

Comment – Infrastructure Sustainability Council

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The Infrastructure Sustainability Council (ISC) offers this submission to the Queensland Productivity Commission's (QPC) inquiry into opportunities to enhance productivity within the state's construction sector. As a purpose-driven, member-based social enterprise, the ISC stands as the principal body for sustainable infrastructure across Australia and New Zealand. Since 2012, the ISC has been instrumental in certifying sustainability performance through its comprehensive IS Rating Scheme. This framework is applicable to a wide array of asset types—including water, road, rail, energy, and social infrastructure—and evaluates projects across their entire lifecycle, measuring impacts against the quadruple bottom line of economic, environmental, social, and governance criteria. To date, the IS Rating Scheme has been applied to 408 registered projects with a cumulative capital expenditure of \$386 billion, demonstrating its significant influence and reach. Notably, 99 projects rated since 2018 have collectively achieved a reduction of nearly 24.9 million tonnes in lifecycle carbon emissions.

The QPC's inquiry is particularly timely. The Queensland construction sector, a vital contributor to the state's economy (generating \$37.6 billion in Gross State Product and employing 279,000 people in 2023-24), has faced acknowledged challenges, including "weak productivity growth" over the past three decades. Current pressures such as "surging construction input prices, rising insolvencies, and constraints on the supply of labour and materials" following the COVID-19 pandemic, compounded by an "ongoing housing shortage and large Queensland Government capital program," highlight the urgent need for innovative solutions and transformative change.

The ISC's submission is founded on the principle that sustainability is not an impediment but a fundamental driver of productivity. The IS Rating Scheme, with its proven track record, provides a robust and holistic pathway to unlock these productivity gains. It encourages a shift from traditional "least cost" upfront thinking to a more comprehensive whole-of-life value approach, encompassing operational efficiencies, durability, and reduced maintenance, which ultimately lead to superior long-term economic and productivity outcomes. The framework also champions innovation, resource efficiency through circular economy principles, and the adoption of modern methods of construction and new technologies.

This document will further elaborate on how the principles and mechanisms embedded within the IS Rating Scheme directly address the key terms of reference outlined by the QPC. It will demonstrate how a dedicated focus on sustainability can foster a more resilient, efficient, and competitive construction industry in Queensland, capable of meeting the state's significant infrastructure demands while delivering lasting value. The ISC posits that by integrating sustainable practices, Queensland can build not just structures, but a future-ready sector that thrives on innovation and responsible development. The Council welcomes the opportunity to engage further with the Commission as it develops its recommendations.



Infrastructure Sustainability Council Submission to the Queensland Productivity Commission Inquiry: Opportunities to Improve Productivity of the Construction Sector

The Infrastructure Sustainability Council (ISC) welcomes this opportunity to submit to the Queensland Productivity Commission on opportunities to improve productivity of the construction sector.

This submission represents the views of Infrastructure Sustainability Council as a collective whole and may not necessarily represent the views of individual member organisations.

Our approach to this submission has been to respond to those questions and topics from the consultation document that we can best contribute to. The ISC would welcome further engagement from the Commission as it develops the draft National Infrastructure Plan.

The Infrastructure Sustainability Council is a for-purpose organisation that has certified sustainability performance across Australia and New Zealand since 2012. We assess infrastructure assets across the full spectrum of the asset lifecycle, and we measure impact across the quadruple bottom line of economic, environmental, social and governance. ISC is a member-based social enterprise that serves as the peak body for sustainable infrastructure. The ISC's sustainability framework, the IS Rating Scheme, is applicable to all asset types including water, road, rail, energy, and social infrastructure.

The IS Rating tools that certify infrastructure sustainability performance are widely recognised and mandated by jurisdictions and their associated delivery agencies including National, States and Territories, and municipal councils. ISC's direct contribution to improving the sustainability of infrastructure is illustrated by the fact that since 2012 the ISC registered 408 projects with a combined CAPEX of \$386bn. Since 2018, 99 constructed and rated projects have delivered reductions in lifecycle carbon emissions of close to 24.9 million tonnes.

The most recent recognition of the value of IS Ratings can be found in its inclusion in the Australian Commonwealth Government's newly released Environmentally Sustainable Procurement Policyⁱ. Under that policy one of the metrics for suppliers to meet Australian best practice standards is to show they have achieved a verified IS Rating from the Infrastructure Sustainability Council.

ISC has also led and/or collaborated in the development of several thought leadership pieces that aim to establish the scale of infrastructure's carbon emissions and identify pathways for addressing them. Most significantly, the widely referenced 2020 study by Climateworks, ISCA (now ISC) and ASBEC: *Reshaping Infrastructure for a Net Zero Emissions Future*.ⁱⁱ

Other important papers that are relevant to this submission include: *Advance Our Nations, Fair - World-Class Infrastructure for Thriving Nations*ⁱⁱⁱ, *A Net Zero future delivered through*

our infrastructure pipeline^{iv}, Place-based Approach to Net Zero^v, and Legacies that Last: Creating Social Value through Australia's Infrastructure and Built Environment^{vi}.

It is also noteworthy, given the increased focus on ESG criteria in infrastructure financing and investment – with the need for market integrity, transparency and fairness, and with risks of greenwashing - that a global review of sustainability ratings tools by Stanford University and WWF^{vii} recognised the ISC Ratings as the most rigorous in its requirement for third party verification and assessment.

The Queensland Productivity Commission's (QPC) inquiry into improving construction sector productivity is timely, given the sector's significant economic contribution (\$37.6 billion to Queensland's GSP, employing 279,000 people in 2023-24) and the acknowledged "weak productivity growth" over the last three decades. The pressures of "surging construction input prices, rising insolvencies, and constraints on the supply of labour and materials" post-COVID, coupled with the "ongoing housing shortage and large Queensland Government capital program", underscore the urgency for transformative change.

The IS Rating Scheme, a comprehensive framework evaluating governance, economic, environmental, and social performance across the lifecycle of infrastructure assets (including planning, design, construction, and operations), provides a robust pathway to unlock these productivity gains. With over \$386 billion in capital expenditure across 408 registered projects in Australia and Aotearoa New Zealand, the IS scheme has a proven track record of driving innovation and best practice.

1. Addressing Key Terms of Reference through a Sustainability Lens

The QPC's Terms of Reference (ToR) outlines several critical areas for investigation. We believe the principles and mechanisms embedded within the IS Rating Scheme directly address many of these, positioning sustainability as a core driver of productivity.

1.1 Current Conditions, Key Trends, and Productivity Performance:

The ToR seeks to understand current market conditions, input costs, supply chains, and productivity trends.

Sustainable practices directly influence these:

- **Circular Economy & Resource Efficiency:** The IS Rating Scheme, through credits like Rso-1 Resource Strategy Development, Rso-4 Resource Recovery and Management, and Rso-6 Material Life Cycle Impact Measurement and Management, promotes the reduction of material use, waste diversion from landfill, and the uptake of recycled materials. This directly tackles rising input costs and supply chain vulnerabilities by fostering local markets for recycled content and reducing reliance on virgin materials. For example, IS-certified projects in FY24 repurposed 34 million tonnes of waste and demonstrated significant reductions in asphalt (521,000 tonnes), concrete (114,000 tonnes), and steel (8,400 tonnes) from base case scenarios. The Infrastructure Sustainability Council's (ISC) submissions to other productivity inquiries highlight how prescriptive standards often impede recycled material uptake, advocating for performance-based specifications, a principle embedded in the IS framework. Case studies like the M80 Ring Road Completion project, which targets a 68% Material Circularity Indicator (MCI), and Downer's Rosehill asphalt plant producing asphalt with

up to 100% recycled content, exemplify this in action.

- **Innovation and Technology:** The IS Rating Scheme incentivises innovation (Inn-1 credit), which is critical for productivity. This includes Modern Methods of Construction (MMC) and new technologies. The "National Construction Strategy - New Technology & MMC - Discussion Paper" notes that MMC and technology can boost productivity but face barriers like pipeline uncertainty, misaligned incentives, and inadequate enabling environments. The IS Scheme provides a consistent demand signal for such innovations, helping to de-risk investment. In FY24, IS-certified projects reported 1 World First, 30 National First, and 26 Regional First innovations. The adoption of digital engineering, as seen in the Sydney Metro projects, leading to significant drawing reductions and cost/programme savings, aligns with the productivity benefits of digitalisation highlighted in the NCS discussion paper.
- **Whole-of-Life Costing & Value:** The IS Scheme, particularly through credits like Ecn-1 Options Assessment and Significant Decisions, promotes a shift from "least cost" upfront thinking to whole-of-life value. This considers operational efficiencies, durability, and reduced maintenance, leading to better long-term productivity and economic outcomes. ISC submissions argue that a "least cost" mentality overlooks broader benefits.

1.2 Factors Shaping Productivity, including Regulation and Procurement:

- **Regulation:** As noted by the ISC, "prescriptive standards in public infrastructure projects often impede the greater use of recycled materials". The IS Rating Scheme encourages performance-based outcomes, which can inform more flexible and innovation-friendly regulatory frameworks. Harmonisation of standards across jurisdictions, another ISC recommendation, would further enhance productivity by reducing compliance burdens.
- **Procurement:** Government procurement is a powerful lever. The IS Rating Scheme itself is increasingly mandated in public projects and is an approved pathway under the Australian Government's Environmentally Sustainable Procurement Policy for construction projects over \$7.5m. The IS framework (Spr-1 Sustainable Procurement Strategy) encourages sustainable procurement that considers social, environmental, and governance outcomes alongside economic factors. This aligns with the NCS paper's finding that procurement and contracting practices directly impact productivity. Coordinated approaches like Victoria's ecologiQ program, which promote aggregated demand and standardisation for recycled materials, demonstrate how sustainable procurement can drive market transformation and productivity.
- **Labour Force, Skills, and Market Competition:** A sustainable construction sector requires a skilled and diverse workforce. The IS Scheme includes credits like Wfs-1 Jobs, Skills and Workforce Planning and Wfs-3 Diversity and Inclusion. The ISC has also launched a Sustainability Skills Capability Framework to address skills gaps. By promoting better workplace culture (Wfs-2), safety, and clear career pathways, sustainability initiatives can help attract and retain talent, easing labor constraints and improving productivity. Furthermore, transparent and performance-based frameworks like IS can foster fairer competition, including for SMEs, by providing a clear benchmark for sustainability performance, rather than relying solely on lowest cost which can disadvantage those investing in better, more productive long-term solutions.

1.3 Opportunities for Improvement and Priority Areas for Reform:

- **Embrace Performance-Based Standards:** The QPC should recommend a shift towards performance-based standards for materials and construction methods in Queensland. This would unlock innovation in areas like recycled content and low-carbon materials, as demonstrated by numerous IS-rated projects using RAP, RCC, recycled glass, and geopolymers concrete.
- **Strengthen Sustainable Procurement Mandates:** The Queensland Government should strengthen and consistently apply sustainable procurement policies, referencing frameworks like the IS Rating Scheme, to drive demand for productive, sustainable solutions and create market certainty. This includes valuing whole-of-life outcomes and incorporating social and environmental criteria more robustly into tender evaluations.
- **Invest in Data, Benchmarking, and Knowledge Sharing:** The "NCS - Data Collection and Benchmarking" paper highlights the need for consistent data. The IS Rating Scheme generates significant data on sustainability performance, including material use, energy, water, and innovation, across over \$382 billion of projects. This data can inform benchmarks and policy. The QPC should recommend leveraging ISC's data and its role in knowledge sharing (Lea-3 Knowledge Sharing).
- **Foster a Circular Economy in Construction:** Adopting circular economy principles—designing out waste, keeping materials in use, and regenerating natural systems—is key to productivity. The IS Scheme (Rso-1, Rso-4, Rso-5 Adaptability and End of Life) provides a clear pathway. Initiatives like designing for disassembly and maximising material recovery directly address input costs and waste disposal burdens.
- **Drive Decarbonisation:** The "Defining Infrastructure Net Zero" paper highlights that infrastructure influences ~70% of Australia's emissions. The IS Scheme (Ene-1 Energy Efficiency and Carbon Reductions, Rso-6 Material Life Cycle Impact Measurement and Management, Rso-7 Sustainability Labelled Products) aligns with PAS2080 and promotes the reduction of embodied and operational carbon. Lower carbon construction often means more efficient material use (e.g., high-strength, lower-mass steel) and streamlined processes.
- **Promote Early Planning Integration:** The IS Planning Rating tool and credits like Ecn-1 Options Assessment ensure sustainability and productivity considerations are embedded from project inception. The NCS paper confirms that planning and design phases significantly influence delivery productivity. Early integration avoids costly rework and locks in efficiencies.

2. The IS Rating Scheme: A Framework for Productive and Sustainable Construction

The IS Rating Scheme is a holistic, evidence-based framework that drives productivity by:

- **Providing a Common Language and Benchmarks:** It offers a consistent standard for defining and measuring sustainability performance across diverse projects, enabling fair comparison and fostering competition based on value, not just cost.
- **Driving Innovation and Best Practice:** The scheme rewards innovation and incorporates a market transformation mechanism where innovations become best practice and eventually "better Business As Usual".
- **Encouraging Whole-of-Lifecycle Thinking:** By assessing projects from planning through to operations, it encourages decisions that optimise long-term performance and reduce lifecycle costs, a key aspect of productivity.

- **Facilitating Collaboration and Risk Management:** The scheme requires multidisciplinary input (e.g., Pla-2, Lea-2) and robust risk management (Res-1), leading to more integrated project delivery and proactive issue resolution.
- **Improving Quality and Resilience:** Sustainability intrinsically links to quality and resilience. Durable materials, climate-resilient designs (Res-1), and robust governance (Lea-1) lead to longer asset life and reduced disruption – forms of long-term productivity.
- **Enhancing Social Outcomes and Workforce Sustainability:** A productive workforce is essential. The IS Scheme addresses stakeholder engagement (Sta-1, Sta-2), community legacy (Leg-1), heritage (Her-1), workforce skills, culture, and diversity (Wfs-1, Wfs-2, Wfs-3), all contributing to a more stable, skilled, and motivated workforce.

3. Recommendations for the Queensland Productivity Commission

To harness sustainability as a driver for construction productivity in Queensland, we recommend the QPC consider the following:

1. **Recognise and Endorse Comprehensive Sustainability Frameworks:** Acknowledge the IS Rating Scheme as a critical tool for driving productivity improvements alongside environmental, social, governance, and economic benefits in Queensland's construction sector.
2. **Advocate for Performance-Based and Harmonised Regulations:** Recommend the Queensland Government adopt and champion performance-based regulations for construction materials and methods, facilitating the use of recycled content and low-carbon innovations, drawing on insights from the IS framework and ISC's experience.
3. **Promote Coordinated Sustainable Procurement:** Encourage the Queensland Government to expand and mandate sustainable procurement policies that value whole-of-life performance and incorporate IS Ratings or similar comprehensive sustainability criteria. Support initiatives like ecologiQ that aggregate demand and build markets for sustainable products.
4. **Support Skills Development for a Sustainable Future:** Recommend investment in skills and training aligned with sustainable construction practices, potentially leveraging frameworks like the ISC's Sustainability Skills Capability Framework.
5. **Foster Innovation through Policy Settings:** Ensure policy and regulatory settings actively encourage and de-risk the adoption of MMC, new technologies, and circular economy solutions, with the IS Rating Scheme serving as a potential qualifying framework.
6. **Utilise Data and Promote Transparency:** Encourage the collection and transparent reporting of sustainability performance data from construction projects, potentially leveraging the data and reporting mechanisms inherent in the IS Rating Scheme to inform policy and benchmark productivity improvements.
7. **Integrate Sustainability into Early-Stage Decision Making:** Stress the importance of embedding sustainability and lifecycle thinking into the earliest stages of project planning and business case development, using tools like the IS Planning framework, to maximise productivity gains.

Conclusion

Improving the productivity of Queensland's construction sector is paramount. The Infrastructure Sustainability Council and the IS Rating Scheme offer a proven, holistic, and globally recognized approach to achieve this, not by adding a burden, but by fundamentally integrating principles of efficiency, innovation, risk management, and whole-of-life value. By embracing sustainability, Queensland can build a more productive, resilient, competitive, and future-ready construction sector capable of meeting the state's significant housing and infrastructure needs without compromising quality or safety. We welcome the opportunity to collaborate further with the Queensland Productivity Commission.

ⁱ DCCEE 2024, Environmentally Sustainable Procurement Policy, Department of Climate Change, Energy, the Environment and Water, Canberra, July

ⁱⁱ <https://www.iscouncil.org/wp-content/uploads/2021/09/RESHAPING-INFRASTRUCTURE-ISSUES-PAPER-MARCH-2020.pdf>

ⁱⁱⁱ https://www.iscouncil.org/wp-content/uploads/2022/04/Advance-our-nations-fair-world-class-industry-for-thriving-nations_Final.pdf

^{iv} https://www.constructors.com.au/wp-content/uploads/2022/02/A-net-zero-future-delivered-through-our-infrastructure-pipeline_Feb22.pdf

^v <https://www.iscouncil.org/place-based-approaches-to-net-zero/>

^{vi} <https://www.iscouncil.org/wp-content/uploads/2023/08/Legacies-that-last-Creating-social-value-through-Australias-infrastructure-and-built-environment.pdf>

^{vii} <https://www.guggenheiminvestments.com/GuggenheimInvestments/media/PDF/WWF-Stanford-Infrastructure-Exec-Summary.pdf>