



CRC for
Water Sensitive Cities



Australian Government
Department of Industry,
Innovation and Science

Business
Cooperative Research
Centres Programme



IRP1: WSC Transition Strategies and Implementation Plans

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watersensitivecities.org.au



Regional Needs Identified

1. Strengthened and aligned policy, legislation and regulation in support of WSCs
2. Shared vision and narrative for WSCs that connects with community values and drives decision-making
3. New economic and financial models and incentives that recognise the values and benefits of a WSC
4. Robust and inclusive decision-making frameworks
5. Governance framework to enable coordination and collaboration across agencies and sectors
6. Holistic evaluation frameworks to support WSC investments
7. Guidance on how to develop context-specific solutions
8. Achieving multiple benefits through integrated planning and design of water systems and the urban form
9. Develop next generation flood risk assessment framework and tools as part of a WSC approach
10. Monitoring and evaluation for improved system design and performance
11. Efficient and effective operations and maintenance systems to achieve WSC outcomes
12. Coherent understanding of groundwater systems and interactions with surface waters
13. Leadership and influence
14. A culture of learning and innovation
15. Translation and sharing of WSC knowledge
16. Building community connection and engagement
17. Building capacity to deliver a water sensitive city





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1. Strengthened and aligned policy, legislation and regulation in support of WSCs
2. Shared vision and narrative for WSCs that connects with community values and drives decision-making
3. New economic and financial models and incentives to realise the values and benefits of a WSC
4. Robust and inclusive decision-making processes
5. Governance framework for WSCs that enables collaboration across agencies and sectors
6. Holistic approach to WSCs that considers the needs of all stakeholders
7. Evidence-based solutions
8. High integrated planning and implementation approach
9. Flood risk management approach
10. Monitoring and evaluation framework
11. Efficient and effective operational systems to achieve WSCs
12. Coherent understanding of governance systems and interactions
13. Leadership and influence
14. A culture of learning and innovation
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Long-term vision and narrative grounded in local community values

Sector-wide leadership, alignment and coordination

Commitment to learning, innovation and collaboration



Tranche 1 Research

Shaping Perth a Water Sensitive City
Outcomes and perspectives from a participatory process to guide the strategic transition from Perth to a water sensitive city
Erinory Rogers, Kathie Hammer, Lara W...

Towards a Water Sensitive Elwood
A Community Vision and Transition Pathways

Community engagement in the water sector
An outcome-focused review of different engagement approaches
Angela Dean, Kelly Fielding, Fiona Newton and Helen...

Developing a water sensitive city
Overview
Two years into the life of the CRC for Water Sensitive Cities (CRCWSC) a considerable knowledge base has been established that will support the development of tools, products and processes to enable transitions toward water sensitive cities. This recently established project aims to provide a platform to consolidate this knowledge in a Water Sensitive Cities (WSC) Index. Ultimately, the index will underpin a reliable and user-friendly web tool that can be used for city assessments across Australia and the rest of the world.

Key outcomes
This project will deliver a WSC Index and accompanying tools for assessing the water sensitivity of urban places ranging from metropolitan to local government areas and informing management responses to improve water sensitive practices. The tools will be packaged with a web-based platform and user manuals to assist self-assessment by end users.

The value of this project lies in equipping CRCWSC's industry partners with the capacity to monitor and evaluate the performance of their water management practices and explore measures that would realise water sensitive potential. This outcome will critically support CRCWSC's mission of revolutionising water management to enhance the liveability, sustainability and resilience of our cities. End users will include local and state governments, public agencies and water utilities, consultancies, land developers, community groups, technology providers and research organisations.

Project design
The CRCWSC vision refers to liveability, sustainability and resilience as key components of water sensitivity. Therefore the tool will apply these three concepts as "lenses" through which water sensitivity is assessed.

The first stage involves the consolidation of existing knowledge to identify preliminary indicators for balancing of water sensitivity, such as good governance, adaptive water infrastructure and ecological health.

These preliminary indicators and proposed algorithms for calculating the liveability, sustainability and resilience scores will then be compiled in an initial prototype version of the WSC Index, ready for early trials with CRCWSC's stakeholders. The trials will involve local government stakeholders using the tool with data on local water management practices. In tandem with the development of the index, extensive stakeholder consultation will also help to refine the index and the associated web-based platform.

- a database of water sensitive practices and specific design solutions
- algorithms for assessing water sensitivity of urban places
- a web-based platform for self-assessment and interactive graphics and

A range of reports, synthesis and communication products for a wider range of stakeholders will be instrumental in the dissemination of the assessment results, and to the general public.

The WSC Index is a suite of indicators for liveability, sustainability and resilience that will be validated on the accuracy of the index on comparison with other methodologies.

The refined WSC Index will be used to assess and users through the methodologies for their effective use.

Water Sensitive Cities Index
water management, consolidation, tools synthesis, assessment, water sensitivity, local governments

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Scientists and Policy Influence: A Literature Review
Strategies for influencing the political dynamics of decision making

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IRP1 Aims and Objectives

This project aims to deliver a suite of participatory methods and associated tools for developing strategic guidance to cities and towns who want to accelerate WSC transitions

1. Enhance, refine, implement and evaluate the developed benchmarking and envisioning methodologies across different scales
2. Integrate, test and refine developed CRC knowledge and tools into the methodologies to support communication and understanding about WSC concepts (WSC Index, engagement strategies)
3. Develop transition strategies and implementation plans for each case study
4. Monitor and evaluate the effectiveness of the participatory methods, transition strategies and implementation plans





Research Questions

1. How can community, government and industry stakeholders at different spatial and engagement scales be brought together in participatory forums to develop a shared understanding of the challenges, aspirations and opportunities for advancing water sensitive cities?
2. How can local and city-scale water sensitive transitions be deliberately steered and coordinated through strategic intervention?
3. What strategies, processes and representations can be used to increase support and a shared commitment for the water sensitive transition amongst different stakeholders?
4. What are the key drivers of successful implementation of WSC transition strategies and plans?

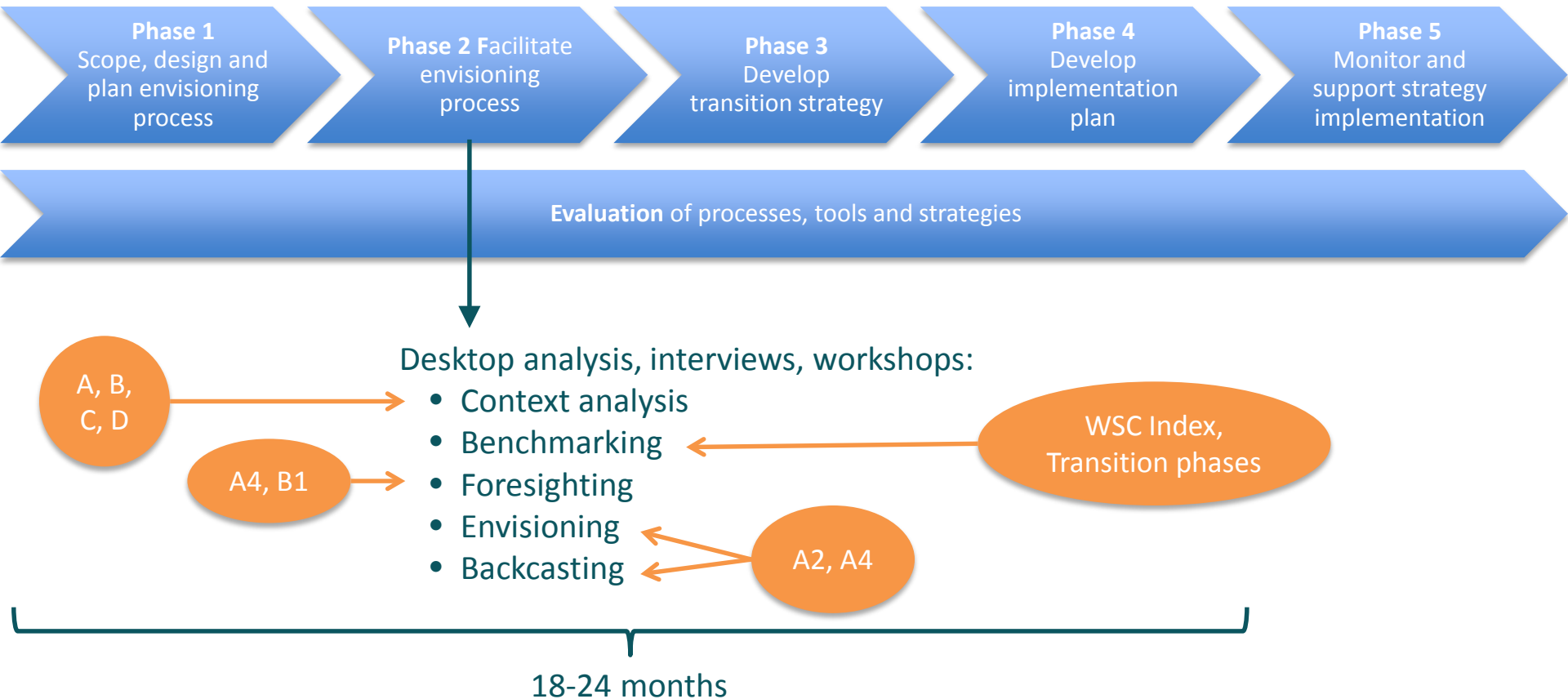


Research Approach: Full case studies



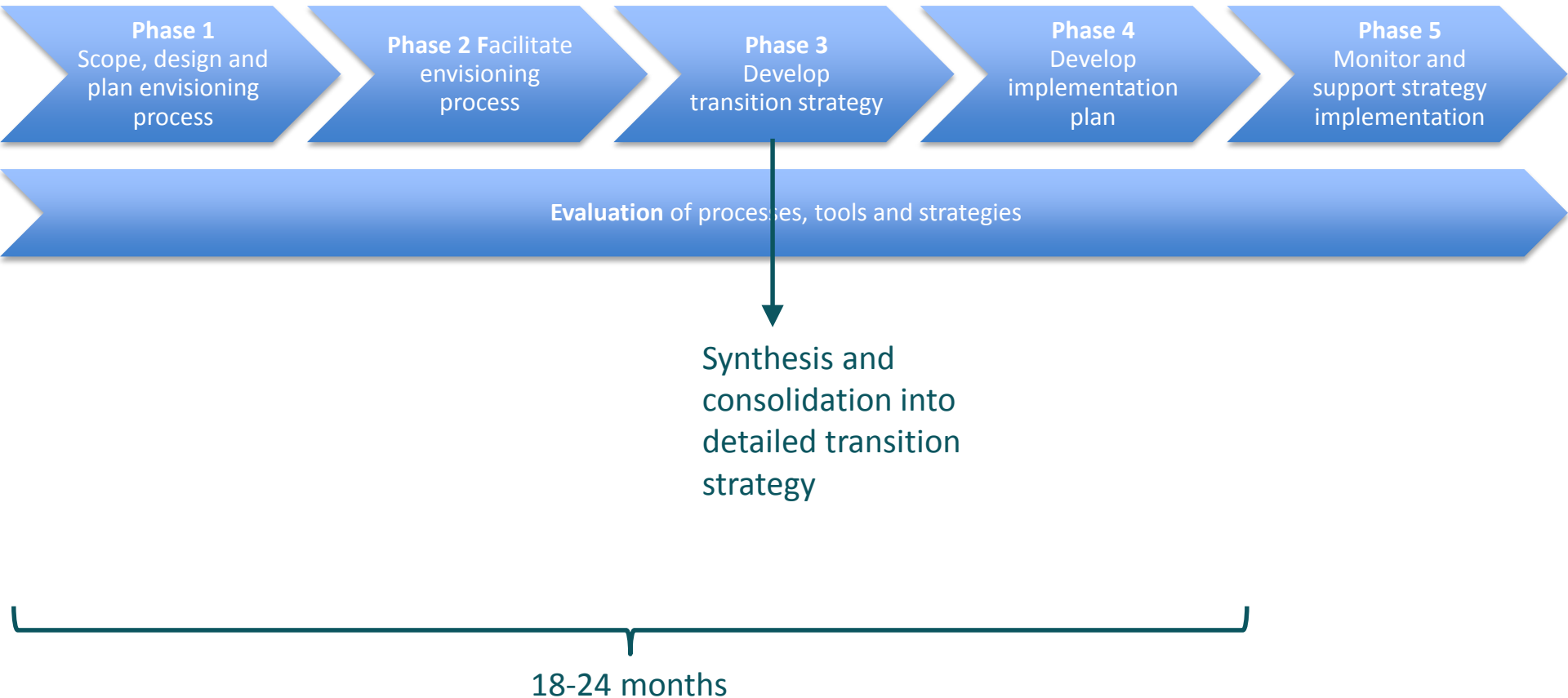


Research Approach: Full case studies



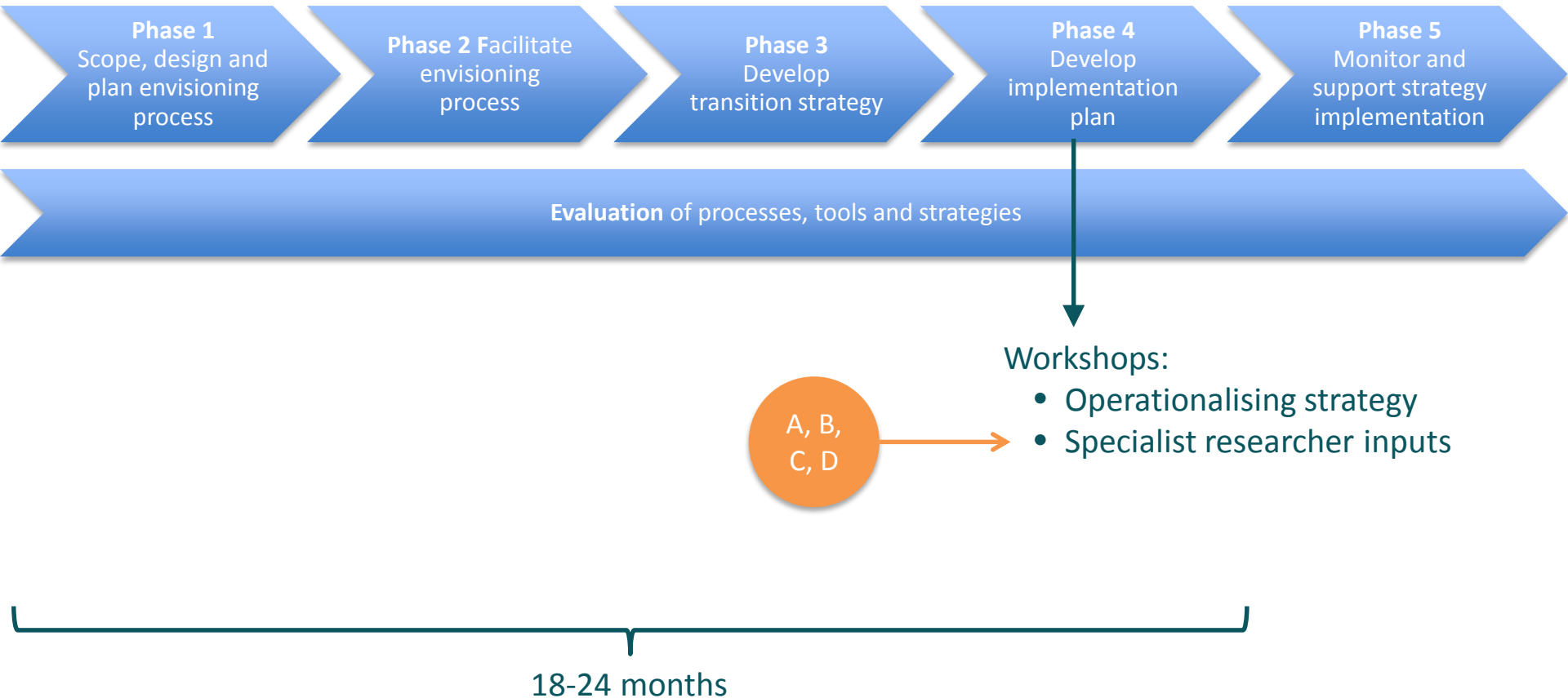


Research Approach: Full case studies



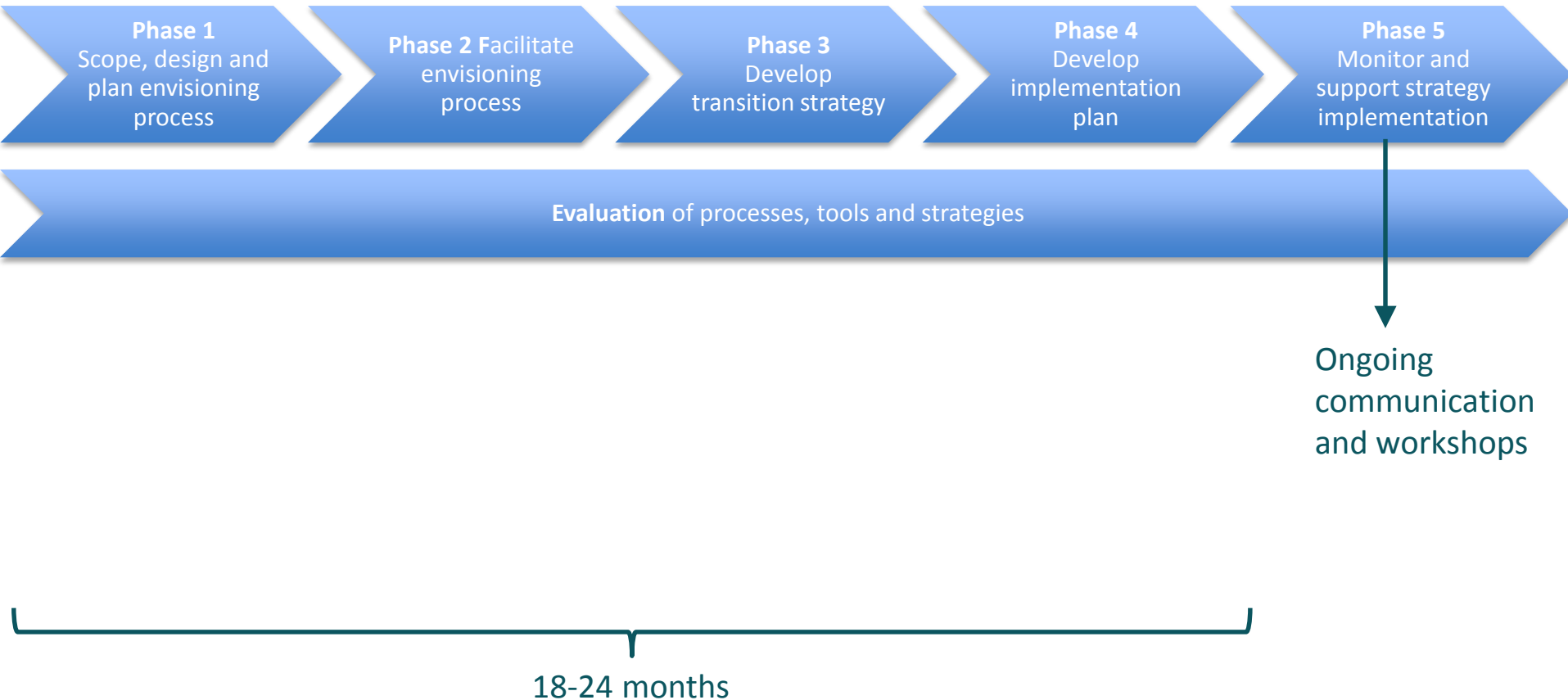


Research Approach: Full case studies



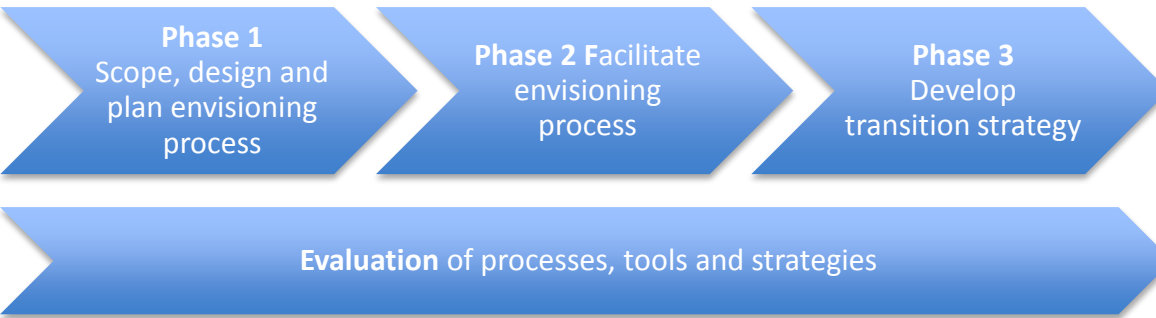


Research Approach: Full case studies





Research Approach: Preliminary case studies

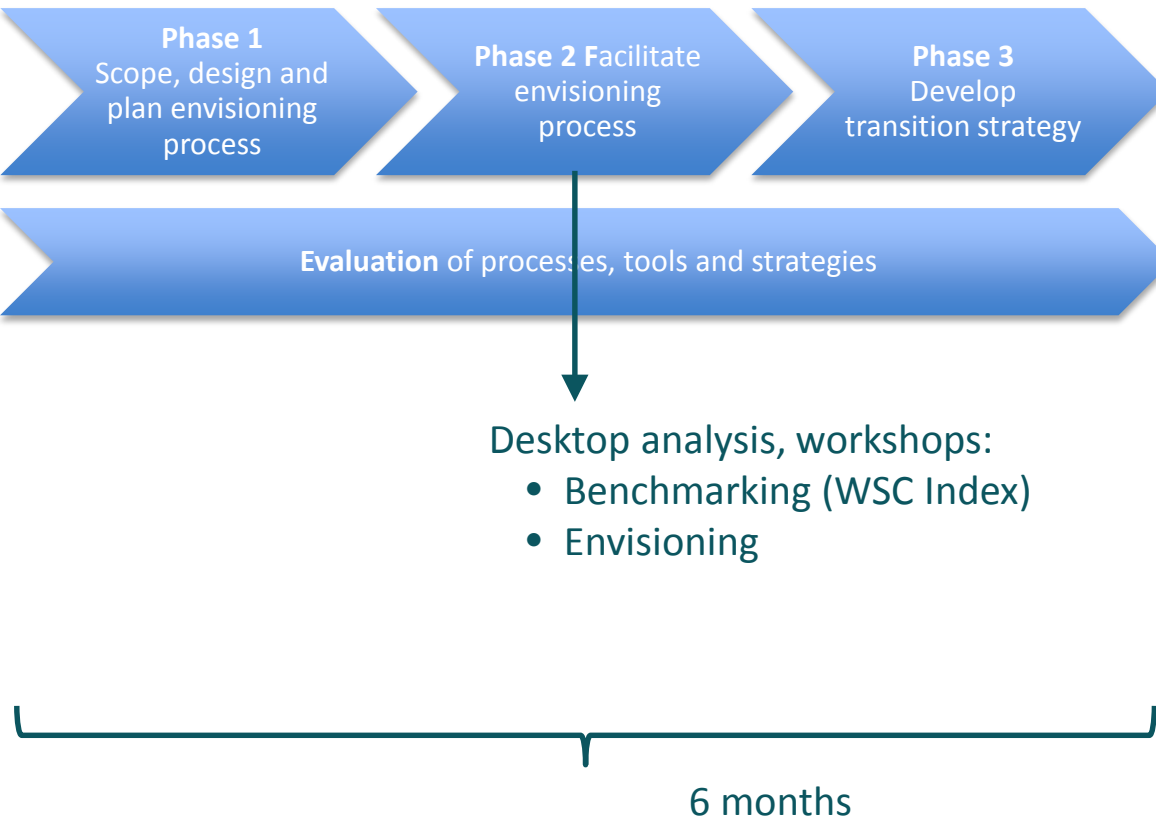


Intent is to seed local stakeholder interest and commitment to scaling up through co-investment to a full process

6 months



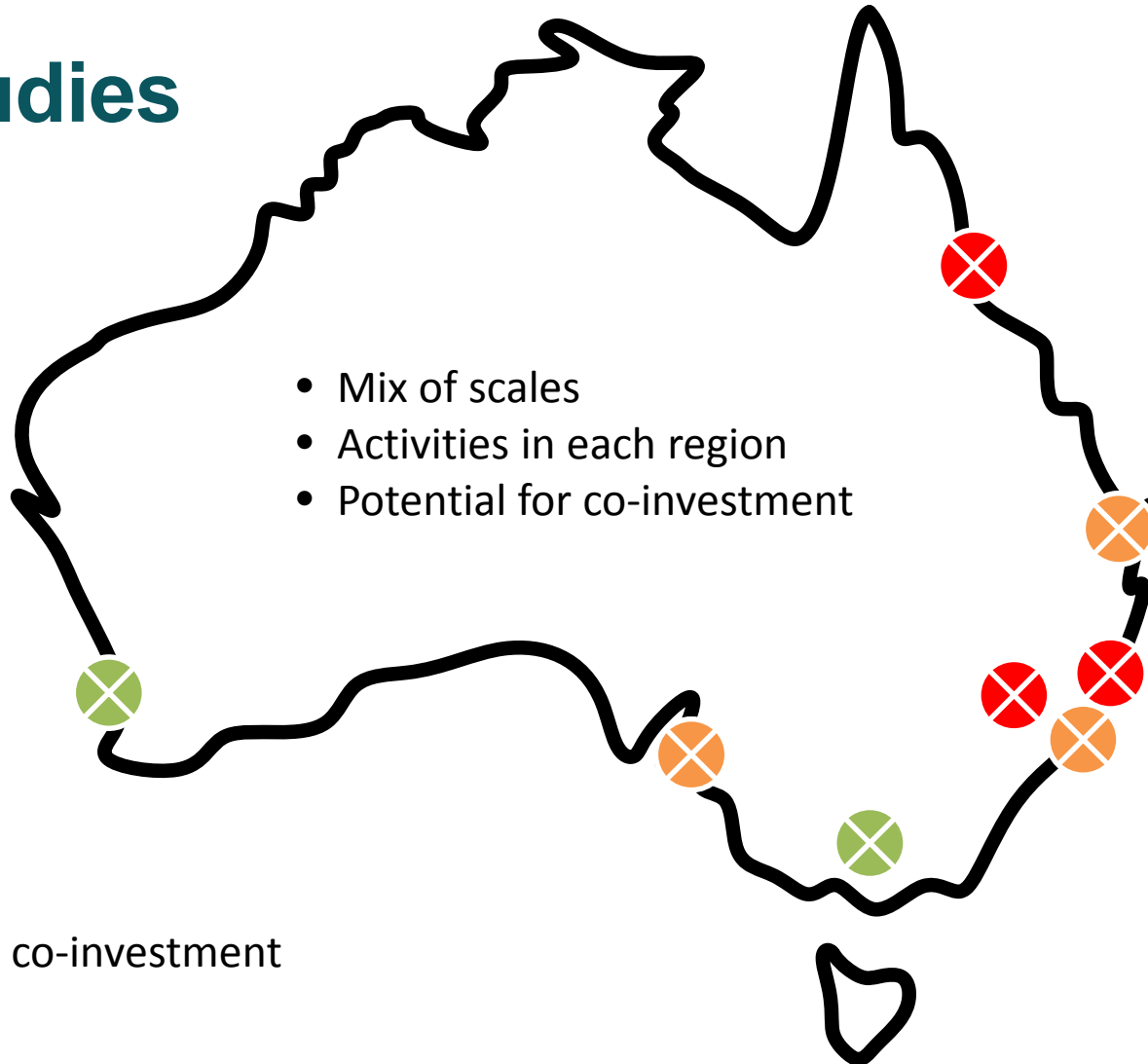
Research Approach: Preliminary case studies



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Case Studies



- Mix of scales
- Activities in each region
- Potential for co-investment



Full



Preliminary

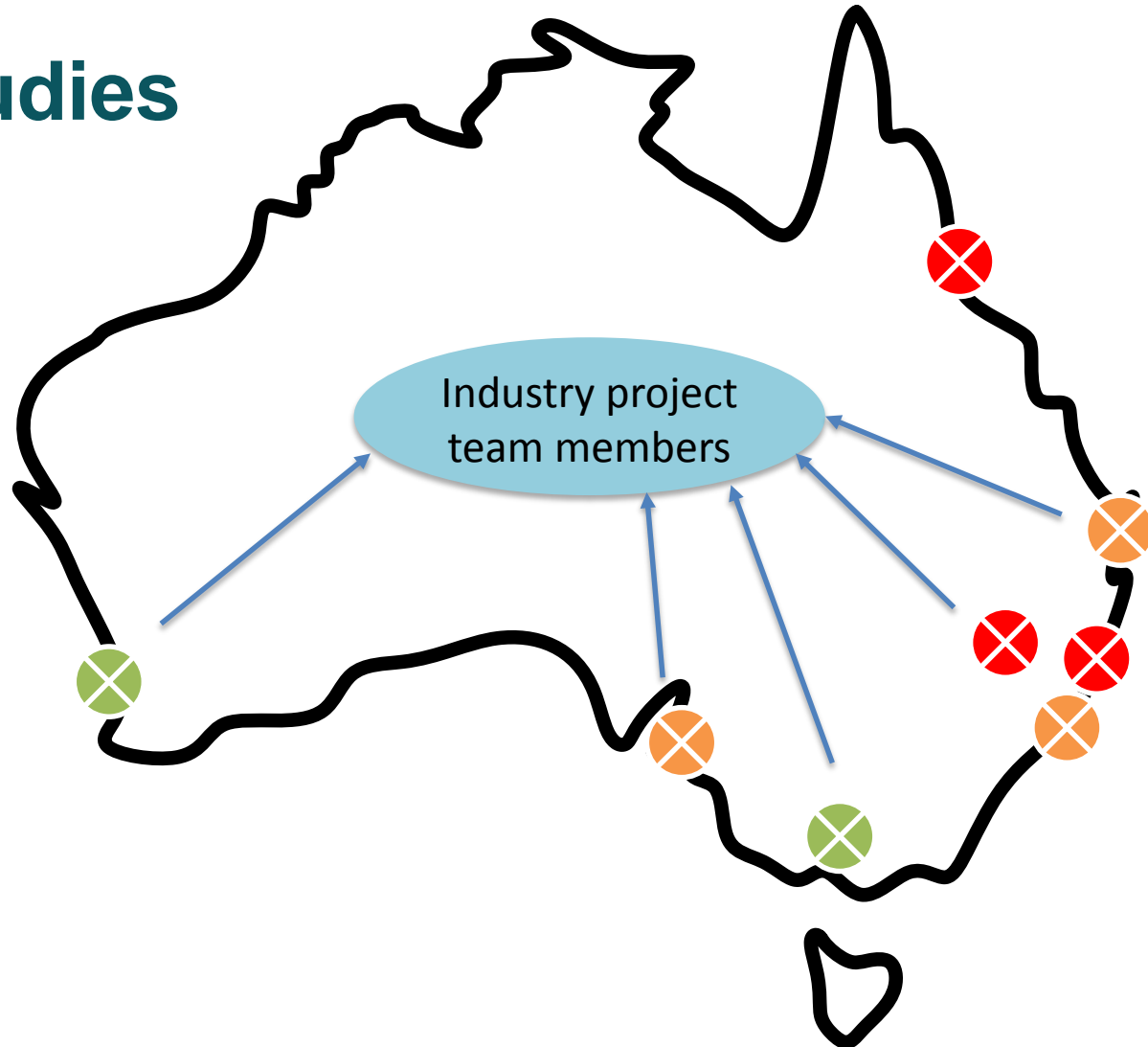


Potential with co-investment





Case Studies





Case Studies





IRP1 Outcomes

- Safe forums to develop a deep and shared understanding of aspirations, issues and opportunities
- Case studies:
 - Detailed transition strategy and implementation plan for full cases
 - Outline transition strategy for light cases
- Comparative analysis across case studies
- Strategies for engaging with communities to build support
- Process guidelines for participatory methods





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