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Beyond Plastic Pollution

The Relevance of Good Design and EPR

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Strategic advice and services across environment and sustainability, compliance and environmental management systems, climate change, Government relations and communications and engagement.

With respect to EPR and Product Stewardship:

- ✓ Tyre Stewardship Australia
- ✓ State and federal Governments
- ✓ NTCRS
- ✓ Fluorocycle
- ✓ Australian Packaging Covenant
- ✓ DrumMuster
- ✓ Telstra
- ✓ Mattresses
- ✓ Batteries
- ✓ Glass
- ✓ Paintback
- ✓ Child Car Safety Seats

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Three themes

- The importance of good **design** (including ecodesign)
- The relevance of **Producer Responsibility**
- **Circular** thinking and action

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Good design: addressing issues at source

- ***Lock-in*** **positive environmental features**
  eg. Design for Durability, benign materials, Design for Disassembly, Design for Waste Avoidance and Resource Recovery, Repair and Reuse, Design for carbon reduction and energy efficiency.

- ***Lock-out*** **negative environmental features**
  eg. avoid of toxic or hazardous substances, eliminate or reduce consumables and single trip and disposal products/packaging, premature obsolescence.

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Ecodesign

Ecodesign is an approach to designing products (and packaging) with a view to eliminating or minimising environmental impacts across the product life cycle from design and production through distribution, use and end of-life.

Effective ecodesign is a critical tool in achieving a circular economy.

Related terms include Design for Environment, Sustainable Product Design and Green Design

ECO-DESIGN

1) Low impact

2) Reducing materials

3) Production techniques

4) Distribution systems

5) Impact of use

6) Initial lifetime

7) End-life system

8)

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Key role for designers

- Focus on creativity, ingenuity and **innovation**
- Well placed to **lock-in positive** features at the packaging design stage
- Ability to **work across,** and with, other disciplines.
- **Knowledge** of interactions between people and products or spaces.
- Ability to understand and respond to social and cultural factors.

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Consumption … beyond design

Ecodesign has been strongly advocated and heavily researched over the last decade, especially in Europe.

The technical aspects of ecodesign and cleaner production have been largely addressed.

A key challenge is to confront how we consume i.e. changing our consumption patterns.

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OECD on Producer Responsibility

Extended Producer Responsibility (EPR) is an environmental protection strategy with the goal of reaching an environmental objective of a decreased total environmental impact of a product. This is achieved by making the manufacturer of the product responsible for the entire life cycle of the product and especially for the collection, recycling and final disposal.

Source: Thomas Lindhqvist, “Towards an [EPR] analysis of experiences and proposals,” April 1992.

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More from the OECD

Assigning producers responsibility both financially and/or physically for the treatment or disposal of post-consumer products via EPR can provide incentives to prevent wastes at the source, promote ecodesign and support the achievement of public recycling and materials management goals.

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The Australian Government's definition

Product stewardship, as defined in the Australian Product Stewardship Act 20119 is a broader policy approach than EPR where it acknowledges that those involved in producing, selling, using and disposing of products have a shared responsibility to ensure that those products or materials are managed in a way that reduces their impact, throughout their life cycle, on the environment and on human health and safety.

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Defining a Circular Economy?

- *Looking beyond the current "take, make and dispose" extractive industrial model, the circular economy is restorative and regenerative by design.*

- *Relying on system-wide innovation, it aims to redefine products and services to design waste out, while minimising negative impacts. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural and social capital.*

Source: Ellen Macarthur Foundation

OUTLINE OF A CIRCULAR ECONOMY

PRINCIPLE

1

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

PRINCIPLE

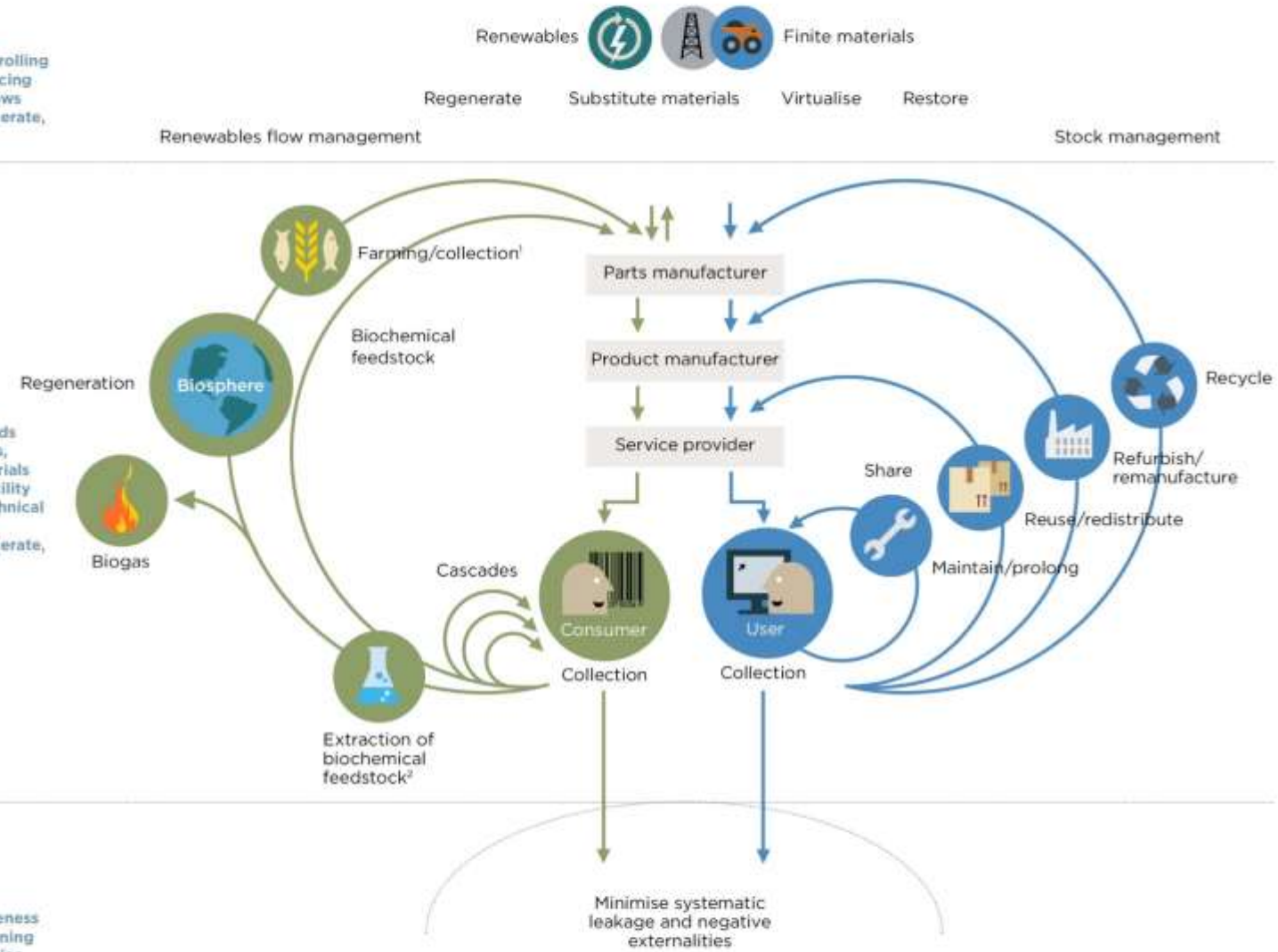
2

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

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



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).

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The importance of circular solutions

- Regenerative and restorative models and solutions are essential.
- Circular solutions are more than a re-brand of conventional recycling services
- No single company, association, agency or department controls the supply chain.
- Good research, accurate data and leadership are vital ingredients.

- Leadership and collaboration are key.

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