



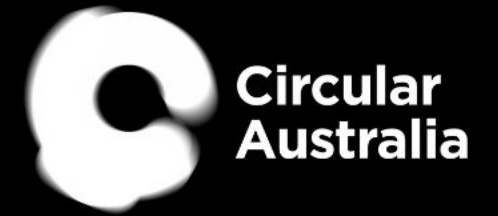
Building our Future with Circular Solutions



CIRCULAR AUSTRALIA

Lisa McLean

Managing Director & CEO
Circular Australia



We acknowledge the Traditional Custodians of the land on which we stand today.

We recognise their continuing connection to land, water and community and pay respects to Elders past, present and emerging.

We support an indigenous voice to Parliament.



THE GLOBAL ECONOMY IS NOW ONLY 7.2% CIRCULAR

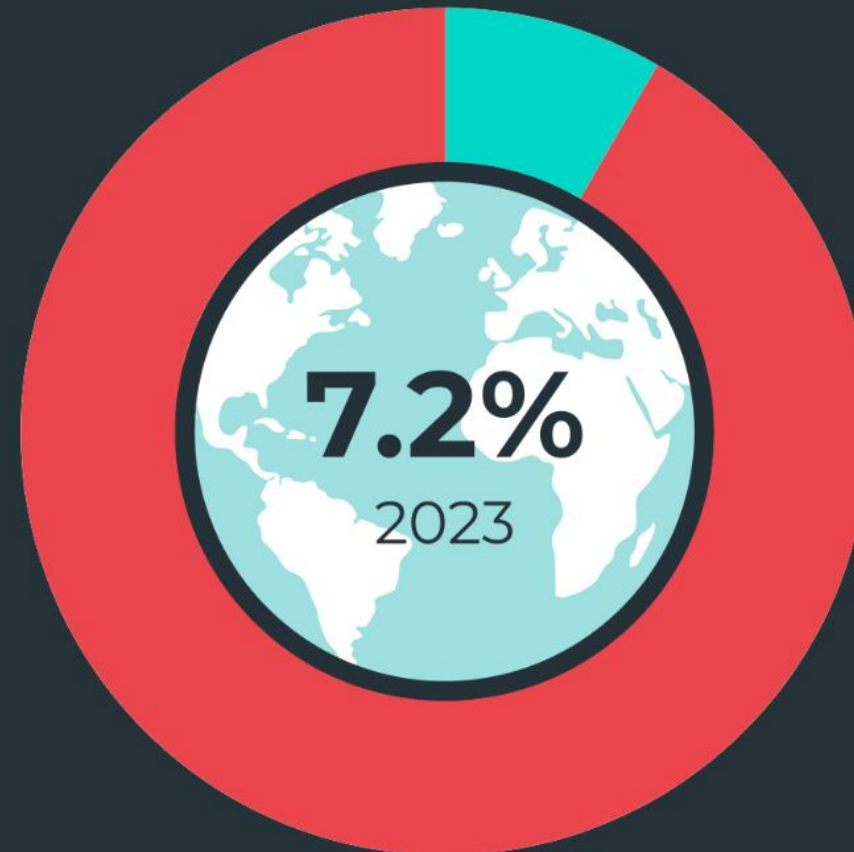
The global situation is getting worse year on year—driven by rising material extraction and use.

Rising material extraction has shrunk global circularity: from 9.1% in 2018, to 8.6% 2020, and now 7.2% in 2023. This leaves a huge Circularity Gap: the globe almost exclusively relies on new (virgin) materials.

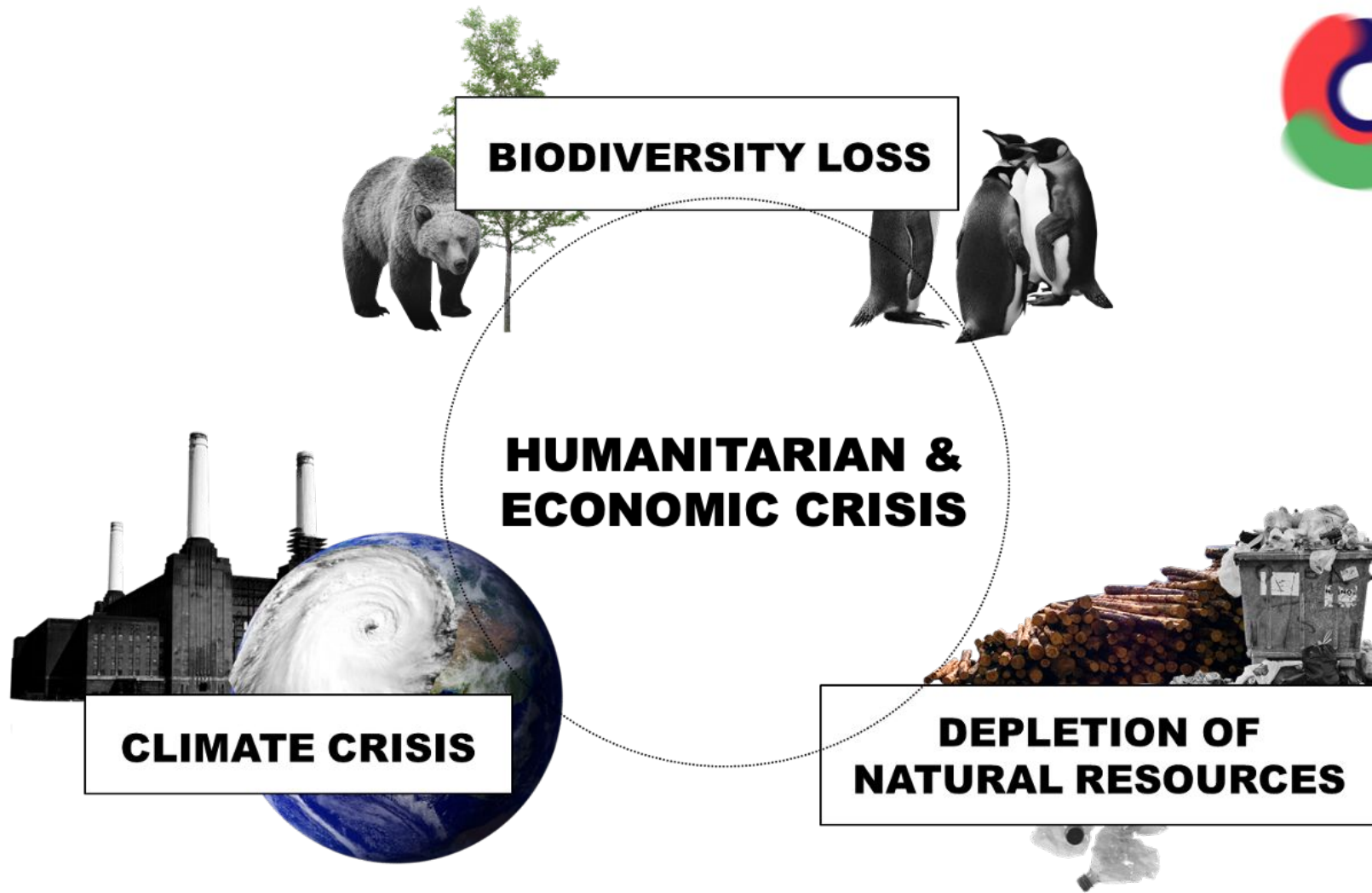
This means that more than 90% of materials are either wasted, lost or remain unavailable for reuse for years as they are locked into long-lasting stock such as buildings and machinery.

[How do we measure circularity? ↗](#)

Images attributed to Circular Gap Report



Materials that are cycled back into the global economy after the end of their useful life, otherwise known as secondary materials, account for 7.2% of all material inputs into the economy—this is the Circularity Metric.



What is the Circular Economy?



The circular economy decouples economic growth from the consumption of finite resources, designing waste out of the system.

What is the Circular Economy?

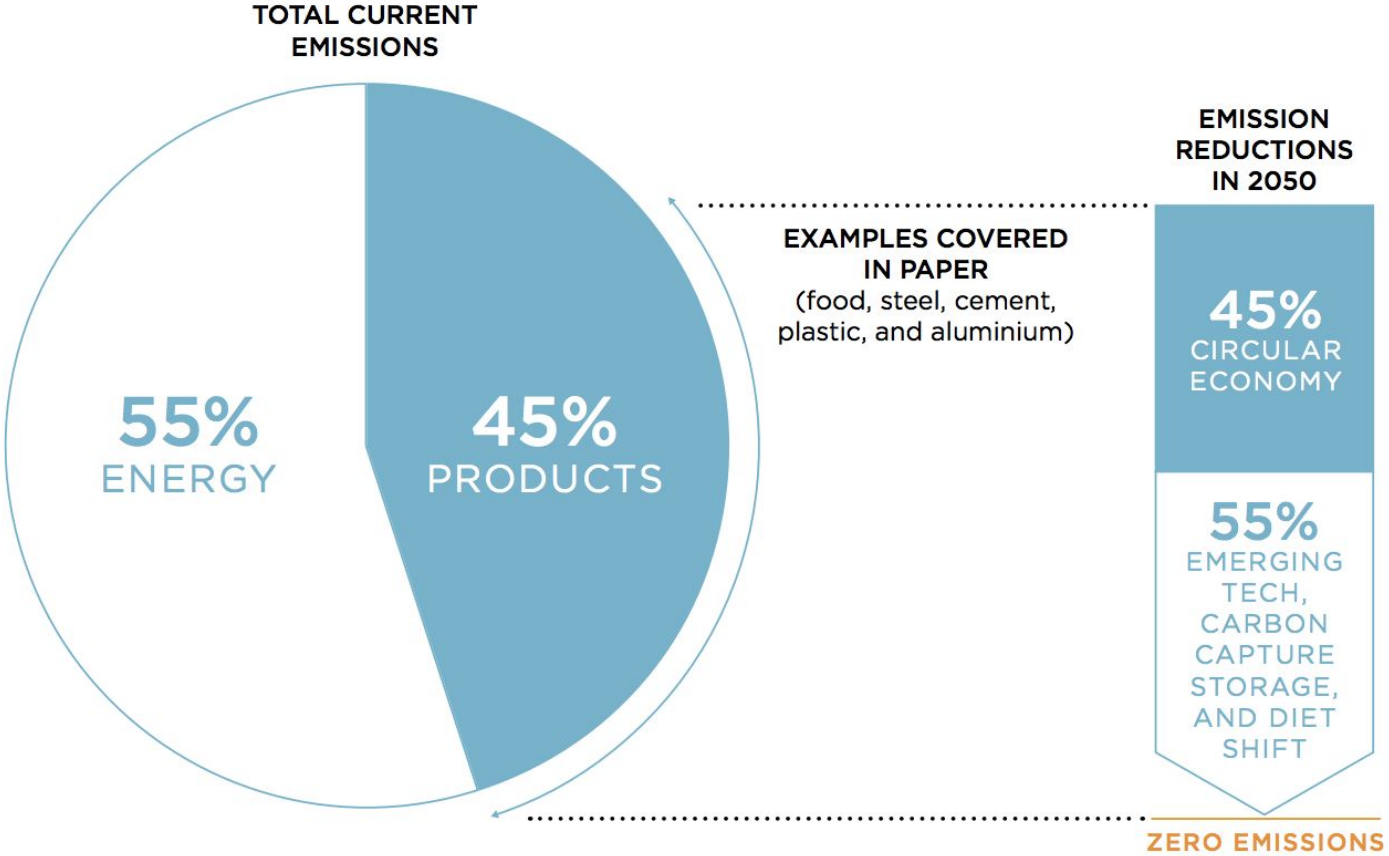


Circular Economy is based on three principles:

1. Design out waste and pollution at every stage of production, use and end-of-life..
2. Keep products and materials in use at their highest possible value.
3. Regenerate natural systems for example through water, food, organics recycling, the removal of toxic waste, tree planting.

Circular Australia support an Australian circular economy that matches environmental goals with social ambitions.

Tackling 45% of overlooked emissions



Completing the Picture: How the Circular Economy Tackles Climate Change, Ellen MacArthur Foundation

Circular Economy Hierarchy

High

Low

Refuse	Prevent raw materials use (Remove toxic materials/chemicals)
Reduce	Decrease raw materials use
Redesign	Reshape product with circular principles
Reuse	Use product again
Repair	Maintain & repair product
Refurbish	Revive product
Remanufacture	Make new from second hand product
Re-purpose	Reuse product but with other functions
Recycle	Salvage material streams with highest possible value
Recover	Incinerate waste with energy recovery



**Circular
Australia**



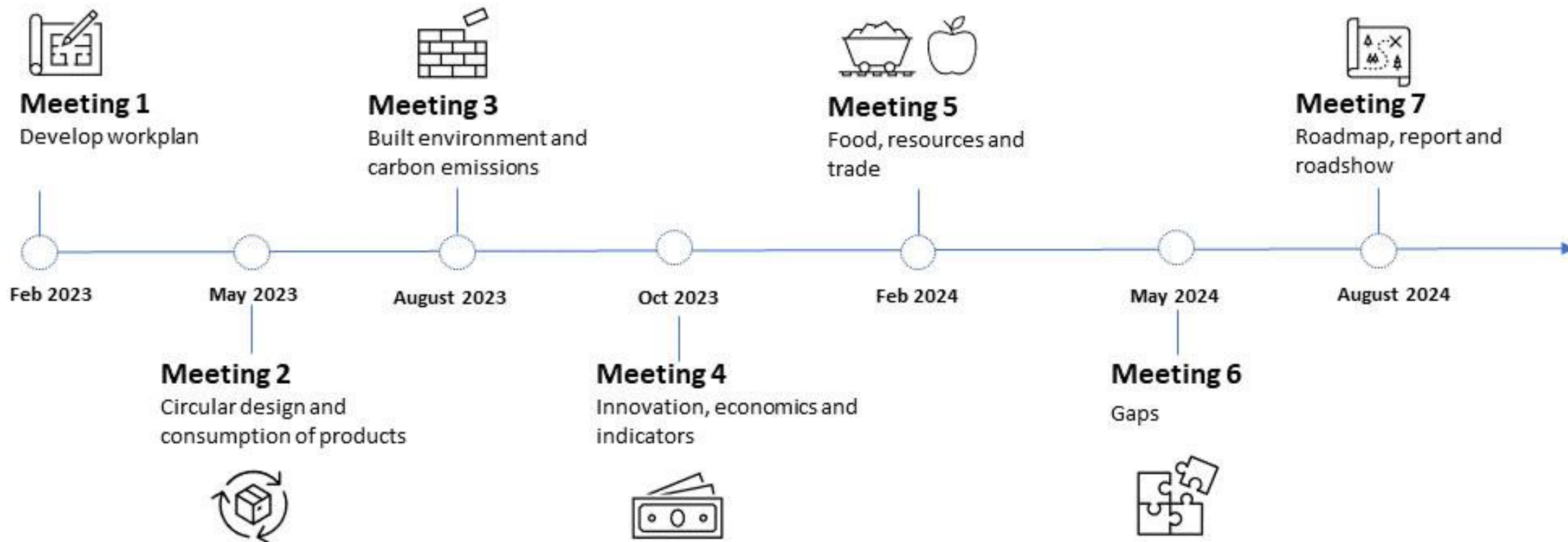
Australia has a target to develop a Circular Economy by 2030



Australian Environment Ministers Oct 22

“work with the private sector to design out waste and pollution, keep materials in use and foster markets to achieve a circular economy by 2030.”

Developing a Roadmap: CE Ministerial Advisory Group



A \$2 trillion economic opportunity



\$1.9 trillion

Australian
estimated
economic boost
over the next 20
years from circular
solutions



100,000s

number of new full
time jobs the
circular economy
can generate in
Australia

**\$15B National
Reconstruction
Fund**

Made in Australia
Re-Made in Australia
Buy Australian

What are some of the key sectors that will catalyse the CE in Aust?

Infrastructure

Infrastructure development presents a significant opportunity to deploy recovered materials. This delivers multiple benefits: from reduced waste transport costs and landfill fees, environmental benefits of reusing low-impact materials, to harvesting the commercial value and demand for sustainability certifications such as Green Star ratings

Regional precincts

Special Activation Precincts such as Parkes (which will be Australia's first UNIDO Eco-Industrial Precinct embedding the principles of circular economy and sustainability) are ideal for embedding circular economy in precinct planning.

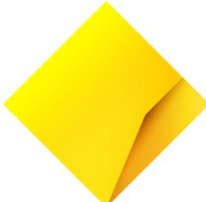
Households

Households can not only reduce their carbon footprints and household expenditure by reducing their waste. They also play an important role in driving consumer demand for circular markets through consumer demand, community expectations and behaviour change.

Manufacturing

The circular economy can be the key to not only at building up Australia's manufacturing self-sufficiency, but our materials sufficiency. Thriving local recycling industries in critical materials can potentially offer more secure and sustainable access to input materials. This can mitigate the economic and environmental costs of mining virgin materials, and also increase the productive lifecycles of materials already in circulation.

Consumers want CE products



Circular Economy

The impact of business-led action on future consumers



Consumer viewpoint

64%

want businesses to do more to embrace the circular economy



Business-led action

Shifting mindset to adopt circular principles and embed more sustainable practices

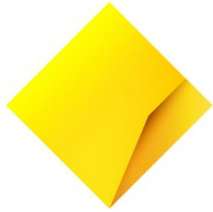









Opportunity

Increase impact and align to current and future consumer expectations

Unused household Items

The number of items consumers own not used in 12 months

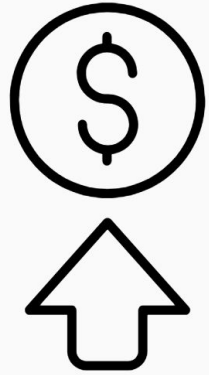


	None	1-5 items	6-10 items	11-20 items	20+
 Fashion items, including clothing and footwear	14%	25%	23%	19%	19%
 Printed books, games, music, and media such as vinyl records, tapes	19%	21%	16%	13%	31%
 Recreational goods such as fitness equipment, sporting goods, camping, fishing, surfing, or boating gear	38%	42%	13%	5%	2%
 Homewares and household appliances including furniture, TVs, small kitchen appliances, washing machines, dryers	45%	39%	10%	4%	2%
 DIY, building and garden tools and equipment, including lawn mowers, power tools, chainsaws	46%	37%	11%	4%	2%
 Consumer electronics including computers, tablets, smartphones	49%	39%	7%	3%	2%
 Motor vehicle parts and accessories, including engine parts, batteries	72%	18%	6%	2%	2%

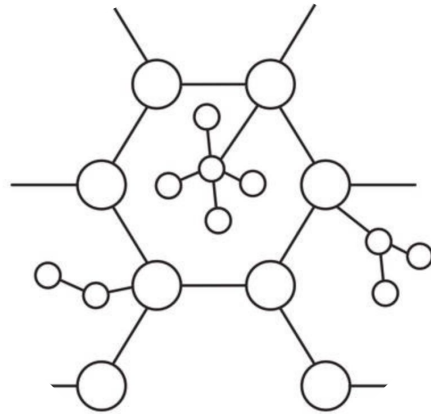


the 38% of consumers with more than 10 items of unused clothing collectively have at least 146 million items sitting in their closets.

New Circular Supply Chain Alliances



Potential to
scale



Consistent with
public policy
settings and
expert advice

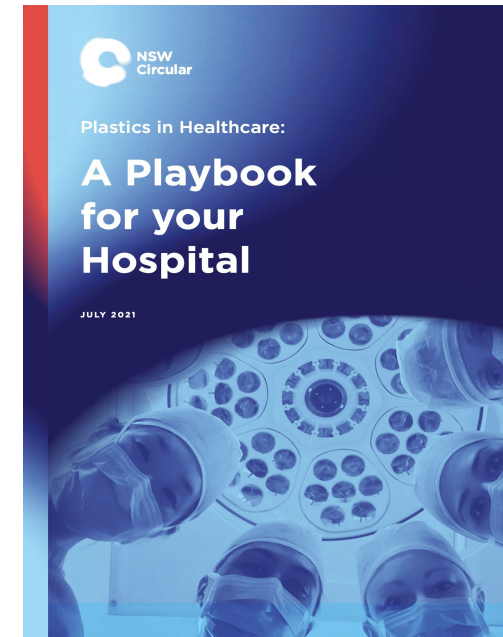
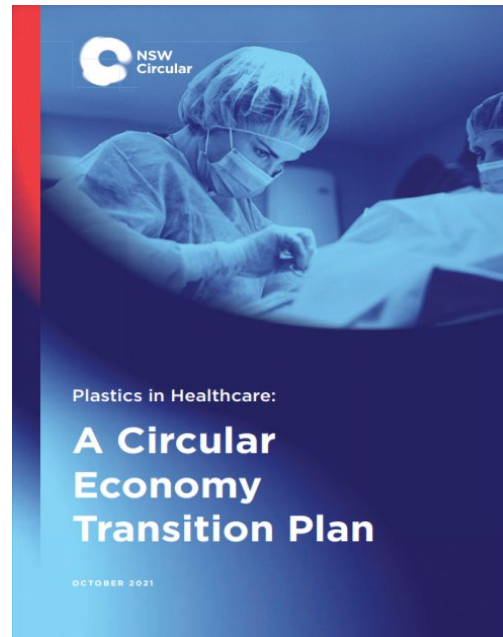


A problematic
waste stream
containing a
potentially
valuable
resource



Opportunity for
new
collaborations

Circular Plastics in Healthcare



Circular Plastics in Healthcare



- NSW Hospitals generate waste the size of the Sydney Harbour Bridge
- Costing the NSW Government at least \$16M to dispose of
- 80,000 pieces of clinical waste plastic were collected in 3 months
- By recycling just 40-60 percent of the clinical waste currently incinerated or landfilled, NSW hospitals could **create annual savings equivalent to the cost of hiring 40 nurses**

Australia's healthcare system has a carbon footprint equivalent to 7% of the nation's total, with supply chains accounting for the majority of the sector's total emissions.

Measuring action

How we use materials



Australia has the third highest material consumption rate in the world.

Australia has the third highest material consumption rate in the world (38 tonnes/capita), well above the global average (12 tonnes/capita).



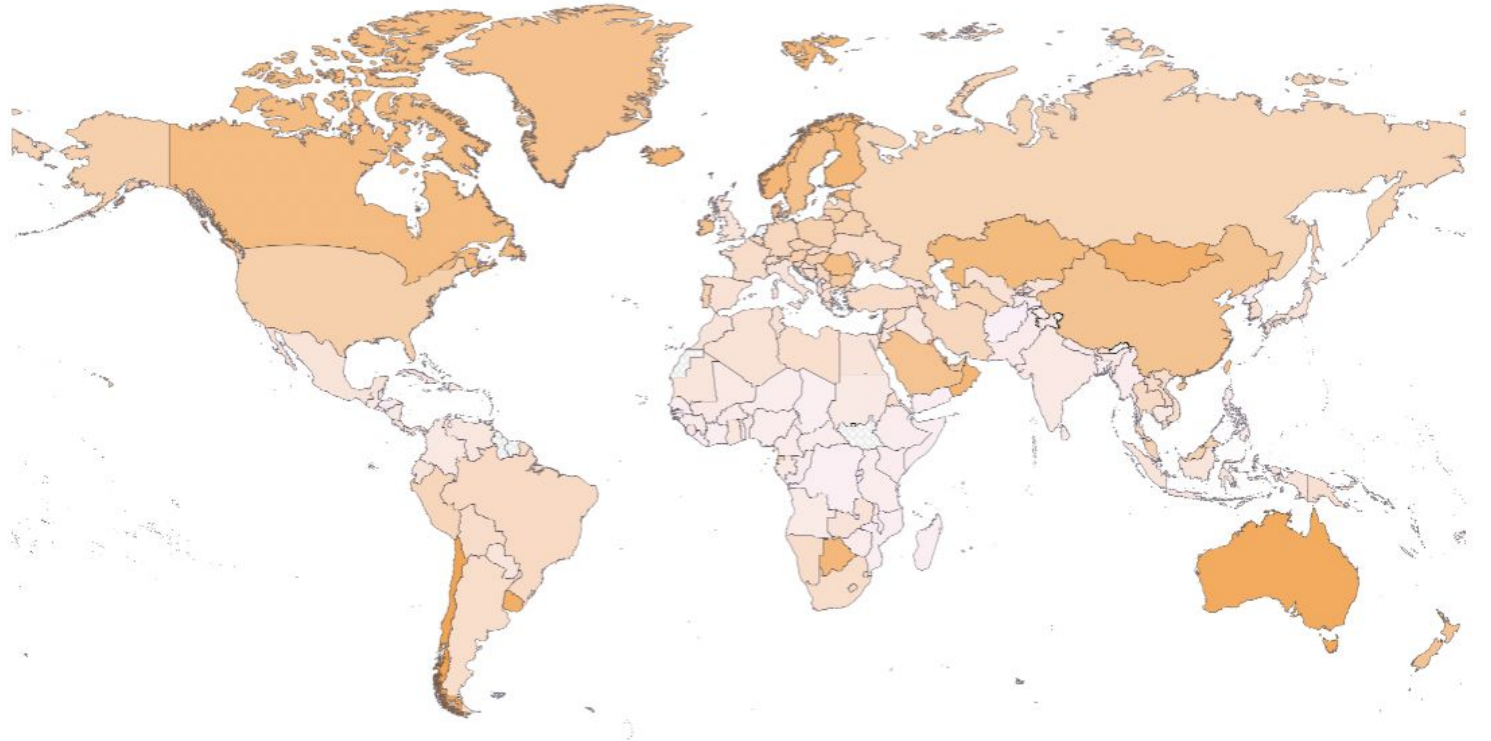
For every kilogram of materials consumed, Australia generates economic output of US\$1.28.

This is below the world average (US\$1.55 per kg materials consumed). We can do more to extract value from the materials we consume, before we dispose of them.

Global Material Consumption and Productivity

Material Consumption (tonnes/capita) ▾

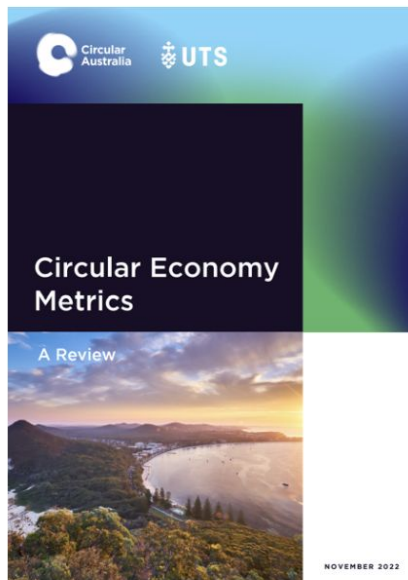
1.28  48.3



Circular Economy Metrics

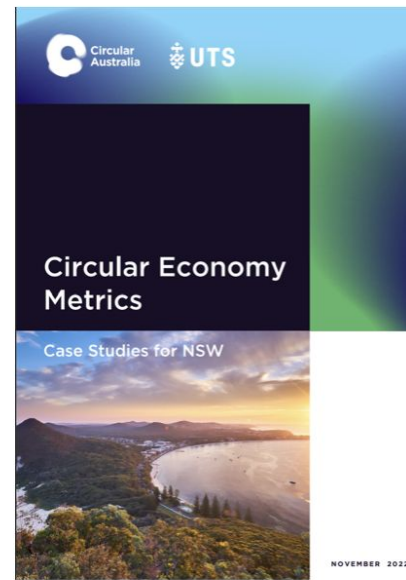


31 potential circular economy metrics across:
material use, energy, greenhouse gas emissions, jobs, investment,
water, and the natural environment



Circular Economy Metrics: A Review

[Download report](#)



Circular Economy Metrics: Case Studies for NSW

[Download report](#)

Circular Economy Metrics



31 potential circular economy metrics across:
material use, energy, greenhouse gas emissions, jobs, investment,
water, and the natural environment

- 1. Carbon savings from recycling**
- 2. New investment in recycling infrastructure and capabilities capacity**
- 3. Sustainable procurement**
- 4. Industrial ecology performance in business networks**
- 5. Jobs in reuse, repair, and recycling**
- 6. The Circularity gap on how far we need to go in economy-wide material flows**

Why we need a dedicated peak body on circular economy

- Represent the many diverse voices
- Transition brokering across sectors & systems
- Collaborating to scale
- Evidence-based data on economics, definitions & metrics



Mission

Our mission is to fast track the circular economy in Australia to 2030.



Vision

An Australian circular economy driving job creation and economic prosperity, reducing emissions and improving the environment.

Circular Australia Strategic Priorities



Circular Metrics & Economics

The case for circular economy

We will provide transparent and open circular economy evidence to the market, with metrics.



Circular supply chains

How we create it

We will help deliver new circular economy markets, infrastructure and services.



Collaboration

Making it happen

We will work collaboratively to remove barriers and scale the circular economy.



Training & Accreditation

Building capability

We will help organisations get up-to-date circular economy knowledge, skills and verification.

Collaboration: Circular Australia Taskforces



National Circular Economy Council

Australian State and Territory Government Council

