



Infrastructure  
Sustainability  
Council of Australia



## ISQA and the IS rating scheme

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Advancing sustainability in infrastructure  
planning, procurement, delivery and operation.

# ISCA INTRODUCTION

# ISCA Overview

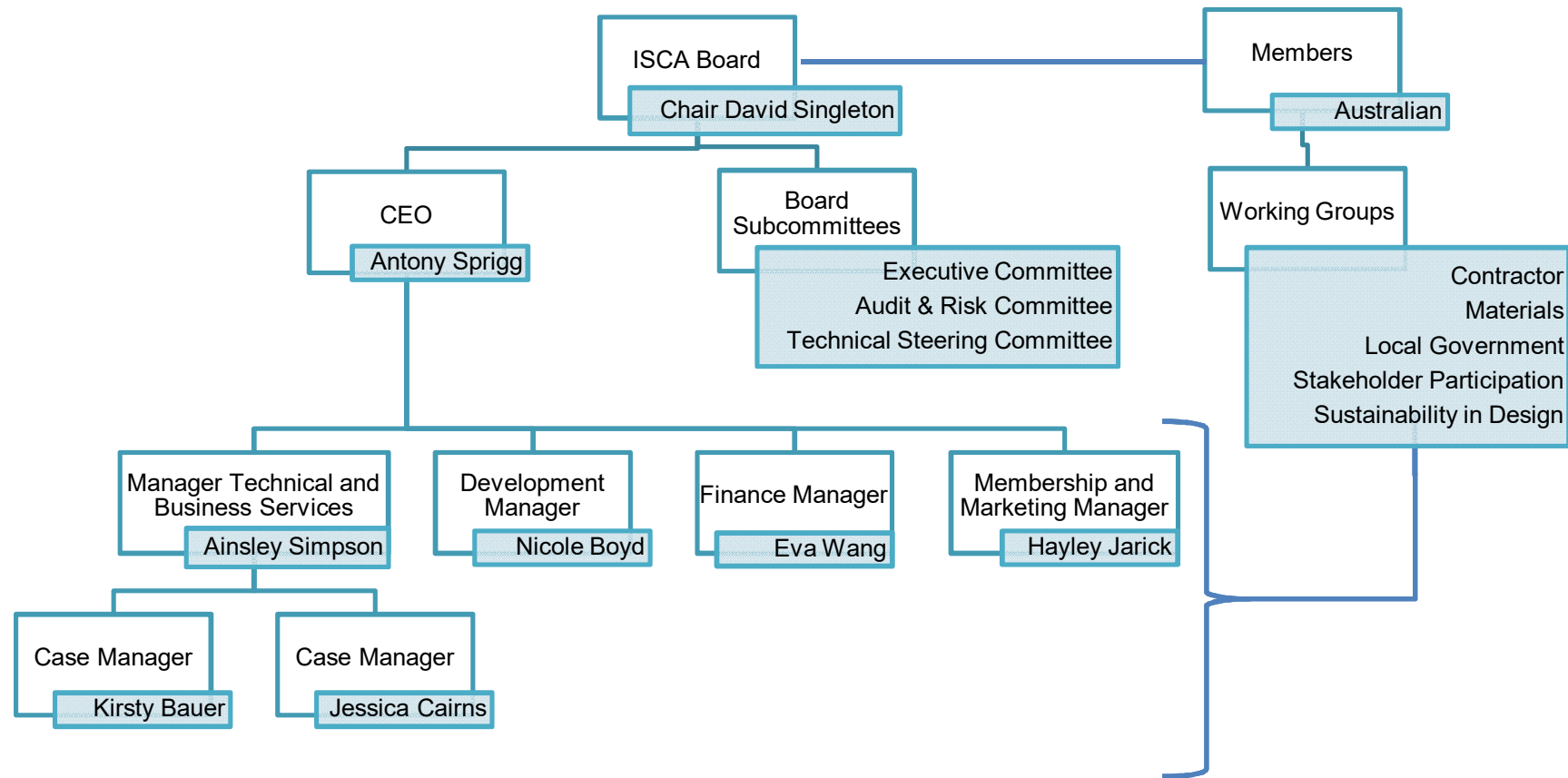
- Infrastructure Sustainability Council of Australia
- Member based, not-for-profit, industry council
- The IS rating tool
- First and only national sustainability rating tool for infrastructure (considered world leading)
- Measures sustainability performance across the quadruple bottom line (environmental, social, economic and governance)
- Voluntary but can be mandated

# Founding Members

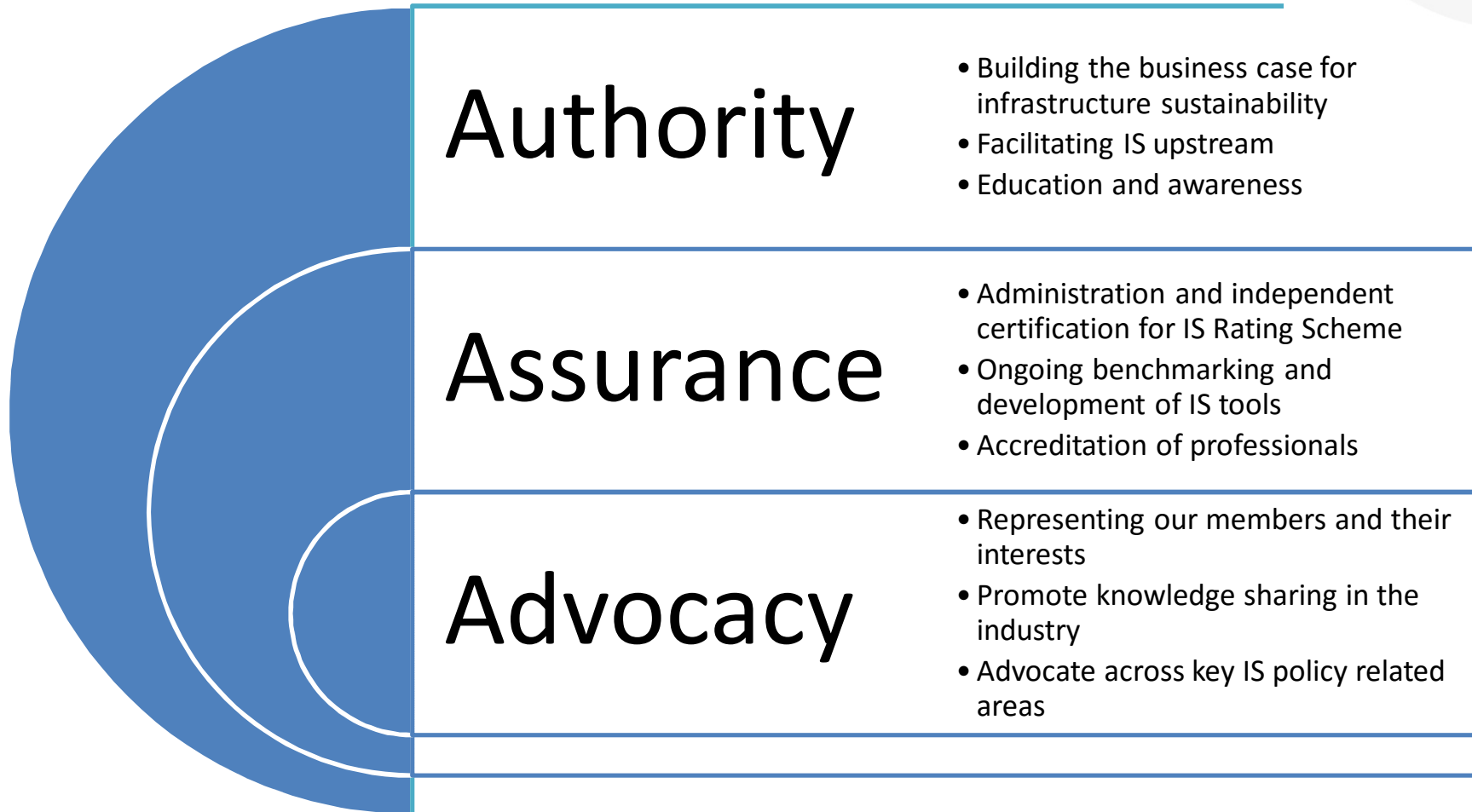
			 <p>Dedicated to a better Brisbane</p>
			
		 <p>LOCAL GOVERNMENT INFRASTRUCTURE SERVICES</p>	
			
		 <p>resources &amp; energy</p>	

# Members


# ISCA Organisational Structure



# Role of ISCA in the Industry



# IS RATING SCHEME

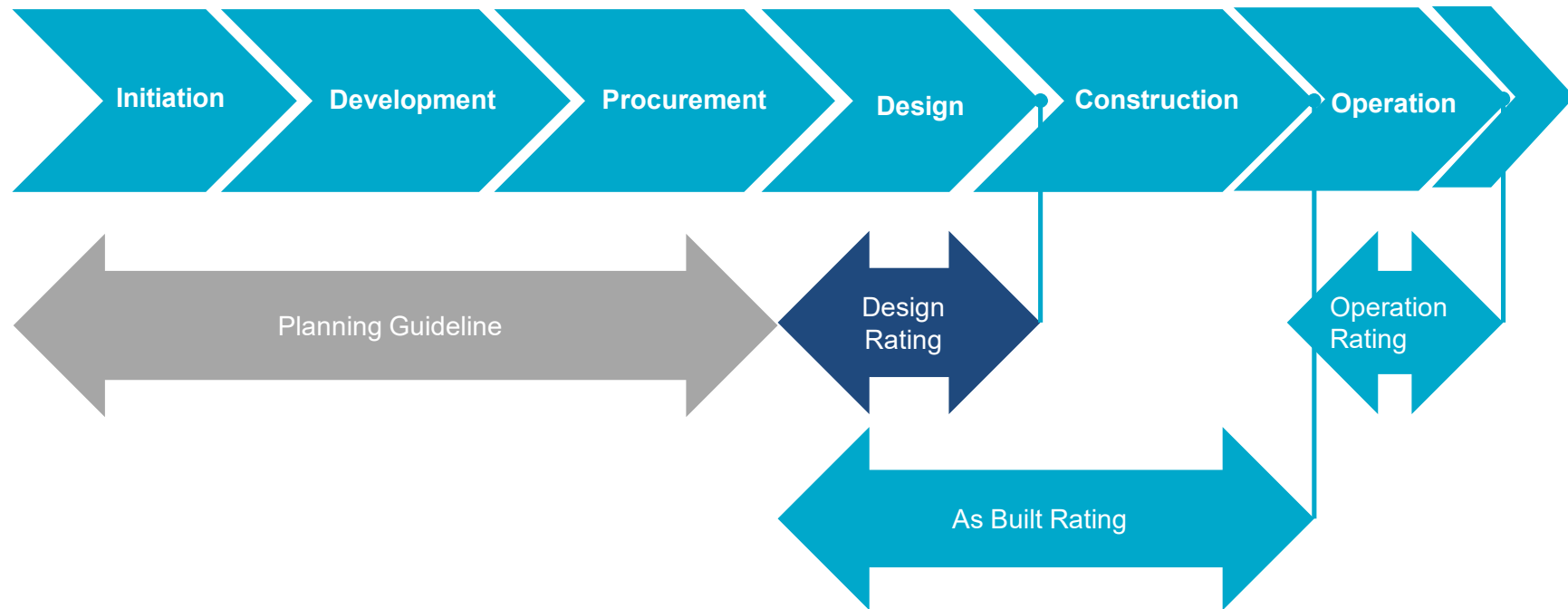


# IS rating scheme



- IS rating tool comprises
  - IS Rating Tool Scorecard
  - IS Materials Calculator
  - IS Technical Manual
- Assessment process involves
  - Registration
  - Assessment support
  - Independent Verification
  - Certification and rating award
- Education and training programmes
  - IS Accredited Professional (ISAP)

# Whole of life



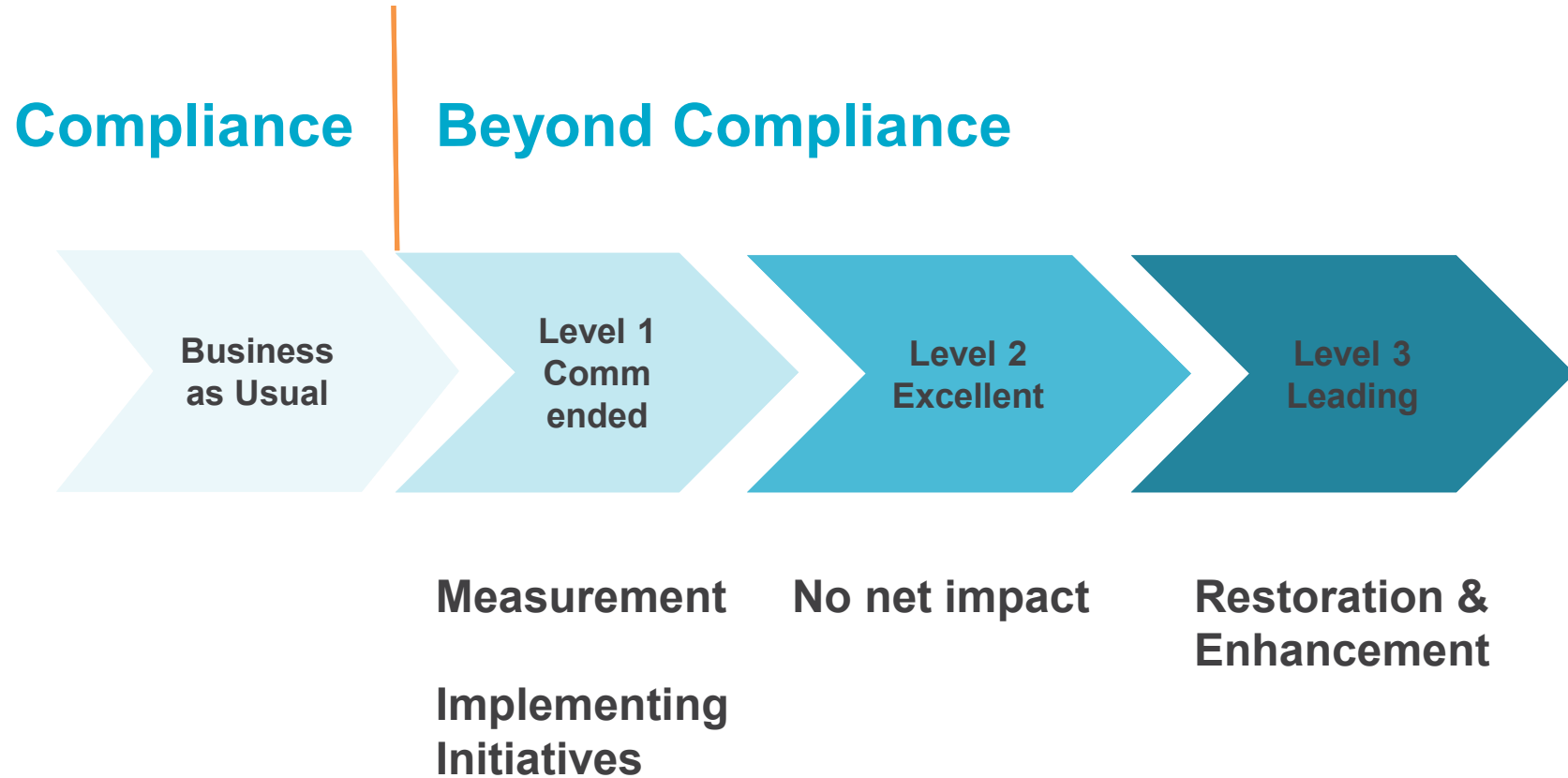
# IS benefits

- Common national language for sustainability in infrastructure
- Consistent application and evaluation of sustainability in **tendering** processes
- Scoping whole-of-life sustainability **risks** for projects and assets, enabling **smarter solutions** that reduce risks and costs
- Fosters **resource efficiency** and **waste reduction**, **reducing costs**
- Fosters **innovation** and continuous improvement
- Builds an organization's credentials and **reputation** in its approach to sustainability in infrastructure

# IS Themes & Categories

Themes	Categories
Management and Governance	Management Systems
	Procurement and Purchasing
	Climate Change Adaptation
Using Resources	Energy and Carbon
	Water
	Materials
Emissions, Pollution and Waste	Discharges to Air, Land and Water
	Land
	Waste
Ecology	Ecology
People and Place	Community Health, Well-being and Safety
	Heritage
	Stakeholder Participation
	Urban and Landscape Design
Innovation	Innovation
Workforce*	
Economic*	

# Benchmarking



# IS rating Levels

Score	Rating Level
< 25	Not eligible to apply for a certified rating
25 - 49	Commended
50 - 74	Excellent
75 - 100	Leading

About the IS rating scheme

# HOW IS THE IS RATING SCHEME BEING USED



**Registrations**



**Projects / Assets**



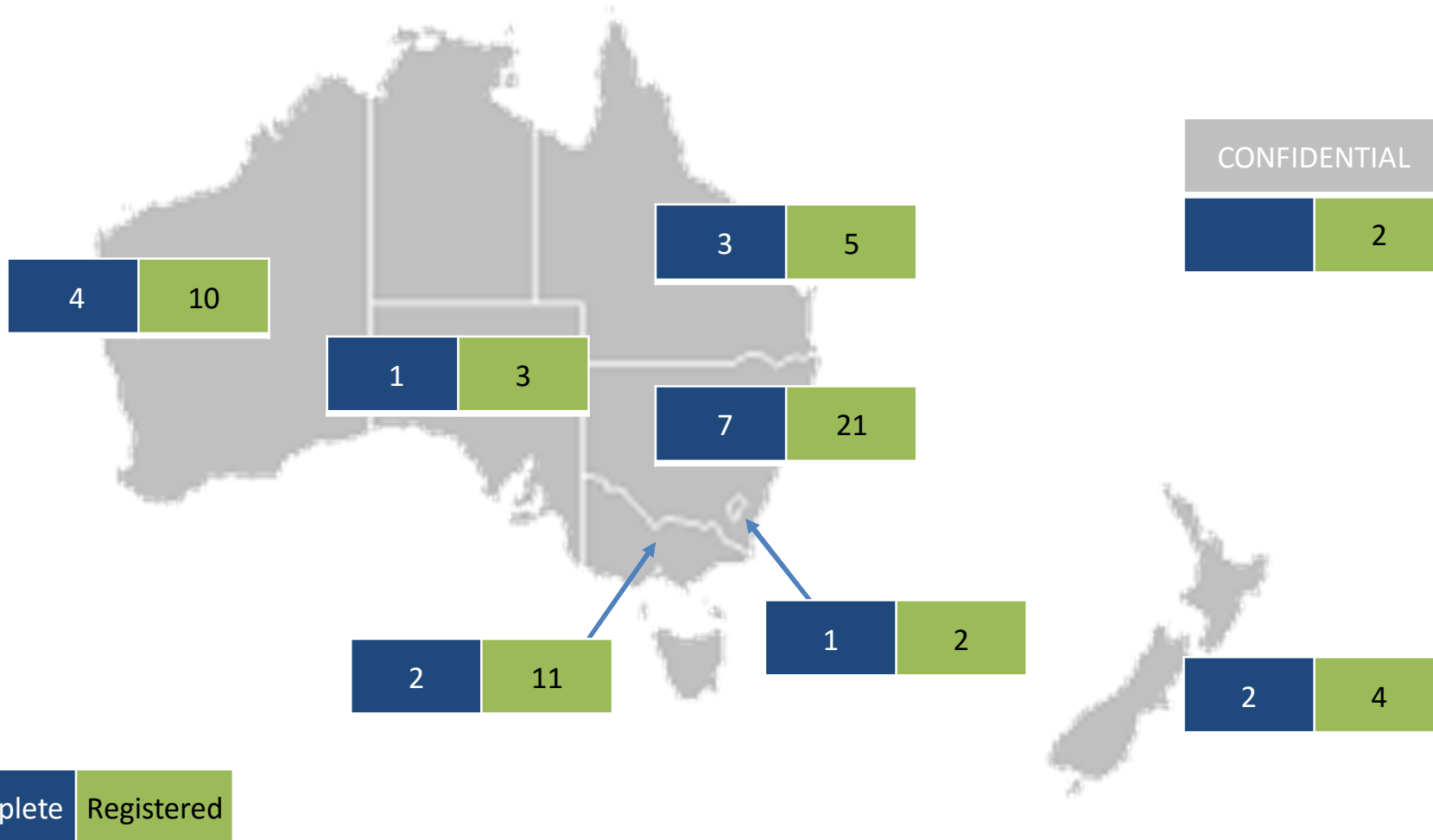
**Capital Value**

**\$79**  
billion





# IS registrations by location



Complete Registered

# Trends

- Use through delivery of a project (D&C)
- Pilots / trials – how else can the system be used?
- Operations and maintenance – asset network level
- Integration into project systems
- Business case/planning phase integration
- Mandating the rating tool and a certain score/level
- Growing need to understand and communicate the business case for sustainability
- Benchmark current practice

[www.isca.org.au](http://www.isca.org.au)

# **BUSINESS CASE – WHITSUNDAY'S STP UPGRADES**

# Whitsunday's STP upgrades

- The project:
  - The upgrade of two treatment plants at Proserpine and Cannonvale
  - \$45m
  - QLD
- Highlights
  - First certified Design rating
  - First project/Asset to achieve an IS Design and As Built rating
  - World first use of innovative nitrogen effluent removal technology

# Whitsunday's STP upgrades

## Costs

Rating Fees	\$43,000
Consulting Assistance	\$16,000
Enhanced Vegetation	\$5,000
Internal Labour costs	\$150,000

## Benefits

Fewer construction materials:	\$900,000 saved
<ul style="list-style-type: none"> <li>4,4000 t less materials</li> <li>Green concrete used for roads</li> <li>40% flyash blend in asphalt</li> <li>100% reuse of excavated materials</li> </ul>	Reduction in embodied carbon emissions of 1,661 tCO <sub>2</sub> -e (30%)
Reduced electricity use	\$120,000 saved pa Operations
Improved dust suppression	\$100,000 saved
Reduced water use through efficient use of recycled effluent	43% reduction in water use across the project lifecycle. 3GL water saved over the operation life of the asset.
Ecological and biodiversity value enhanced	>5,000m <sup>2</sup> new regenerated native habitat Improved Biodiveristy value by 200%

## Whitsunday's STP upgrades

- Total saved in construction = \$1.1M
- Total annual operational savings = \$182,000
- ROI = >400%

[www.isca.org.au](http://www.isca.org.au)

# BUSINESS CASE – GOLD COAST LIGHT RAIL

# Gold Coast Light Rail

- The project:
  - 13 km light rail corridor
  - \$430m
  - QLD
- Highlights
  - First certified rating for Rail
  - First project to be certified with a score higher than 60 points
  - Identification of over 189 sustainability initiatives



# Gold Coast Light Rail

Costs		Benefits	
Rating Fees	<\$2 Million	Innovative and collaborative design	Avoid the need to excavate and relocate 68,200 tonnes of waste material, 40% reduction in the quantity of concrete and steel required, Reduction in embodied carbon emissions of 3,200 tCO2-e.
Consulting Assistance		Recycling of sand from excavation to local beaches	Savings from reduced transport and recycling fees Improvement to local beaches.
Initiative identification and tracking		Saved 44,000 tonnes of materials	55% reduction in embodied carbon emissions. Saved 5,000 tonnes of carbon emissions.
Internal Labour costs		156,000 tonnes of waste diverted from landfill.	90% recycling of inert and non-hazardous construction waste. 100% recycling of spoil.
		Improved outcomes for the community	Block to block closures were agreed as a trade off for the project team halting works during Christmas period.
		Improving capability and employment opportunities within the greater Gold Coast area	96% of project employees were recruited from within greater Gold Coast Area. 80% living within the Gold Coast City Council area.

# Gold Coast Light Rail

- Total saved in construction = \$14.7M

# How do you get involved?

- Planning phase advisory – early engagement
- Accredited professional (ISAP)
- Organisational Membership



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## Contact details:

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