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# **Sustainability for Facilities and Waste Management**

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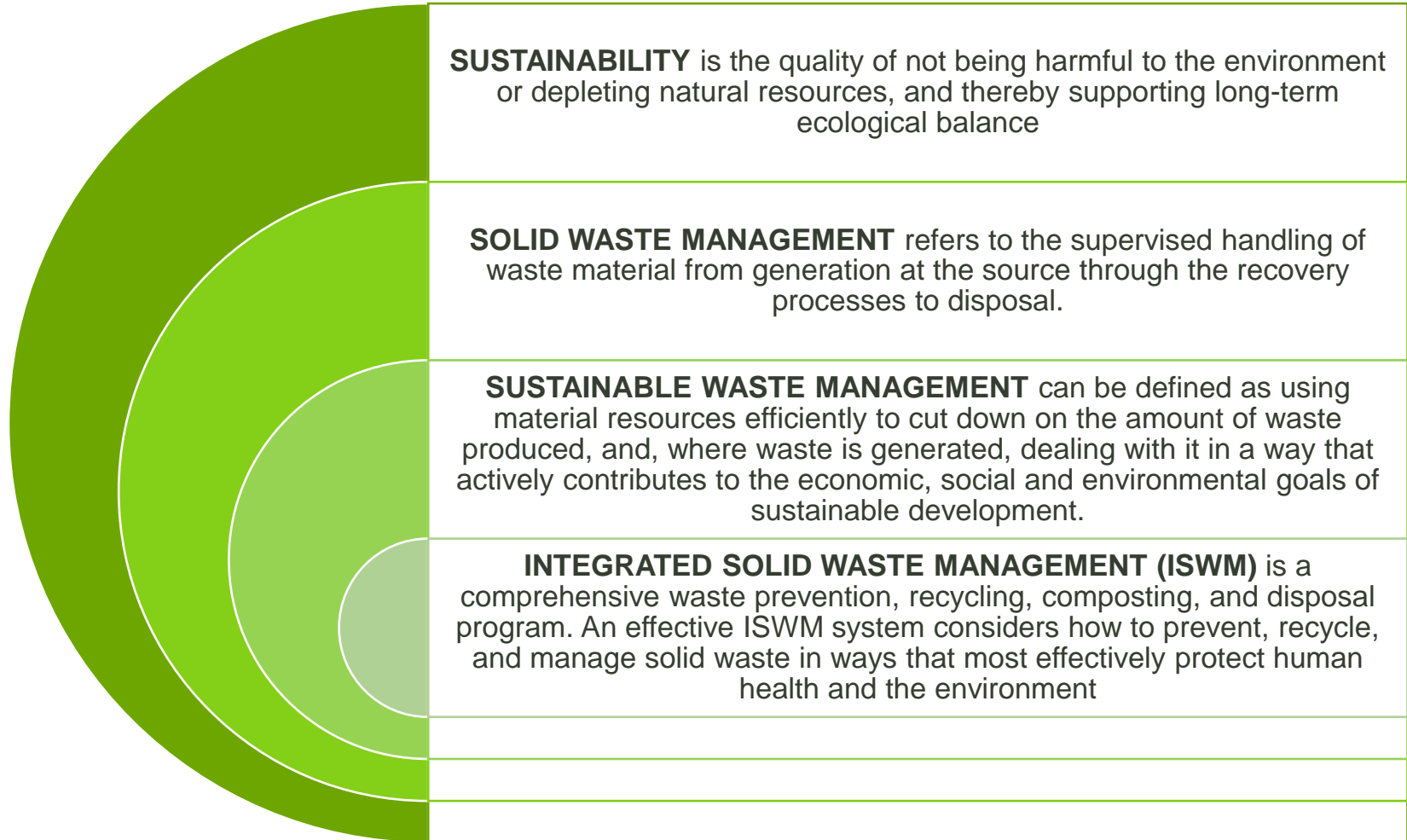
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# Facility Management for Waste Management

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**Integrating sustainability  
within the operational  
environment**

# Definitions



# SOUTH AFRICA AND OUR WASTE

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## Facts that might shock you... or not.

Only 10% of waste generated in South Africa is being recycled annually - 65% of waste generated in SA is recyclable

Gauteng Province contributes about 45% of the total waste generated in the country

An average person in SA will throw about 900 times their adult body weight of waste in their life time

Over 1 million tonnes of plastic are thrown away in South Africa each year

Less than 5% of people in the South Africa separate their waste at household level.

Waste incinerators create more CO2 emissions than coal, oil, or natural gas-fuelled power plants

Recycling one aluminum can saves an amount of energy equivalent to half that can filled with gasoline

Every year some 45,000 tons of plastic waste are dumped into the world's oceans.

Food waste is the third largest component of generated waste

The energy saved by recycling one glass bottle can light a 100-watt light bulb for four hours or run a computer for 30 minutes

Recycling one million laptops saves enough energy to power over 3000 homes in a year

The energy saved by recycling one glass bottle can light a 100-watt light bulb for four hours or run a computer for 30 minutes



For every 10% recycled glass used to make new glass containers, energy costs drop 2-3 %

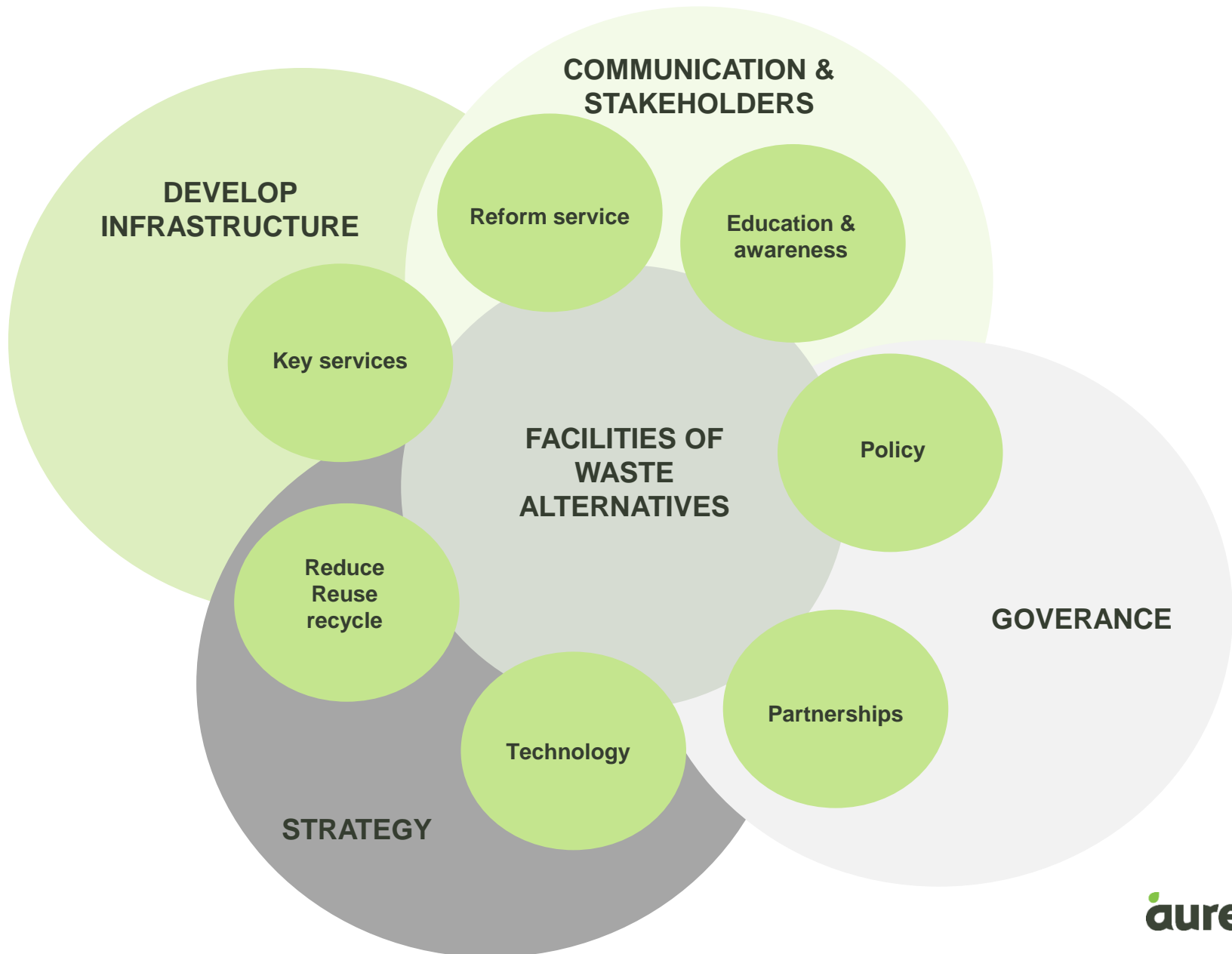
Every ton of glass containers recycled saves over a ton of natural resources

Recycling aluminum creates 97% less water pollution than making new metal from ore



# Waste Management in Facilities

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# Need for a Waste Management Strategy



## Facilities are to consider :

Green  
buildings

Energy usage

Water  
management  
and monitoring

Building  
management  
system

ie. air conditioning systems,  
the control of emergency  
generators and a load  
control system

Mobility  
masterplanning

Waste  
management

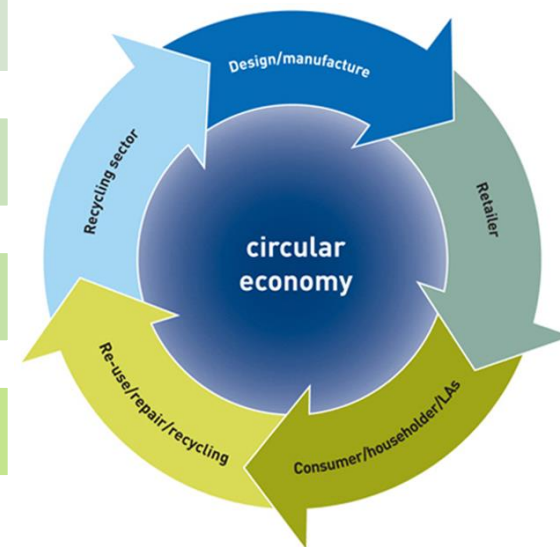
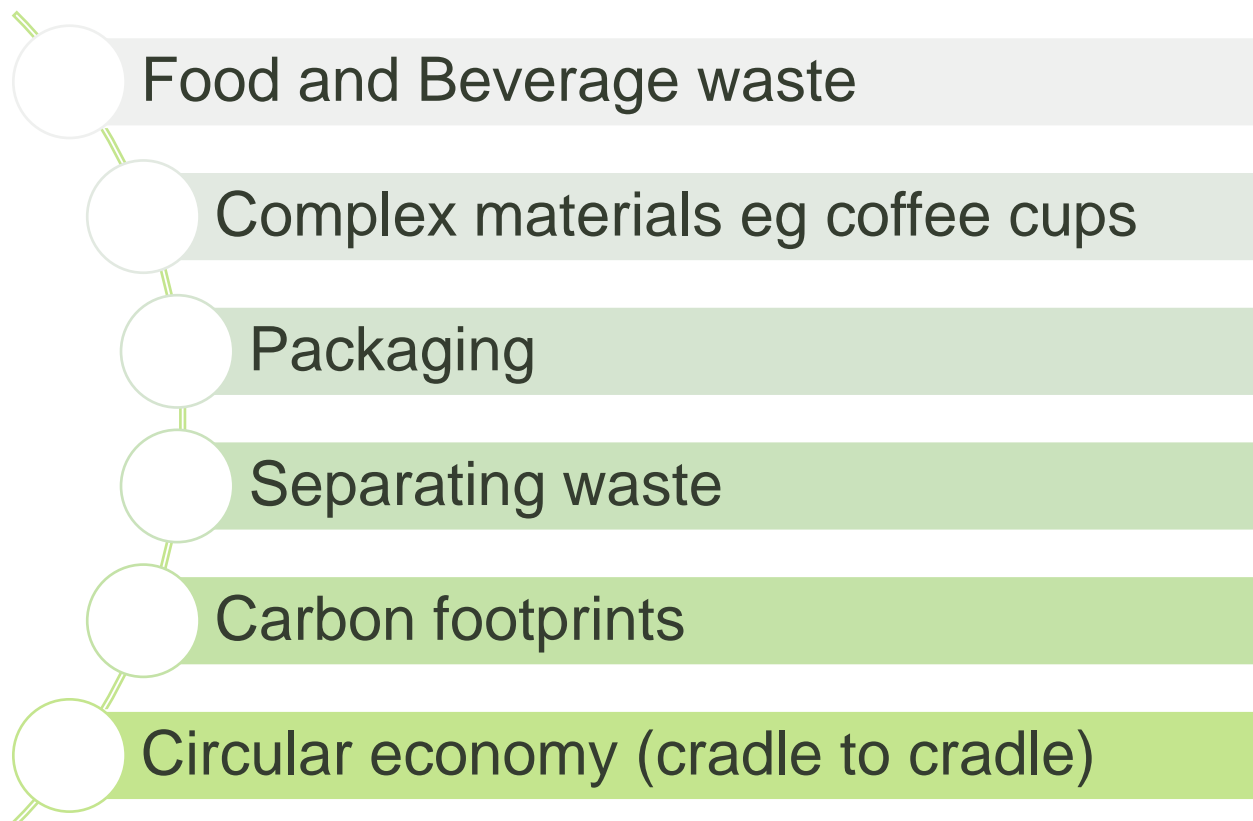
Animals

Conservation

Tree-planting

Sustainability  
management

## Waste to consider and handle





## “WASTE EQUALS FOOD”

The main trademark of Cradle to Cradle is undoubtedly the "waste = food" concept. Cradle to Cradle is based on the idea that after the use of products and services, the embedded materials, water and energy cannot be wasted.

Cradle to Cradle would however make optimal use of these resources by pertinently creating continuous material loops. In short, this is understood as closing the material cycle.

# Critical Success Factors

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# Limits and Opportunities

## Know your limits

- Limited to relying on the public / generators
- Minds of generators is set to “throw away” – not to immediately recycle
- Segregate and recycle correctly - cannot be placed solely in hands of generators
- Only facilitate a point for waste to be thrown away in public realm
- **Facilities are limited to what ends up in bins**

## Recognize your opportunities

- Once waste is in the bin the opportunity to customize your handling of waste is great
- Use of various technologies eg. Collection cars, chutes etc.
- Facilities have the opportunity to develop a system that best suits their own operations
- Sustainability is not defined by a specific context therefore **facilities need to customize their path towards reaching their goals of waste recovery.**



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