



# THE CIRCULAR ECONOMY

We're excited to introduce you to a transformative concept that's redefining our resource management – the Circular Economy. This innovative approach challenges the conventional “take-make-waste” model and ushers in a sustainable solution for our resource consumption. Let's delve into the essence of the Circular Economy and understand its relevance to our community.



## What is the Circular Economy?

The Circular Economy reimagines our approach to resource management and economic growth. Unlike the traditional linear model of “take-make-waste,” the Circular Economy aims to create a regenerative system where products, materials, and resources are continually reused, repurposed, and regenerated.

This new approach sees economic progress move away from depleting limited resources, and instead to encouraging sustainability and reducing environmental impact. At the heart of the Circular Economy lies the idea of maximising the value of resources and minimising waste. It focuses on designing products that last and are easy to repair, so materials can be repurposed at the end of their life cycle.

This shift promotes the idea of consuming responsibly, using resources efficiently, and reducing pollution and waste. By embracing the Circular Economy, we transition towards a more sustainable approach, which ensures a thriving economy and environmental well-being.

## The Core Parts of the Circular Economy



### Design out waste and pollution:

It starts with smart design. Creating products that minimise waste and harmful chemicals from the beginning. This way products are made that are kinder to the environment from start to finish.



### Keep products and materials in use:

Instead of throwing things away, the Circular economy encourages us to reuse, repair, and recycle. This means giving products a longer life by fixing or upgrading and, when it's past the used-by date, repurposing and reforming it into new and different products.



### Regenerate natural systems:

This is about sustainably using our resources and taking actions that help the natural environment to thrive for generations to come.

## DID YOU KNOW.

Global Renewables is working in partnership with Western Sydney University and Austral Bricks to create an ECO brick, which reduce the volume of raw material and the energy required to make bricks.

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## The benefits of the Circular Economy

*The Circular Economy's significance touches all of us in positive ways:*



### Resource conservation:

By reusing, repairing and recycling materials we reduce the demand for new resources.



### Waste reduction:

Products are designed for longer lifespans and materials are repurposed leading to less landfill.



### Lower Carbon footprint:

By minimising the need for new production and better waste management we reduce the carbon footprint of industries.



### Economic growth:

Circular economies generate new opportunities like remanufacturing and recycling, creating jobs and contributing to local economies.



### Innovation and design:

Businesses are encouraged to create products that are durable, easily repairable and designed for circularity in mind.



### Environmental protection:

By reducing pollution, conserving ecosystems and protecting biodiversity, the circular economy safeguards and promotes environmental well-being.



### Resilient supply chains:

By reducing dependence on finite resources the circular economy makes supply chains more resilient.



### Long term sustainability:

By focusing on regeneration, a circular economy ensures resources are used in ways that support long-term sustainability.

## What are the challenges in NSW?

The State's ecological footprint is significant and our resource consumption, among the highest in the region, presents some challenges:

- NSW emits 17 tonnes CO<sub>2</sub> per capita, nearly triple the global average.
- NSW's current waste is projected to grow from 21 to over 31 million tonnes in the next two decades.
- Our resource recovery rate has plateaued at around 65%, lower than other states with waste levies.

## Opportunities for Organics in the Circular Economy

Organic waste is a key part of the Circular Economy. Currently organics make up to 2.4% of Australia's greenhouse gas emissions. Australians throw away over 3 million tonnes of food annually. Industry predicts that recovering 90% of our organic waste would generate extra value, jobs, and reduce greenhouse gas emissions.

Organics, including food and garden waste, hold immense potential as valuable resources within the Circular Economy. The key opportunity is the potential to reduce greenhouse gas emissions. Organics in landfills generate methane, a potent

greenhouse gas. By incorporating organics into the Circular Economy, we not only prevent methane emissions but also transform these materials into valuable resources.

Composting organic waste produces nutrient-rich compost that can enrich soil quality, supporting sustainable agriculture and reducing the need for chemical fertilisers. Additionally, organic waste can be harnessed to produce biogas, a renewable energy source, further contributing to the reduction of our carbon footprint.

Embracing the Circular Economy with organics at its core not only addresses waste management challenges but also paves the way for resourceful and sustainable practices. By recognising organics as a valuable resource within a circular framework, we can simultaneously address waste challenges, reduce environmental impact, and tap into innovative solutions such as diverting recovered organic materials for use in brick production, that benefit our communities and the planet.

## Charting a Sustainable Course

The Circular Economy envisions a promising future of sustainability and resourcefulness. By adopting its principles and participating in initiatives like FOGO, we're journeying toward a brighter tomorrow.