Climate Governance Initiative Australia

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Opportunities in the circular economy

A primer for Australian directors

JANUARY 2025

INTRODUCTION

The circular economy is a powerful tool for Australian organisations to achieve net zero commitments, support nature restoration, and unlock significant business opportunities. Globally, it is projected to create an estimated US$4.5 trillion in value by 2030, with a potential A$210 billion boost to Australia's GDP.[1]

Currently, Australia has the highest material footprint in the G20, the third-highest emissions footprint per capita in the OECD and the fourth lowest rate of materials productivity.[2] Each year, Australian households and businesses generate nearly three tonnes of waste per person.[3]

This resource introduces Australian directors to circular economy practices as a strategic pathway to address climate change impacts and drive sustainable business success. It provides:

1. an overview of the circular economy;
2. the context for Australia's circular transition; and
3. practical steps for boards to get started.

By leveraging circular economy principles, directors can guide their organisations towards strategic climate and nature objectives.

KEY POINTS

- Circular economy principles go beyond waste reduction, they offer a strategic pathway to long-term resilience, resource efficiency, and competitive advantage.
- Australia aims to double its circularity rate by 2035, focusing on high-impact industry sectors such as the built environment, food and agriculture, industry, and resources.
- When setting circularity goals, organisations should assess where they can make the most material impact, and ground their goals in a comprehensive analysis of what is viable and achievable.

1 Schandl, H, et al (January 2024) Australia's comparative and competitive advantages in transitioning to a circular economy. A Report to the Office of the Chief Scientist. CSIRO, Australia.

2 Minister for the Environment and Water, Tanya Plibersek MP, Statement, 23 August 2024.

3 Blue Environment, National Waste Report 2022, prepared for the Department of Climate Change, Energy, the Environment and Water.

1. THE CIRCULAR ECONOMY

Linear economic model

The current linear economy follows a 'take-make-waste' model, where resources are extracted, used, and discarded as non-recycled waste. This extractive system drives environmental harm, including land and biodiversity loss, excessive energy and water use, and greenhouse gas emissions, making waste a major contributor to climate change (Figure 1).[4]

FIGURE 1: FOUR TYPES OF WASTE IN A LINEAR ECONOMIC MODEL

WASTED RESOURCES

Use of materials and energy that cannot be effectively restored over time, such as fossil energy and non-recyclable material.

WASTED CAPACITY

Products and assets that are not fully used across their useful life.

WASTED LIFE CYCLES

Products reaching the end of life prematurely due to poor design or lack of second-life options.

WASTED EMBEDDED VALUE

Components, materials and energy not recovered from waste streams.

Source: Lacy, P, Long, J, and Spindler, W. The circular economy handbook, Palgrave Macmillan, 2020.

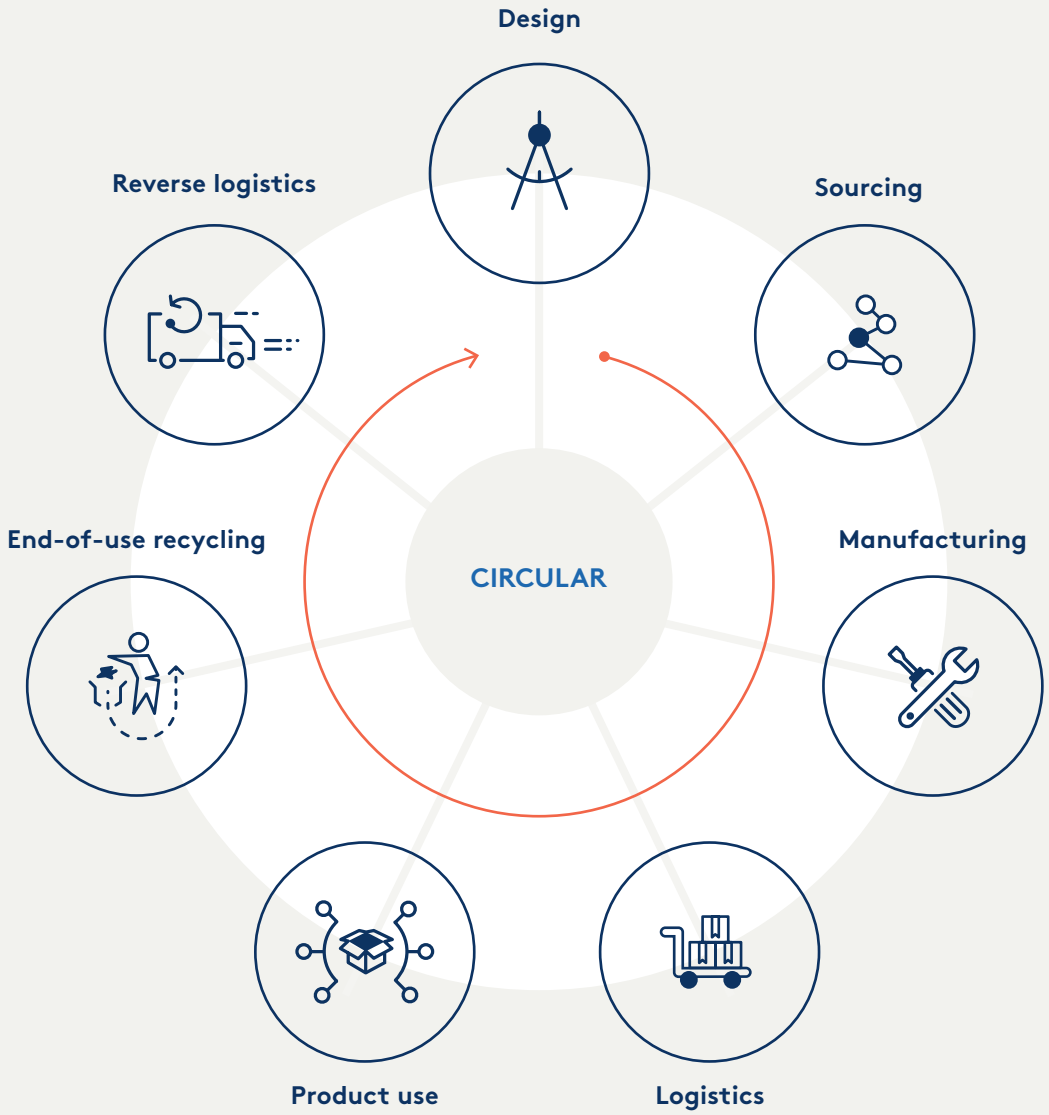
4 Lacy, P, Long, J and Spindler, W. The circular economy handbook, Palgrave Macmillan, 2020.

Circular value chain

The circular economy decouples economic growth from resource consumption by keeping products in use for as long as possible and looping them back into the system.

It drives systemic transformation, protecting and restoring land, biodiversity, oceans, and climate. Benefits can be delivered across the value chain (Figure 2).

FIGURE 2: CIRCULAR VALUE CHAIN



Source: Lacy, P, Long, J, and Spindler, W. The circular economy handbook, Palgrave Macmillan, 2020.

Benefits for organisations

Embracing circularity offers multiple benefits for organisations. Some notable advantages are outlined in Figure 3.

FIGURE 3: POTENTIAL CIRCULAR ECONOMY BENEFITS

RESOURCE EFFICIENCY

The circular economy promotes more efficient use of resources by encouraging the reuse, repair, refurbishment, and recycling of products and materials. This helps reduce dependency on finite resources and minimises waste, contributing to long-term sustainability.

COST SAVINGS

By reusing materials and components, organisations can reduce the need for raw materials, lowering production costs. This can result in significant cost savings over time.

REDUCED ENVIRONMENTAL IMPACT

By focusing on recycling, reducing waste, and minimising the use of virgin resources, organisations can significantly lower their carbon emissions, reduce pollution, and help conserve natural ecosystems.

RISK MITIGATION

By reducing reliance on virgin materials, organisations are less exposed to commodity supply chain disruptions and price volatility.

CONSUMER PREFERENCE

Consumers have expressed a clear preference for circularity. In Australia, 64 per cent of consumers want business to do more to embrace the circular economy.[5] Australian businesses can also benefit from the rising global demand for sustainable products, increasing trade opportunities.

5 Commonwealth Bank of Australia (2022), The impact of business-led actions on future consumers.

CASE STUDY: LEVERAGING TECHNOLOGY FOR CIRCULARITY

Through technology and a sustainability education program for all employees, Coles Group has reported the following sustainability outcomes, that have also helped to reduce greenhouse gas emissions:

18,206
tonnes of food waste donated through flood relief.

32,483
tonnes of food waste avoided through farmer programs.

25,921
tonnes of food waste converted into compost.

Key enablers of these initiatives include data-driven tools, a waste-tracking dashboard, and daily sustainability huddles across stores engaging 100,000 team members. Each Coles store has a dashboard providing waste metrics and insights, providing a high-level view of progress across all stores that allows management to spot areas in need of support.

CAPABILITY: QUESTIONS FOR DIRECTORS

As organisations look to adopt circularity principles, directors should consider the following questions in consultation with management:

- What training or information would help the board, executive and management teams build their understanding of circular economy practices?
- Does our board have the appropriate skills and information to assess how circularity could affect our organisation?
- What can we learn from industry networks, peers, and partners?

CASE STUDY: FIRST NATIONS KNOWLEDGE FOR A SUSTAINABLE AND CIRCULAR ECONOMY

First Nations knowledge offers insights for addressing environmental challenges and advancing a circular economy.

The Circular Economy Ministerial Advisory Group (CEMAG) was established in February 2023 to advise the Australian Government on opportunities and challenges in the transition to a more circular economy. It highlights that First Nations knowledge systems embody a respectful relationship with land, water, and biodiversity, supporting circular economy goals through regenerative practices such as cultural burning, water stewardship, and traditional land management. Integrating these knowledge systems into circular economy transitions offers new pathways for sustainable resource management and economic growth.

The **Country-Centred Circular Economy**, developed by GoodHuman, is a framework that guides organisations in applying First Nations principles of connection and care for Country to circular economy practices, creating a holistic approach to resource management.

Source: Australia Circular Economy Hub, Using old learnings for a new thriving economy, March 2023; Circular Economy Ministerial Advisory Group (2024) **Final Report: The Circular Advantage.**

2. ENABLING A CIRCULAR ECONOMY TRANSITION IN AUSTRALIA

The opportunity

Australia's circularity rate – the rate of resource reuse and recycling – is about four per cent, or half the global average of around eight per cent.[6] Australian organisations currently spend $1.4 billion annually to dispose of $26.5 billion in landfill materials.[7]

Embracing circular practices could boost GDP by A$210 billion, create 17,000 jobs by 2050, and improve resource efficiency.[8] Research by ACSI underscores its potential to also achieve net zero emissions:[9]

- Circular practices in steel, aluminium, cement, plastics, and food could cut 9.3 billion tonnes of emissions by 2050.
- Global circular economy funds reached US$8 billion in 2021, offering financial and regulatory advantages for investors and businesses adopting these principles.
- Investors and companies that support and adopt circular principles could benefit from the transition and mitigate the effects of future, stricter regulation.
- Circular economy offers complementary solutions to manage some biodiversity and nature loss risks and should be viewed as an avenue for addressing issues of nature loss and climate change.

Regulatory context

Australia's federal government is pursuing decarbonisation and resource productivity strategies to meet 2030 and 2050 emissions targets, aiming to double the economy's circularity by 2035. Doubling circularity could reduce emissions by up to 23 per cent by 2050 and unlock opportunities to repurpose waste. The Australian Circular Economy Framework outlines three key goals:[10]

1. Reduce per capita material use by 10 per cent by 2035.
2. Increase material productivity by 30 per cent by 2035.
3. Safely recover 80 per cent of resources by 2030 (up from 63 per cent).

The Framework targets four high-impact industry sectors: the built environment, food and agriculture, industry, and resources. Organisations in these industries are more likely to be affected by circular regulation. However, they also stand to gain significant benefits by adopting circular economy practices.

The CEMAG recommends Australia support place-based circular transformation, integrate circular principles into sustainable finance and corporate strategies and use public procurement to grow and diversify markets.[11] CSIRO's 2024 report recommends mandating government procurement of circular products.[12]

At the state level, legislation such as Victoria's Waste Reduction and Recycling Act 2021 reinforces circular economy reforms, particularly targeting packaging, to address the three million tonnes of plastic waste sent to landfill annually. Industry submissions to a **Productivity Commission** consultation support greater coherence across related policy frameworks, including the national harmonisation of state and territory product stewardship schemes to better support circularity.

REGULATORY ENVIRONMENT: QUESTIONS FOR DIRECTORS

Following the introduction of mandatory climate reporting and increased focus on circularity by the federal government, Australian directors should consider the following questions in consultation with management:

- Is our organisation captured by Australia's mandatory climate reporting regime? If yes, how are we addressing waste and embodied carbon* metrics? Could circular practices help reduce our waste and embodied carbon?
- What regulatory developments are relevant to our business, in Australia and overseas?

* Embodied carbon refers to the total amount of carbon dioxide emissions associated with the production, transportation, and disposal of a material or product throughout its entire life cycle, from raw material extraction to manufacturing, installation, and end-of-life disposal or recycling. In the construction industry, the embodied carbon of a building would include emissions from producing concrete, steel, or glass, transporting those materials to the site, and assembling the structure.

6 CSIRO (2024) **Australian material flow analysis to progress to a circular economy.**
7 Circular Australia (2024) **Unlocking circular markets in Australia.**
8 KPMG (2020) **Potential economic pay-off of a circular economy.**
9 ACSI (2024) **ACSI 2023-24 Stewardship Report.**
10 Commonwealth of Australia (2024) **Australia's Circular Economy Framework: Doubling our circularity rate.**
11 Circular Economy Ministerial Advisory Group (2024) **Final Report: The Circular Advantage**; further details to be released in a Productivity Commission report in 2025.
12 CSIRO (2024) **Australia's circular economy comparative and competitive advantages.**

Developments in disclosure

Although circular practices are not mandated in Australia, organisations are incentivised to adopt them as part of mandatory climate-related financial disclosures, which commenced in January 2025 with large companies and will continue to expand over time.[13]

Internationally, a notable recent development in circular economy measurement and disclosure is the European Commission's adoption of updated versions of the European Sustainability Reporting Standards (ESRS). From 2024, disclosures on material resource use and the circular economy became mandatory for approximately 50,000 companies in Europe under the Corporate Sustainability Reporting Directive (CSRD).

In June 2023, the International Sustainability Standards Board (ISSB), established at the UN Climate Change Conference in 2021, issued its first set of global standards for sustainability-related disclosures (IFRS S1 and IFRS S2), integrating sustainability and financial reporting.[14] While these standards touch on circular themes – such as resource efficiency and recycling – the focus on circular measurement and reporting remains limited, a trend also reflected in the Task Force on Climate-related Financial Disclosures.

Australia's unique conditions for the transition

Australia's shift to a circular economy is shaped by unique local factors, including the voice and knowledge of First Nations people, limited infrastructure, geographic isolation, scarce onshore manufacturing, emerging government support, an export-oriented economy, fragile ecosystems and one of the highest rates of species extinction. Despite challenges, Australia has some unique advantages that will inform and guide its transition, including a sophisticated research ecosystem, materials innovation excellence, a highly skilled workforce, robust industrial design capabilities, high recycling rates and a culture that cares.[15]

Insights from sustainability leaders highlight that Australian companies need not wait for government action to adopt circular models.[16]

Key immediate steps include:

1. **Consumer engagement:** Encouraging sustainable consumption and behaviours.
2. **Design:** Creating products for durability, clarity, and recovery.
3. **Reverse logistics:** Building takeback systems to close the loop.
4. **Ecosystem involvement:** Partnering with networks to scale circularity.
5. **Disruptive technologies:** Using innovative tools to optimise resources and unlock opportunities.

CASE STUDY: FOR-PURPOSE ORGANISATION PRIORITISING CIRCULAR PRACTICES

Good Sammy Enterprises (Good Sammy) is a large Western Australian charity that operates social enterprises to create employment opportunities for people with disabilities.

Good Sammy has prioritised circular economy practices, achieving the following sustainability outcomes in 2024:

- Accepted over 5,200 tonnes of textiles and household goods for reuse.
- Diverted from landfill almost 80 per cent of textiles and other goods received in donations, while adapting practices to reduce waste and extend the life of items through re-sale and re-use.
- Collected 160 million containers through the Containers for Change program, making it the largest not-for-profit collector in the state.
- Completed its third independently verified comprehensive carbon footprint assessment, covering scope 1, 2, and 3 emissions.

13 AICD, Deloitte and MinterEllison (2024) A director's guide to mandatory climate reporting | Version 2.
14 IFRS (2023), ISSB issues inaugural global sustainability disclosure standards.
15 Commonwealth of Australia (2024) Australia's Circular Economy Framework: Doubling our circularity rate.
16 Climate Leaders Coalition (2024) Towards a circular Australia playbook.

3. HOW BOARDS CAN GET STARTED

Understand the opportunities and challenges for your organisation

As with any strategic transformation, it is fundamental for directors to understand what the circular economy is and how it aligns with an organisation's existing business model and strategy. This may require engaging experts or others in the sector to better understand both the opportunities and challenges.

Setting clear goals that have the greatest impact for your organisation

Once the opportunities and challenges are understood, the board should consider setting an overarching goal and vision for a successful circular transition, in consultation with management.

When setting circularity goals, organisations should assess where they can make the most material impact, such as identifying points in the value chain where the most waste occurs and where there is the greatest potential for mitigation (e.g. waste prevention may be most effective in the design phase of the business).

Clear KPIs can help track the progress and effectiveness of circularity initiatives towards achieving net zero and nature positive targets, and financial objectives. As with climate and nature targets,[17] circular goals should be grounded in a comprehensive analysis of what is viable and achievable.

CASE STUDY: EXAMPLES OF OUTCOME KPIs THAT SPAN THE VALUE CHAIN

PATAGONIA

100 per cent recycled, reclaimed or renewable resources in apparel by 2025.

GSK

Zero operational waste, including eliminating single-use plastics, by 2030.

MICROSOFT

By 2025, 90 per cent of servers and components within regional data centre networks will be reused.

PHILIPS

By 2025, generate 25 per cent of revenue from circular products, services and solutions.

Sources

Patagonia: **Our Environmental Responsibility Programs** | GSK: **ESG Performance Report** | Microsoft: **Environmental Sustainability Report**
Philips: **The circular imperative**

GETTING STARTED: QUESTIONS FOR DIRECTORS

For organisations beginning their journey toward circular economy practices, directors may wish to consider the following questions in consultation with management:

- How can circular economy practices align with our overarching strategy? How can they support our net zero and broader sustainability goals (e.g. reducing our impacts and dependencies on nature)?
- Where can circularity have the most impact for our organisation (e.g. where is the greatest potential to reduce waste in our value chain)?
- Are there opportunities to collaborate with industry partners or competitors to share resources, knowledge, and best practices for circularity?

For organisations ready to develop circular economy goals, the following questions may assist:

- What are the circular economy goals we want to achieve? How do these goals align with our broader sustainability and business objectives?
- What metrics will help us evaluate success, and how will we report on our progress (whether internally and/or externally)?

17 AICD, Insurance Council of Australia, Herbert Smith Freehills (2024) Principles for setting climate targets: A guide for Australian boards.

Adopt circular business models

To activate your circular strategy, there are several helpful business models (Figure 4) and enablers to leverage (Figure 5).

FIGURE 4: CIRCULAR BUSINESS MODELS CAN BE MAPPED ACROSS THE VALUE CHAIN

CIRCULAR INPUTS

Using renewable sources, bio-based materials and artificial materials that are recycled or highly recyclable to enable partial or total elimination of waste.

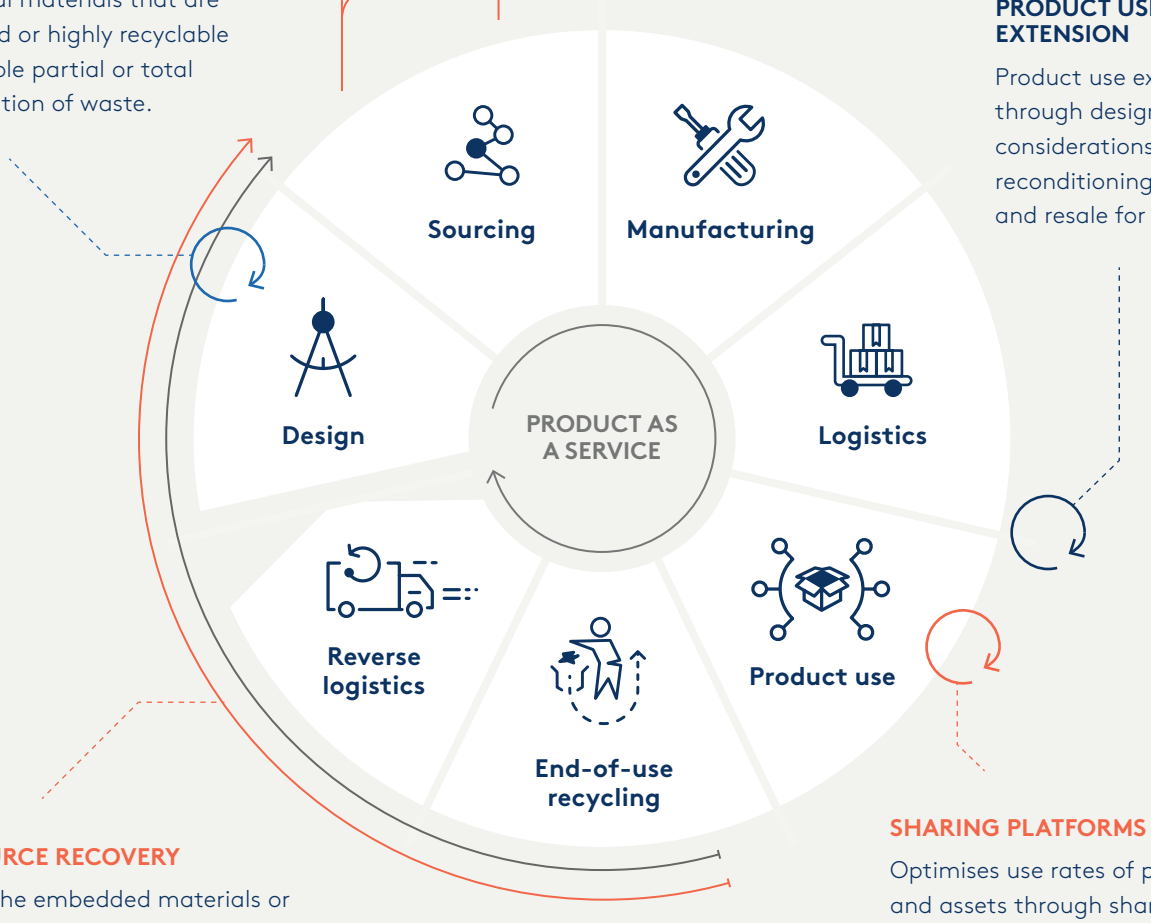
RESOURCE RECOVERY

PRODUCT AS A SERVICE

Retaining ownership of products and selling benefits through a service model.

PRODUCT USE EXTENSION

Product use extended through design considerations, repairs, reconditioning, upgrades and resale for second use.



RESOURCE RECOVERY

Using the embedded materials or energy at the end of use of a product and recovering through collection, aggregation and processing.

SHARING PLATFORMS

Optimises use rates of products and assets through shared ownership access and use.

Source: Lacy, P, Long, J and Spindler, W. The circular economy handbook, Palgrave Macmillan, 2020.

Leverage collaboration

The circular economy is a transformative shift that demands collaboration across sectors, value chains, and stakeholder groups. Organisations can share infrastructure for recycling, develop secondary marketplaces, support research to shape policy, and co-finance innovative solutions – sharing both risks and benefits. For example, Australia's **Product Stewardship Centre of Excellence** supports industry in building networks to drive national, industry-led schemes.

Directors should explore opportunities to collaborate with industry partners or competitors to share resources, knowledge, and best practices for circularity. This may require careful consideration of competition law constraints.[18]

A circular organisation – better practice

For organisations prioritising circular systems, success relies on deeply embedding circular principles across the organisation. Clear governance and leadership are essential to align the entire organisation with circularity goals, with responsibility extending beyond the sustainability function.

Embedding circularity in the mandate of key roles can drive organisational change – for example, a chief marketing officer promoting circularity in messaging, a CFO reporting on circularity outcomes, and a CTO deploying tools to advance circular operations. Leadership from the top can drive this transformation, ensuring an understanding of circularity's holistic impact, business implications, and trade-offs.

This internal commitment should be matched by promoting circularity externally, and collaborating with partners, suppliers, and peers to foster systemic change. Upskilling directors and management may be necessary, along with engaging the workforce through circular economy training and awareness initiatives to support the cultural shift needed for transformation.

FIGURE 5: FIVE KEY ENABLERS

CONSUMER ENGAGEMENT
Redefine what the consumer actually values through the use of the product and anticipate evolving customer demand to drive new behaviours.

DESIGN
Design products to enable longer use cycles and end-of-use recovery.

REVERSE LOGISTICS
Create take back loops by managing the return and recovery of products back into the value chain.

SYSTEMS
Engage within and across industries and sectors and with policy makers and other societal stakeholders to build new networks to boost and scale circularity.

DISRUPTIVE TECHNOLOGIES
Accelerate by using Fourth Industrial Revolution* innovations to enable the smart use of resources and create new opportunities.

* The Fourth Industrial Revolution can be characterised by the merging of technologies that blur the boundaries between digital, physical and biological disciplines. (Sources: Schwab, K, The Fourth Industrial Revolution: what it means, how to respond, World Economic Forum Agenda blog, 2016 & Lacy, P, Long, J and Spindler, W. The circular economy handbook, Palgrave Macmillan, 2020.)

CASE STUDY: ADOPTING A REGIONAL APPROACH TO CIRCULAR ECONOMY

The Bega Valley in New South Wales aims to become a leading circular regional economy by the end of the decade. To achieve this, the Regional Circularity Co-operative (RCC) – established in 2021 by Bega Group in collaboration with Rabobank, other organisations, and the community – launched the Bega Circular Valley 2030 program.

This initiative features a 10-year roadmap with pilot projects, place-based initiatives, and a business case to transition the local economy to circular practices while enhancing community resilience.

The RCC collaborates with partners across community, business, academia, and government on various projects, including:

- Constructing the National Centre for Circularity in Bega, funded by the NSW Government and Bega Group;
- Developing programs in fisheries, aquaculture, and agriculture with partners such as the Fisheries Research and Development Corporation (FRDC); and
- Implementing on-farm carbon plans.

18 In December 2024, the ACCC released a guide for business to assist businesses and other entities considering working together to achieve positive sustainability outcomes.

SUMMARY OF QUESTIONS FOR DIRECTORS

Capability	• What training or information would help the board, executive and management teams build their understanding of circular economy practices?
	• Does our board have the appropriate skills and information to assess how circularity could affect our organisation?
	• What can we learn from industry networks, peers, and partners?
Regulatory environment	• Is our organisation captured by Australia's mandatory climate reporting regime? If yes, how are we addressing waste and embodied carbon metrics? Could circular practices help reduce our waste and embodied carbon?
	• What regulatory developments are relevant to our business, in Australia and overseas?
Getting started	• How can circular economy practices align with our overarching strategy? How can they support our net zero and broader sustainability goals (e.g. reducing our impacts and dependencies on nature)?
	• Where can circularity have the most impact for our organisation (e.g. where is the greatest potential to reduce waste in our value chain)?
	• Are there opportunities to collaborate with industry partners or competitors to share resources, knowledge, and best practices for circularity?
	• What are the circular economy goals we want to achieve? How do these goals align with our broader sustainability and business objectives?
	• What metrics will help us evaluate success, and how will we report on our progress (whether internally and/or externally)?

RELEVANT RESOURCES

- Commonwealth of Australia (2024) **Australia's Circular Economy Framework: Doubling our circularity rate.**
- Circular Economy Ministerial Advisory Group (2024) **Final Report: The Circular Advantage.**
- **Corporate circular target-setting guidance**: A 2022 partnership between the Platform for Accelerating the Circular Economy (PACE) and Circle Economy, supported by Accenture.
- CSIRO, Australia (2024) **Australia's comparative and competitive advantages in transitioning to a circular economy. A Report to the Office of the Chief Scientist.**
- Climate Leaders Coalition (2024) **Towards a circular Australia playbook**.

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ABOUT THIS RESOURCE

This is an adaptation of **Climate Governance and the Circular Economy: A Primer for Boards**, originally published in October 2023 by the Climate Governance Initiative (CGI) and the World Economic Forum (WEF), in collaboration with Accenture.

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ACKNOWLEDGEMENT OF COUNTRY

The Australian Institute of Company Directors acknowledges the Traditional Custodians of the Lands on which we are located and pay our respects to the Elders, past and present. We acknowledge the First Nations people across this Country and recognise their unique cultural and spiritual relationships to the Skies, Land, Waters, and Seas and their rich contribution to society.

ABOUT US

The Australian Institute of Company Directors is committed to strengthening society through world-class governance. We aim to be the independent and trusted voice of governance, building the capability of a community of leaders for the benefit of society. Our membership includes directors and senior leaders from business, government and the not-for-profit sectors.

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Accenture Sustainability is a global consulting business helping the world's leading organisations simultaneously become more sustainable and competitive. Accenture was ranked the #1 Sustainability Consulting firm in 2024 by Forbes, recognised in Sustainability enablement technology services by Everest Group's Peak Matrix 2024, and as a Leader in CSRD compliance in 2024 by ICD.

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