



Preventing plastics in the coastal and marine environment

Win-Win opportunities for cities based on circular economic development

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Marine litter





A GLOBAL CHALLENGE



ISWA
MARINE
TASK FORCE

Global Systemic Failures



1

MATERIALS AND
CONSUMPTION

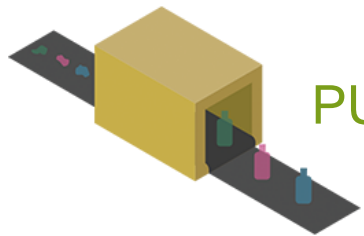
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INSUFFICIENT
INFRASTRUCTURE



3

PUSH MARKETS



4

KNOWLEDGE
GAPS



Linkages between WM and Marine Litter

CORE PRIORITIES FOR RESULTS NOW!

1

**SOUND COLLECTION
FOR ALL**

2

**STOP FLY-TIPPING
AND LITTERING**

3

**CLOSE DUMPSITES
(NEAR WATERBODIES)**

2018 Deliverables: In support of sound solutions

INTERVENTION
TOOLKIT

ENGAGEMENT
PLATFORM

DISSEMINATION
& IMPACT

INSPIRE – INFLUENCE – ENABLE



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Plastics in the oceans

- Plastic waste is a major driver of marine litter, and results in a number of significant and avoidable socio-economic and environmental negative externalities.
- 300 million tonnes of plastics are produced per year globally. Between 5 and 12.5 million tonnes of plastic enters the ocean as marine debris from mismanaged waste at coasts alone.
- The cost of policy inaction include environmental, economic, social costs.
- There is an urgent need to keep plastic and its value in the economy and out of the oceans.

Sustainable Development Goals



Waste hierarchy



Going circular

- Looks at products and waste - covers the whole life cycle of a product: from production and consumption to waste management and the secondary materials market. Focuses first on waste prevention (products), second on preparation for re-use and recycling (waste).
- The following circular economy principles can be applied to prevent plastic waste from entering the oceans:
 - Extended Producer Responsibility
 - Research into product design to facilitate reuse, repair, remanufacture and recycling, and
 - complement this by providing more information on the plastic composition of products
 - Bans for unnecessary and damaging products or activities where viable substitutes exists
 - Improved legislation
 - Economic incentives targeting consumption, and other one-use items
 - Transparency and labelling
 - Waste Management measures
 - Awareness raising

Circular economy

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

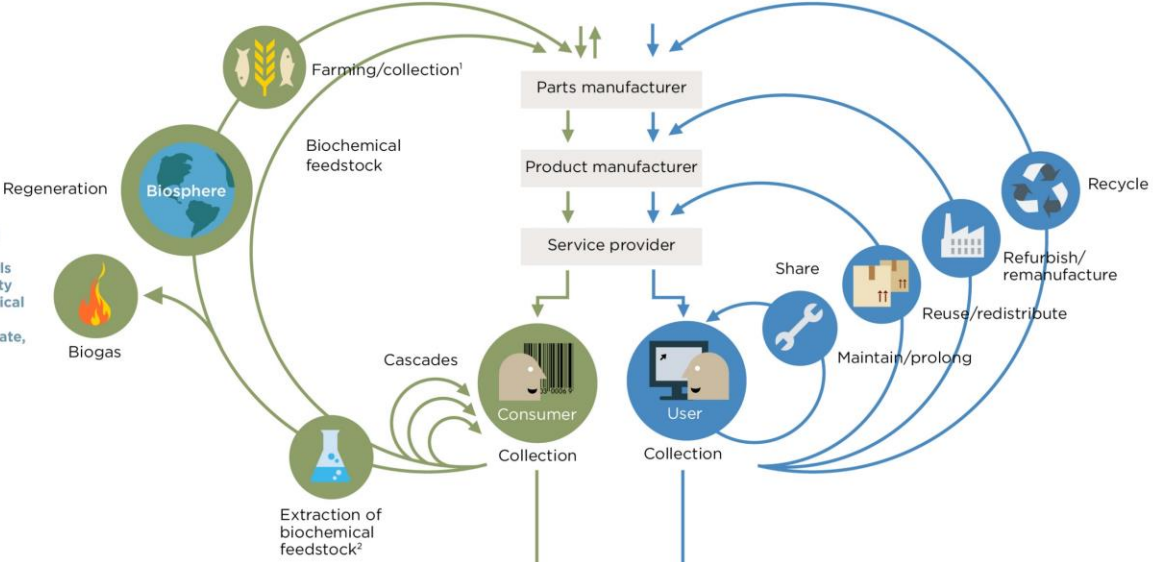


Renewables flow management Stock management

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

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).

Moving away from the "take, make and dispose" extractive industrial model, the circular economy is restorative and regenerative by design.

Case study: EU

- 19th Century: Public Health Acts
- 20th Century: Public policies shifted focus towards managing waste material and trying to recover value out of the large volume waste flows: metals, paper, glass, construction and demolition waste.
- 1999 Landfill directive
- 2008 Waste Framework Directive (polluter pays principle, extended producer responsibility, pay as you throw)
- 2018 Circular Economy Package

Case study: India

- 1986 Environment Protection Act
- 1989 Hazardous Wastes Management and Handling Rules
- 1998 Bio-medical Waste Handling Rules
- 2000 Municipal Solid Waste Management and Handling Rules
- 2014 Swachh Bharat Mission = Clean India Mission
- 2016 (revision)
 - Municipal Solid Waste Management and Handling Rules
 - Hazardous and Other Wastes (Management and Transboundary Movement) Rules
 - Plastic Waste Management Rules
 - e-waste (Management) Rules
 - Bio-Medical Waste Management Rules
 - Construction and Demolition Waste Management Rules

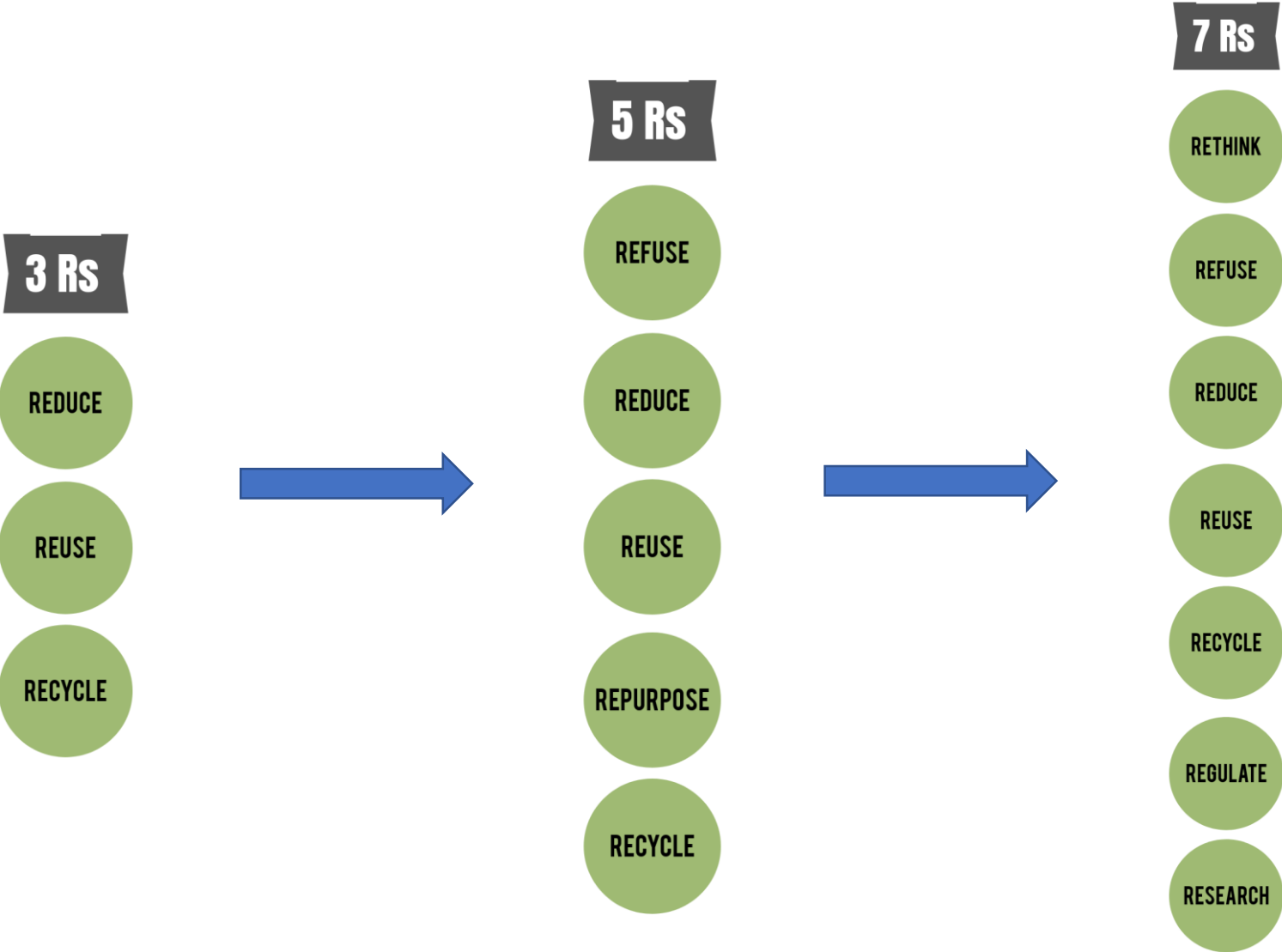
Case study: Indore

- From being placed 149th in a cleanliness ranking of India's cities in 2014, Indore Municipal Corporation climbed to the 25th position in 2016, and to the top of the heap in 2017.
 - Source segregation
 - Door to door collection
 - Working with the informal sector
 - Smart systems
 - Public support
 - Ban against open defecation

Summary

- Cities are well positioned to move to a circular economy
- There are plenty of benefits for cities moving along the waste hierarchy towards circular economy including:
 - Jobs, growth and investment
 - Improving competitiveness and less reliance on virgin materials
 - GHG emissions reduction
 - Spurring innovation

Food for thought



REJOICE

Thank you!

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