SOLUTIONS TO MINIMISE BARRIERS TO GREATER UPTAKE OF A CIRCULAR ECONOMY

SUBMISSION TO THE
AUSTRALIAN GOVERNMENT PRODUCTIVITY COMMISSION

APRIL 2025

2 April 2025

Productivity Commission
Locked Bag 2, Collins St East
Melbourne Vic 8003

Dear Commissioner,

Submission on Solutions to Minimise Barriers to Greater Uptake of a Circular Economy

We are pleased to submit the enclosed document, co-authored by Dr Keith Noble (Principal - Insideout Architects) and Mr Jelenko Dragisic (Principal - Roadmender Strategic Consultants).

This document represents a collaborative effort, drawing from diverse business experiences across multiple industries. We have focussed our submission on key barriers to the broader adoption of circular economy in Australia.

Our insights are grounded in real-world experience and active engagement with industries directly connected to circular economy growth and development.

We hope that our perspectives and recommendations will be of value to the Commission in shaping future reports and findings that support greater investment in this critical area.

We appreciate the opportunity to contribute to this important discussion and look forward to further engagement.

Yours faithfully,

DR KEITH NOBLE AND MR JELENKO DRAGISIC

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SUBMISSION AT A GLANCE:

- **Why Circularity Adoption is Stalling**

  Despite its potential, adoption of a circular economy in Australia remains sluggish. We identify some overlooked psychological, social, and systemic barriers that stall momentum.

- **The Importance of Supposedly Irrelevant Factors (SIFs)**

  Human behaviour is shaped by subtle but powerful forces: status biases, fear of change, and convenience traps. Recognising and addressing these factors can accelerate circular economy adoption.

- **Circularity and Resilience: The Missing Link**

  Circularity isn't just about waste reduction. It's also about resilience in complex systems. Yet, current discussions treat resilience as a vague buzzword rather than a strategic tool for economic transformation.

- **Regional Circularity Zones: The Potential for a Game-Changer**

  A one-size-fits-all approach won't work. Instead of generic circular economy strategies, we propose place-based Circularity Zones; tailored to Australia's diverse economic landscapes.

- **Rethinking Economic Strategy with Real-World Complexity**

  Circularity must solve tangible problems, not just be an abstract policy goal. A compelling case study is the Reef Economic Zone (attached at Appendix A), which integrates ecological, economic, and social resilience in North Queensland.

ADVANCING AUSTRALIA'S CIRCULAR ECONOMY THROUGH REGIONAL STRATEGIES:

While the circular economy concept has gained a certain degree of traction across different circles, including economic, it is certainly not universally accepted as a definitive strategy that economies must adopt.

However, irrespective of whether it is universally embraced, it is clear that a circular economy, in its broadest interpretation, offers significant opportunities from various angles. It has the potential to make other economies more sustainable, productive, and efficient, while also fostering innovation. Importantly, it opens pathways to mitigate some of the major complex global and national challenges facing virtually all economies today, particularly Western.

In this submission, we wish to address certain factors that, in our view, require further investigation, research, and discussion with relevant stakeholders. Our particular concern revolves around the idea that adoption of circularity, as suggested by the interim report published by the Productivity Commission, shows a significant lack of appetite and movement in that direction. Therefore, we would like to examine some of the factors contributing to this stagnation.

Broadly speaking, there are three areas that need to be considered when formulating strategies that could unlock genuine capacity for greater adoption of a circular economy, and perhaps even expand what could be made of it.

1. Paying Attention to Supposedly Irrelevant Factors (SIFs)

First and foremost, we need to pay closer attention to the importance of SIFs; a concept which has been well formulated and grounded in research by a number of elite behavioural economists in various contexts, and which is certainly worth applying in the context of circularity in Australia. The originator of the concept, economist Prof Richard Thaler (recipient of a Noble Prize in Economics), proved that not only do SIFs matter at all times, but in some circumstances they are the single most important determinant in human behaviour and decision-making processes.

While this submission is not intended to provide strategic advice to policy makers in the Australian Government, we offer a few points that illustrate what accounting for SIFs may mean. While the overall high-level aspirations and logic that ungird the soundness of past and current efforts, a better grasp of the impact of SIFs may shift the adoption rate into a higher gear.

Given that SIFs tend to influence behaviour in ways that traditional models overlook, following is a list of examples that should be taken into account.

SIF Type	Description
Status Symbol Bias in Consumption	Many consumers associate new products with status and social identity, while reused or upcycled products are often perceived as lower-status or second-rate. This emotional and social bias can be a hidden barrier to circular economy adoption.
Psychological Ownership and the Fear of Sharing	People form strong psychological attachments to personal possessions, which makes sharing, leasing, or renting less appealing- even if they rarely use certain items.
Hidden Complexity Bias	Consumers and businesses may perceive circular practices (such as returning products for recycling or engaging in reverse logistics) as too complex or time-consuming—even if the actual effort required is low.
Perceived Lack of Quality in Reused Materials	The assumption that "new is better" still prevails. Even if remanufactured or refurbished products perform as well as new ones, consumers often doubt their quality.
The "Endowment Effect" in Corporate Procurement	Businesses often resist changing their suppliers or procurement practices, even when circular alternatives exist, due to a psychological attachment to existing systems and relationships.
The "Convenience Trap" of Linear Economy Models	Linear consumption (buy, use, discard) is effortless, while circular practices often require extra effort (e.g., returning items, sorting materials, finding repair services).
Social Proof and Circular Norms	People tend to adopt behaviours they see as "normal" in their peer group. If circular behaviours (e.g., repair, reuse, product-sharing) aren't widely visible, they remain niche.

This calls for a much deeper focus on these supposedly irrelevant factors, especially because the way circularity is often discussed stems from a linear perspective. This angle fails to recognise that a circular economy is fundamentally about responding to complexity, i.e., complex systems inherent in the Australian economy, and looking at how innovation can be fostered going forward.

2. Linking Complexity, Resilience, and Circularity Explicitly

Secondly, we need to create a stronger, more explicit link - through strategic partnerships - between complexity, resilience, and circularity. Resilience is frequently mentioned, and appears repeatedly in various reports, but is poorly defined. It has become something of a catchphrase, fundamentally misunderstood by many working in this space.

Often, resilience is loosely defined as the capacity to deal with risks and adapt or recover from major disruptions. This definition significantly falls short of a proper comprehension of what resilience actually means, particularly within complex systems. There is little, if any, mention beyond cursory or tokenistic references, using resilience as an everyday term rather than exploring its deeper meaning when applied to adaptive systems like the economy.

Without a more robust understanding, we fail to appreciate how resilience is a core feature of complex systems and how it must be treated as a strategic space that links directly to circularity. This link needs to be far more explicitly made - both in strategy and in the narrative underpinning circularity efforts. Like every economic model, the circular economy's success will depend heavily on early adopters, i.e. those who, along with many other attributes, possess a higher tolerance for risk and a willingness to invest in exchange for potential returns. Therefore, it should be a matter of priority to frame circularity in a way that clearly articulates the tangible business and investment opportunities it presents.

3. Establishing Regional Circularity Zones

Finally, we should recognise that one way to move forward is to explore new options, one of which is the establishment of Circularity Zones. Rather than focusing on creating circularity hubs or precincts, the concept here involves creating broader zones.

It is important to recognise that Australia, while a country of 27 million people, is a highly complex society with significant regional differences: differences, it is worth noting, that are reflection of strength, diversity and immense competitive opportunities.

We cannot have the same conversation about circularity in a city like Melbourne, which has a unique entrepreneurial dynamic and a population larger than some states, as we would in Sydney - a financial hub with a very different economic pulse - or in regional centres like Townsville, Ballarat, Launceston or Newcastle.

The idea behind Circularity Zones is to identify and develop zones based on regional characteristics. These zones would vary in size, from large regional areas to smaller zones, although size itself would not be the defining factor. Instead, what would define the zones are economic profiles, demographic compositions, ecological conditions, and historical factors among others.

Historical factors are especially important, as they shape how each region has functioned in the past and continue to influence their present economic, social, technological, and ecological paradigms. Therefore, conducting broader analyses that incorporate these dimensions is crucial to identifying and establishing effective Circularity Zones.

A useful analogy is Australia's approach to mapping and designating bioregions. There are approximately 90 such regions in Australia, each based on ecological and environmental considerations. Similarly, we can apply this logic to identifying economic and demographic zones for circularity efforts.

We see this zonal approach as a strategic move to enable more nuanced, place-based strategies that can shape how circularity is communicated locally. Attempting to develop a single, uniform circularity narrative that is expected to resonate equally with people in Rockhampton, Newcastle, Bendigo, Brisbane, Adelaide, and Melbourne is not only misguided, but also wasteful. It disregards the unique characteristics of each place and fails to recognise how the narrative needs to be tailored to the lived realities of people in those regions.

Circularity should not be presented as rigid or overly prescriptive, as that could deter participation and create the perception of constraint or imposition. Instead, it should encourage innovation by allowing room for businesses and investors to shape how they engage with circular practices, within agreed-upon parameters.

By breaking down the national economic contour into zonal profiles, we can develop more targeted narratives around circularity that reflect each region's specific context. This approach would account for a region's past, its current situation, and - most importantly - its future outlook. This approach does not suggest that those factors determine how circularity might unfold; but rather how they could shape it in the most optimal way.

In practical terms, this could involve decentralising strategies and fostering a variety of circular approaches tailored to different contexts - urban, regional, capital cities, remote areas, and so on.

From examining regional development profiles across Australia, we already know that many regions face chronic challenges. These include issues related to food and water security, infrastructure deficits, education and healthcare access, transport and technological limitations, as well as population decline and ageing. Even a brief review of regional and local council profiles reveals significant disparities, with some areas facing acute vulnerabilities that make them far less prepared to handle transformative economic shifts when compared to large urban centres.

This presents a problem. It means we are failing to address or connect meaningfully with the immediate and pressing issues faced by many communities. For example, in some regional areas, population decline is severe, and the ability to retain young people is a persistent challenge. In such contexts, the obvious question arises: how can circularity be positioned as something desirable or feasible? Especially when we acknowledge that circularity fundamentally invites transformation and change. It is vital to recognise this, as the success of circularity depends on how change is introduced and understood.

Our submission addresses precisely this: we need to be conscious of the fact that many regions are simply not in a position to adopt or embrace transformative changes without first understanding the specific pressures they face. Some areas may be prepared or well-placed to transition due to external factors or timing, but many are not. Therefore, before promoting the benefits and potential of circularity, we must meet people where they are; acknowledging their current situation and exploring how circularity can become part of a broader suite of tools to help address their specific challenges.

CONCLUDING REMARKS:

At the core of this argument lies the question; What specific problems can a circular economy solve that conventional economic models cannot?

This question must be explicitly answered, not only for local authorities and elected officials, but also for the business community, the general public, and other key stakeholders. Currently, this clarity is lacking. The majority of Australians have only a vague understanding of circularity. Without building a narrative that fosters a culture of circularity, we risk imposing change from the top down - a strategy that typically incurs higher costs, higher risks, and reduced chances of success.

Ultimately, circularity should not be seen as something for large businesses alone. It must be embraced by the entire business ecosystem and the broader community - embedded in everyday life, consumption patterns, and production processes. To achieve this, we need much clearer, more regionally relevant narratives, tailored to specific zones and their socio-economic realities.

In that context, we share the attached Case Study (**refer Appendix A**) of this zonal thinking in practice: the Reef Economic Zone concept, currently being socialised and discussed with various stakeholders in North Queensland and beyond. Despite its name, the **Reef Economic Zone** is not solely an environmental or ecological project, nor is it purely economic, social, or technological. Rather, it is a **systemic, complex, systems approach** that connects economic, ecological, social, technological, health, and well-being factors to foster a more agile, resilient regional ecosystem.

The concept covers the entire North Queensland coast, encompassing 30 local government areas, using the Great Barrier Reef as a central connecting element; not as the sole foundation for economic and ecological well-being, but as a unifying symbol across the region. This concept is being presented across multiple sectors, including government, non-government, higher education, as well as business forums, and will also be presented at the upcoming **Circular Futures NQ: Innovation and Sustainability Summit** (https://spnq.org/event/circular-futures-nq-innovation-and-sustainability-summit/) in Townsville in May 2025.

While the Reef Economic Zone is not specifically or exclusively designed to deliver circularity outcomes, it directly supports a circularity culture by taking a whole-systems approach. It demonstrates how zonal strategies, starting from an economic perspective but integrating all other dimensions, can create the conditions necessary for circularity to take root.

APPENDIX A

THE GREAT BARRIER REEF ECONOMIC ZONE

DESIGNING AN INTEGRATED SOCIAL, ECONOMIC AND ENVIRONMENTAL MODEL

"Resilience is not merely a mechanism for risk mitigation, but the foundation for regional growth."

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THE GREAT BARRIER REEF ECONOMIC ZONE:

A Strategy for Regional Resilience

EXECUTIVE SUMMARY

The Great Barrier Reef is a globally significant environmental, economic, and cultural asset. With 1.2 million residents in the reef region, it's health directly impacts local communities and economies. However, current management strategies often separate environmental concerns from economic and social realities. The Great Barrier Reef Economic Zone (GBREZ) aims to integrate these aspects, viewing reef management as part of a system where economic resilience, ecological health, and social stability coexist.

This strategy proposal is intended as a working document towards the development and popular acceptance of a comprehensive governance framework that redefines traditional conservation funding models by fostering a self-sustaining economic entity that ensures resilience and prosperity for both the region and the reef itself.

The GBREZ aims to integrate financial sustainability with ecological preservation by:

- recognising that government funding is not a 'rescue package' but an essential and on-going investment in the maintenance of the ecological infrastructure that underpins all economic activity;
- identifying the connection between a healthy regional economy and the ability of that region to contribute to and be part of ongoing ecological maintenance;
- reducing the current predominant dependence of environmental work on fluctuating, politically sensitive government funding;
- identifying and harmonising policy and funding overlaps and duplications;
- diversifying regional economies through the development of nature-based activities, particularly ones that draw on local understanding of and connection to country;
- promoting and celebrating the alignment of regional economic activities with environmental imperatives.

The GBREZ seeks to create from the ground up a resilient economic infrastructure that supports the ongoing health of the reef through resilient, empowered communities.

This strategy does not pretend to provide all the answers or a roadmap to the achievement of a GBREZ. It is presented as a concept that the region can consider and, if it chooses, make its own.

Because paradigm shifts occur when people want them, not when they're imposed.

The Economic Significance of the Reef

The Great Barrier Reef plays a crucial role in the national economy, with an estimated 2016 asset value of $56 billion that generates approximately $6.5 billion annually and supports 64,000 jobs across tourism, fishing, and related industries. Despite its economic importance, the reef remains vulnerable to environmental degradation, policy shifts, and market fluctuations. Traditional funding models have relied heavily on government intervention, philanthropic contributions, and corporate social responsibility initiatives, which are inherently unstable over the long term.

The GBREZ is designed to mitigate these uncertainties by establishing a structured economic approach that ensures sustainable financial support for reef preservation and regional economic growth.

A Paradigm Shift Towards Sustainable Resilience

Conventional reef management has predominantly focused on ecological restoration and conservation efforts, often overlooking the interconnected social and economic dimensions. The GBREZ model reimagines the economic and ecological systems as interconnected, promoting resilient and complex thinking as a proactive strategy rather than fragmented and overlapping economic plans.

Resilience, in this context, is not merely a mechanism for risk mitigation but a foundation for regional growth. By fostering interdependent relationships between ecological sustainability, economic development, and social stability, the GBREZ ensures that conservation efforts are financially viable and structurally supported by a dynamic economic framework.

Grounded in Experience

The Reef Economic Zone concept was borne from firsthand experience with large-scale reef and landscape restoration projects and reflects a deep understanding of the practical challenges and complexities involved in ecological restoration. It also draws on lived experience and a place-based involvement in regional community resilience and well-being.

The Reef Economic Zone framework emphasises the importance of strategic, large-scale collaboration across diverse sectors, building on successful collaborative models and networks developed in previous reef, landscape, and disaster resilience programs.

"Paradigm shifts occur when people want them, not when they're imposed."

Resilience is a key component of the Reef Economic Zone, informed by extensive experience in disaster resilience and collaboration, highlighting the need for adaptive strategies that can withstand environmental and socio-economic challenges.

Foundations of the Reef Economic Zone

1.2 million people live within the Great Barrier Reef region, and the reef region is geographically the size of Italy. It is rich in both biological and cultural diversity, and the Gross Regional Product (GRP) across local government areas participating in the Reef Guardians program is $90 billion – $75k per person. This is significantly higher than the average per capita GRP in Australia of $67k (IMF figures).

The GBREZ is built upon the principle that, since these communities directly benefit from the landscape in which they live, the economic activities within the region should directly contribute to reef preservation and sustainability. Several key advantages underpin this model:

- **Local Economy as the Foundation:** Establishing a self-sufficient economic base that minimizes reliance on fluctuating government allocations and maximises regional ownership and participation.
- **Resilience as a Growth Strategy:** Flips resilience from a defensive "withstanding shocks" concept to a proactive strategic advantage – being prepared for the unexpected - a smart investment that enhances economic value, social stability, and environmental sustainability.
- **Recognises and Values Local knowledge:** Encourages local involvement by recognising single solutions are rarely universally applicable and can be fine-tuned through fine-grained local experience and understanding.
- **Greater Stability:** A locally driven model ensures a more consistent and predictable flow of financial resources dedicated to reef management while also generating new economic opportunities.
- **Integrated and Informed Funding:** Encouraging coordination among government agencies, corporations, and philanthropic entities to align investments with long-term sustainability objectives.
- **Sustainability and Growth:** Ensuring that economic expansion and industrial activities are Nature Positive and actively contribute to environmental conservation and ecological health along with regional prosperity.

"By reframing conservation as an economic imperative, the GBREZ sets a precedent for future environmental and economic sustainability initiatives."

- **Reduced Dependence on External Funding:** Diversifying revenue sources to enhance financial stability and protect against policy and market uncertainties.
- **Holistic and Adaptive Approach:** Implementing a flexible and forward-thinking model that can evolve to address emerging environmental, economic, and social challenges.

Strategic Implementation and Governance

To achieve its objectives, the GBREZ requires a well-structured governance framework that integrates economic and environmental policies into a cohesive, collaborative strategy. The following key components will drive the success of the GBREZ:

- **Regional Collaboration:** Establishing partnerships between local governments, industries, research institutions, and community organizations to foster a shared economic and environmental vision.
- **Investment and Financial Innovation:** Developing investment mechanisms, such as sustainability bonds, reef-focused enterprise zones, and environmental financial instruments, that generate long-term funding for reef conservation initiatives.
- **Public and Private Sector Alignment:** Encouraging sustainable business practices through incentives, regulatory support, and economic policies that promote investment in ecological and social resilience.
- **Integrated Policy Development:** Creating regulatory frameworks that support economic diversification while prioritizing environmental integrity, ensuring that industries operating within the GBREZ contribute positively to reef health.
- **Adaptive Management Strategies:** Enabling place-based decision making systems that can implement data-driven decision-making and ongoing monitoring systems to adjust policies and investment strategies in response to environmental and economic changes.

Conclusion

The establishment of the Reef Economic Zone represents a new paradigm – a transformative approach to managing one of the world's most critical natural assets. By integrating economic stability and social capacity with environmental stewardship, the GBREZ model provides a sustainable, long-term solution that enhances the financial independence of conservation efforts while fostering regional economic resilience.

Through strategic collaboration, innovative investment mechanisms, and a commitment to sustainability, the GBREZ ensures that the Great Barrier Reef continues to thrive as both an ecological wonder and an economic powerhouse. By reframing conservation as an economic imperative, the GBREZ sets a precedent for future environmental and economic sustainability initiatives, offering a replicable model for other ecologically sensitive regions around the world.

Three core challenges stand out:

- **Efforts Must Be Coordinated, Not Isolated** – The most successful conservation strategies link ecological goals to economic realities, ensuring sustainability is built into the system rather than dependent on external funding.
- **Resilience Requires Structural Change, Not Just More Resources** – The challenge is not about securing more funding but about embedding sustainability into the fabric of economic and policy decision-making.
- **Local and Global Strategies Must Align** – The reef's health is tied to international climate trends. Future efforts must integrate local conservation with broader economic and environmental frameworks.

The Great Barrier Reef has always been a symbol of natural wonder and resilience. The key to its future lies in moving beyond crisis management and embracing a structured, integrated model that aligns environmental sustainability with economic viability. The Reef Economic Zone is a blueprint for how that could be achieved.

THE GREAT BARRIER REEF ECONOMIC ZONE SEEKS TO CREATE FROM THE GROUND UP A RESILIENT ECONOMIC INFRASTRUCTURE THAT SUPPORTS THE ONGOING HEALTH OF THE REEF THROUGH RESILIENT, EMPOWERED COMMUNITIES.

CIRCULAR FUTURES NQ:

Innovation and Sustainability Summit

Townsville is the obvious starting point to build this new economic paradigm. Immediately adjacent the Great Barrier Reef, home to world-renowned reef research institutions including the Australian Institute of Marine Science and James Cook University's ARC Centre of Excellence for Coral Reef Studies, and headquarters of the Great Barrier Reef Marine Park Authority, Townsville is easily identified as a reef city.

However, Townsville is much more than that. It is the largest city and population in Northern Australia. Townsville's deep-water port is a gateway to the world for North Queensland's agricultural and mineral wealth, and entry point for products essential to everyday life, and connects to the road and rail network servicing the north.

Townsville is Australia's pre-eminent defence hub, a centre of higher education with global connections, an accredited ECO destination providing access to the Great Barrier Reef and Wet Tropics World heritage Areas, home to North Australia's only Tertiary Level hospital and a centre for Tropical Medicine, and an economic powerhouse committed to sustainable growth.

Townsville is also home to NQ Dry Tropics, a recognised leader among Australia's 54 Regional Natural Resource Management (NRM) organisations, and the Healthy Waters Partnership Dry Tropics, a collective of business, industry, research, education, community and government that provides an picture of waterways and reef health.

All this makes Townsville an obvious launch pad for the GBREZ concept, if Townsville people are behind it. Collaboration strategist Jelenko Dragisic and sustainable development advocate Dr Keith Noble want to ground test their GBREZ concept with a Townsville audience through addressing critical questions:

- How does a systemic approach to resilience support circular economy efforts in the region?
- How can circular economy strategies ensure a resilient reef and strong regional economy?
- What role does cross-sector collaboration play, and how do we initiate it?

The discussion will focus on actionable steps to enhance regional sustainability through new cooperation models and innovative thinking - that The Great Barrier Reef Economic Zone represents a vision for the future, vital to North Queensland's sustainability.

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