



CRC for  
Water Sensitive Cities



Australian Government  
Department of Industry,  
Innovation and Science

**Business**  
Cooperative Research  
Centres Programme

# Water Sensitive City Transitions

Collaborating for integrated plans that  
get delivered

18 June 2018

[watersensitivecities.org.au](http://watersensitivecities.org.au)

# But first some thoughts on yesterday



# Urban heat island effect and potential benefits of green infrastructure

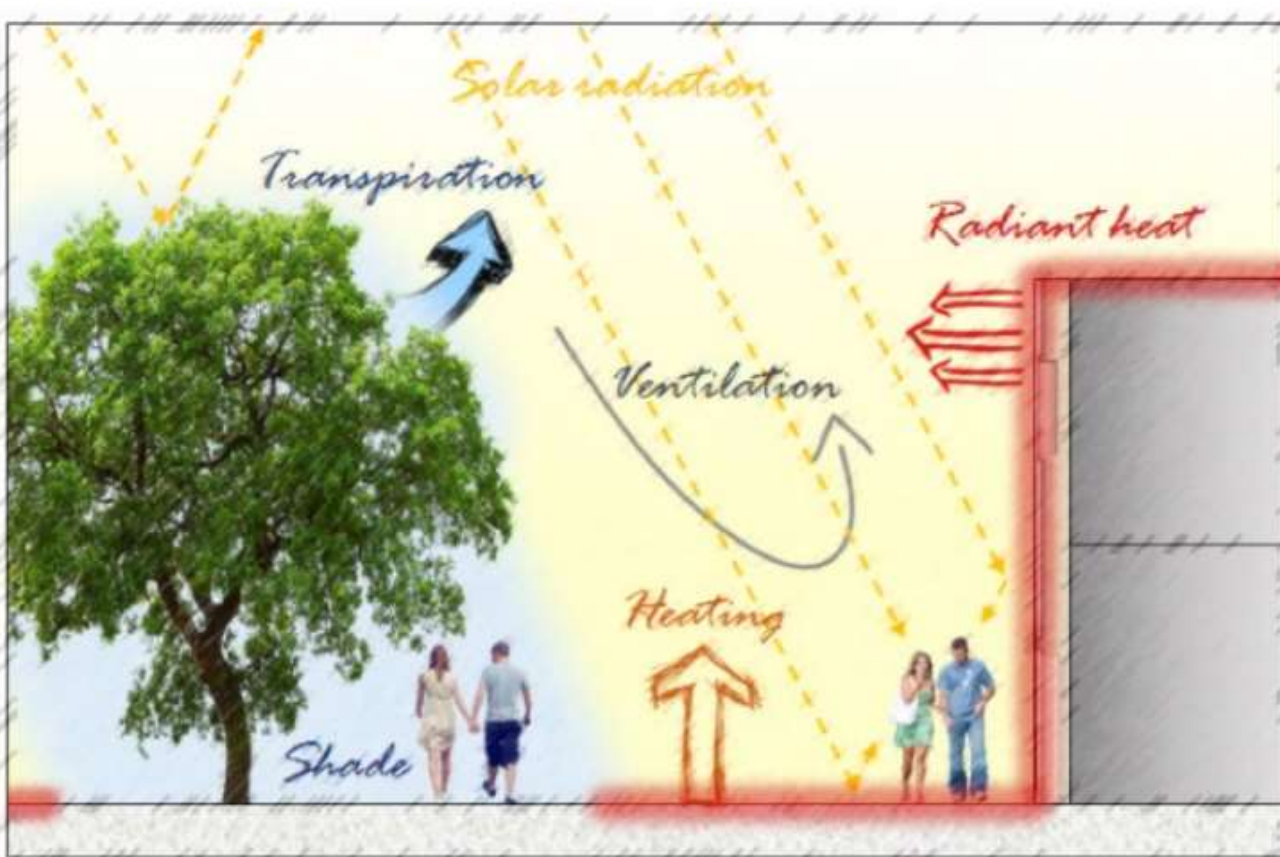
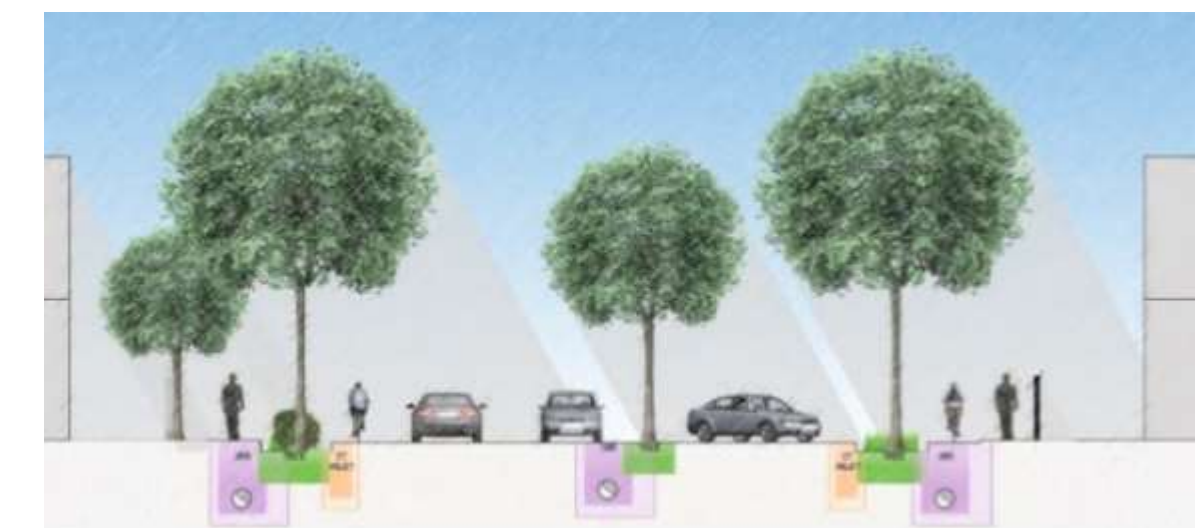
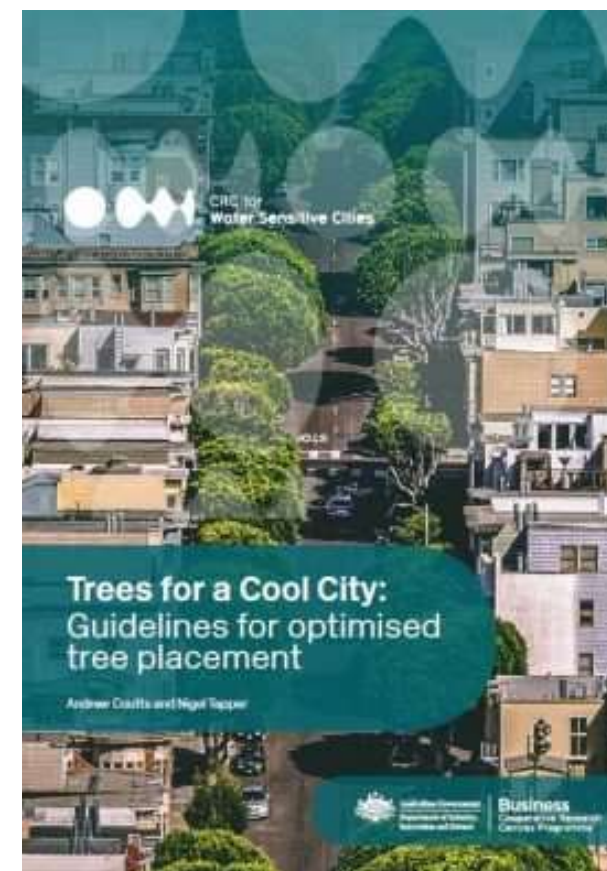
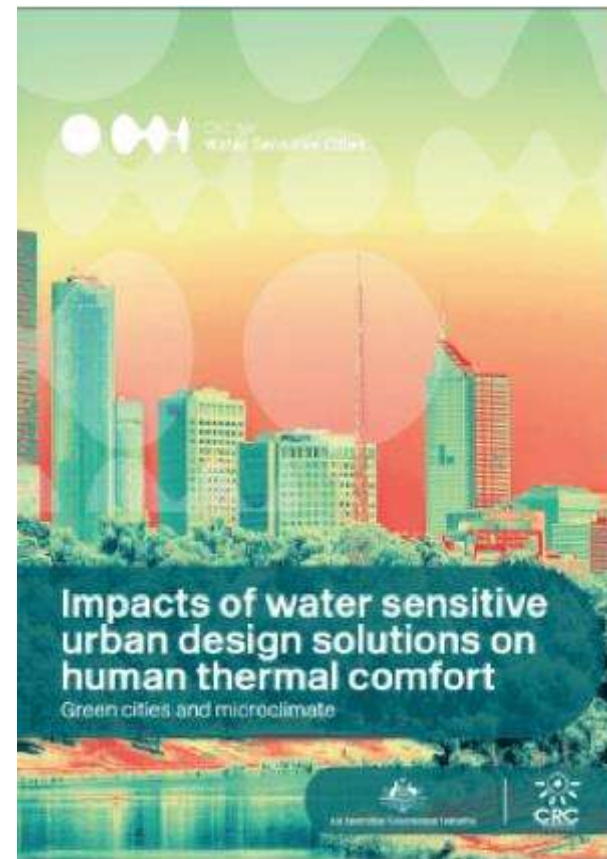
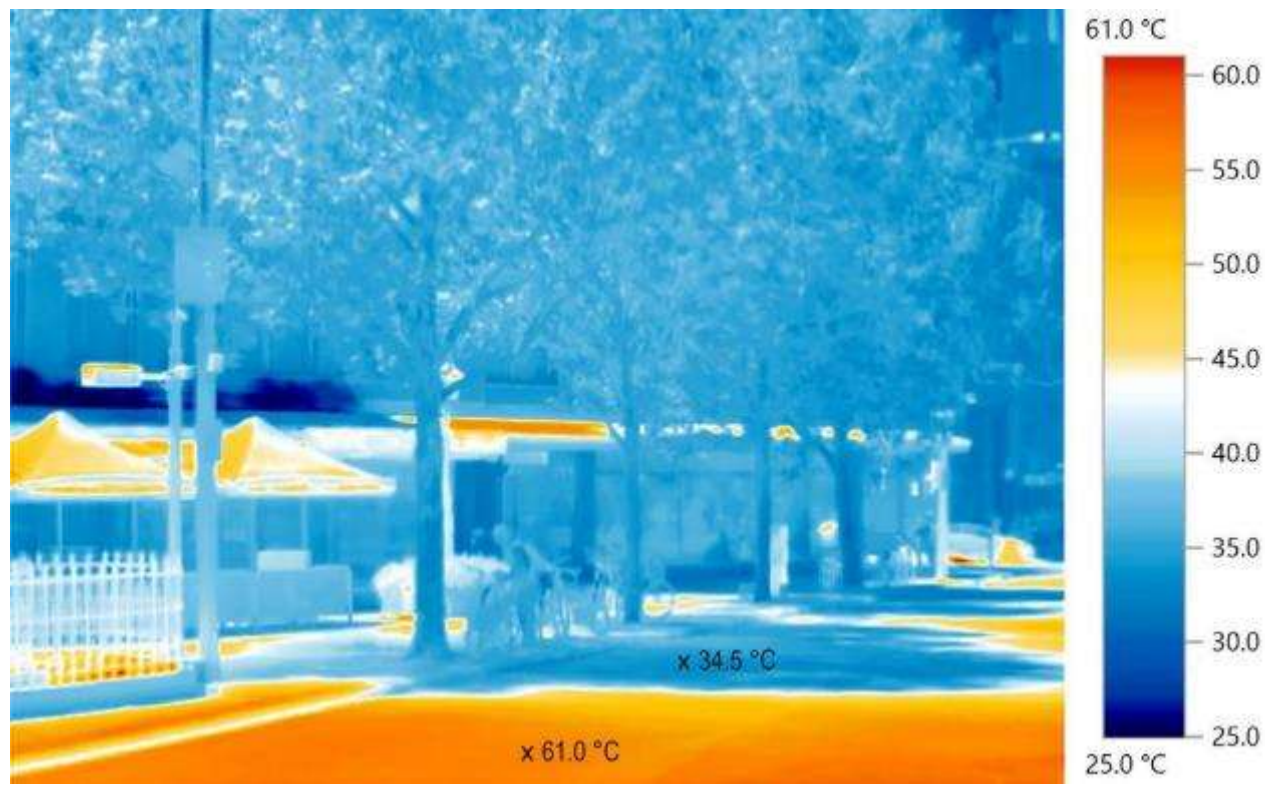
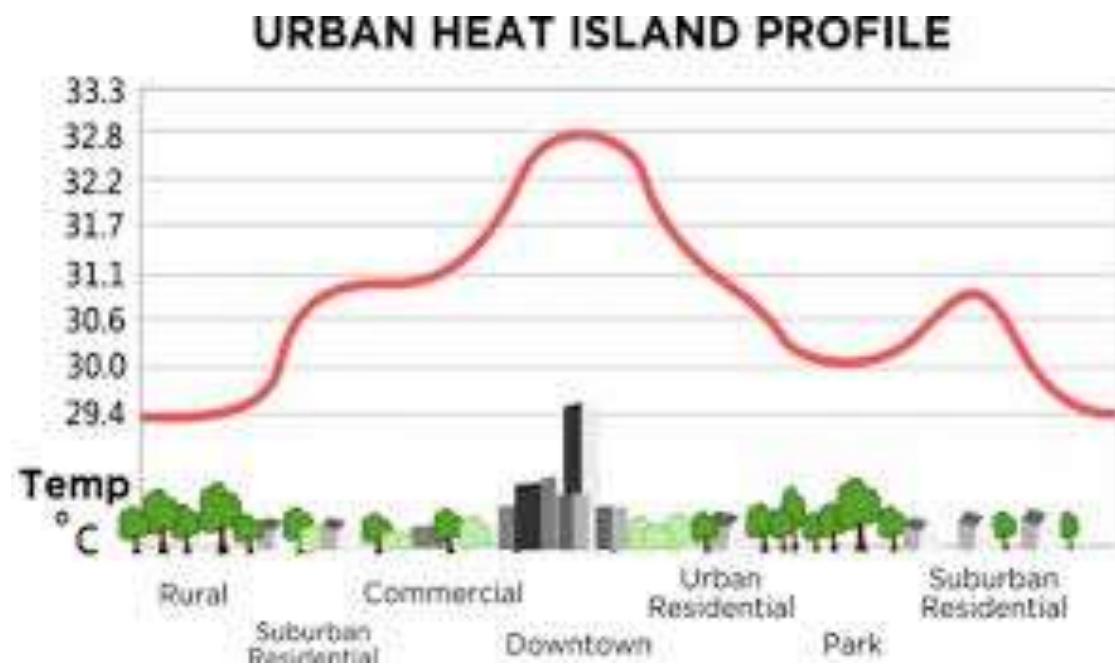


Figure 5: Key environmental components influencing human thermal comfort during the day. Trees block (e.g. absorb and reflect) solar radiation and shade urban surfaces. Cool surfaces.





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# Water, sanitation and drainage services evolve as cities grow

**Simple**



**Complicated**



**Complex**



# How to successfully navigate the transition to water sensitive cities?

Large-scale, centralised,  
linear, siloed, ...

**Current System**



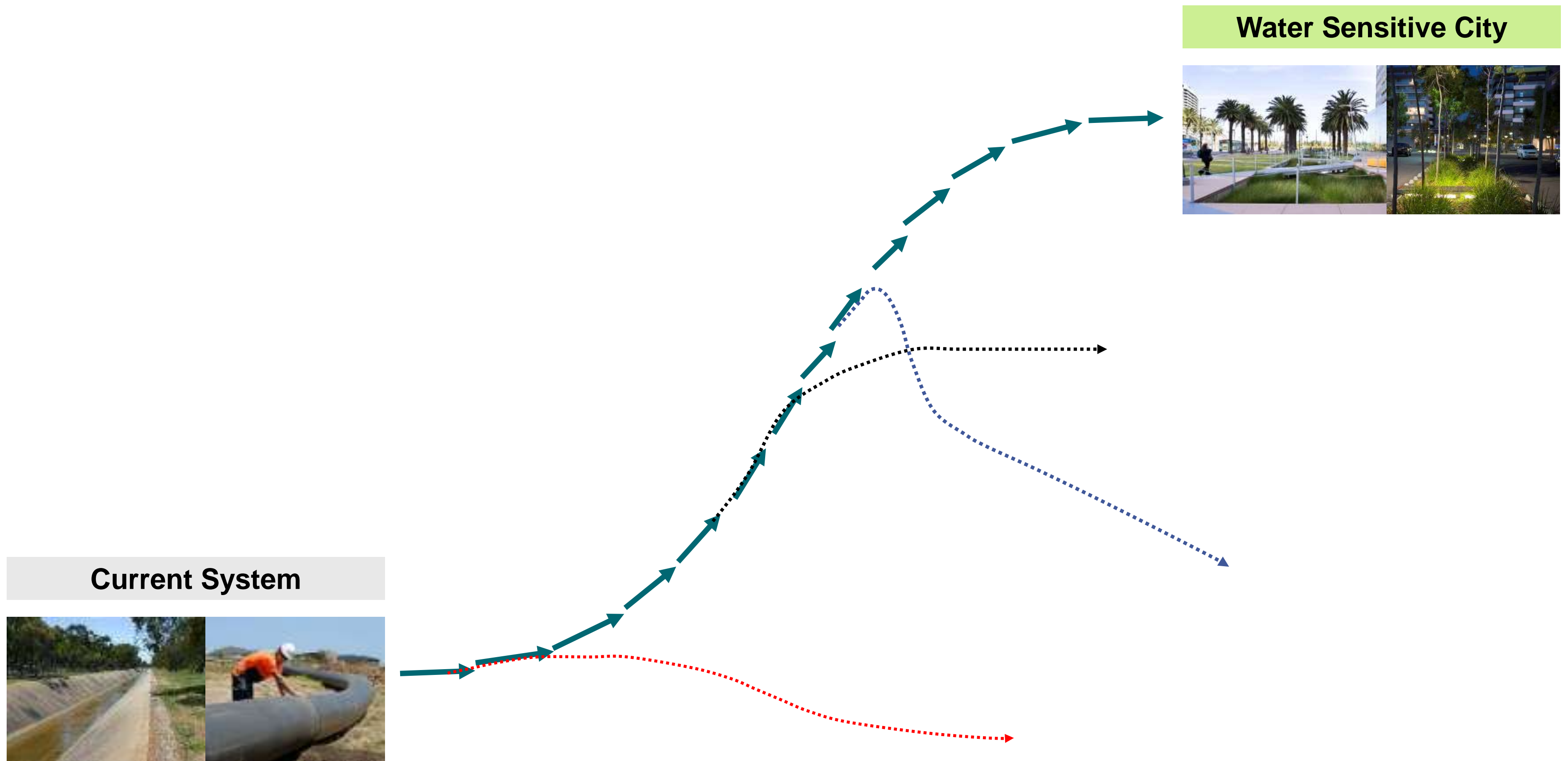
Flexible, integrated,  
distributed, closed loop,  
context sensitive, ...

**Water Sensitive City**



Van de Brugge and Rotmans (2007) *Futures*

# Lots of plans but lasting change is not common





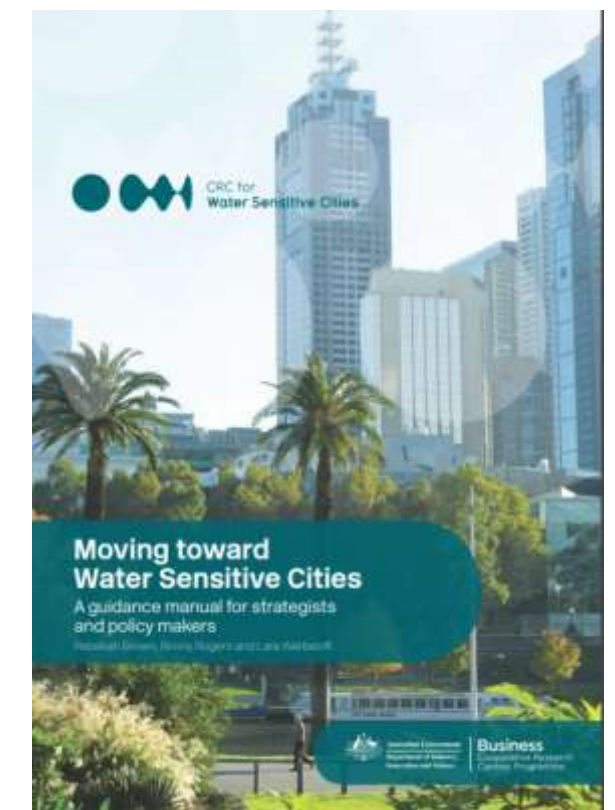
# WSC Visions and Transition Strategies Research

October 2016 – December 2018

- Identifying processes and tools to support lasting change
- 5 City Strategies
- 117 Participating organisations
- 274 participants across:
  - municipalities
  - water utilities
  - consultants
  - developers
  - technology providers
  - community groups
  - academia
- Action research design

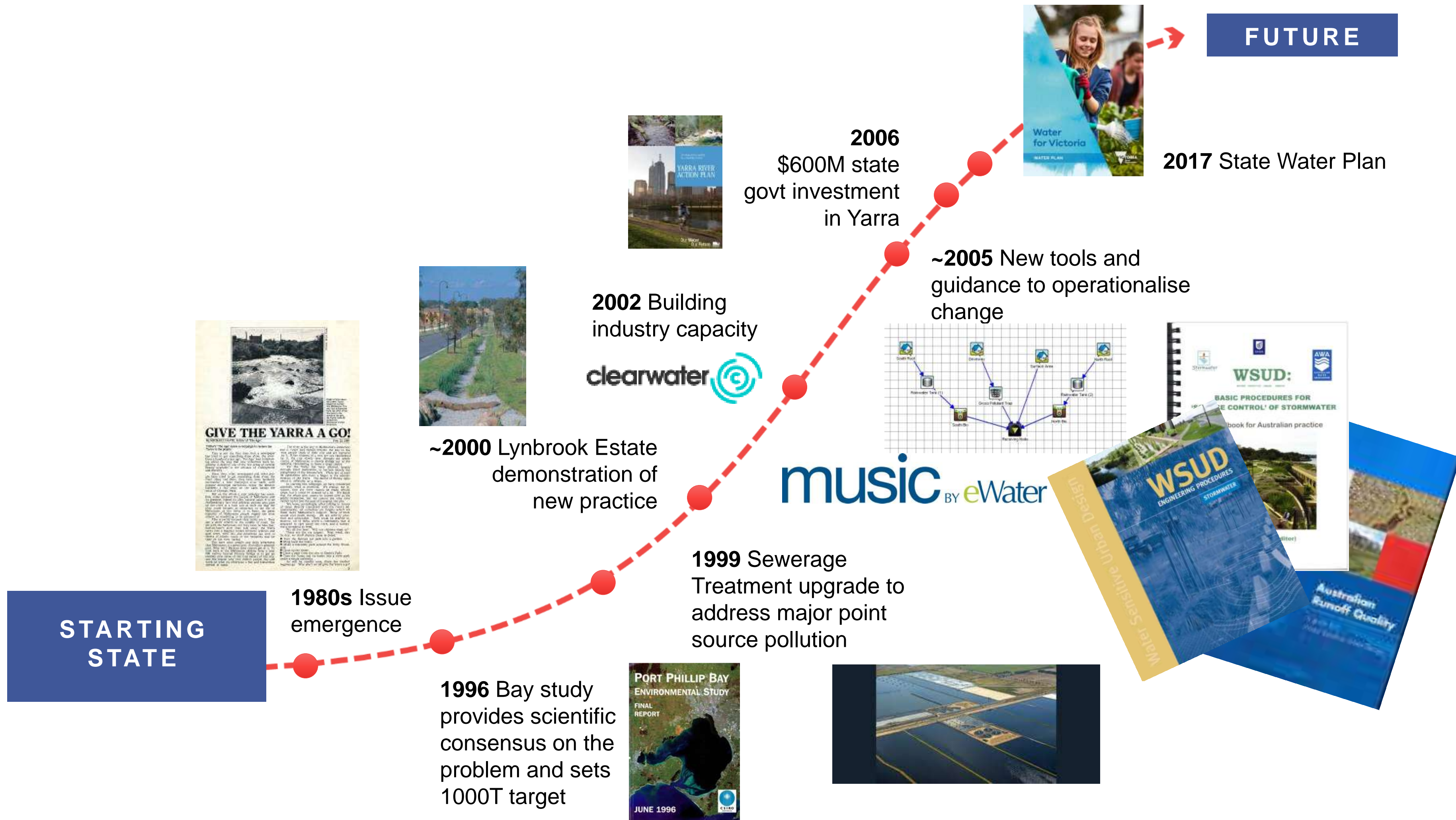


# Transition Dynamics Framework

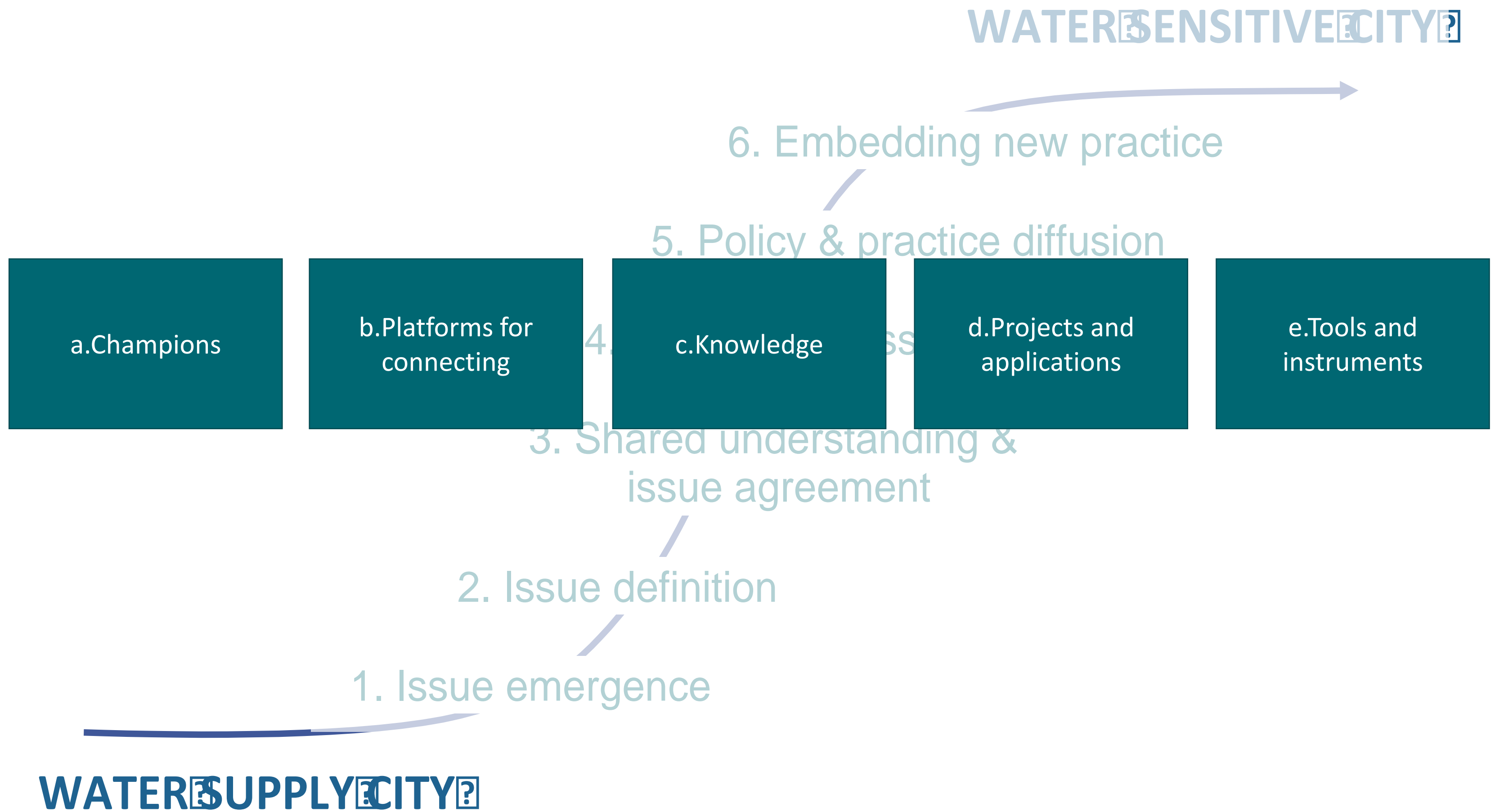


For more information see [https://watersensitivecities.org.au/wp-content/uploads/2016/05/TMR\\_A4-1\\_MovingTowardWSC.pdf](https://watersensitivecities.org.au/wp-content/uploads/2016/05/TMR_A4-1_MovingTowardWSC.pdf)

# Example – Yarra River Water Quality



# Transition Dynamics Framework



Transition phase	a.Champions	b.Platforms for connecting	c.Knowledge	d.Projects and applications	e.Tools and instruments
1. Issue emergence	Issue activists		Issue highlighted	Issue examined	
2. Issue definition	Individual champions	Sharing concerns and ideas	Causes and impacts examined	Solutions explored	
3. Shared understanding & issue agreement	Connected champions	Developing a collective voice	Solutions developed	Solutions experimented with	Preliminary practical guidance
4. Knowledge dissemination	Influential champions	Building broad support	Solutions advanced	Solutions demonstrated at scale	Refined guidance and early policy
5. Policy and practice diffusion	Organisational champions	Expanding the community of practice	Capacity building	Widespread implementation and learning	Early regulation and targets
6. Embedding new practice	Multi-stakeholder networks	Guiding consistent application	Monitoring and evaluation	Standardisation and refinement	Comprehensive policy and regulation

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# Table discussions and feedback

## Task

1. Discuss an issue in your country (e.g. improving flood resilience, solid/liquid waste management, increasing sanitation coverage, drinking water security,....)
2. What stage (1-5) is the issue at?
3. Which enablers (a-e) are in place already (green) to support further progress?
4. Is anything missing from your country action plan?
5. Report back to the group

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# Analytical Tools



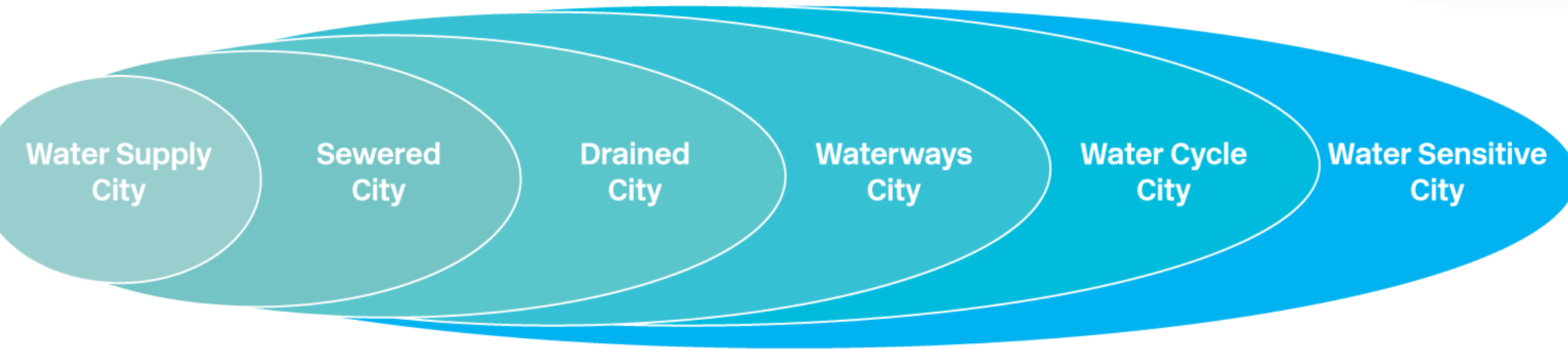
**1 WSC Index**  
 Where are you now?  
 Where do you want to go?

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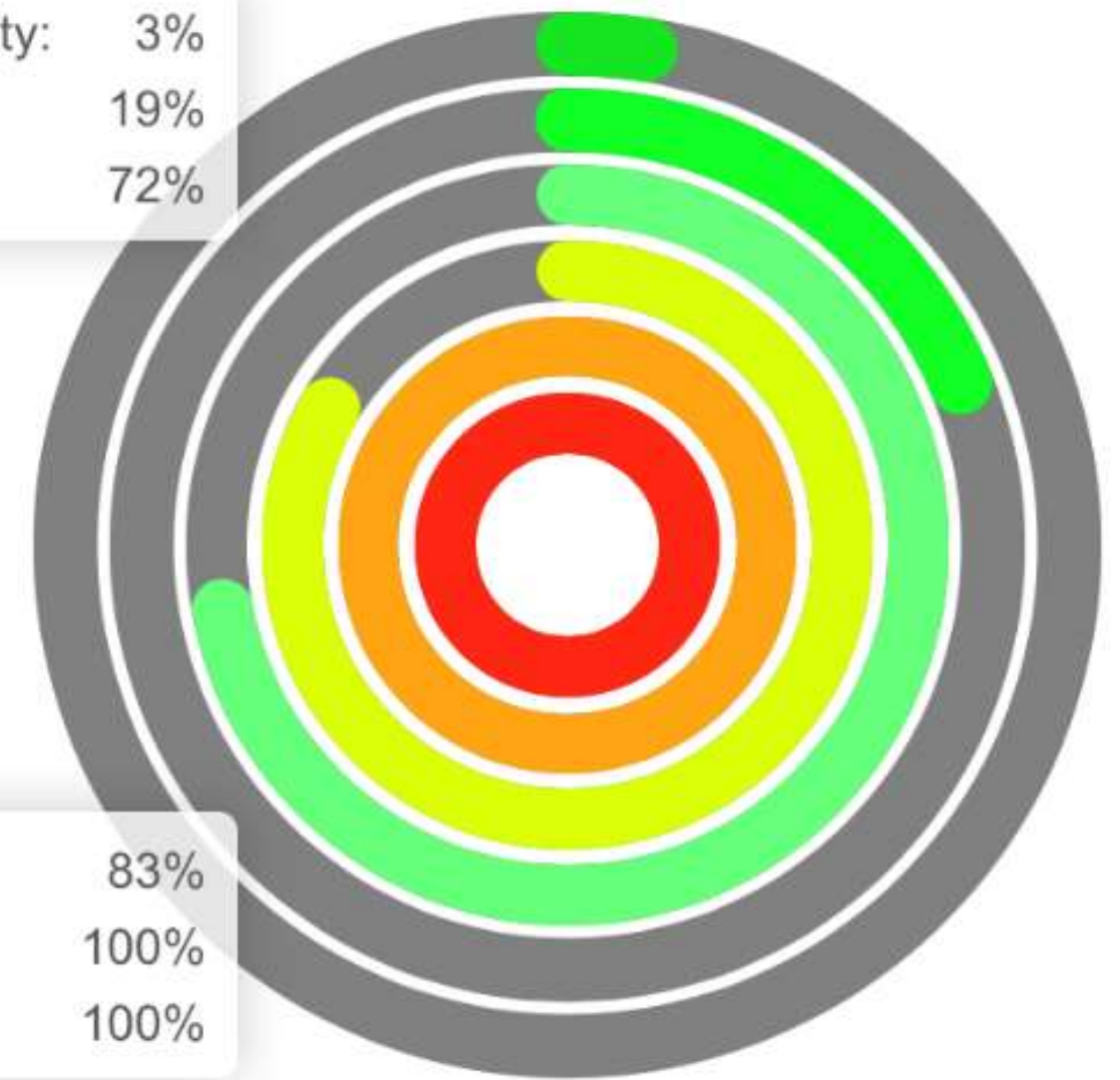
**2 Transitions Dashboard**  
 How do you get there?



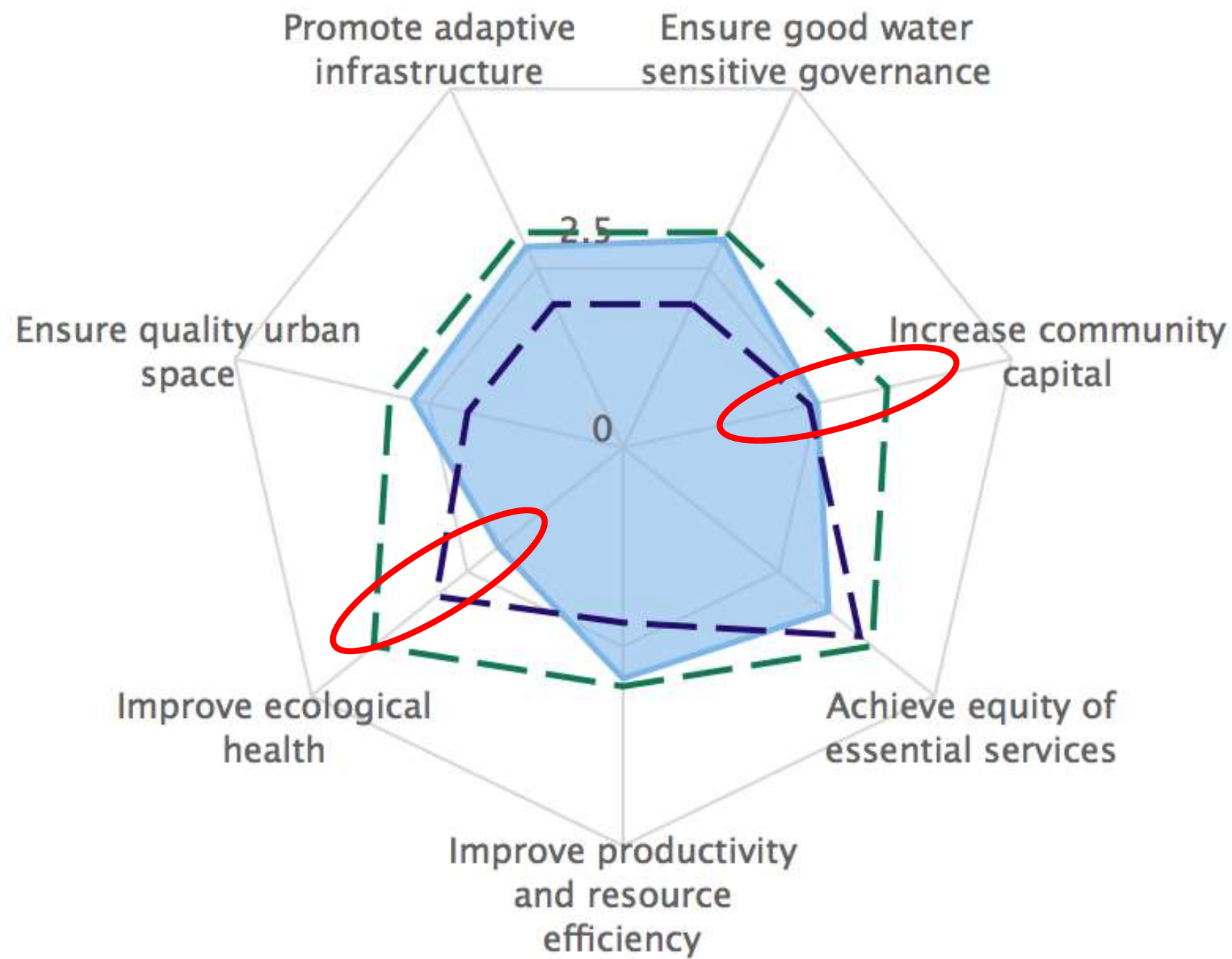
# Water Sensitive Cities Index



Water Sensitive City:	3%
Water Cycle City:	19%
Waterway City:	72%



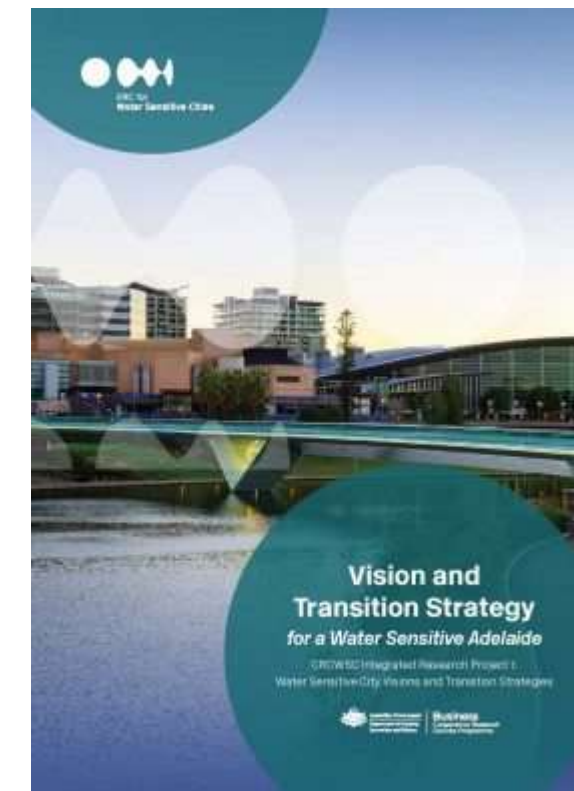
Drained City:	83%
Sewered City:	100%
Water Supply City:	100%



# Process and relationships just as important as tools and reports

Aim:

- Build understanding, trust and commitment to shared vision and action
- Collaboration in planning, accountability in delivery



# Common Australian findings

- Need for adaptive, collaborative governance arrangements
- Importance of relationships and informal networks
- Need for an explicit learning agenda associated with trials and demonstrations
- Emerging recognition of the importance of embracing Aboriginal values and way of thinking in water planning and decision-making – a different culture needs a different approach
- Empowering communities to be active partners in water system stewardship is challenging, context specific and takes time and \$ to do well but the rewards are significant. – beware over promising and under delivering
- Awareness of politics and windows of opportunity important



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# World Bank IUWM Study Tour *WSC Transition activities*

Kerrie Burge

[watersensitivecities.org.au](http://watersensitivecities.org.au)

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# In-country teams (community field workers, build team, lab techs)

Champions

Issue  
activists

Individual  
champions

Connected  
champions

Influential  
champions

Organisational  
champions

Multi-stakeholder  
networks



# CECs and KePoLinks

## Champions

Issue  
activists

Individual  
champions

Connected  
champions

Influential  
champions

Organisational  
champions

Multi-stakeholder  
networks



# Connected champions

Champions

Issue activists

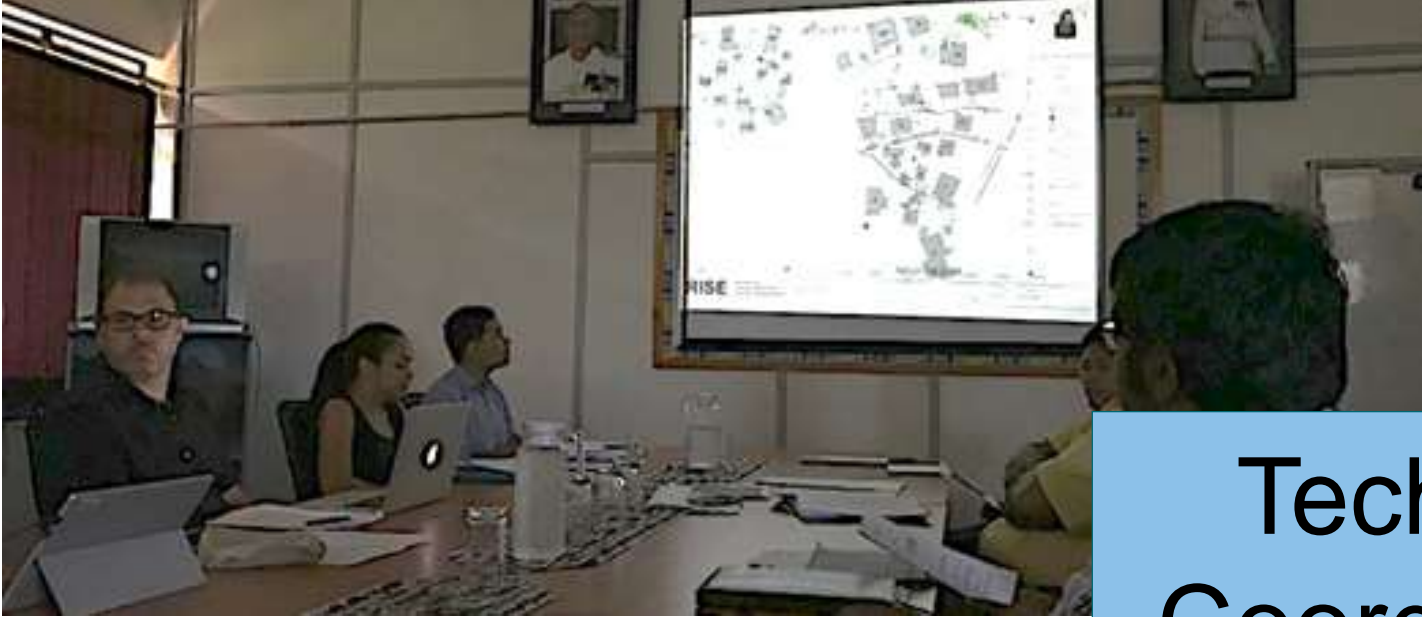
Individual champions

Connected champions

Influential champions

Organisational champions

Multi-stakeholder networks



Technical Coordination Committee

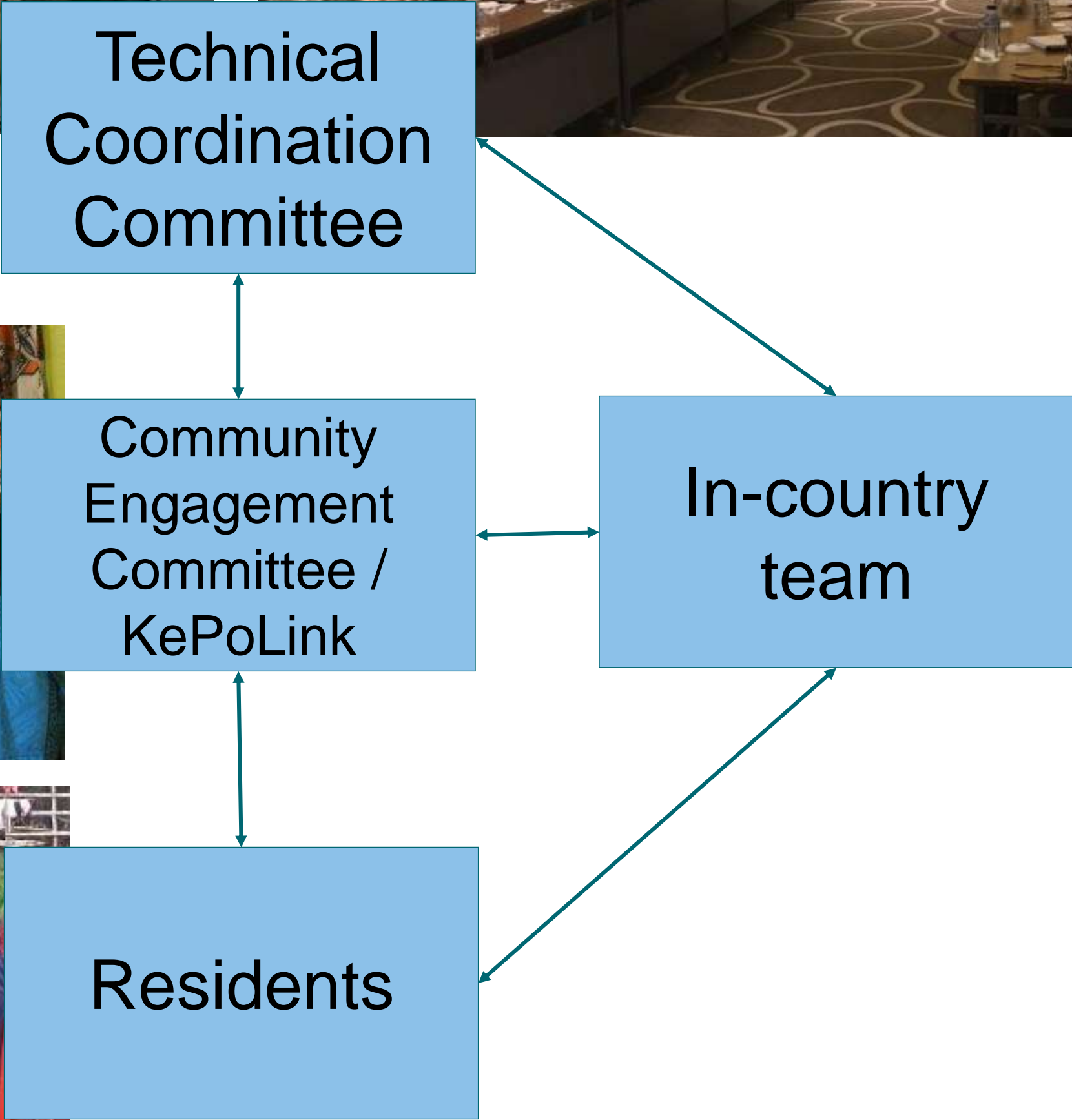


Community Engagement Committee / KePoLink

In-country team



Residents



Platforms for connecting

# Platforms for connecting

Sharing concerns and ideas

Developing a collective voice

Building broad support

Expanding the community of practice

Guiding consistent application



# Capacity Building - IWM Training

Knowledge

Issue highlighted

Causes and impacts examined

Solutions developed

Solutions advanced

Capacity building

Monitoring and evaluation



# Experimenting with solution through co-design

Projects and applications

Issue examined

Solutions explored

Solutions experimented with

Solutions demonstrated at scale

Widespread implementation and learning

Standardisation and refinement

el.	POSITION / LOCATION	SHAPE	SIZE	NUMBER	MATERIAL	DIVISION / FRAGMENTATION	DETAIL / CONSTRUCTION	COST	MAINTENANCE	LINKS	FAHILITY	EDU (ARE)
WETPOD	RWT											
	K											
	T											
	SH											
WETLAND	S		* RATIO	TOTAL AREA								
	SS											
	BIO FILTER											
	SEPTIC TANK											
	DRAINAGE											
	PRESSURE TANK											
	* STREET?											
	* WASTE COLL?											
	* PLANTER Box?											

VERY RIGID / DETERMINED / FIXED BY TECH.

FLEXIBLE / COULD CHANGE / VARIES



Projects and applications

Issue examined

Solutions explored

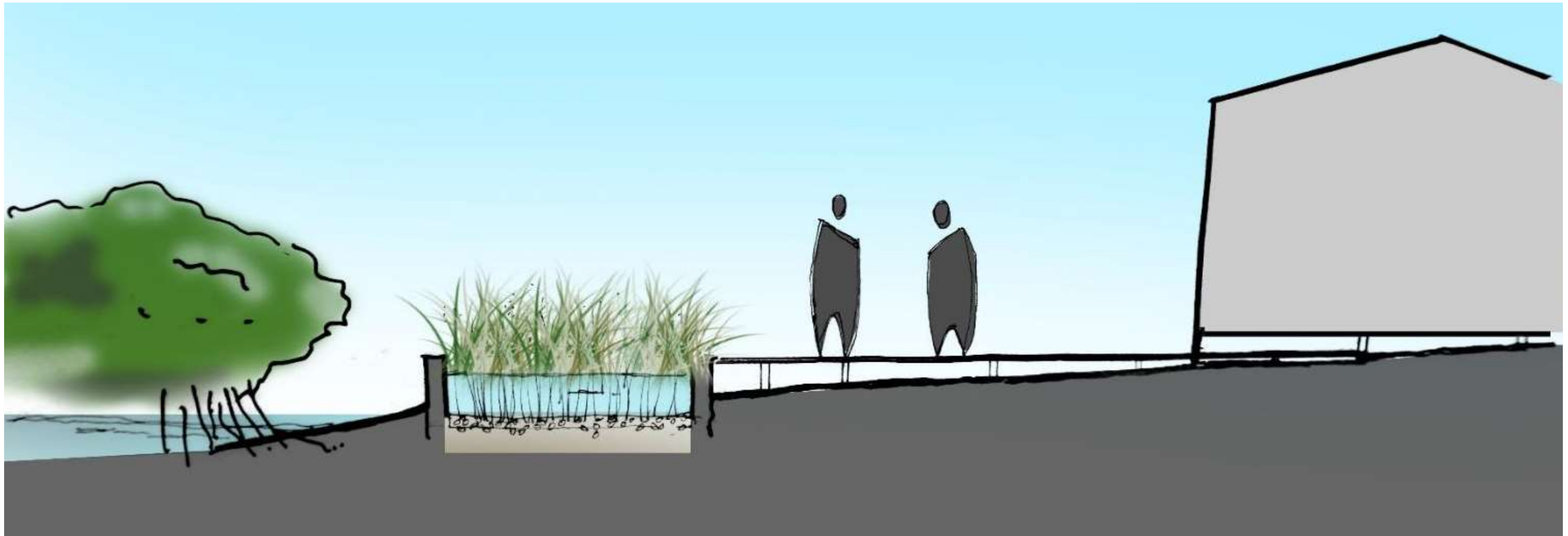
Solutions experimented with

Solutions demonstrated at scale

Widespread implementation and learning

Standardisation and refinement

## Demonstrating the approach



# Contact us

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**Thank you.**