

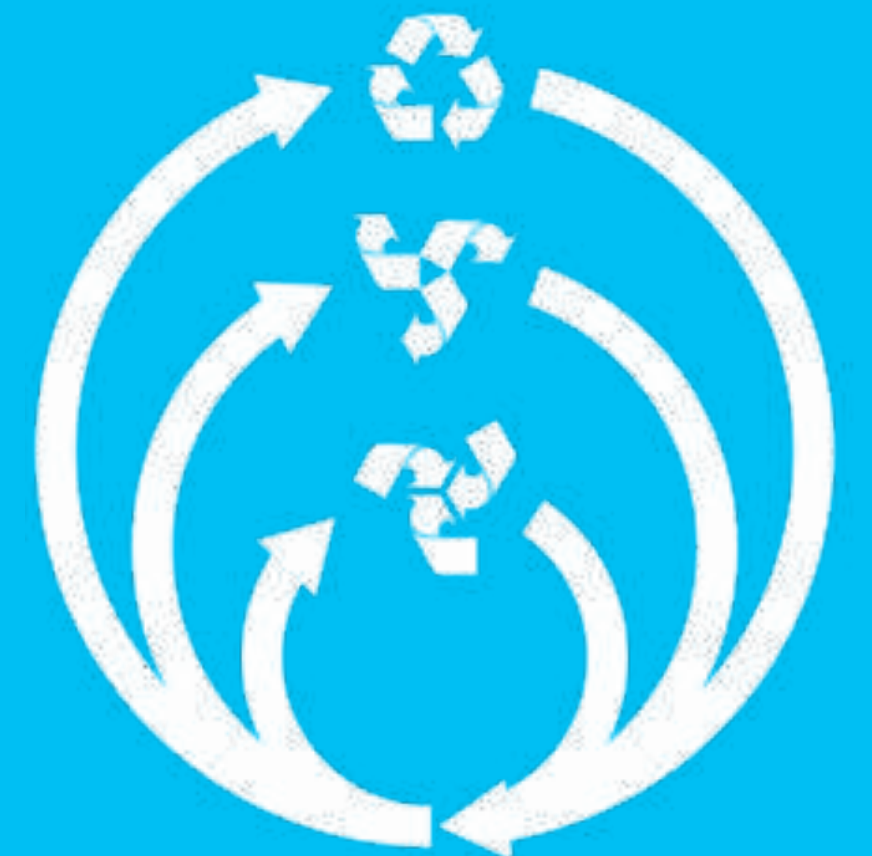
DR JAISHEILA RAJPUT | TOMA-NOW

GARDEN ROUTE WEBI-SHOP

THE CIRCULAR ECONOMY

Going back to basics

TOMA-NOW
TOMORROW MATTERS NOW



AGENDA

1. Introduction

2. Circular economy: What is it?

3. Model

4. Case studies

5. Resources

6. How can we help

TOMA-NOW

- Green economy value chain specialists
- Unlock business value
- High impact business models
- Beyond resilience



TOMORROW MATTERS NOW



EMPOWER | INSPIRE | BUILD

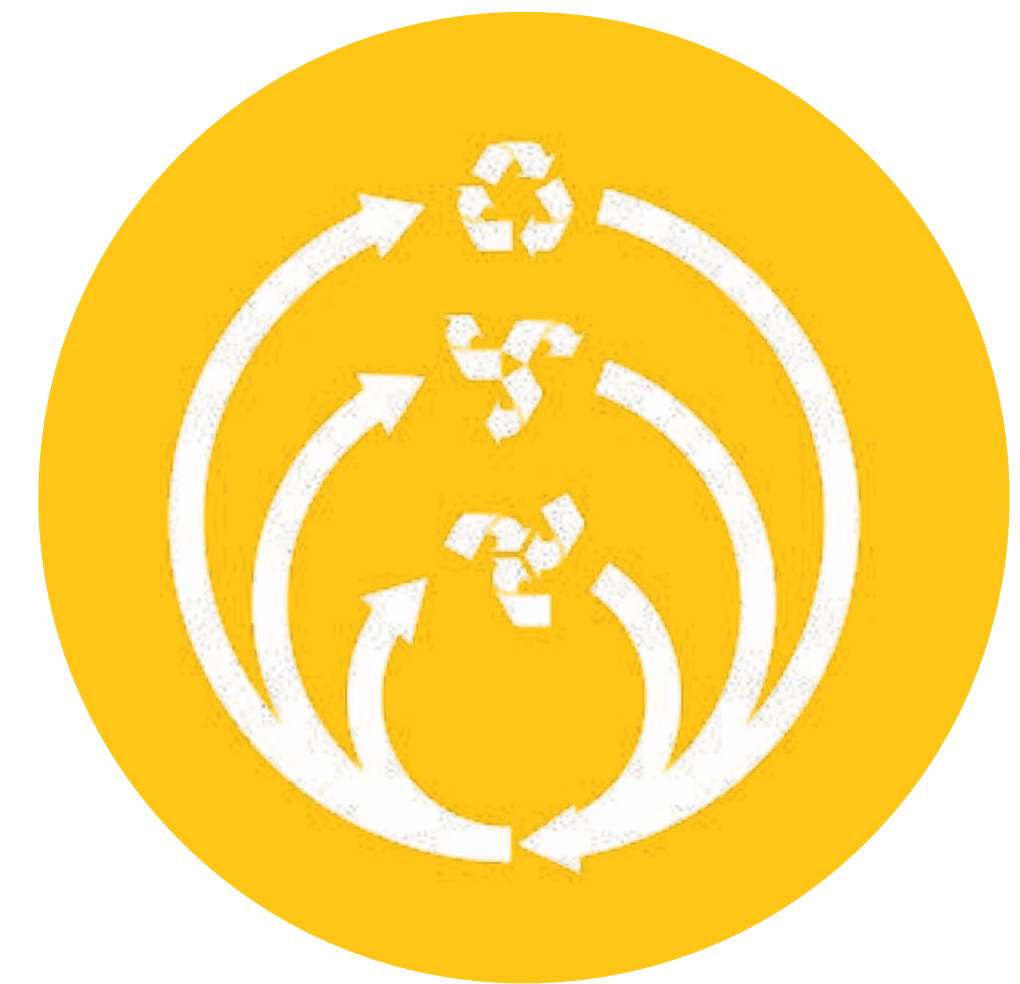
INTRODUCTION



**Business
Resilience**



**New business
models**



**Circular
Economy**

CIRCULAR ECONOMY: WHAT IS IT?

A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.

- Ellen MacArthur Foundation



Design out waste
and pollution



Keep products and
materials in use



Regenerate
natural systems

THE MODEL

OUTLINE OF A CIRCULAR ECONOMY

PRINCIPLE 1

1

Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows
 ReSOLVE levers: regenerate, virtualise, exchange



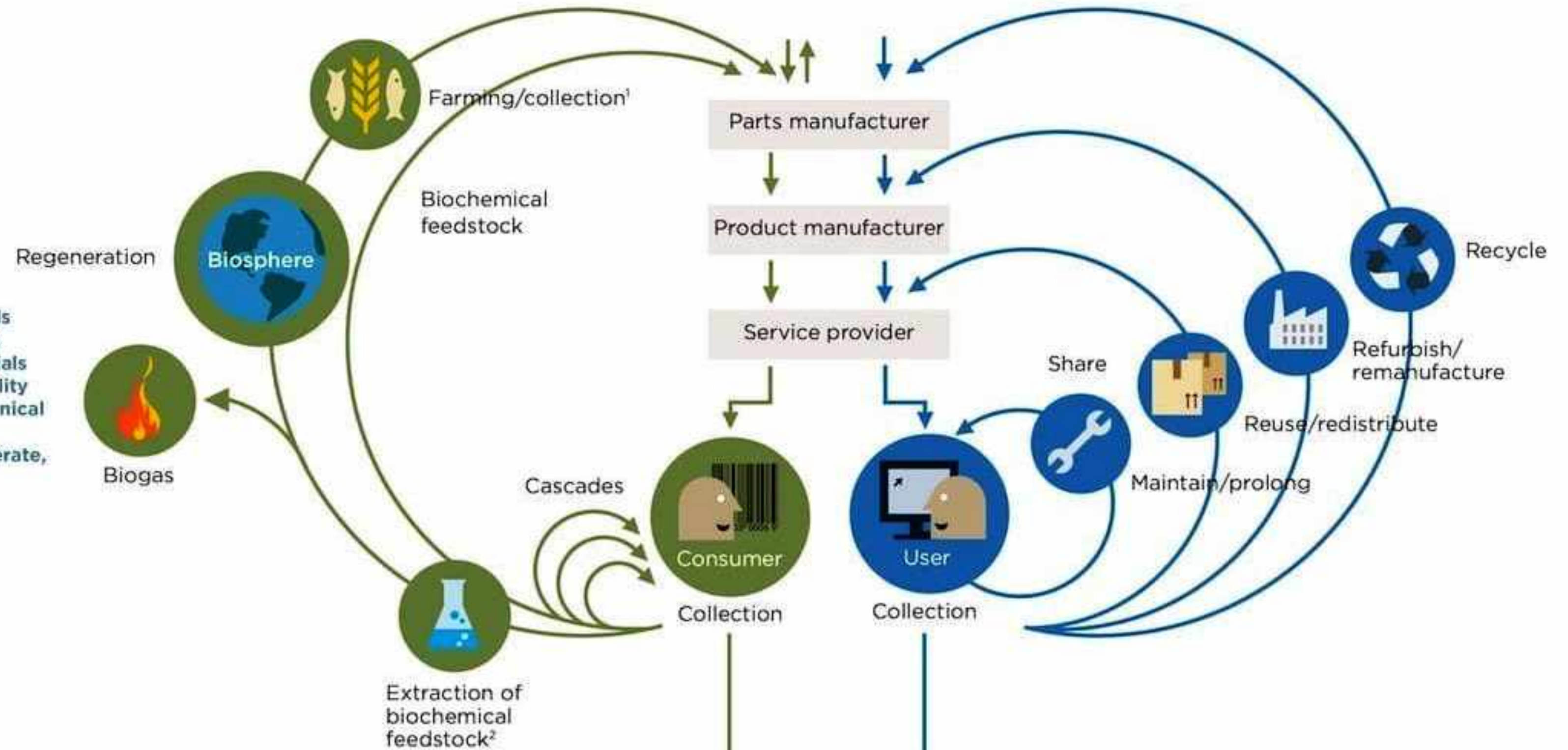
Renewables flow management

Stock management

PRINCIPLE 2

2

Optimise resource yields by circulating products, components and materials in use at the highest utility at all times in both technical and biological cycles
 ReSOLVE levers: regenerate, share, optimise, loop



PRINCIPLE 3

3

Foster system effectiveness by revealing and designing out negative externalities
 All ReSOLVE levers

Minimise systematic leakage and negative externalities

1. Hunting and fishing
 2. Can take both post-harvest and post-consumer waste as an input

Source: Ellen MacArthur Foundation, SUN, and McKinsey Center for Business and Environment; Drawing from Braungart & McDonough, Cradle to Cradle (C2C).

CONSTRUCTION

- Modular construction to minimise waste
- Standardised production where components are interchangeable
- Construction and engineering projects specify use of materials that include recycled content
- Re-use waste building materials for other building applications
- Secondary resource marketplace
- Process waste wood to mulch, compost, fuel
- Separate at source: Asphalt and concrete can be recycled and repurposed

CASE STUDIES



Better Living Challenge showcase, Cape Town

AGRICULTURE

- Harvesting techniques; Unmarketable crops into value-added products
- Agriculture extension services
- Storage technologies; Reduce handling damage; Low-carbon cold chains
- Supply chain management; Packaging and materials
- Reprocess / repackage food not meeting specifications; Review cosmetic standards to food 'perfection'
- Food date labelling practices
- Digitalisation

CASE STUDIES



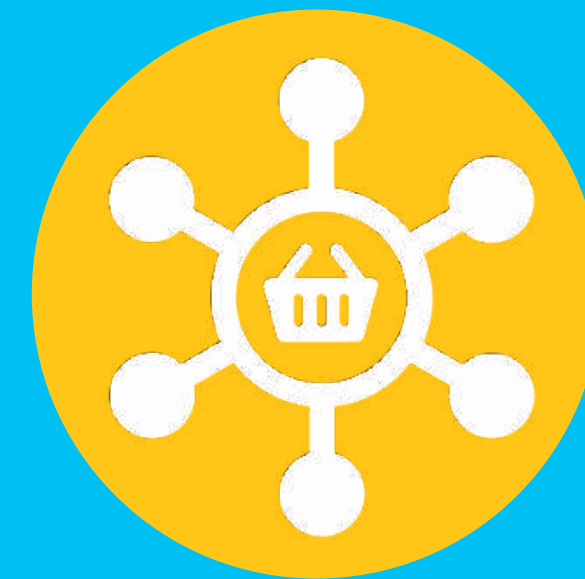
Production



Handling & storage



Processing & Packaging

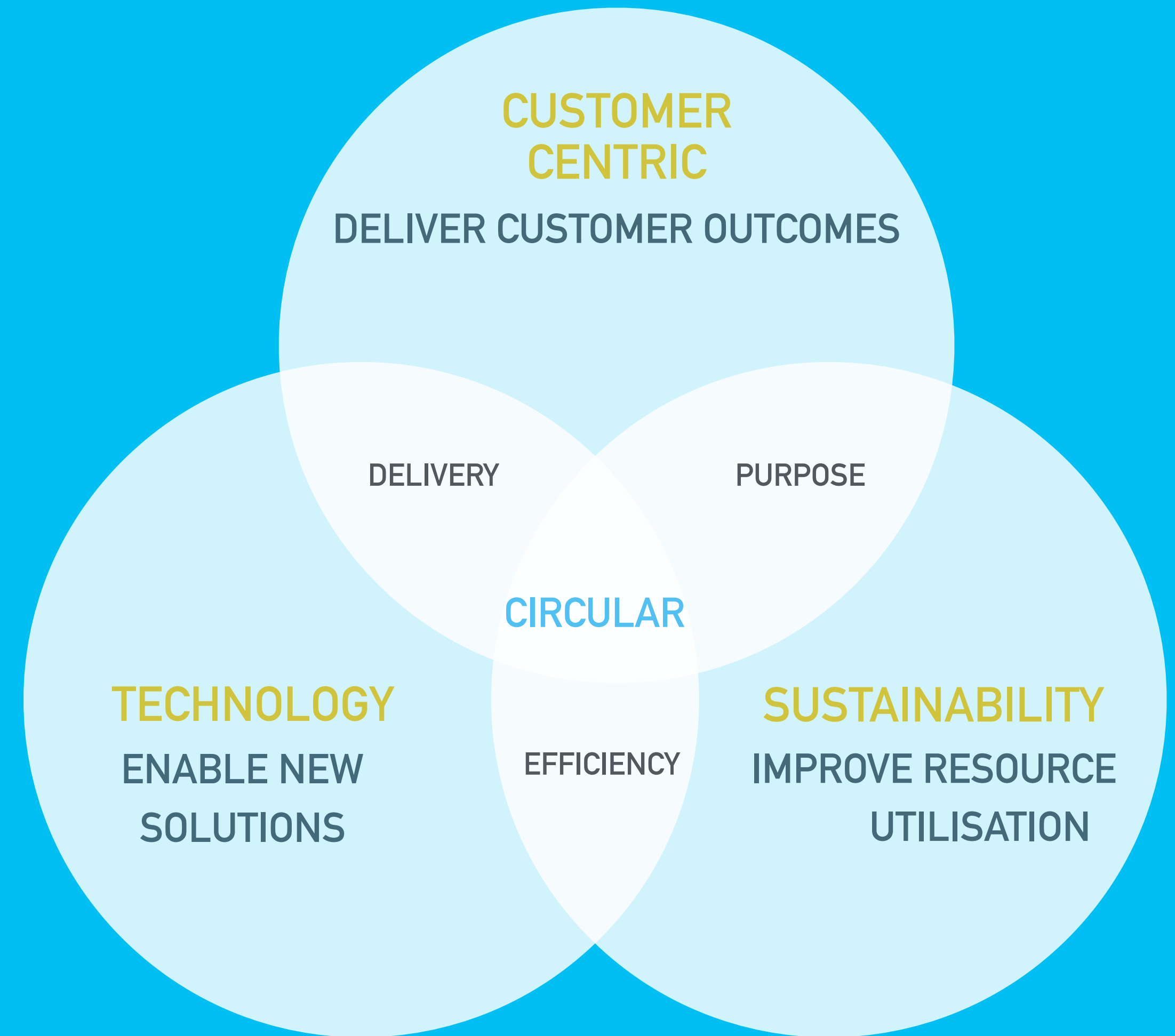


Distribution & Market

TOURISM

- Sustainable use of resources
- Opportunities to localise supply chains
- Offset carbon emissions
- Awareness of marine waste and importance of biodiversity
- Uplift local communities by supporting small-scale agriculture
- Eco-tourism
- Virtual experiences

CASE STUDIES

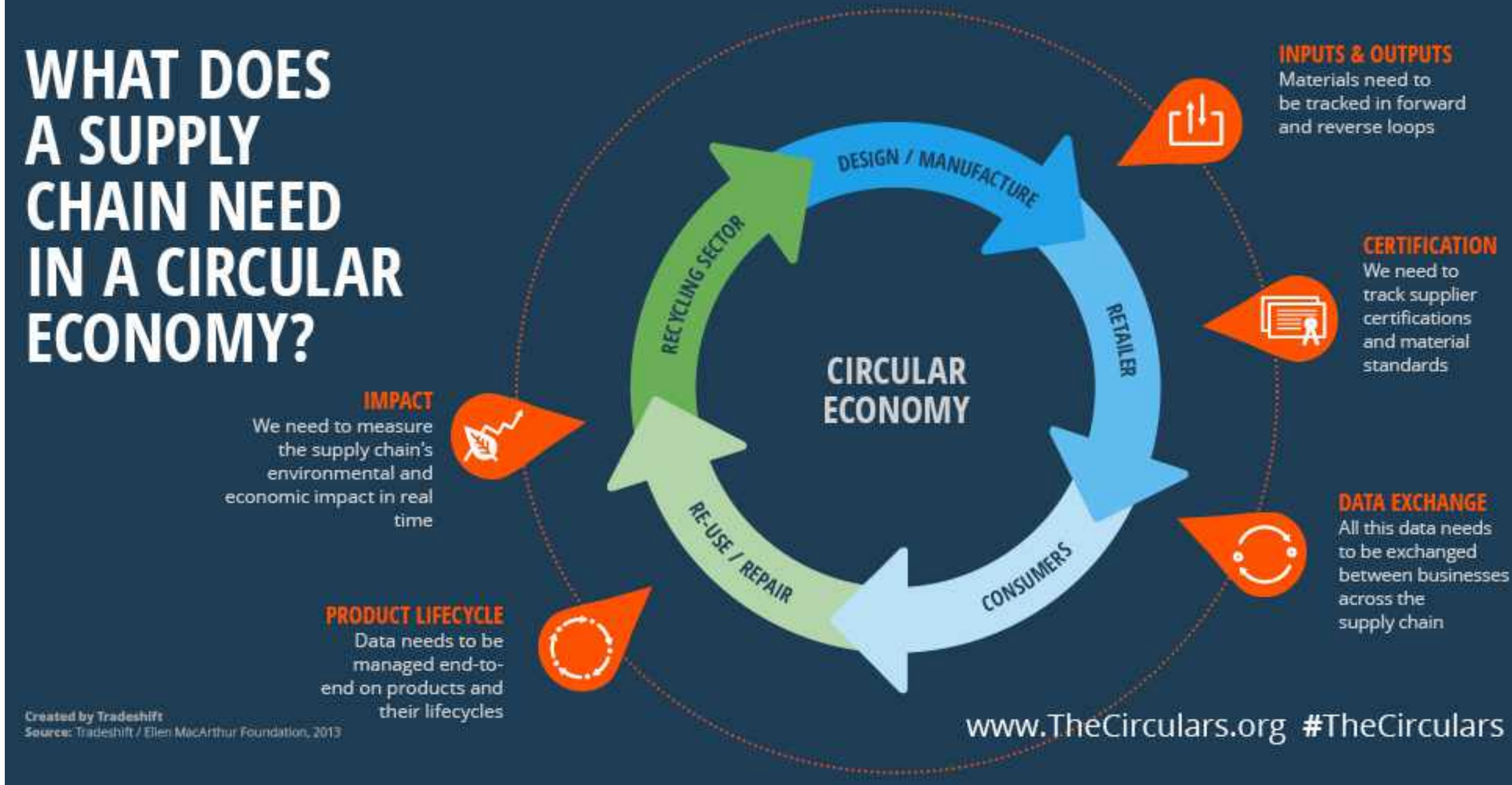


DIGITAL

- ICT sector has one of the country's biggest job markets and is one of the biggest contributors to the economy
- Enabler for a transition to the circular economy
- Cross value chain and sectoral application
- Opportunity for social upliftment
- Circular marketplaces
- ICT and 4IR projects impact products across their life-cycle
- Application areas: Agriculture, fisheries, transport, hospitality, waste, etc.

CASE STUDIES

WHAT DOES A SUPPLY CHAIN NEED IN A CIRCULAR ECONOMY?



HOW WE CAN HELP



Business
Resilience



Value Chain
Mapping



Implementation

RESOURCES

Really good starting point. Provides methods, inspiration stories and resources for beginners:

<https://www.circulardesignguide.com/>

Collaboration platform. Interesting global case studies. Led by design thinking approaches:

<https://www.openideo.com/circular-economy>

A resource within a resource. This article lists several strategies, tools and methodologies you can follow:

https://www.researchgate.net/publication/313771263_Circular_Design_-_Design_for_Circular_Economy

Amazing foundation site. Provides insights, training material and case studies. Great source of inspiration.

<https://www.ellenmacarthurfoundation.org/circular-economy/what-is-the-circular-economy>

User-friendly introductory guide to the circular economy

https://novonordiskinnovationchallenge.com/docs/Circular%20design%20guideline_short%20version_02.pdf

CONTACT US



CREATE INSPIRED SOLUTIONS

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