

A Circular Economy





A circular economy is an economic system aimed at eliminating waste and the continual use of resources

It is based on keeping products and materials in use, and regenerating natural systems

International Sustainability Hierarchy





1: Reduce

- Reduce resource usage
- Reduce energy & waste

2: Reuse / Repair

- Refill, restore, repair
- Reprocess at end of life

3: Recycle

- Encourage upcycling
- Discourage downcycling

4: Recover

Background



 2016 -2017, AU exported 1.2 million tonnes of waste to China

• 1 Jan 2018, enforcement of China National Sword Policy

• 1 Mar 2019, India announced complete ban of plastic

waste import

How did AU respond ?



Australia's response







Australia's response - a ban of:



- All waste glass by July 2020
- Mixed waste plastics by July 2021
- All whole tyres including baled tyres by December 2021
- Remaining waste products, including mixed paper and cardboard, by no later than 30 June 2022.

Recycled Materials Currently Used













The Tyre Challenge (2017):



56 million (Approx.)

EPU* disposed in Australia 2015-16, equivalent to 450,000 tonnes



to landfill or

destination unknown (most likely stockpiled or unaccounted exports)

*Volume based on Equivalent Passenger Units (EPUs). An EPU is a standard passenger car tyre. Full EPU Ratio Tables available at greentyreproject.com.au '(Number taken from National Market Development Strategy for Used Tyres).

fuel or retreads



Circular Economy and Roads



- 1. Maximise durability
 - design life & quality management
 - minimise maintenance & disruption
- 2. Minimise energy, natural resources & waste
 - construction, maintenance & end-of-life
- 3. Extend life or reuse end-of-life products
- 4. Incorporate other beneficial waste products

Thank you



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