CRC for
Water Sensitive Cities

South Australia RAP Meeting
25 October 2016
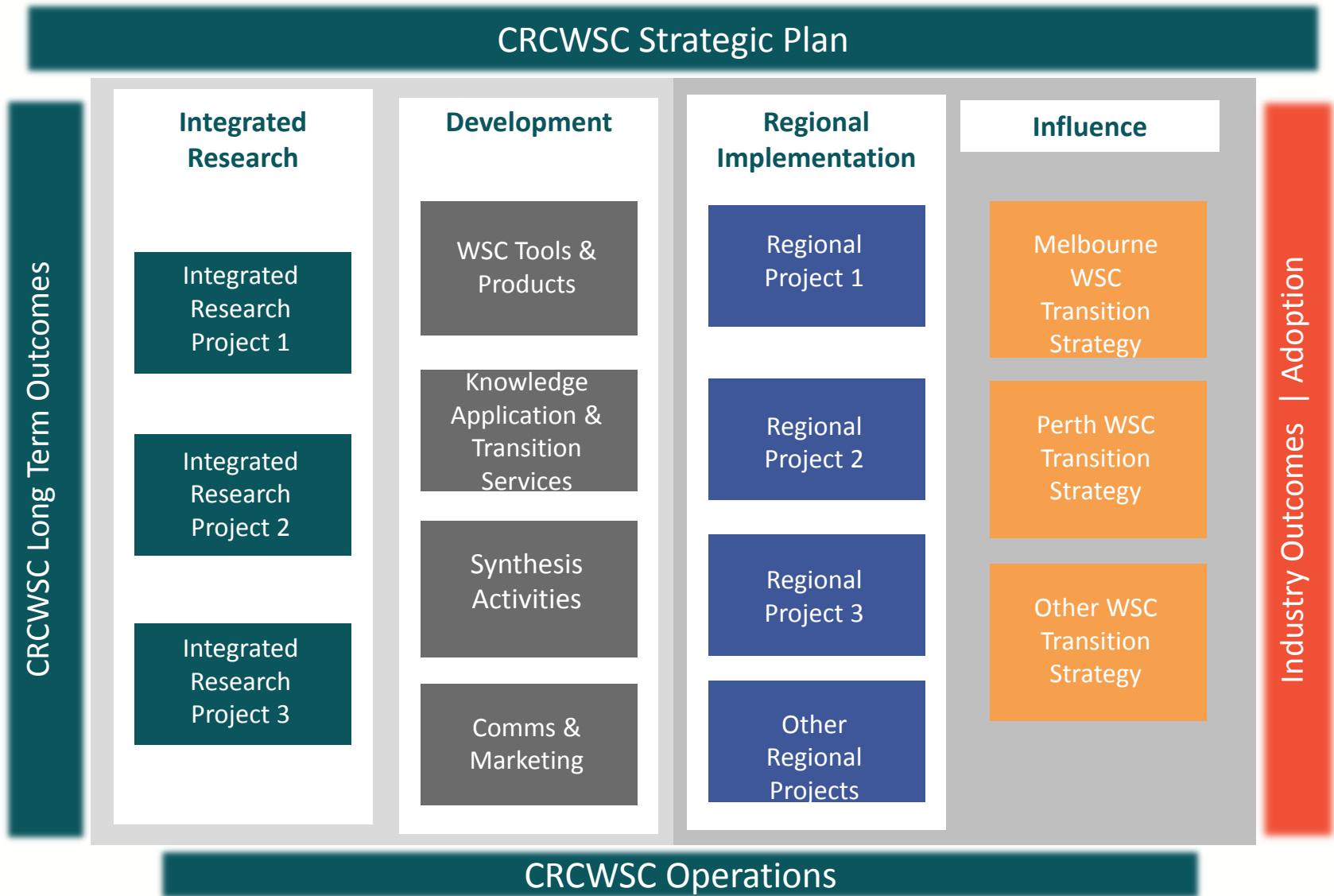
Research Adoption Strategy 2016-2021

- Workshop held in Melbourne in March to engage Executive EPRG, and RAP representatives to identify 'What would adoption success look like in 2021?'

- Based on understanding what long-term outcomes are sought (Strategic Plan 2014/15 – 2016/17)

- Purpose – to plan what strategies and actions are required (and resources) to deliver the outcomes nationally

- Establish a framework to guide local initiatives

- Consultation – WA, Qld and NSW RAPs, EPRG and CRC Advisory Committee

- 'Living Document' that will continue to evolve

Tranche 2 Projects and Activities

CRCWSC Strategic Plan

CRCWSC Long Term Outcomes

Integrated Research

- Integrated Research Project 1
- Integrated Research Project 2
- Integrated Research Project 3

Development

- WSC Tools & Products
- Knowledge Application & Transition Services
- Synthesis Activities
- Comms & Marketing

Regional Implementation

- Regional Project 1
- Regional Project 2
- Regional Project 3
- Other Regional Projects

Influence

- Melbourne WSC Transition Strategy
- Perth WSC Transition Strategy
- Other WSC Transition Strategy

Industry Outcomes | Adoption

CRCWSC Operations

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Critical Long-term Outcomes

- The **rules (regulatory environment)** in which our cities are developed and planned supports WSC principles.

- The **investment and decision making (business case)** processes for urban development and water management adopt WSC principles.

- **Communities are engaged** by water and urban planning sectors in the development of strategies for the delivery of services.

- The **practices (tools and techniques)** used by urban planning, architecture, water management practitioners to create the physical, social and biological form of cities implement WSC best practice.

- **Water cycle technologies are available** with associated guidelines for their design and operational and asset management.

- **WSC best practice in delivery** of urban water services.

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Critical Long-term Outcomes c'ted

- **WSC principles and approaches recognised** in all National and State policy and growth plans.

- **Industry leads the on-ground implementation** of WSC interventions underpinned by rigorous industry standards.

- Government and industry has access to a world-class **workforce with the capacity and capability** to develop and implement WSC.

- **Water utilities and/or private operators have the capacity**, and are willing, to operate WSC infrastructure and technologies.

- **Australia is world class provider** of WSC Research and Development, Education, Technology, Capacity-building and consulting.

- **Enduring partnerships and relationships** between government, industry and research institutions established and flourishing in WSC Research|Synthesise|Influence

Adoption – Conceptual Framework

Industry need and vision for a WSC

⬇

World-class science, knowledge and innovation tested in local contexts

⬇

Industry-ready tools and products

⬇

Business case for WSC (and associated projects / programs)

⬇

Engaged decision and policy makers (policy supported by industry standards and guidelines)

⬇

Diverse and engaged community and end users have the capacity, capability and culture to transition

⬇

Cities and towns are actively transitioning to be more water sensitive

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Industry need and vision for a WSC

1. **WSC transition strategies** are co-developed for each state (region)

World-class science, knowledge and innovation tested in local contexts

2. Industry end users actively contribute to the **co-development** of research outcomes and relevant tools and products

3. **Learning case studies** founded on on-ground application of leading edge knowledge, tools and products are developed and disseminated

Industry-ready tools and products

4. **Industry-relevant tools and products** are easily accessible and supported with guidance and advice on their use and contexts

5. Industry has **access to knowledge brokers** to facilitate the application of knowledge, tools, products and services from tranche 1 and 2.

Business case for WSC (and associated projects / programs)

6. **Business case frameworks are further developed & tested** in CRCWSC projects (demonstration and implementation) and

7. Industry has access to **guidance and training** to apply business case frameworks

Engaged decision and policy makers (policy supported by industry standards and guidelines)

8. Policy and decision makers are **supported to deliver innovative policy** outcomes founded on a strong evidence base

Diverse and engaged community and end users have the capacity, capability and culture to transition

9. Industry has the access to guidance and a range of **training and education programs** to help build the capacity to innovate and transition

Cities and towns are actively transitioning to be more water sensitive

10. Industry has access & advice on benchmarking & support to develop sound transition strategies to inform the implementation of WSC transition strategies

11. Enduring partnership arrangements exist to support the implementation of WSC transition strategies

Research Adoption Strategies

Research Adoption Strategies to deliver the conceptual framework:

- **WSC Transition Strategies** are co-developed for each state / region

- **Industry end users actively contribute** to the co-development of research outcomes and relevant tools & products

- **Industry has access to WSC** case studies and develops the capacity to learn from previous projects and programs that have delivered WSC outcomes

- **Industry-relevant tools and products** are easily accessible and supported with guidance and advice on their use in various contexts

- Industry has **access to knowledge resources** to facilitate the application of knowledge, tools, products and services

- **Business case frameworks are further developed and tested** in CRCWSC case studies and demonstration projects

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Research Adoption Strategies continued

- Industry has access to **guidance and training** to apply business case frameworks

- Policy and decision makers are **supported to deliver innovative policy** outcomes founded on a strong evidence base and facilitate integrated outcomes across relevant organisations

- Industry has the access to guidance and a range of **training and education** programs to help build the capacity to innovate and transition

- **Industry has access and advice** on benchmarking and support to develop sound transition strategies to inform the implementation of WSC Transition Strategies

- **Enduring partnership arrangements** exist to support the implementation of WSC Transition strategies

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Industry need and vision for a WSC

1. WSC transition strategies are co-developed for each state (region)

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Tranche 2 project co-developed with RAP

> ➤ **IRP1: WSC Transition Strategy and Implementation Plan**
> ➤ **www.watersensitivecities.org.au**

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World-class science, knowledge & innovation tested in local contexts

2. Industry end users actively contribute to the **co-development** of research outcomes and relevant tools and products

3. Industry has access to WSC case studies and develops the **capacity to learn** from previous projects and programs that have delivered WSC outcomes

All tranche 2 proposals and projects to have specific research adoption deliverables (e.g. case studies) and minimum requirements to ensure researcher-industry engagement and adoption

➢ **IRP budget**
➢ **Learning though Demonstration and Integration (Project D1.4)**
   – Project Leader – Celeste Morgan (0.5 FTE)

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WSC tools & products | Knowledge translation | Research synthesis

4. **Industry-relevant tools and products** are easily accessible and supported with guidance and advice on their use and contexts

IP & commercialisation assessment to identify priorities

5. Industry has **access to knowledge products** to facilitate the application of knowledge, tools, products and services

Tranche 2 project teams to have dedicated roles, responsibilities & resource allocations for knowledge sharing, dissemination and application

➢ **WSC tools and products**
  • WSC Toolkit (Project D1.5) – pilot studies, training supported by user manuals & support
  • WSC Index (Project D6.2) - working with private / SME to apply locally

➢ **Knowledge Application and Translation Services**
➢ CRCWSC cash contribution for **local capacity building**

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Business case for WSC (and associated projects / programs)

6. **Business case frameworks are tested** in CRCWSC projects (demonstration and implementation)

7. Industry has access to **guidance and training** to apply business case frameworks

Integrated research projects & regional implementation projects

Analysis of existing case studies

New demonstration projects

- ➢ **IRP2 Economic Framework**
- ➢ **Regional Implementation Projects**
- ➢ **Case Studies (D1.4 Demo Projects)**
- ➢ **Research synthesis projects**
- ➢ **Knowledge translation**
- ➢ **Short course 'Developing business case for WSC projects and programs' (D4.1 – Strengthening Education)**

Engaged decision and policy makers (policy supported by industry standards and guidelines)

8. Policy and decision makers are **supported to deliver innovative policy** outcomes founded on a strong evidence base

⬌

Identify priority policy contexts and opportunities

Integrate into IRP

Proactive science-policy influence

Knowledge translation / synthesis

➢ **Influencing policy (IRP1) -** Build on '*Strategies for influencing the political dynamics of decision-making'* (Project A3.3)

➢ **Knowledge translation** – cash resources to direct towards priority policy issues

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Diverse & engaged community, and end users - with the capacity, capability and culture to transition

9. Industry has the access to guidance and a range of **training and education programs** to help build the capacity to innovate and transition

⟷

Implement recommendations from national needs assessment and prioritisation (D4.1)

Local capacity building initiatives

Demand–based opportunities (associated with Tranche 1 outputs)

➢ CRCWSC cash contribution for **local capacity building** - $140,000 in 2016/17
  • Local work plan to be developed by RAP and local partnership formed with provider to coordinate and deliver
➢ CRCWSC knowledge translation to develop resources and tools (e.g. case studies)
➢ Business development of priority courses (e.g. Developing business case for WSC projects and programs)

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Cities and towns are actively transitioning to be more water sensitive

10. Industry has access & advice on **benchmarking** & support to develop & implement sound transition strategies to inform the implementation of WSC transition strategies

Application of the WSC Index / benchmarking tools

RAPs and Regional Manager to coordinate implementation of WSC transition strategy

11. **Enduring partnership** arrangements exist to support the implementation of WSC transition strategies

Influencing strategy

- ➤ WSC Transition Strategy and Implementation Plan
- ➤ WSC Index (Project D6.2) - working with private / SME to apply locally
- ➤ Regional Manager co-funding and operational support

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Influence Strategy

The CRCWSC Influence Strategy identifies the priority influence activities that are considered essential to delivery of the CRCWSC Strategic Plan Critical Long Term Outcomes.

- Ensure **Essential Participants are advocates** for, and play a lead role in influencing the policy agenda
- Influence and support participant Universities to better integrate WSC-related concepts and principles into **future curriculum development**
- Support the State Governments in all states enhance the implementation of WSC outcomes and principles **in appropriate policy reform**
- Identify strategies to **build awareness and capacity of the urban development industry** (greenfield and infill), including public housing leaders to adopt WSC outcomes and principles
- Identify strategies to **build awareness and capacity of relevant regulator and approval agencies** (e.g. Dept of Health, EPA, water regulators, development assessment), to accept WSC outcomes and principles in development projects.

IRP Development Timeline FY1617

Project/Program	Q1	Q2	Q3	Q4
IRP1: WSC Transition Strategies	AC & EPRG Reviews; Board approval	Commencement		
IRP2: Economic Evaluation Framework	Planning/proposal development	AC & EPRG Reviews; Board approval	Commencement	
IRP3: Integrated Urban Planning		Scoping and planning	Proposal development	AC & EPRG Reviews; Board approval
IRP4: In-fill Developments		Scoping and planning	Proposal development	AC & EPRG Reviews; Board approval
IRP5: WSC Solutions for Groundwater-affected areas		Scoping and planning	Proposal development	AC & EPRG Reviews; Board approval
Tools and Products (TAP) Program	Planning/proposal development	AC & EPRG Reviews; Board approval	Commencement	

Adoption Activities Timeline FY16/17

Project/Activity	Q1	Q2	Q3	Q4
KATS - Knowledge Inputs – Uni Modules & Training	Scoping and planning	Proposal Development	Commencement	
KATS - Industry Sector Guidelines/Products		Scoping and Planning	Commencement	
Regional Managers	WA Appointment	Vic Appointment		Commence Qld, NSW & SA App't
D4.1 Case Studies - continuation	Project Steering Committee	Case Studies selected		
Knowledge Translation	Activities determined			
RAPs Capacity Building		Approval of RAP proposals	Commencement	
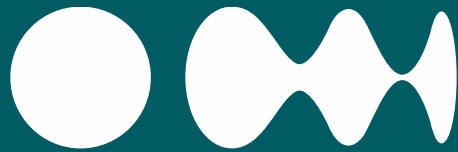
Portfolio Areas

Research

Tranche 1 Research outputs

T2 Research Program developed with industry end-users (IRPs)

Tools and Products

WSC Business Case

Research Partnerships (WSAA)

Learning Case Studies

Researcher Capacity

Adoption

Regional WSC Transition Strategies and Implementation Plans

Self sustaining RAPs

Regional Managers

Engaged Decision & Policy makers

Knowledge products and Services

Capacity Development

Learning & Evaluation Framework

Organisational Management

Governance & Admin

Performance Reporting

Communications & Marketing

Finance & Budget

Business Development

Business Development

Synthesis Projects

Transition Planning

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KATS - Priority Areas
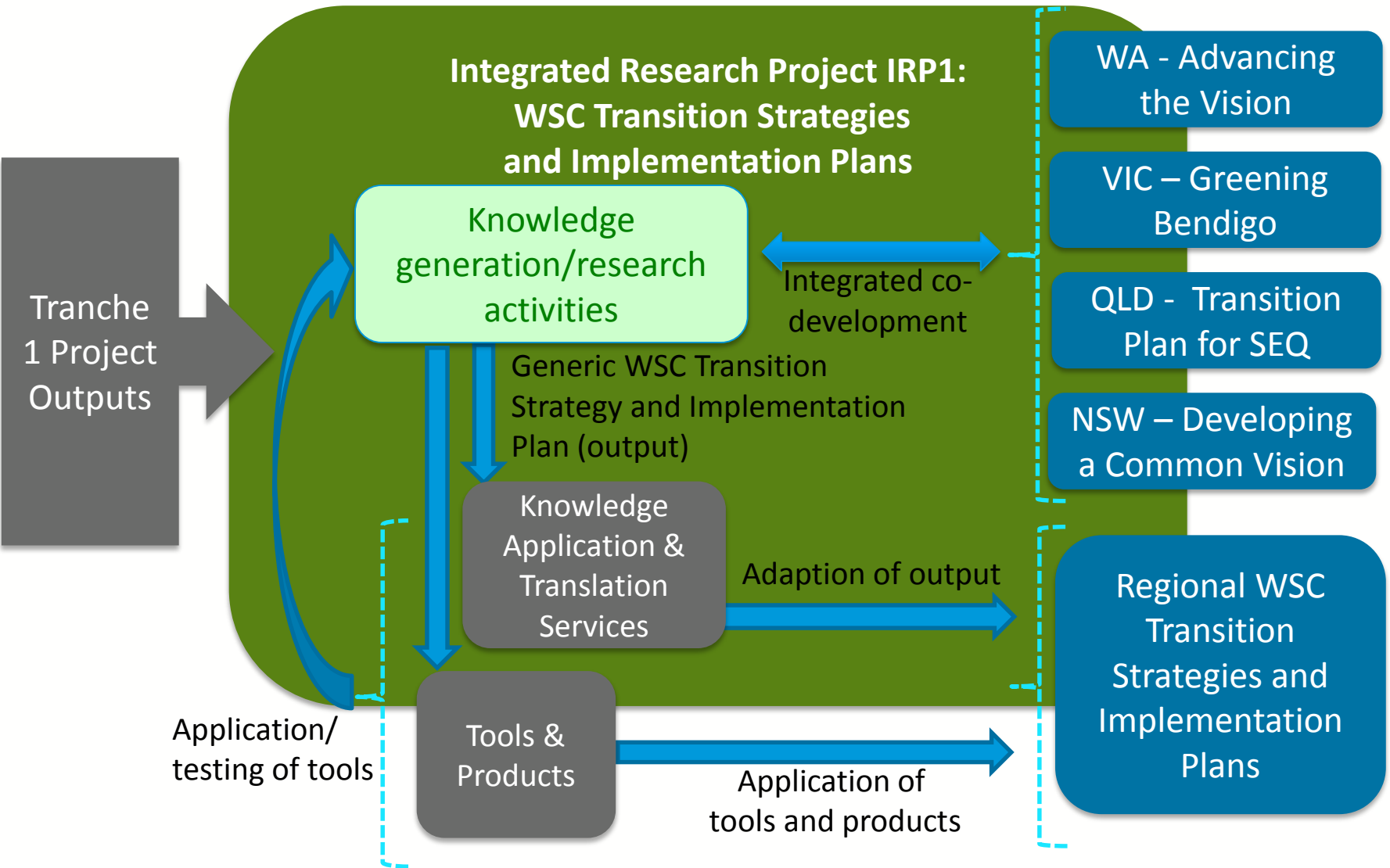
Knowledge Application & Translation Services

Capacity Building

- Collaboration and co-delivery between RAPs and capacity building organisations

- Knowledge translation – guidelines, policy notes, case studies

- Demonstration projects and case studies (D1.4)
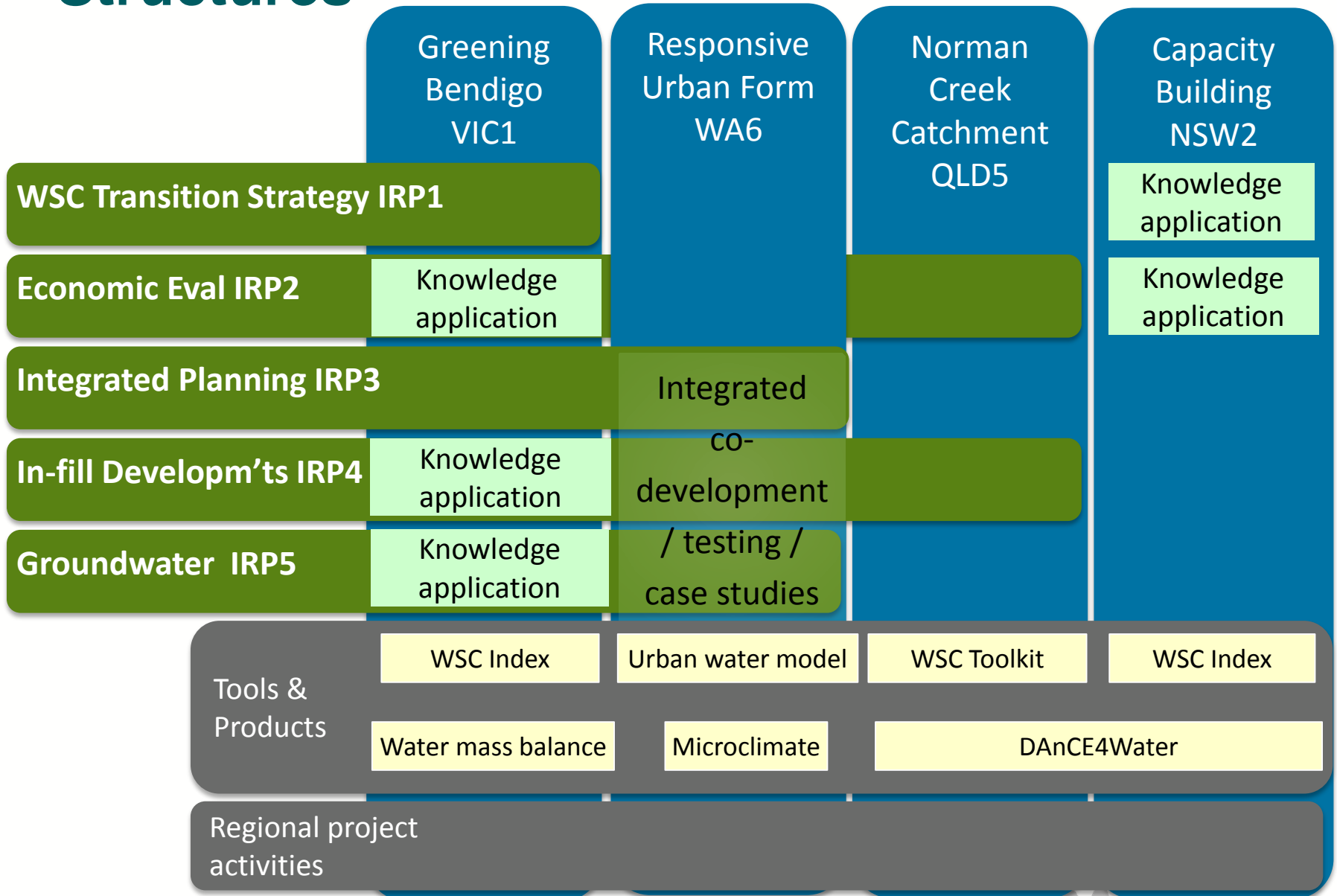
- Learning & Evaluation Framework

Education & Training

- Knowledge inputs into university modules

- Professional development and post-graduation education

Example of Project Interactions – IRP1

Examples of Regional Project Structures

	Greening Bendigo VIC1	Responsive Urban Form WA6	Norman Creek Catchment QLD5	Capacity Building NSW2
WSC Transition Strategy IRP1				
Economic Eval IRP2	Knowledge application			Knowledge application
Integrated Planning IRP3		Integrated co-development / testing / case studies		
In-fill Developm'ts IRP4	Knowledge application			
Groundwater IRP5	Knowledge application			
Tools & Products	WSC Index	Urban water model	WSC Toolkit	WSC Index
	Water mass balance	Microclimate	DAnCE4Water	
Regional project activities				

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Purpose of Tranche 2

- To optimise the value of the investment made to-date in Tranche 1 through:
  - the testing and refinement of research concepts
  - utilisation in real contexts / projects
  - translation of research outputs into industry-ready tools and products

- Influence and embed water sensitive city outcomes in key policy and planning instruments

- Establish the need within industry for continuous improvement in WSC knowledge, tools and products

- To build the capacity and empower industry to lead the long term transition of water sensitive cities

Tranche 2 Project/Activity Types

- **Integrated Research Projects (IRP)** – national inter-disciplinary projects with common research focus across most/all RAP areas

- **WSC Tools & Products (TAP) Development Projects** – development, testing and application activities to create key industry-usable tools/products; eg. WSC Modelling Toolkit, WSC Index, but also technologies and frameworks etc.

- **Knowledge Application and Translation Services (KATS)** – Translation of research outputs into industry-ready guidelines, manuals, training, capacity building documents and services

- **Regional Projects (REG)** – regionally focused, industry led activities with transferability of outputs to other regions. Expected to have additional investment from local stakeholders

CRCWSC Strategic Outcomes

By 2030, the CRCWSC will have enabled transformative capacity, and changes in structures and practices to ensure cities and towns can deliver:

- **reliable access to water** to meet urban demands;
- socio-technical systems and the **social capacity** to defend, adopt, and recover from episodes of flooding and drought;
- **waterway environments that are clean, healthy and support biodiversity**;
- plans, systems and social capacity to **mitigate against the growing negative impacts on urban heath** attributed to changing climate;
- open spaces that are utilised for multiple functions that promote **resilience, sustainability and liveability**;
- water and water-related features and green spaces that **enhance amenity, sense of place and cultural identity;**
- **optimised servicing** of existing and new water infrastructures; and,
- an uncontested **business case for creating and sustaining a water sensitive city.**