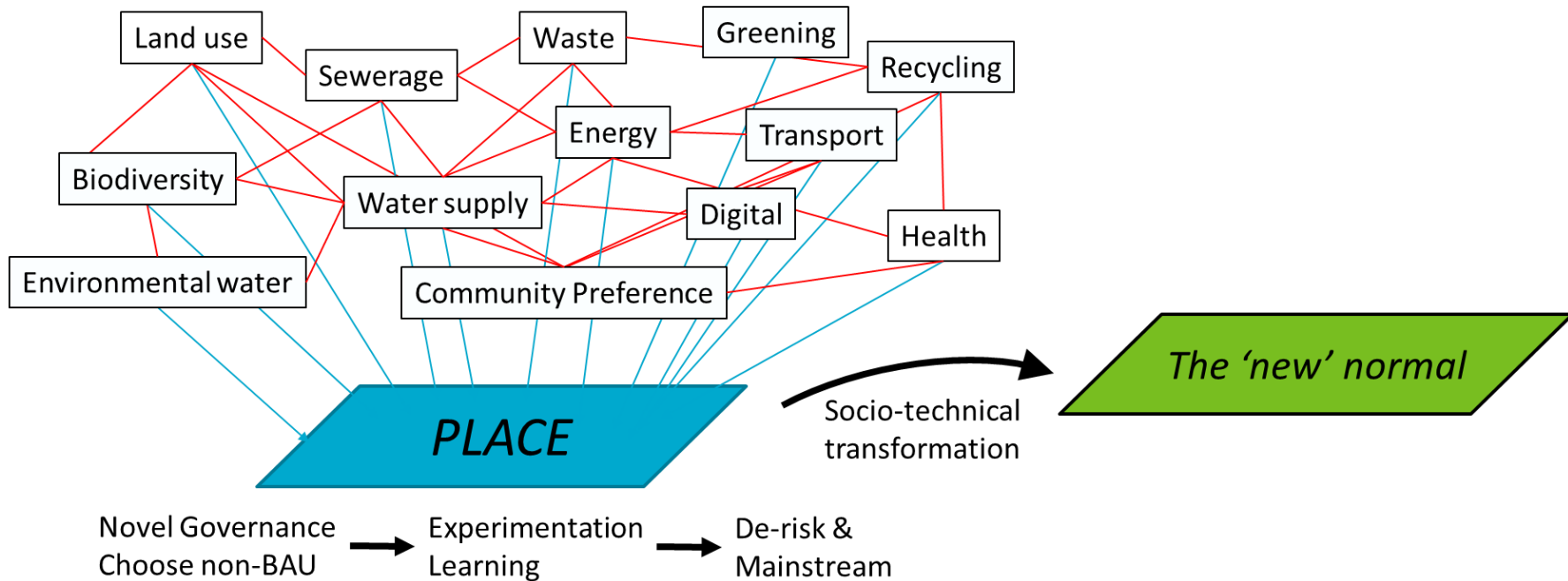
## Terra Tropicanus

Darwin becomes more autonomous from the rest of Australia and emerges as a capital of North Australia that is more aligned economically and culturally with Asia. This saw the prosperity of Darwin developed while still improving social equality and protecting the environment.





# The Importance of Place and Time





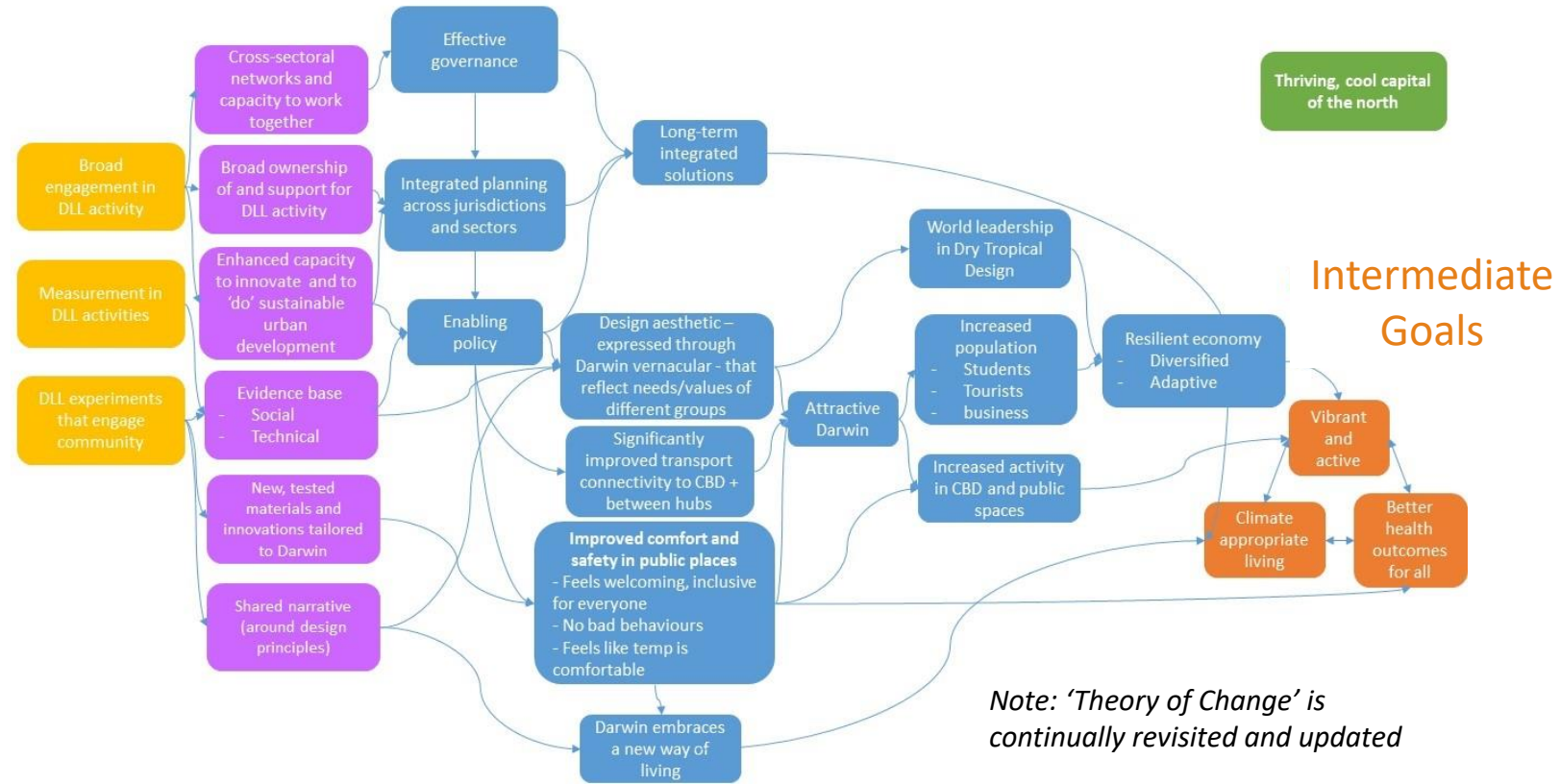
# Frameworks for Impact

## Activities

## Outputs

## Outcomes

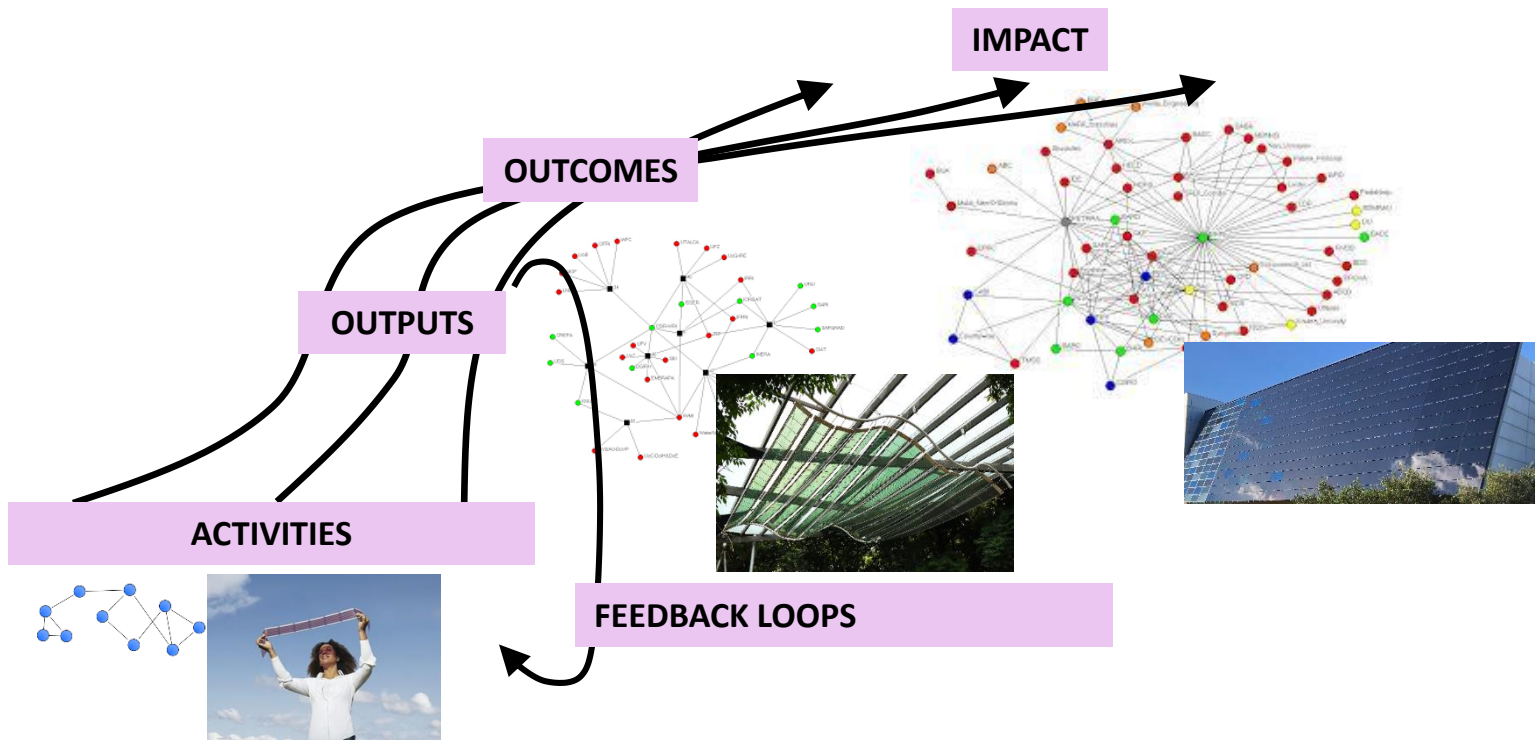
## Vision



*Note: 'Theory of Change' is continually revisited and updated*



# Curate innovation in both 'social' and 'technology'





# Thank you

**Land and Water**

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<https://www.csiro.au/en/Showcase/Future-Cities>

<https://research.csiro.au/darwinlivinglab/>

<https://research.csiro.au/ssplivinglab/>

<https://ginninderraproject.com.au/>

