



Welcome !  
This session will start soon.

# IS Essentials

Information Session 26 July, 2023



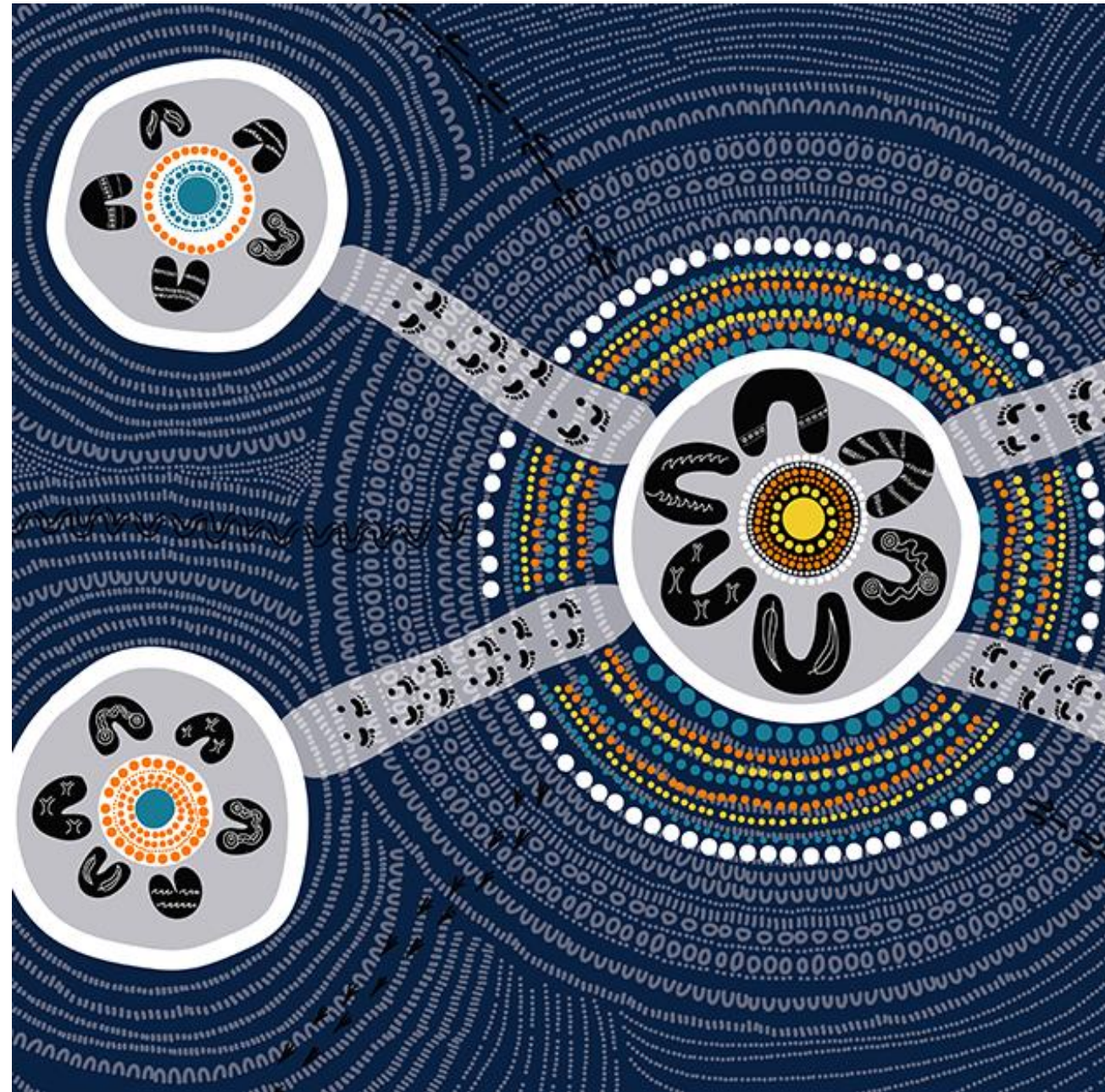


# Acknowledgement of Country

ISC would like to begin by acknowledging the Traditional Custodians of the lands on which we meet today.

We acknowledge their deep connection to land, water and culture, and pay our respects to their Elders past, present and emerging.

Tēnā koutou katoa to our attendees in New Zealand.



# Quick Poll



On a scale from 0 to 10 – how familiar are you with the ISC and IS ratings?

0 = Not familiar at all  
10 = Very familiar (e.g. ISAP)



# Agenda



## IS Essentials Information Session

I

- Welcome
- Introduction to ISC
- IS Ratings & Benefits

II

- IS Essentials introduction
- Pilot Phase & How to join
- Case Study

III

- IS Essentials (based on IS v2.1)
- Q&A

II



**Monique Isenheim**  
Head of Market  
Development



**Asim Nizam**  
Regional Lead, NSW



**Tyrel Momberg**  
Technical Manager







# About ISC

Monique Isenheim, Head of Market Development

# ISC – leading for sustainable outcomes

The *Infrastructure Sustainability Council* (ISC) is a **member-based, not-for-profit** peak body operating in Australia and New Zealand with the purpose of **enabling sustainability outcomes in infrastructure**.

## Our strategic goals



### Leadership

We drive global best practice in infrastructure.



### Thriving Industry

We enable the industry to connect and collaborate.



### Market Transformation

We advocate for change that supports the industry to rapidly transition.



### Organisational Health

We are a purpose-led, inclusive and high performing organisation.





# ISC Members

More than 200 organisations committed to accelerating sustainability through collaboration and contribution.

## Contractors



## Delivery Agency



## Government, Policy & Regulation



## Consultants



# ISC Members

More than 200 organisations committed to accelerating sustainability through collaboration and contribution

## Supplier



## Operator



## NFP/Industry Association/SME





# ISC Products and Services



Thought Leadership  
Case Studies  
Publications



The IS  
Rating  
Scheme

Partnerships  
Influence  
Leadership



Training  
Accreditation  
Development



Events  
Conferences  
Awards





# What are IS Ratings?



# The IS Rating Scheme

- Deployed across Australia and New Zealand
- Influencing outcomes across all asset classes



>200

Projects

\$217

Billion Capital



# IS Ratings mandated by several agencies

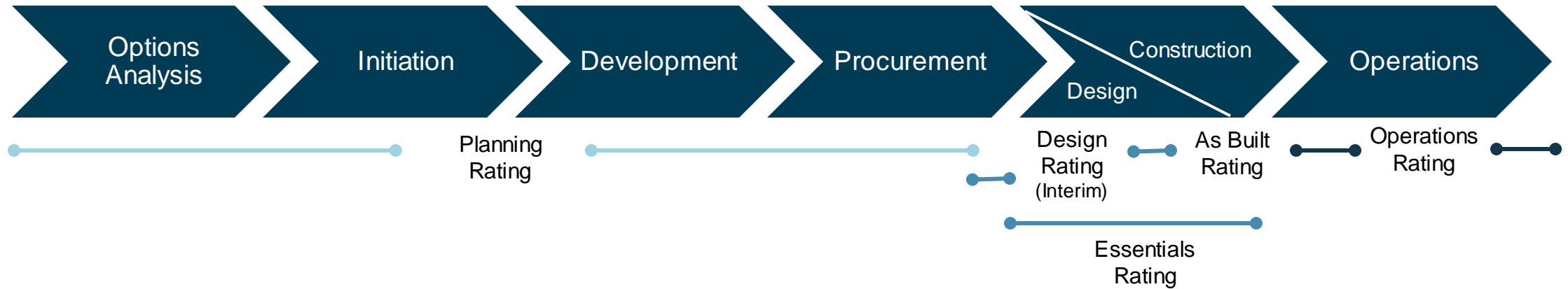
The most progressive government agencies, state-owned entities and private asset owners mandate IS based on capex thresholds.

Location	Agency	Mandating thresholds / requirements
NSW	<i>Dept of Planning Industry Environment</i>	ALL Critical state significant infrastructure
	Transport for NSW	ALL projects >\$50m, High risk projects <\$50m
	Sydney Metro	ALL project in program
	Queanbeyan Palerang Regional Council	ALL projects >\$2m
QLD	State Infrastructure Plan	ALL projects >\$100m
	Transport and Main Roads	ALL projects >\$100m
	<i>Dept State Development, Infrastructure Local Government and Planning</i>	Stage 3: Detailed Business Case
WA	Main Roads WA	ALL projects >\$100m
	Office of Major Transport Infrastructure Delivery	Metronet program
ACT	State policy	ALL project > 10m
SA	Dept of Infrastructure and Transport	ALL projects >\$100m
VIC	Major Roads Projects Victoria	ALL projects >\$100m
	Level Crossings Removal Authority	ALL projects in program
	Rail Projects Victoria	ALL projects in Melbourne Metro program
	City of Casey	Capital works projects
AU	Transurban	All capital works projects >\$100m
NZ	Waka Kotahi New Zealand Transport Agency	All capital works projects : >\$15m
	City Rail Link Ltd	ALL projects in program



# How IS ratings work

## Whole of life consideration



## 4-Step Process



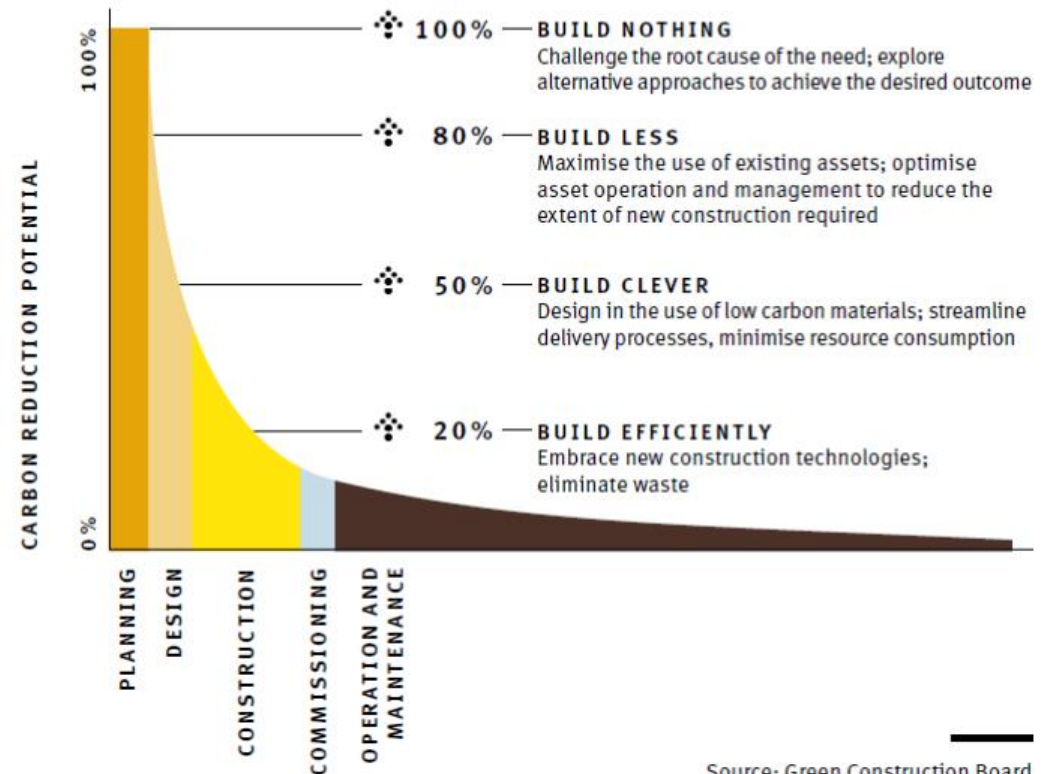
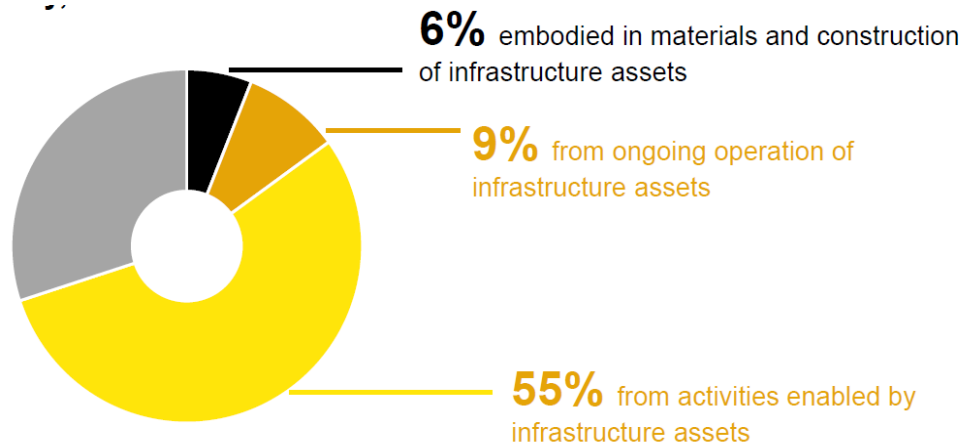


# Why IS Ratings?



# 70% of GHG emissions in AUS relate to infrastructure

A shared responsibility to make more intentional, strategic decisions



Source: Green Construction Board

# IS ratings: Quadruple bottom line impact

IS rating categories and credits are aligned with the Sustainable Development Goals to foster impact using a systems approach.

Governance	Environment	Social	Economic
Place	Energy & Carbon	Stakeholder engagement	Options Assessment & Business Case
Leadership & Management	Environmental Impacts	Legacy	Benefits Realisation
Sustainable Procurement	Resource Efficiency	Heritage	
Resilience	Water	Workforce Sustainability	
Innovation	Ecology		





# Performance Benchmarks

IS credits reward projects that verifiably perform beyond business as usual.

## Pla-2 Urban and Landscape Design

### Intent

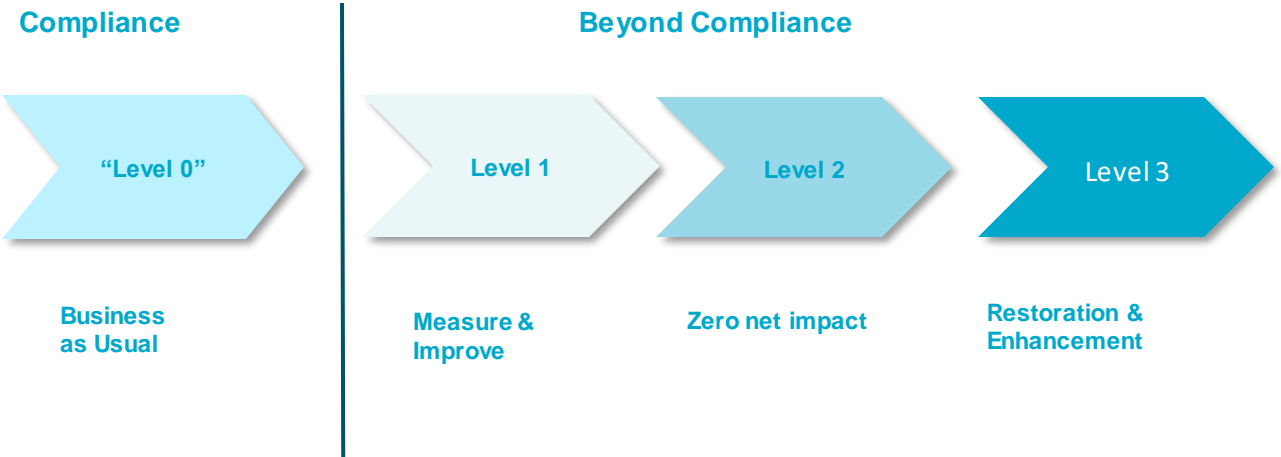
To create infrastructure that has been influenced by the local context, fits its setting, and meets the needs of the people that will use it, while preserving and enhancing scenic, aesthetic, cultural, community and environmental resources and values.

### Criteria

Table G1 Pla-2 Design criteria summary

Level 1	Level 2
DL1.1 An urban and landscape design plan has been developed and design options implemented.	DL2.1 An urban and landscape design statement has been prepared.
AND	AND
DL1.2 The main arrangements for project's urban and landscape design components have been reviewed.	DL2.2 The urban and landscape design plan and statement have been independently reviewed at key stages throughout the design.
	DL3.1 Net improvement in two identified urban and landscape outcome areas.

EXAMPLE



# IMPACT: Measuring what matters

Our 2022 Impact Report highlights the impact of IS ratings.



## IS Ratings Scheme Highlights FY22

<p>Lifecycle material emissions avoided</p> <p><b>16%</b></p>	<p>Operating energy emissions avoided</p> <p><b>37%</b></p>	<p>Lifecycle energy emissions avoided</p> <p><b>27%</b></p>
<p>Projects that used materials with sustainability credentials</p> <p><b>70%</b></p>	<p>Resources diverted from landfill</p> <p><b>6.4M tonnes</b></p>	<p>Waste diverted from landfill</p> <p><b>96%</b></p>
<p>Reduction in asphalt from base case</p> <p><b>8%</b></p>	<p>Reduction in concrete from base case</p> <p><b>140,272 tn</b></p>	<p>Operating water use avoided</p> <p><b>25%</b></p>
<p><b>Innovation:</b></p> <p><b>41</b> Regional First</p> <p><b>30</b> National First</p> <p><b>4</b> World First</p>	<p><b>Certifications:</b></p> <p><b>1</b> Leading</p> <p><b>27</b> Design</p> <p><b>19</b> As Built</p>	<p><b>Social Credits:</b></p> <p><b>88%</b> certified projects completed stakeholder engagement strategies</p> <p><b>80%</b> certified projects undertook heritage assessment and management</p>

## 10 year anniversary of the IS Rating Scheme



"The ten-year history of the Infrastructure Sustainability Rating Scheme is shaped by the same ideal, elevating sustainable infrastructure that is transformative and enabling, conscious of impact, and designed in anticipation of future need."

Throughout history we have celebrated infrastructure as the material evidence of human progress. Whether it is aqueducts and bridges, roads and railways, undersea cables and skyscrapers, we find a source of wonder. Not just in their size or their scope, but also the imagination that lit the fire of their creation, and the ambition and skill that turned vision into reality.

Pursuing a positive future for people, the planet and the economy, the IS Rating Scheme challenges us to embed sustainability in what we build today as the cornerstone of a resilient, thriving tomorrow.

For a decade, the Scheme has worked in Australia and New Zealand to advance the shift towards infrastructure that meets cultural and social needs, while benefiting the environment and the economy.

It's a complex and nuanced story, and I'm proud to have been associated with its first chapter. In 2012, as the Federal Infrastructure Minister responsible for providing seed funding to the Scheme, I welcomed it as a practical and important vehicle for carrying us towards our goal of sustainability.

Today, in projects across the country, the Scheme is working to educate and inspire industry to design and construct sustainable infrastructure with expertise, experience, and optimism."

**Hon. Anthony Albanese PM**





# IS Essentials & Pilot Phase

Asim Nizam - Regional Lead, Ratings and Delivery, NSW





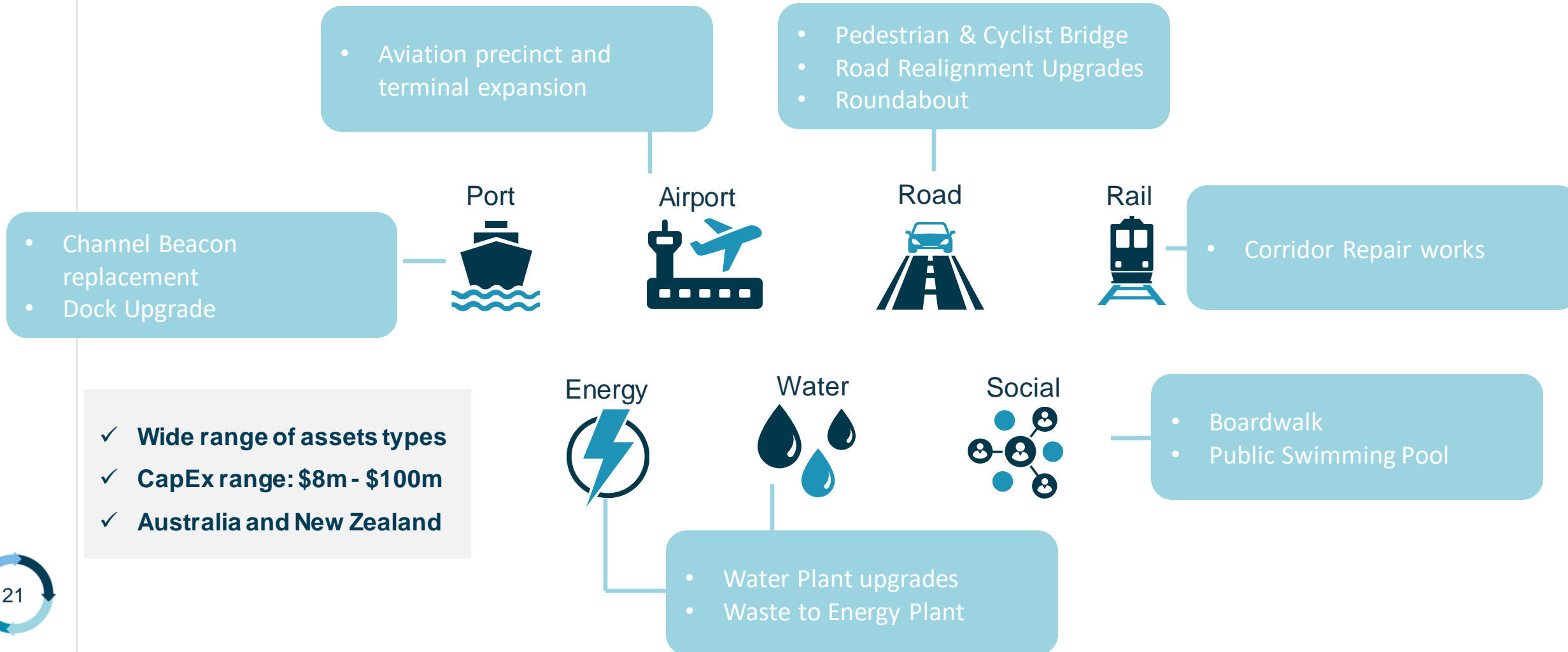
# IS Essentials

- Sustainability Rating Tool Offering (design and construction) for **Projects ≤ \$100m**
- Suits **local government projects**
- Built from IS v2.1 Design & As-Built Technical Manual but with **reduced complexity and scale**
- ISC's **first digital rating**
- Supported by the **Westpac New Zealand Government Innovation Fund**
- **Currently accepting Pilot Projects**
- **Expected Full Launch: End of 2023**



# 23 IS Essentials Pilot Projects

IS Essentials pilot onboarding is ongoing.



# Pilot Process



Continuous feedback process  
shapes the final IS Essentials tool





# IS Essentials Pilot – Why Join?

- ✓ Achieve measurable sustainability outcomes for the pilot project
- ✓ Contribute to organisational Sustainability KPIs
- ✓ Build organisational capacity (IS ratings, structures, frameworks and methods for Sustainability)
- ✓ Stakeholder engagement
- ✓ Contribute and feedback to IS Essential development
- ✓ Joint communication



# IS Essentials Pilot Participation

Pilot project participation includes:

- ✓ Pilot project certification
- ✓ Pilot project Training
- ✓ Dedicated Project Manager & ISC support
- ✓ Joint communication / promotion / case study

Requirements

- ✓ Participation Fee: \$30,000\* (Design & AsBuild)
- ✓ Internal resourcing of assessment & submission (assessor or consultant)





# Snapshot: Pilot Feedback

What (if any) impact do you think the IS rating will have beyond the initial pilot project within your organisation?

hopefully lead to future projects being more sustainability oriented

if pilot is successful (fit for purpose) we would implement tool to smaller scale projects

Continue the momentum to drive sustainability outcomes, from procurement to delivery to future benefits

Change management tool - mind shift away from "how things have always been done"

If IS rating did not exist, what would you have done? Or lost?

We would not have challenged existing mindsets

Procurement opportunities would not have been realised and continued standard practice would continue

Lost a framework to utilise in building sustainable processes within the corporation such as procurement, and governance

# Case Study

## Maritime Services Queensland: Channel Beacons replacement in Cairns and Weipa ports

### Fast facts

**Status:** completed verification round 1

**Firsts:** The program of works to replace 30 beacons is part of the IS Essentials pilot project and the DTMR's first maritime project to register for an IS rating

#### **Achievements:**

- Rating process inspired a new level of collaboration which sparked innovation, built capacity and drove cultural change
- Specified sustainability in the tender documentation for construction
- Old beacons re-used to become artificial reefs
- New lanterns are LED and solar powered for less climate impact
- Weipa lanterns are satellite-equipped (new technology), smaller and safer to install
- New, more reflecting wrapping for improved safety
- Stainless steel ladders with 3x the life span
- Significantly reduced maintenance requirements improving safety and reducing costs
- Project has come in under budget



*“By working with IS Essentials, we challenged many of our business-as-usual decisions to deliver safer, more sustainable infrastructure.”*

**Amanda Scarpato**

Director Maritime Program Management Office,  
Maritime Safety Queensland

Queensland Department of Transport and Main  
Roads



# Case Study

Maritime Services Queensland: Channel Beacons replacement in Cairns and Weipa ports

## Project Photos



*“We were determined to harness local knowledge and to build relationships with Traditional Owners to find better, more sustainable ways of delivering this essential infrastructure.”*

**Amanda Scarpato**

Director Maritime Program Management Office,  
Maritime Safety Queensland

Queensland Department of Transport and Main  
Roads





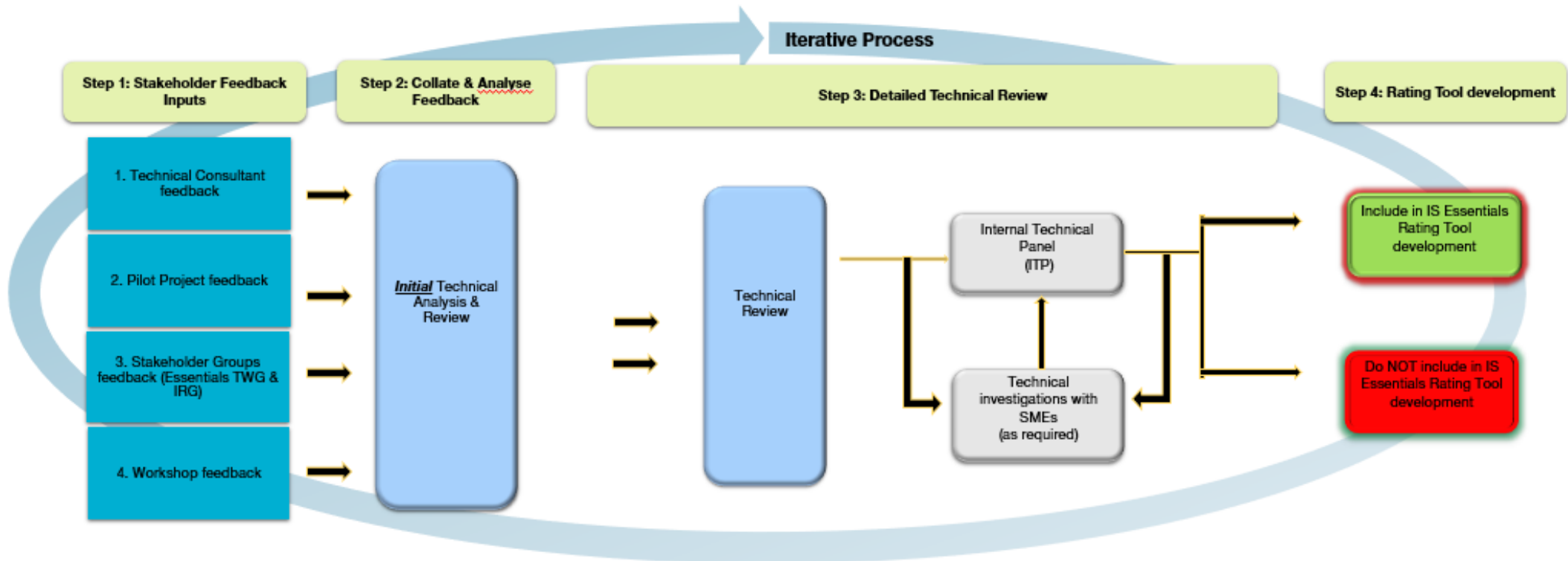
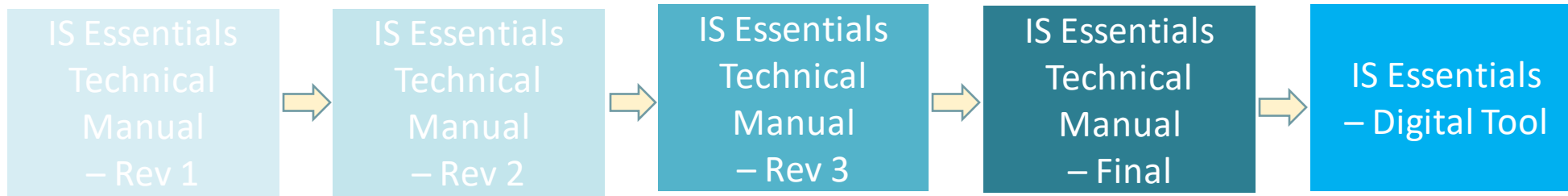
# IS Essentials Overview (based on IS v2.1 D&AB)

Tyrel Momberg, Technical Manager

# IS Essentials - Tool Development Process



# Technical Tool Development Process



# IS Essentials – stakeholder consultation to date



Stakeholder	Details
Industry Reference Group (IRG) - 6 meetings in 2021	<ul style="list-style-type: none"> <li>• Circa 12-14 members</li> <li>• Provided feedback on initial concepts &amp; ideas</li> </ul>
Losee Consulting – Technical Support Consultant	<ul style="list-style-type: none"> <li>• Undertook detailed review of each sentence in each credit and provided multiple recommendations (hundreds)</li> </ul>
IS Essentials Technical Working Group (TWG) - 6 meetings in 2022 - 4 meetings in 2023 (to date)	<ul style="list-style-type: none"> <li>• Circa 10-12 members</li> <li>• Provided feedback on:                             <ul style="list-style-type: none"> <li>- Tool overall</li> <li>- Materiality</li> <li>- Program Approach</li> <li>- Roadmap</li> <li>- Digital Framework</li> <li>- Training ideas</li> <li>- Scheduled for 21/02                                     <ul style="list-style-type: none"> <li>- Templates / Examples</li> <li>- Must statements in Level 1</li> </ul> </li> </ul> </li> </ul>
Beacons Project	<ul style="list-style-type: none"> <li>• Beacons Case Study</li> </ul>



# IS Essentials – stakeholder consultation to date



Stakeholder	Details
Pilot Project queries / feedback items	>200 items (to date)
Pilot Project Feedback Workshop I - 17/11/2022	<ul style="list-style-type: none"><li>• Circa 50 stakeholders</li><li>- Provided feedback on:<ul style="list-style-type: none"><li>- Project Delivery</li><li>- Credits</li><li>- Materiality</li><li>- Training</li><li>- ISC Processes</li><li>- Project Resources</li><li>- Market Expectations</li></ul></li></ul>
Pilot Project Feedback Workshop II - 29/03/2023	<ul style="list-style-type: none"><li>• Estimated circa 30 stakeholders</li><li>- Provided feedback on:<ul style="list-style-type: none"><li>- Level of support and investment/benefit considerations</li></ul></li></ul>
ISC Internal Technical Panel (ITP)	<ul style="list-style-type: none"><li>• &gt;50 meetings (to date)</li></ul>





# IS Essentials – Rating Tool Overview

# IS Essentials (based on IS v2.1 D&AB)

IS Essentials is designed to reduce scale and complexity of IS ratings for projects <\$100m.

1. Fewer credits (38 to 34)

2. Reduced/ deleted & modified credit criteria

3. Materiality Assessment

4. Base Case

5. CapEx Bands

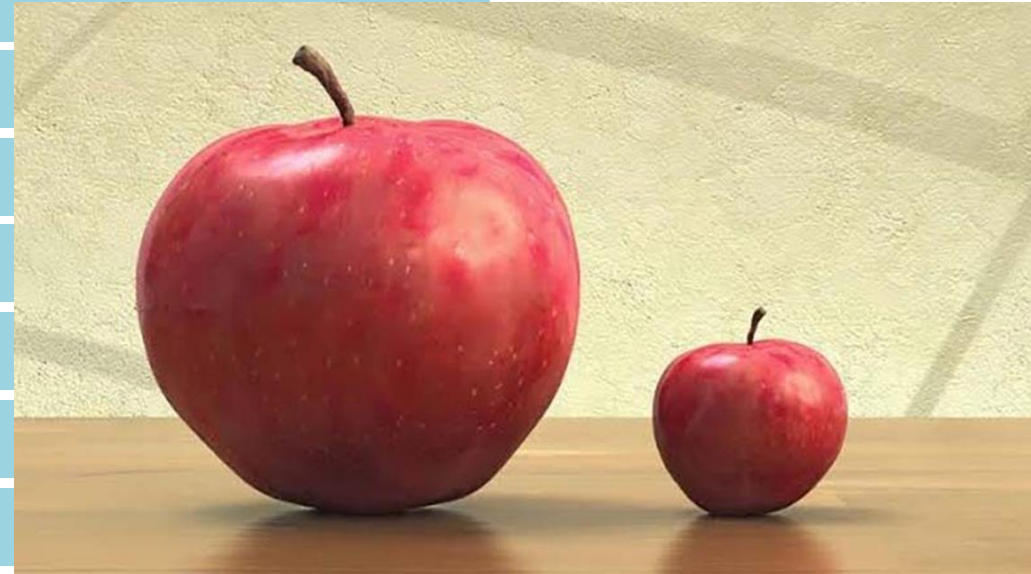
6. Program approach

7. Templates/ Examples

8. New Verification model

9. Digitalisation

10. Training



# Item 1. Fewer credits

- 38 credits (v2.1 D&AB) reduced to 34 credits for IS Essentials
- Deleted/excluded (v2.1 D&AB) credits:
  - Pla-2 Urban and Landscape Design
  - Ecn-4 Benefits Mapping
  - Rso-5 Adaptability and End of Life
  - Wfs-4 Sustainable Site Facilities

## IS ESSENTIALS CREDITS

### Credit structure

Table Int2 lists the themes, categories and credits in the IS Essentials rating. The themes, categories and credits applicable to the Design and As Built rating are highlighted in this table.

The category indexes are abbreviated names for the category.

Theme	Category and index	Credit title	IS v2.1 Planning	IS v2.1 Design	IS v2.1 As Built	IS Essentials
	Place (Pla)	Pla-1 Strategic Context	x			
		Pla-2 Urban and Landscape Design	x	x	x	



# Item 2. Credit Criteria – A. Deletions & B. Modifications

## Criteria

Table G6      Lea-1 Design criteria summary

Level 1	Level 2	Level 3
<p><u>Lea-1</u> DL1.1 Sustainability objectives, targets, responsibilities and a reporting framework have been developed (or reviewed and updated).</p> <p>AND</p> <p><u>Lea-1</u> DL1.2 A sustainability management plan has been developed <del>for design and construction.</del></p>	<p>The requirements for Level 1 have been achieved.</p> <p>AND</p> <p><u>Lea-1</u> DL2.1 Sustainability objectives and targets have been reviewed with key external stakeholders and include their input.</p> <p>AND</p> <p><u>Lea-1</u> DL2.2 Sustainability targets are publicly stated <del>and performance against these targets is publicly reported.</del></p>	<p>The requirements for Level 2 have been achieved.</p> <p>AND</p> <p><u>Lea-1</u> DL3.1 <u>Performance against sustainability targets is publicly reported. Public reporting of sustainability performance includes contribution to the UN SDGs.</u></p> <p>AND</p> <p><u>DL3.2 Sustainability performance reporting has been independently reviewed by a suitably qualified professional.</u></p>



# Item 3. Materiality Assessment

Materiality assessment ensures the most material / important credits receive the highest weighting in the project assessment.

- **Tailors** the tool to the project
- Identify project specific **risks** and **opportunities**
- Reflects stakeholders' priority topics
- Allow to use IS ratings across a variety of assets types

Category	Weighting		
	Default	Final	Change
Pla	4.2	5	+ 0.8
Lea	8.1	7.0	- 1.1
Spr	7.2	5	-2.2
Res	8.8	6.8	-2
Inn	10	10	0
Ecn	4.5	6	+1.5
Ene	10.1	13.4	+3.3
Env	8.5	8.2	- 0.3
Rso	14.8	12.5	- 2.3
Wat	8.1	11	+ 2.9
Eco	6.3	10.1	+ 3.7
Sta	6.3	5	-1.3
Leg	2	2	0
Her	2.3	2.4	+ 0.1
Wfs	8.3	5.2	- 3.1

# IS Essentials Materiality Assessment

Standard materiality assessment process → CREDITS SELECTION

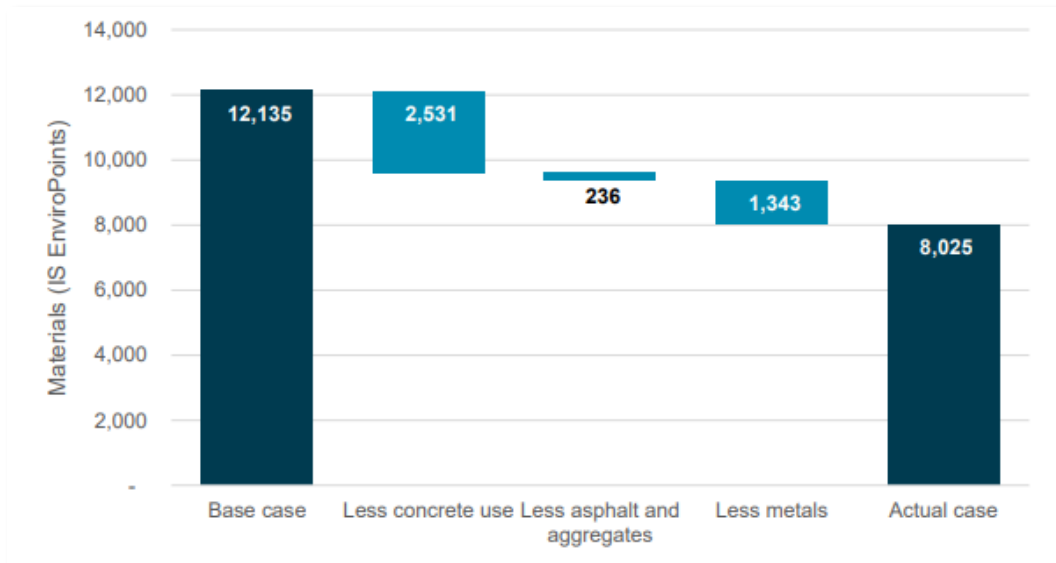
Capital Band	Permanent Credits Screened in	Additional Credits Screened in	Total Credits Screened in	Total Credits Screened out
\$5-20 Million	10	0-5	10-15	24-19
\$20-50 Million	10	5-10	15-20	19-14
\$50-100 Million	10	10-15	20-25	14-9

- ISC will generate the scorecard → Projects encouraged to provide feedback
- Points redistributed
- **No compulsory/mandatory credits**

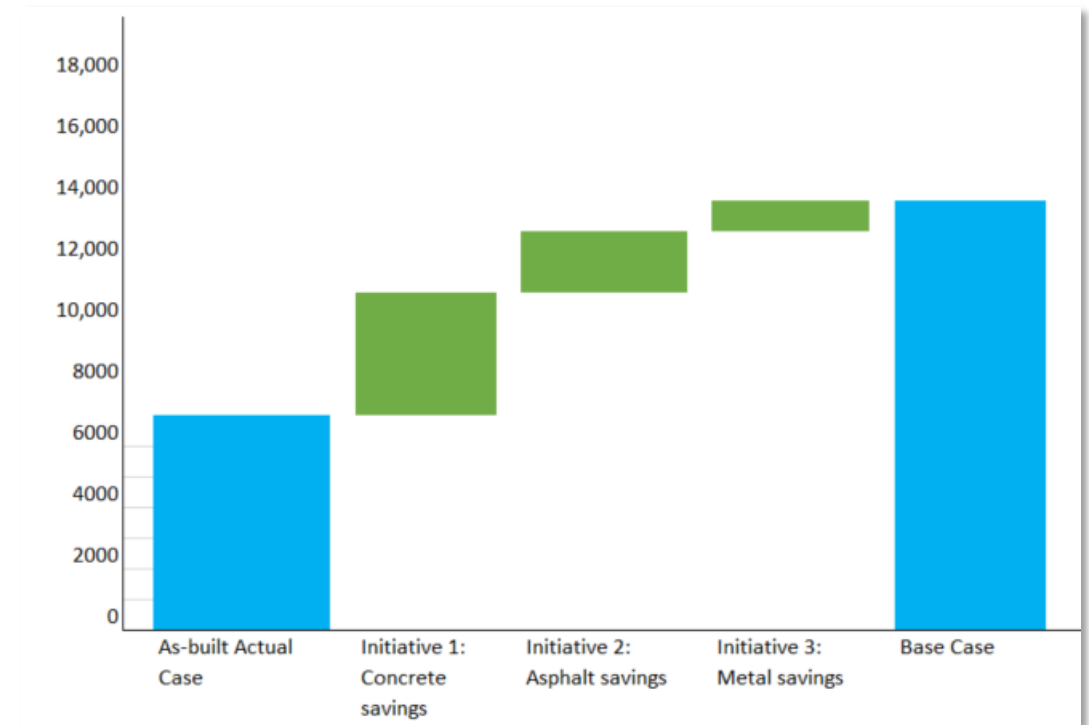


# Item 4: IS Essentials Base Case Approach

## Previous approach



## Reverse-calculated Base Case



# Item 5. CapEx Bands

## Level 1

*Spr-3 D/ABL 1.1 Supplier contracts specify relevant sustainability requirements and how non-compliance will be managed as part of the contract management process.*

Sustainability commitments and compliance management mechanisms (such as SMART sustainability targets, deliverables, requirements for performance reporting) **must** be written into contracts where there is a material sustainability risk or opportunity.

A risk assessment (in accordance with the requirements outlined in Spr-1 D/ABL 1.1 and Spr-1 D/ABL 1.3) **must** be prepared, if Spr-1 was not undertaken.

A sample of contracts **must** be provided as evidence:

- For projects with a capital value less than \$20m, at least one contract
- For projects with a capital value between \$20m and \$50m, at least two contracts; and
- For projects with a capital value of \$50m or more, at least three contracts

# Item 6. Program Approach

## Program of Works / Organisation Approach

Projects undertaking an Essentials Rating may be part of a larger Program of Works (e.g. a scope of works that has been split into smaller individual projects, each targeting their own IS Rating) or the project Proponent could be a large Organisation which is undertaking many separate ratings (e.g. a transport authority in Australia or New Zealand). The ISC recognises that for efficiency in these situations work undertaken as part of a 'Program of Works' or at the 'Organisation level' may be used to meet credit criteria (or part thereof) within the IS Essentials project submission.



# Item 7. Templates / Examples

- **Technical Working Group (TWG) work**
- **Losee Consulting work**
- **Pilot Project work**

## 1. Introduction

### 1.1. Purpose of the strategy and action plan

This text box provides guidance only – delete before finalising the document

A typical purpose of a resource efficiency action plan is to outline specific actions and initiatives to reduce resource use and waste generation in a road construction project. It serves as a roadmap for achieving the resource efficiency goals set.

### 1.2. Scope of the strategy and action plan

This text box provides guidance only – delete before finalising the document

Describe the extent of this strategy and action plan. This would normally align with the project extent and include references to the typical resources used in this type of project. Any specific exclusions should be listed here too.

### 1.3. Background of the project

This text box provides guidance only – delete before finalising the document

Describe the project, its objectives and any constraints that need to be considered.



# Item 8. New Verification model

## Pilot Verification

- One verifier (still follow two rounds of verification)

## Final Tool Verification

- TBC



# Item 9. Digitisation

Three programs of work to digitise the IS Essentials Tool

## IS Ratings Portal

IS Essentials Technical Manual  
Materiality assessment  
Scorecards  
Credit Summary Forms  
Technical Clarifications & Credit Interpretation Requests  
Evidence upload  
Verification



## Support Functions

Online learning resources and knowledgebase  
In-app guidance (being considered)  
Helpdesk system

## Tools & Calculators

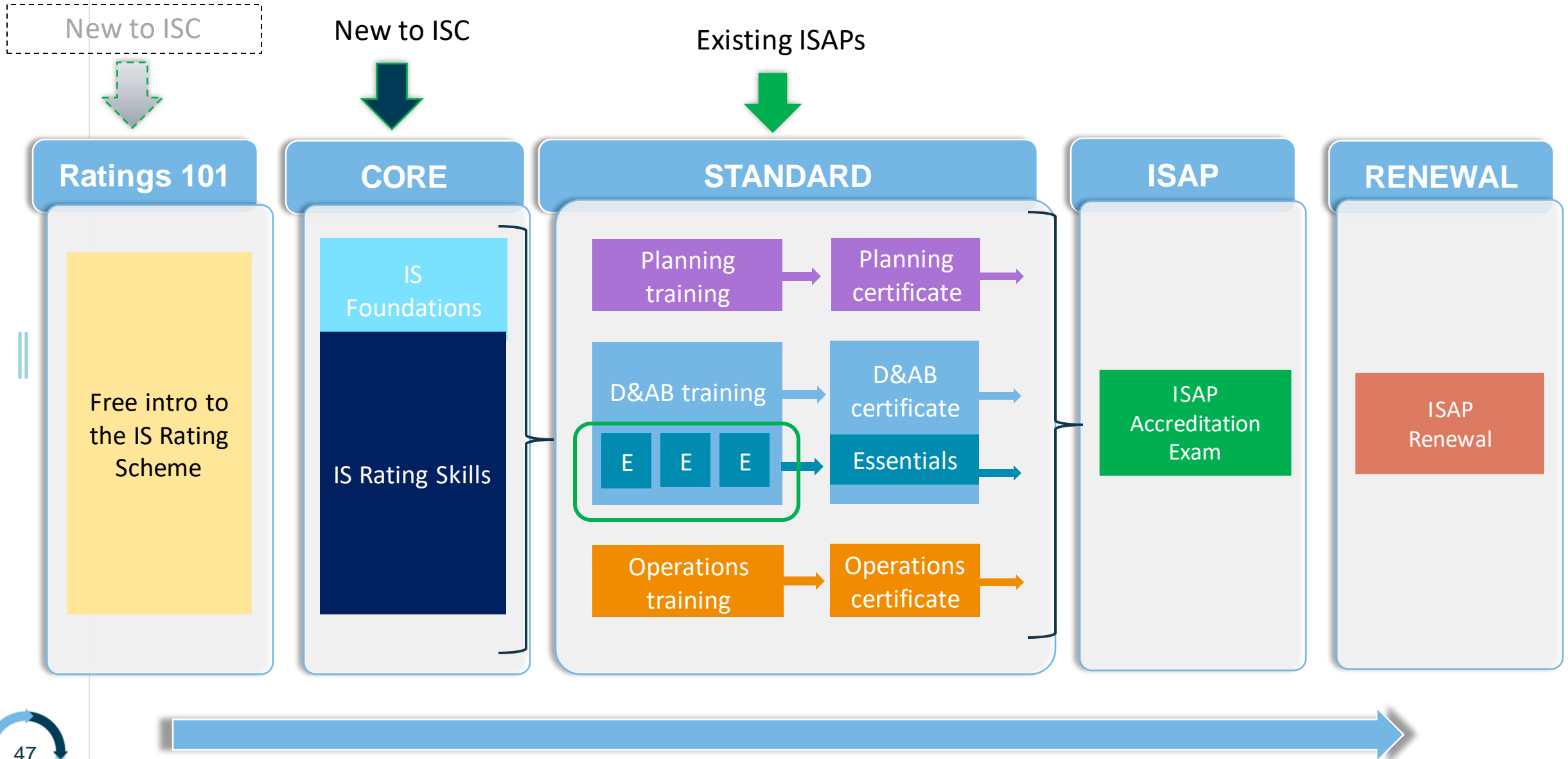
Materials calculator

### This will replace ...

- Excel (e.g. Scorecard, Materials Calculator), Word (e.g. Credit Summary Forms) and SharePoint



# Item 10. Training





Q & A

# If you would like to talk more, please reach out!

To any of the panel members or to [monique.isenheim@iscouncil.org](mailto:monique.isenheim@iscouncil.org)





**THANK YOU!**

Contact: [Monique.Isenheim@iscouncil.org](mailto:Monique.Isenheim@iscouncil.org)

# Back Up / Alternative Slides



# Draft IS Essentials Technical Manual

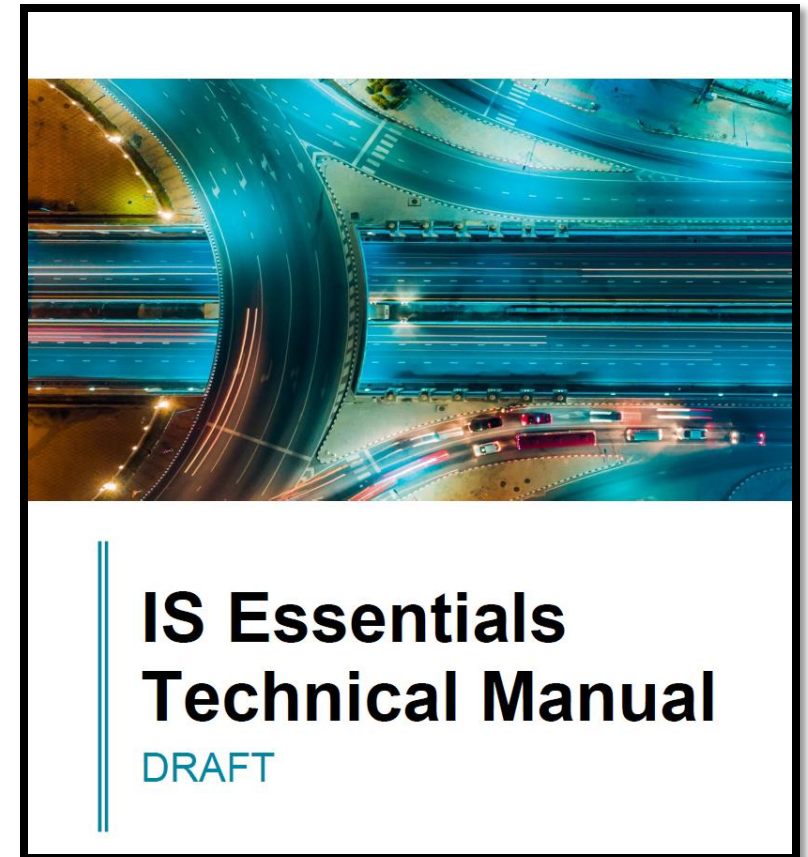
The Draft IS Essentials Technical Manual is shared with initial pilot projects.

Note that...

- ISC may iterate the Draft Technical Manual
- Iterations will capture changes made in response to the latest **feedback** from Pilot Projects & Working Groups

Piloting Projects will be, at a minimum, expected to undertake a rating utilizing the IS Essentials Resources available to them at the time of kick-off:

→ **Draft no. 3**





# Example Credits (Technical Manual 3)

Note:

- 1) Each credit has one Design credit and one As Built credit which usually build on each other as they relate to the 2 phases.
- 2) For each credit there are notes that outline the credit and its interpretation and evidence requirements in more detail

IS ESSENTIALS DESIGN: CRITERIA FOR LEA-1 CREDIT

Lea-1 Integrating Sustainability

Intent

To embed the project’s sustainability commitment, objectives and targets into governance and continuous improvement processes, and to publicly commit to and report on progress.

Criteria

Table G6 Lea-1 Design criteria summary

Level 1	Level 2	Level 3
Lea-1 DL1.1 Sustainability objectives, targets, responsibilities and a reporting framework have been developed (or reviewed and updated).	The requirements for Level 1 have been achieved.	The requirements for Level 2 have been achieved.
AND	AND	AND
Lea-1 DL1.2 A sustainability management plan has been developed.	Lea-1 DL2.1 Sustainability objectives and targets have been reviewed with key external stakeholders and include their input.	Lea-1 DL3.1 Performance against sustainability targets is publicly reported.
	AND	
	Lea-1 DL2.2 Sustainability targets are publicly stated.	

Relevant ISC Guideline: n/a

Notes:

- An establishment period may be needed at the start of the design or construction phases in order to implement management systems. The length of the establishment period **must** be justified and:
  - cannot exceed six months for projects with a rating phase of greater than one year
  - or three months where there is less than one year between the registration of the project and the end of that rating phase.

IS ESSENTIALS AS BUILT: CRITERIA FOR LEA-1 CREDIT

Lea-1 Integrating Sustainability

Intent

To embed the project’s sustainability commitment, objectives and targets into governance and continuous improvement processes and to publicly commit to and report on progress.

Criteria

Table G7 Lea-1 As Built criteria summary

Level 1	Level 2	Level 3
Lea-1 ABL1.1 Sustainability objectives, targets, responsibilities and reporting framework have been reviewed and updated where required.	The requirements for Level 1 have been achieved.	The requirements for Level 2 have been achieved.
AND	AND	AND
Lea-1 ABL1.2 A sustainability management plan has been updated for construction.	Lea-1 ABL2.1 Sustainability targets are publicly stated.	Lea-1 ABL3.1 Performance against sustainability targets is publicly reported.
AND		
Lea-1 ABL1.3 Handover documentation has been developed for the operator.		

Relevant ISC Guideline: n/a

Notes:

- An establishment period may be needed at the start of the design or construction phases in order to implement management systems. The length of the establishment period **must** be justified and:
  - cannot exceed six months for projects with a rating phase of greater than one year
  - or three months where there is less than one year between the registration of the project and the end of that rating phase.
- The following **must** be finalised within the Establishment Period, and their implementation underway during the phase of the project being rated:
  - Sustainability Management Plan, Strategy or document(s) which set the sustainability commitments, targets, responsibilities and the Materiality Assessment for the phase of the project being rated
  - Reporting frameworks used to measure performance against the commitments and targets
  - Reviews, audits or monitoring the management system(s).
- Some credit criteria (or part thereof) could be addressed as part of a ‘Program of Works’ or at the ‘Organisation level’ as per above (see Notes and Exceptions for details).

IS ESSENTIALS DESIGN: CRITERIA FOR ENE-1 CREDIT

Ene-1 Energy Efficiency and Carbon Reductions

Intent

To reduce energy use and carbon emissions across the infrastructure life cycle and drive towards net zero carbon.

Criteria

Table En1 Ene-1 Design criteria summary

Level 0 – 3 on a sliding scale
Ene-1 DL1.1 Modelling of energy use and carbon emissions for capital and operational carbon has been completed.
AND
Ene-1 DL1.2 Energy and carbon emissions reduction opportunities have been investigated across the infrastructure life cycle and included in design and construction planning.
AND
Ene-1 DL1.3 Modelling demonstrates a reduction in energy use and carbon emissions for capital and operational carbon compared to the Base Case. For reductions from >0% up to 30%, fractions of levels may be achieved on a sliding scale.

Relevant ISC Guideline: IS v2.1 Energy and Carbon Guideline.

The Energy and Carbon Guideline provides guidance on scoping (including boundary setting and materiality thresholds), modelling and measuring greenhouse gas emissions for the Ene credits.

Notes:

- Ene-1 focuses on designing out demand, energy efficiency and overall carbon reductions. Embodied carbon emissions from construction and maintenance materials (including transport of materials) are not included in the modelling for Ene-1. These are covered in the Resource Efficiency and Management category
- Renewable energy carbon benefits are rewarded in Ene-1 and renewable energy % substitution for non-renewable energy demand is rewarded in Ene-2
- In markets where energy and carbon benefits of renewable energy systems can be sold as separate products, both the carbon and energy would need to be purchased to contribute to the Ene-2 credit. If only the renewable energy is purchased, then the carbon emissions (for Ene-1 calculations) from this source would be the grid emissions factor (NGA Factors).
- Carbon offsetting for the project's residual carbon emissions (from all sources) is rewarded in Ene-3
- Energy related to user carbon (see Definitions and Additional Guidance) is not yet included in the Energy and Carbon category for Design & As Built. Work undertaken to address reductions in user carbon could be considered in the Innovation credit
- A Base Case is required for all levels in this credit.

IS ESSENTIALS AS BUILT: CRITERIA FOR ENE-1 CREDIT

Ene-1 Energy Efficiency and Carbon Reductions

Intent

To reduce energy use across the infrastructure life cycle and drive towards net zero carbon.

Criteria

Table En2 Ene-1 As Built criteria summary

Level 0 – 3 on a sliding scale
Ene-1 ABL1.1 Energy and carbon emissions reduction opportunities identified in the construction phase have been assessed and feasible options identified.
AND
Ene-1 ABL1.2 Monitoring of energy use and carbon emissions has been undertaken during the construction period and the energy and carbon model has been updated.
AND
Ene-1 ABL1.3 Monitoring and modelling have demonstrated a reduction in carbon emissions for capital and operational carbon compared to the Base Case. For reductions >0% up to 30%, fractions of levels may be achieved on a sliding scale.
AND
Ene-1 ABL1.4 Handover documentation related to operational energy and carbon reductions have been provided to the operator.

Relevant ISC Guideline: IS v2.1 Energy and Carbon Guideline.

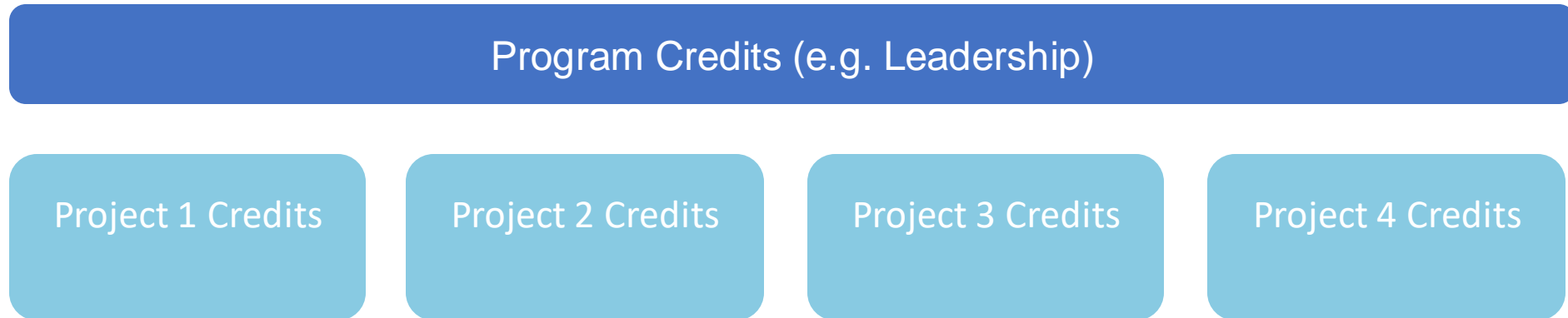
The Energy and Carbon Guideline provides guidance on scoping (including boundary setting and materiality thresholds), modelling and measuring greenhouse gas emissions for the Ene credits.

Notes:

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- Carbon offsetting for the project's residual carbon emissions (from all sources) is rewarded in Ene-3

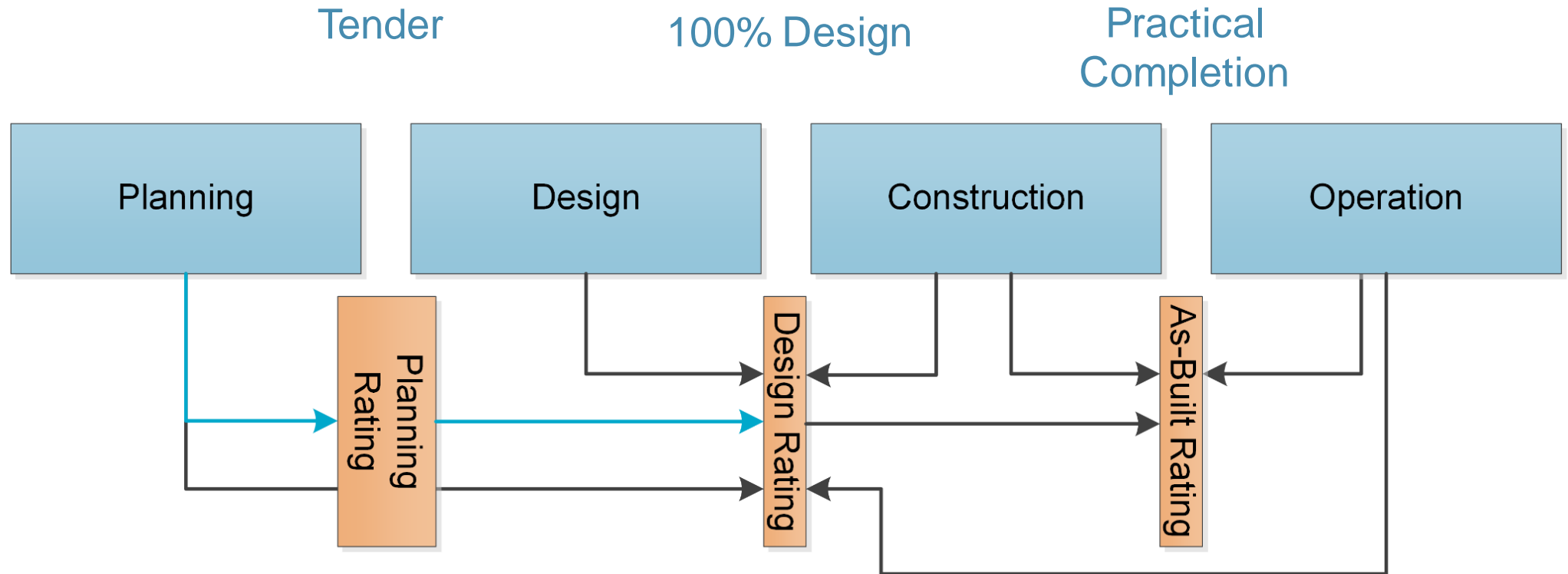
# IS Essentials – Testing a program approach

We are testing an approach for IS Essentials whereby multiple components can be combined and some credits achieved on a program or organisational level.

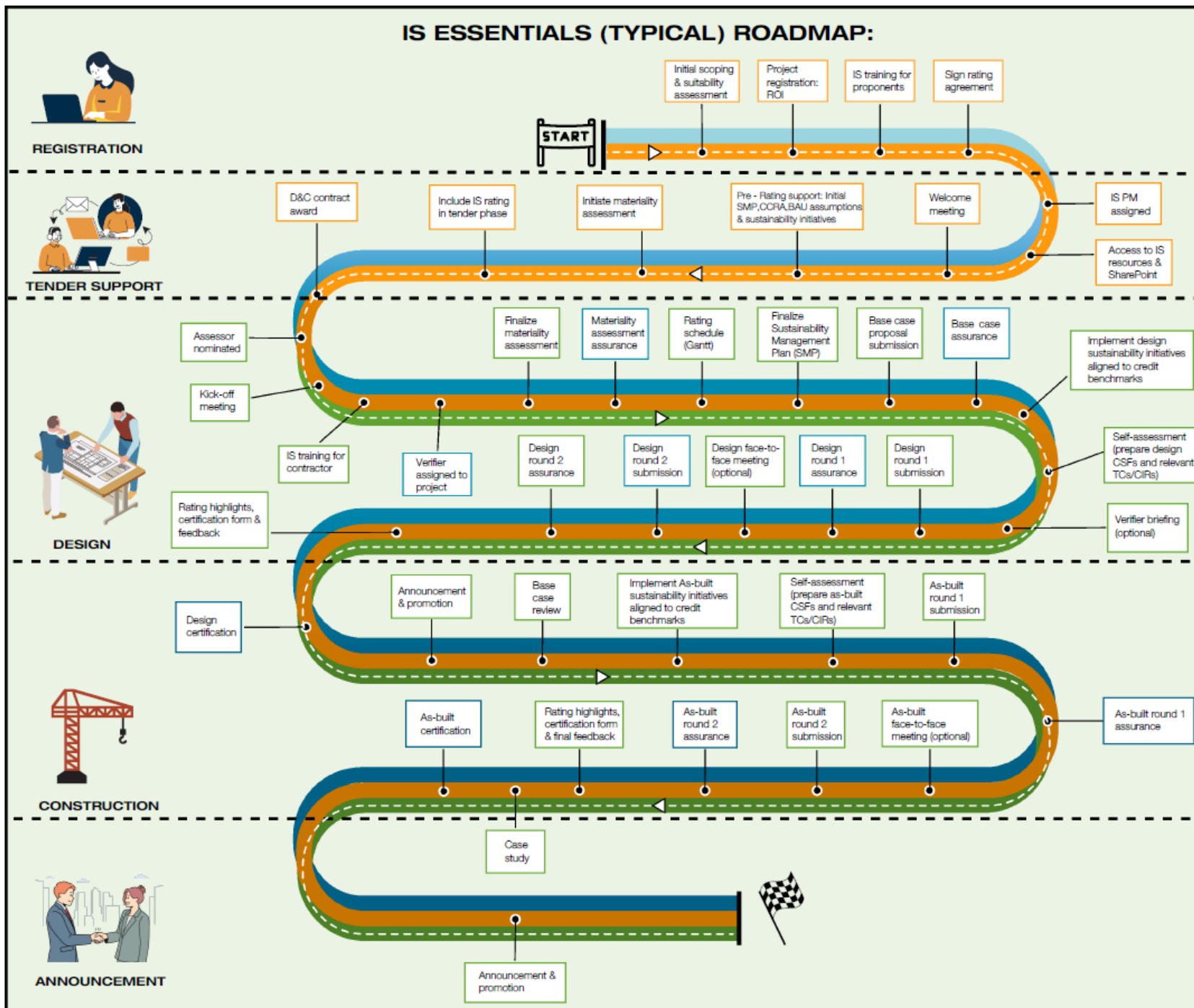




# Where do the rating phases fit into delivery?



# IS ESSENTIALS (TYPICAL) ROADMAP:



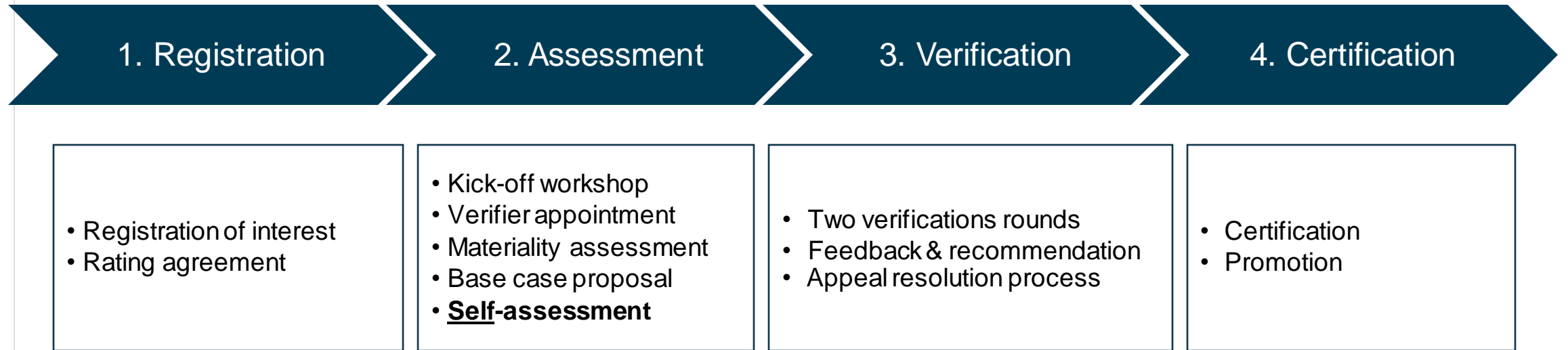
**Legend:**

- █ ISC
- █ Proponent
- █ Rating Partner (Main Contractor)

**Notes:**

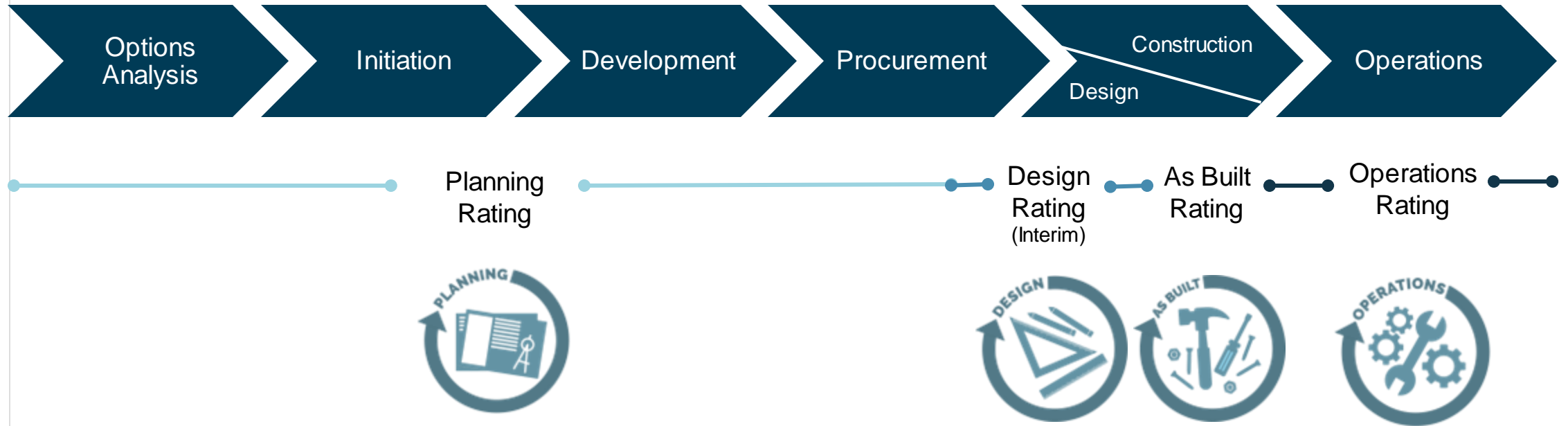
1. The IS PM can help the proponent to tailor the roadmap to the project's needs and also review deadlines & milestones in the rating schedule.
2. The Roadmap is modelled on a typical D&C contract where a main contractor has full responsibility for the delivery phase, but it can also be applied to different delivery models where other rating partners are involved.
3. The assurance model presented in the roadmap (including the requirement of the face-to-face meetings) will be reviewed by the ISC throughout the pilot phase and could therefore change in future releases of the Essentials manual.

# Rating Process



# The IS Rating Scheme

- Assess the **sustainability performance** of infrastructure
- Whole of life consideration





# Award Levels & Scores (v2.1)



# IS Rating Scheme



Infrastructure  
Sustainability  
Rating Scheme

## Whole of life consideration



## 4-Step Process



# About the ISC

Wait to receive updated slide from Hayley

The *Infrastructure Sustainability Council* (ISC) is a **member-based, not-for-profit** peak body operating in Australia and New Zealand with the purpose of enabling sustainability outcomes in infrastructure.



Events  
Conferences  
Awards



Thought Leadership  
Case Management  
Publications



The IS  
Rating  
Scheme



Partnerships  
Influence  
Leadership



Training  
Accreditation  
Development

# The IS Rating Process



- Registration of interest
- Rating agreement

- Kick-off workshop
- Verifier appointment
- Materiality assessment
- Base case proposal
- **Self-assessment**

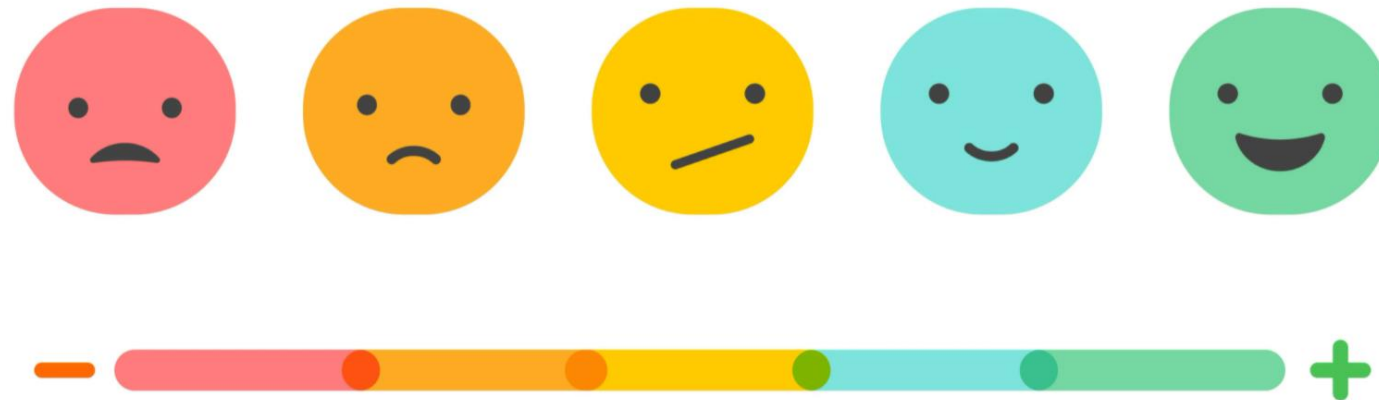
- Two verifications rounds
- Feedback & recommendation
- Appeal resolution process

- Certification
- Promotion



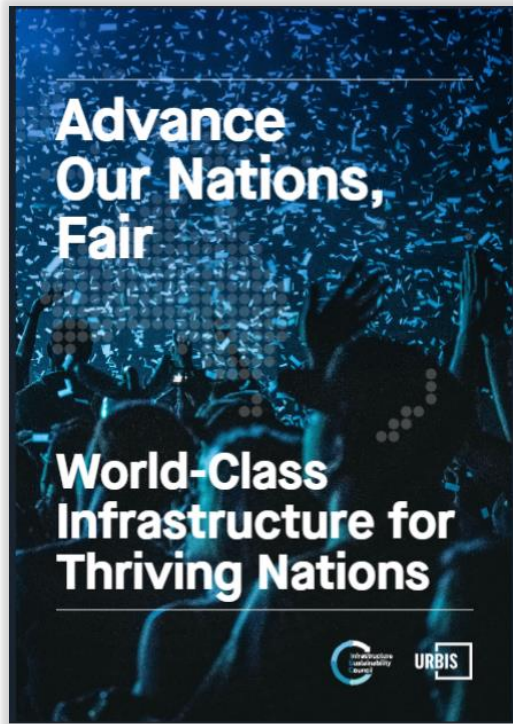
# Feedback and Issue Resolution

- **Feedback is vital**
- ISC's Continuous Improvement process
  - ❑ *Similar* to Technical Clarifications (TC) & Credit Interpretation Requests (CIR)



# Achieving sustainability targets

Two reports on how IS ratings can help achieve national and local sustainability strategies



The role of infrastructure in resilience building and driving positive impact.



Local strategies to achieving net-zero.