



Harnessing Australia's Circular Economy Potential

*Requis' response to the Productivity
Commission's call for submission*

October 2024

Executive Summary

The circular economy is a beacon of hope for Australia's economic and environmental future. Decoupling economic growth from resource consumption ensures materials are used longer and waste is minimised, paving the way for sustainable development. Without circular practices and philosophies across all supply chains, Australia will dramatically miss its target of net zero by 2030.

Requis position on Circular Economy in Australia

This paper outlines Requis' position on the Circular Economy in Australia and the challenges and opportunities to achieve a higher level of circular material flow in Australia.

We will emphasise this in four key areas:

- Education in circular principles and purchasing decisions, including total cost of ownership and Lifecycle Cost Assessment (LCCA) practices and redeployment, reuse, and recycling.
- Development of local recycling precincts, multi-industry participation
- Talent Identification and Training
- Policy and Policy development emphasising Circular economic principles.

This position paper should provide actionable recommendations for policymakers and businesses to foster circularity and stimulate sustainable economic growth in the short, medium, and long term. Although circular Economy principles can be seen as higher costs in the front end, they reduce investment wastage and increase investment recovery in the long term.

How is Requis addressing the circular economy gap?

To see how Requis is addressing and driving the circularity gap closure, please visit the following blog - [How Requis is closing the circular economy gap](#).

The circular economy, which aims to minimise waste and keep products and materials in use for as long as possible, must be improved due to inefficiencies and fragmented asset management practices. Requis tackles these issues by providing a platform where companies can efficiently list, discover, and transact surplus and used assets.

The platform connects buyers and sellers across industries, ensuring that valuable materials are not wasted but instead find new uses. This aligns with circular economy goals, reducing the environmental impact of new production and minimising resource depletion. Through Requis, organisations can quickly identify opportunities to sell or acquire hard-to-find or surplus assets, streamlining the process and cutting down on the time and costs traditionally associated with asset disposition and procurement.

Additionally, the platform incorporates digital tools that enhance transparency and traceability, making it easier for companies to track their assets and ensure they are being reused in compliance with industry and environmental standards. This helps companies make informed decisions aligning with sustainability goals while gaining financial value from underutilised assets.

By facilitating asset redeployment and promoting material reuse, Requis helps organisations reduce waste, lower carbon emissions, and move closer to a closed-loop system. The platform's role extends beyond just transactions; it supports companies in adopting more sustainable and efficient supply chain practices, thus actively contributing to bridging the circularity gap. Requis essentially empowers businesses to participate in a circular economy by leveraging technology to transform traditional asset management into a more sustainable, value-driven approach.

Introduction

The circular economy is designed to maximise resource efficiency and minimise waste by keeping products, components, and materials at their highest utility and value. In contrast to the traditional linear economy—where resources are extracted, used, and disposed of—a circular economy aims to close resource loops and regenerate natural systems.

Australia faces unique challenges and opportunities in implementing circular economy principles as a country with vast natural resources and a dispersed population. This position paper explores these dynamics, focusing on critical areas like education, data governance, and the local recycling supply chain. The objective is to propose practical steps businesses, governments, and communities can take to enhance circularity, improve economic outcomes, and protect the environment.



Source: CSIRO



Key Challenges and Opportunities

Education and Awareness

(Focus on the Low-Hanging Fruits)

Education is critical for advancing the circular economy in Australia. Many businesses and communities lack practical circular approaches, such as redeployment, reuse, and repair. With the high pressures of the cost of doing business increasing every year, the business mindset of linear procurement and practices has focused on efficiency and optimisation; however, it created environmental and opportunity blind spots for innovation and cost savings opportunities. These "low-hanging fruits" offer immediate opportunities for circularity, yet a prevailing short-term financial focus and a transient workforce influence purchasing decisions. The balance of processes and motivations heavily relies on the organisational culture and employees' motivations to be purpose-driven rather than transactional.

Challenge:

We are focusing on short-term financial returns over long-term sustainability business survival.

Opportunity:

Fund, Promote, and Develop targeted educational programs and workshops that demonstrate the financial and environmental benefits of circular practices, focusing on the redeploy and refurbish principles of the circular economy.

Actionable Step #1:

Partner with industry groups and educational institutions to create awareness campaigns and training modules integrating circular principles into business operations.



Education and Awareness

Focus on the Low-Hanging Fruits (continued)

Actionable Step #2:

Promote the principles of Lifecycle cost assessment (LCCA) and Total Cost Ownership. LCCA evaluates the total costs associated with a product throughout its entire life cycle, from acquisition to disposal, focusing on long-term value rather than just upfront costs. TCO complements this by including hidden and indirect costs like maintenance, energy consumption, and end-of-life disposal, providing a comprehensive view of an asset's financial impact over time.

These tools are essential for circular purchasing, as they help businesses and governments make informed decisions that prioritize sustainability. By understanding the total lifecycle costs, organisations can choose products that are not only cost-effective but also environmentally responsible, as these assessments consider aspects like durability, repairability, and recyclability.



Data Governance and Asset Data transparency

Data Governance and Procurement Policies

Data governance is critical in the circular economy, especially when aligned with procurement policies for capital projects and significant asset upgrades. The current approach often favours linear processes, where new materials are sourced without consideration of reuse, remanufacturing, or redeployment options. This results in missed opportunities to increase circularity, reduce waste, and restore embodied carbon in construction.

Challenge:

The contracting nature of capital projects and manufacturing precincts often prioritises short-term gains due to project deadlines and contractor motivations. This reduces the incentive to apply circular principles unless they are mandated in procurement policies.

Opportunity:

Incorporate a level of weighting in government procurement or construction-related policies that prioritise using circular materials—such as reused, remanufactured, or redeployed assets—over new materials. This would increase the circular ratio, reduce waste and scrap, and help restore embodied carbon.

Actionable Step #1:

Advocate for government and private procurement guidelines that require contractors to meet specific circularity criteria as part of their sourcing and funding processes. This could include scoring systems or financial incentives for using circular assets, ensuring these principles are integrated from planning to implementation.



Data Governance and Asset Data transparency

Data Governance and Procurement Policies (continued)

The Requis case study on sourcing hard-to-find assets highlights the platform's role in advancing the circular economy and efficient asset management. An energy company required specialised valves that were no longer in production. Through Requis, the company accessed a global network of suppliers and identified the needed valves, avoiding costly delays and production halts.

The platform's marketplace enabled transparent communication and efficient transactions, demonstrating its value in connecting buyers with hard-to-find or surplus assets. By sourcing through Requis, the company saved time and money and supported circular economy principles by repurposing existing assets instead of manufacturing new ones. This case emphasises how Requis facilitates sustainable practices, ensuring that valuable materials remain in circulation, reducing waste, and promoting a more efficient, responsible approach to industrial sourcing. It showcases Requis as a critical enabler of a circular economy by transforming traditional procurement and supply chain processes.

Actionable Step #2:

Ensure proper digital tools and software are used to track materials and assets throughout the asset lifecycle. ERP and Material Management systems can often prohibit the user from organising and hosting multiple asset lists (internal and external). Equipment information and data reside in silos among different company locations. The left and right hands don't communicate, and the outcome of that dynamic is poor data quality. For many, lack of communication between project teams (maintenance, operations, procurement, and construction) across the globe causes further breakdown, resulting in scheduling delays that can derail maintenance and turnaround progress and extend downtime or prohibit circular procuring targets and other initiatives.



Local Recycling, Reuse and Re-manufacturing supply chain development

Australia's reliance on offshore recycling—especially for e-waste and ferrous metals—limits its ability to build a robust, circular economy domestically. By shifting towards local solutions, Australia can create jobs, reduce environmental impact, and retain materials within its economy. In short, we will not recycle, which is not the only measure of circularity.

Challenge:

Dependence on international markets for material recycling limits local circular initiatives. The country currently has recycling levels of 60%, mainly focused on plastics. However, many e-waste and ferrous metal recycling continue offshore due to a lack of recycling capabilities and infrastructure and the potential contamination of materials.

Opportunity:

Develop local facilities and supply chains that handle material recycling, processing, and upcycling and;

Use industrial networks and platforms to foster the adoption of technology, AI and relationships.

The Requis case study on a pipe transaction showcases how the platform facilitates efficient and sustainable asset transactions within the energy sector. A global energy company needed to dispose of a large inventory of excess pipes, and Requis provided a streamlined solution through its marketplace. The process enabled the seller to list and manage the inventory, while potential buyers could view, negotiate, and purchase the items directly on the platform.

The platform's transparency and simplicity accelerated the transaction, allowing the seller to achieve significant cost savings and reduce waste by redeploying assets rather than scrapping them.



Local Recycling, Reuse and Re-manufacturing supply chain development

Actionable Step #1:

Government investment in local recycling infrastructure and incentives for businesses to adopt local solutions can enhance Australia's circular capacity and economic resilience.

Actionable Step #2:

Developing local recycling and remanufacturing industries can create new markets and job opportunities. The case study highlights the importance of digital platforms like Requis in promoting circular economy practices, ensuring that valuable materials are reused rather than discarded, and showcasing how technology can transform traditional procurement and asset management approaches in industrial sectors.

Actionable Step #3:

Introduce maintenance and facilities management policies at the federal and state levels to focus on redeployment—Refurbish equipment before raising a requisition for new materials.

Our clients have had considerable value and return adopting this strategy through our platform and education. Our platform enhances inventory management through improved visibility, helping companies resolve inventory challenges. Traditional inventory systems often lead to inefficiencies, such as underutilised assets, stock shortages, or surplus, impacting operational efficiency and financial performance. Requis addresses these issues by offering a platform that provides real-time visibility into inventory across multiple locations and facilities.

Centralising and digitising inventory data, Requis allows businesses to track, manage, and optimise their assets more effectively. Users can access detailed information about available inventory, enabling better decision-making regarding asset utilisation, redeployment, or disposition. This approach reduces waste and supports a circular economy by ensuring that materials are repurposed or sold rather than discarded.

The platform's enhanced visibility tools minimise the risk of shortages and overstocking, leading to cost savings and operational efficiencies. Ultimately, Requis empowers businesses to maintain better control over their inventory, promoting sustainability and maximising asset value.



Talent Development and Addressing the Skills Gap

A significant skill gap is needed to support circularity, particularly in reuse capabilities, technical fabrication, and niche engineering. Addressing this gap is crucial for supporting industries adopting high-technology solutions that reduce repair costs and promote circularity.

Challenge:

The shortage of technical skills limits the capacity for innovative reuse and repair initiatives.

Opportunity:

Educational programs and apprenticeships focusing on engineering, advanced repair techniques, and sustainable design.

Actionable Steps #1:

Launching government-backed skill development programs targeting youth and the existing workforce to build capabilities in advanced repair and niche engineering technologies.

Actionable Step #2:

Indigenous Involvement

Engage with Indigenous communities to develop circular programs incorporating traditional knowledge, ensuring respectful and mutually beneficial collaboration. Aboriginal and Torres Strait Islander knowledge offers valuable insights into sustainable practices. Incorporating these practices into circular economy initiatives while protecting cultural and intellectual property can enrich and localise circular strategies. Give an example of Requis completing these initiatives in partnership with local companies in Oman and Kazakhstan to help deliver, train and upskill locals to address these challenges.

Requis has assisted local and national energy companies like PDO in Oman in facilitating circular economy practices. Requis, Arabian Industries, Worley and PDO are in their 5th year of partnership, delivering circular economy practices in the Sultanate of Oman. Our achievement of facilitating \$24 million in transactions as of March 2021 showcasing the platform's effectiveness in supporting the circular economy and efficient asset management. It emphasises how Requis enables organisations across various industries, particularly energy and construction, to efficiently buy, sell, and repurpose surplus assets.



Recommendations

Policy and Regulation: Mandate that government procurement policies for new building capital projects or asset upgrades include specific criteria for assessing the circularity of materials. These policies should require a clear preference for reused, remanufactured, or redeployed assets to ensure that projects increase the circular ratio, minimise waste, and reduce embodied carbon.

Contractor Incentives: Introduce incentives for contractors that align their sourcing practices with circular economy principles, making circularity a key determinant in the funding and sourcing processes. This could involve bonus points in tender evaluations or financial support for meeting circular targets within project timelines.

Data Governance and Transparency: Promote proper data governance across the asset lifecycle from design to decommission. Ensure all asset participants and stakeholders adhere to data governance to ensure all data required to redeploy, reuse or refurbish are available at the point of time to make the procuring decision.

Reduce the offshoring of recycling, promote the local recycling industry, and promote greater redeploying, refurbishing, and reuse practices within target geographically well-situated industries.

Long-term Planning and Compliance through developing frameworks that monitor and track contractors' circular performance throughout the project lifecycle, ensuring that short-term pressures do not undermine circular objectives.

Encourage Local Content and Indigenous participation.



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About Requis

Our Vision

Sourcing for a sustainable and circular future

Requis connects supply chains to capital project procurement, unlocking full visibility and giving you control over your company's economic and sustainability impact.

Our Mission

To build a more sustainable procurement process fuelled by circular economies that generate revenue, reduce carbon, and optimise working capital.

Our History

The origins of Requis can be traced back to a conversation between supply chain and technology professionals at a financial platform conference. Participants questioned why businesses couldn't digitally buy, sell, or track their assets as quickly as consumers do online. This dialogue, involving members of eBay and Australian engineering procurement firm Worley, sparked the idea for a next-generation supply chain platform. Incubated by Worley and a specialized technology team, Requis evolved into an independent, global network designed to streamline asset management and transactions for businesses.

Requis' focus on procurement, asset visibility, transparency and digital tracking places it at the forefront of driving industry circularity. By providing companies with a platform that tracks assets throughout their lifecycle, Requis enables informed decision-making, supports sustainable practices, and optimises resource use. This positions Requis as a key player in transforming industries towards a circular economy, helping businesses reduce waste, repurpose assets, and drive more sustainable and efficient operations.



30,000

Users



15,000

Companies



\$300M

Asset Value

Sold

(\$USD)



80,000

Assets

Uploaded