

The circular economy: a strategy to accelerate climate action

Policies for the transition

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Presented by

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At the Ellen MacArthur Foundation...

...We **develop** and **promote** the **idea** of the circular economy

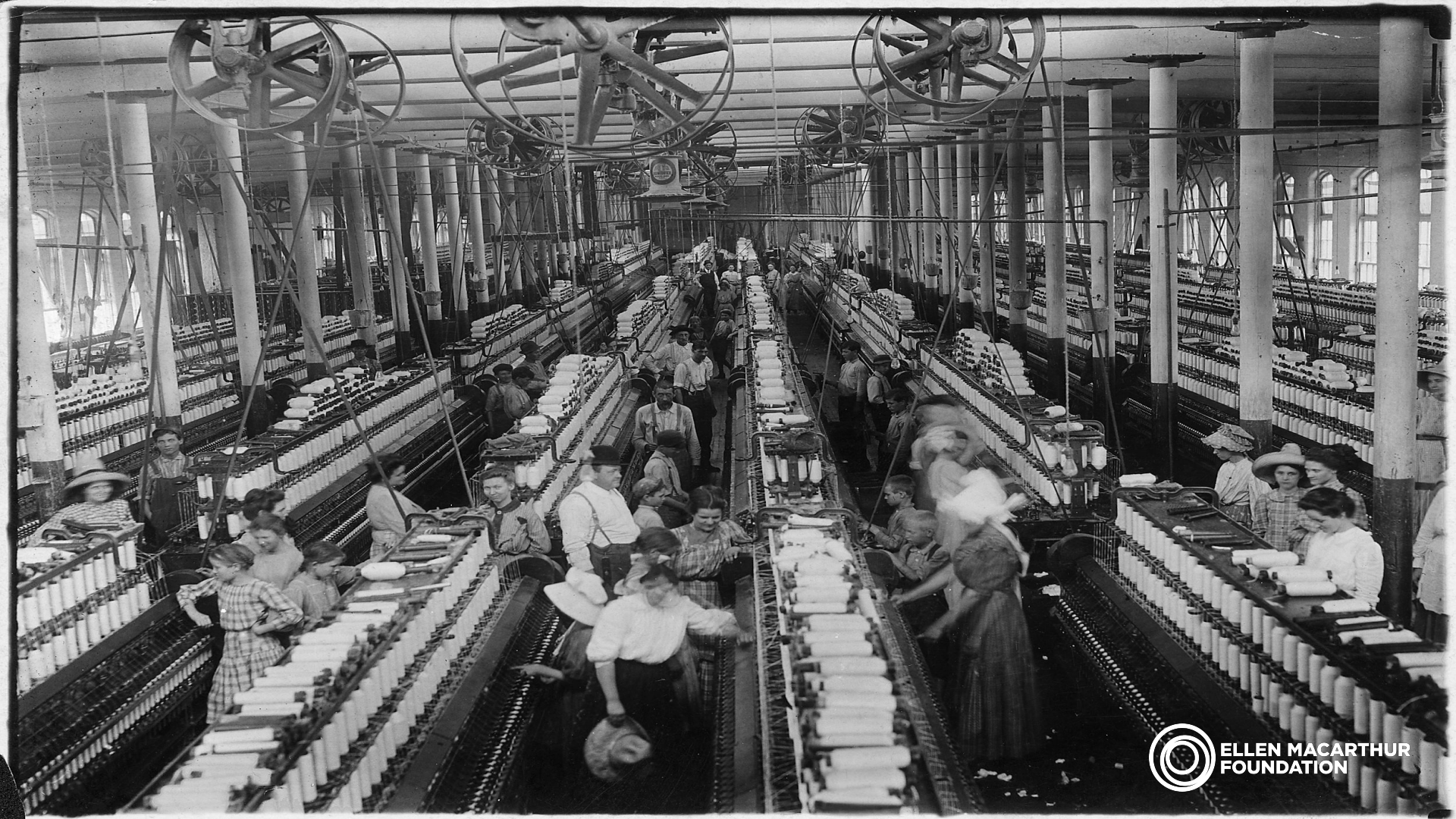
We **engage** and **inspire** **key actors** in the system

We **mobilise systems solutions** at scale, globally



The linear economy extracts resources that end up as waste





The circular economy is built on three principles, all driven by design



**Eliminate waste
and pollution**



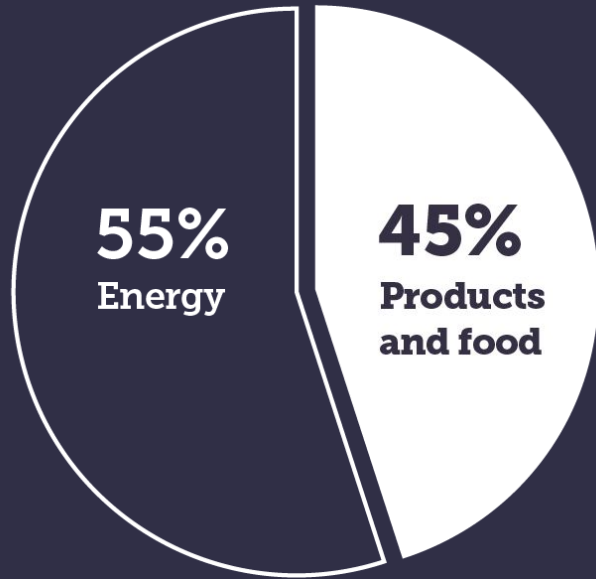
**Circulate products
and materials**



**Regenerate
nature**

The energy transition is not enough to meet climate goals, we need a circular economy

TOTAL CURRENT GLOBAL GREENHOUSE GAS EMISSIONS



HOW THE CIRCULAR ECONOMY HELPS TACKLE CLIMATE CHANGE



Design out waste and pollution
to reduce GHG emissions
across the value chain



Keep products and materials in use
to retain the energy embodied
within them

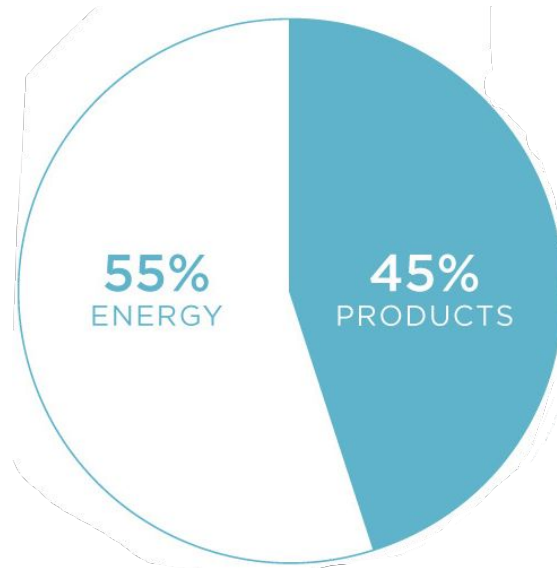


Regenerate natural systems
to sequester carbon
in soil and products

CLIMATE & CIRCULAR ECONOMY COMPLETING THE PICTURE

45% OF EMISSIONS COME FROM THE WAY WE MAKE GOODS AND MANAGE THE LAND

What **CAN** be tackled through the energy transition

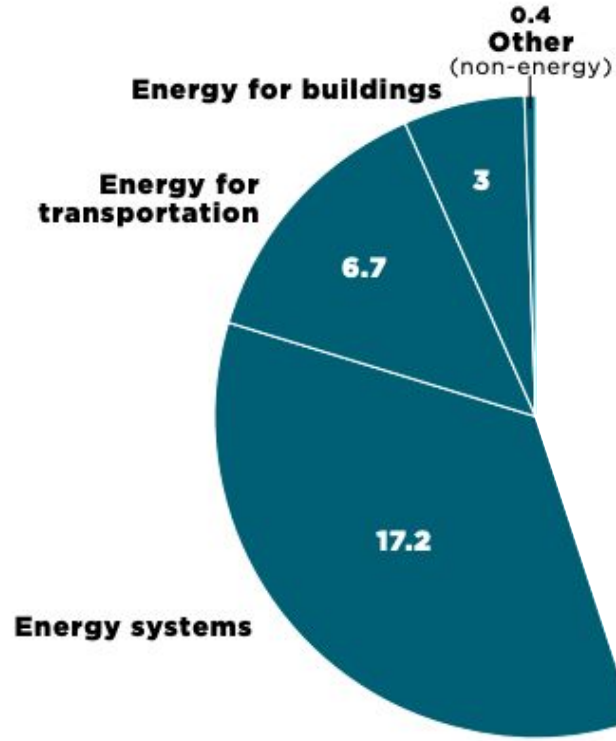


What **CANNOT** easily be tackled through the energy transition

TOTAL CURRENT GLOBAL EMISSIONS



55%: WHERE THE ENERGY TRANSITION LEADS THE SOLUTIONS SPACE



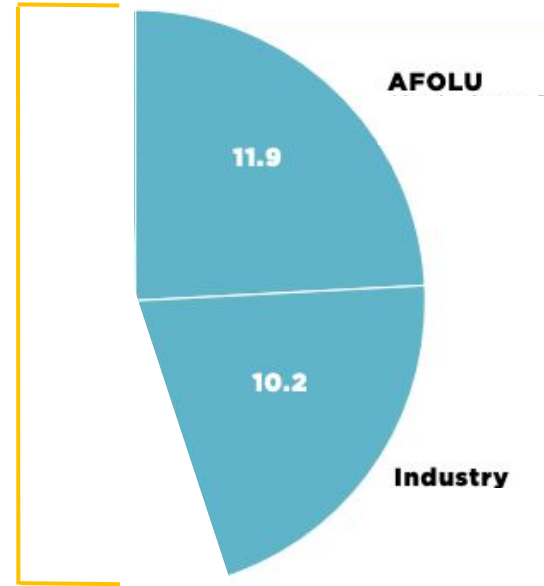
55% of global GHG emissions that can be tackled through the energy transition

45%: WHERE ADDITIONAL SOLUTIONS ARE NEEDED

WHERE CIRCULAR ECONOMY SOLUTIONS COMES IN



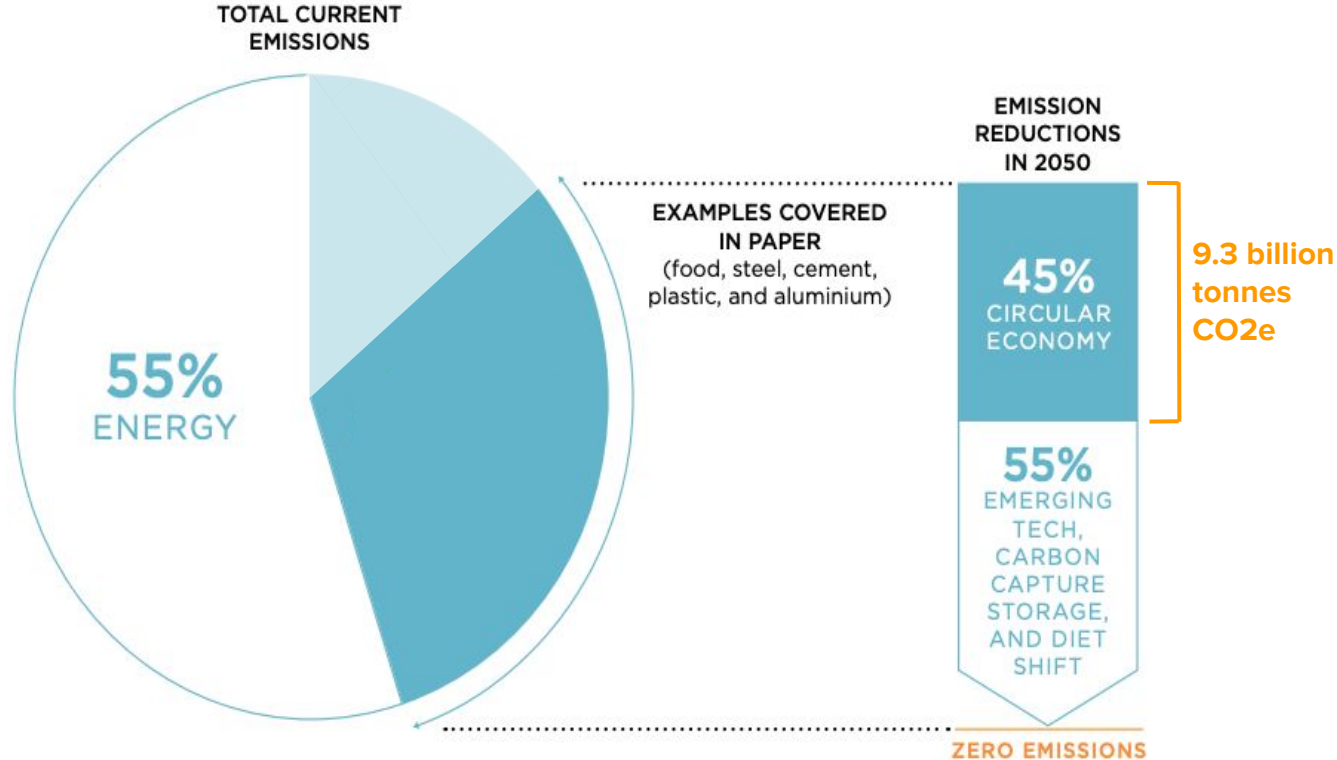
45% global
GHG
emissions



- High temperatures and process emissions in industry
- Deforestation and land conversion emissions
- End of life process emissions

CLIMATE & CIRCULAR ECONOMY COMPLETING THE PICTURE

45% OF EMISSIONS COME FROM THE WAY WE MAKE GOODS AND MANAGE THE LAND



CIRCULAR ECONOMY IN CLIMATE NEGOTIATIONS





The circular economy is an economic opportunity.

Circular economy outcomes

CLIMATE

**9.3 billion tonne
reduction of CO₂e**

can be achieved within five key global industries (cement, steel, aluminium, plastics, and food) in 2050 —the equivalent of eliminating current emissions from all transport globally.²⁶⁹

MATERIALS

**20-71% reduction in primary
material consumption**

can be achieved in key economic sectors - such as food, mobility, and the built environment - in Europe, India, and China.²⁷⁰

AGRICULTURE

**~50% reduction of
the negative impact on
farm-level biodiversity**

can be achieved in the EU and UK for three example ingredients (wheat, potatoes, dairy) by 2030 by designing food products for nature—using diverse, upcycled, lower-impact, and regeneratively-grown ingredients.²⁷¹



ECONOMY

**Trillions of USD in
annual benefits**

can be achieved by 2050 - in the form of net material cost savings and reductions in externalities - in key economic sectors in Europe, India, and China.

OCEAN







**80%
reduction
in plastic
leakage**

can be achieved in the global plastics sector in 2040.²⁷²



The economics can work: when designed collaboratively and operated at high scale, the economics of return systems can compete with single use for some applications

... Across three theoretical scenarios (using France as a representative geography)

System variables	Fragmented Effort A low scaled and fragmented return system	Collaborative Approach An established reuse system with potential to scale beyond	System Change A visionary scaled, shared, and standardised return system
Scale and shared infrastructure The volume of packaging switching to reuse, within a common system	Market share: -2% Due to low volumes and fragmented infrastructure	Market share: -10% Possible through big volume shifts to reuse and some sharing of infrastructure	Market share: -40% Large shift to reuse within a highly shared infrastructure
Packaging system Bespoke packaging vs. shared structural design that can return to any filler	Bespoke packaging 	Pooled packaging 	Pooled packaging 
Return rate and average no. of loops How much packaging gets returned, determining how many times it can be reused	80% return rate enabling packaging to be reused -5 times. 	90% return rate enabling packaging to be reused -10 times. 	95% return rate enabling packaging to be reused -15 times. 

By 2030, circular business models for fashion - such as resale, rental, repair and remaking - could

Grow to represent a

USD 700 billion economic opportunity

Making up

a fifth (23%) of the global fashion market

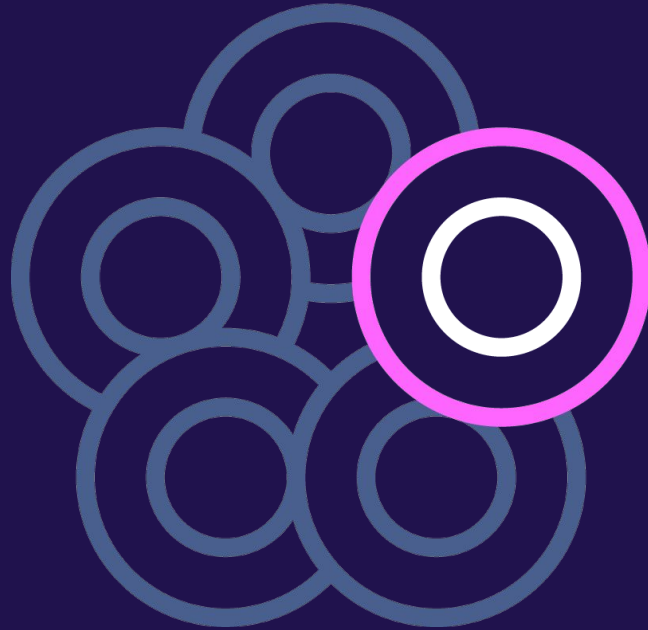
Providing a

third of the solution to be on a 1.5-degree pathway¹



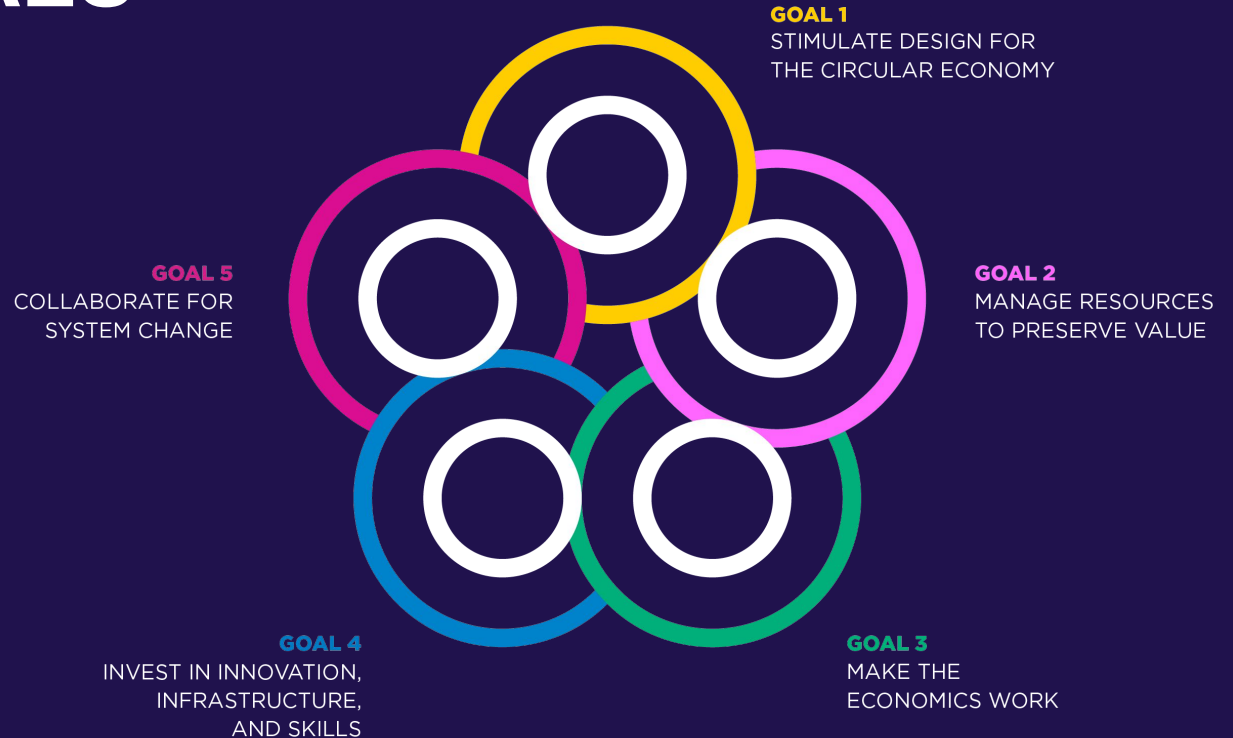
**POLICIES FOR
A CIRCULAR
ECONOMY**

UNIVERSAL CIRCULAR ECONOMY POLICY GOALS



GOAL 2
MANAGE RESOURCES
TO PRESERVE VALUE

UNIVERSAL CIRCULAR ECONOMY POLICY GOALS



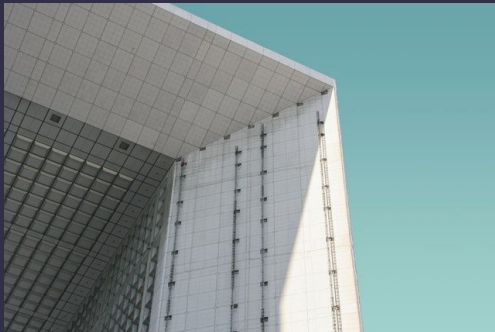
Ref: Universal Circular Economy Policy Goals: enabling the transition to scale (2021)

Novel measures for system change



Eliminating plastic pollution

France aims to phase out single-use plastic packaging by 2040 and to recycle 100% of plastics by 2025. The law has introduced bans on a variety of everyday plastic items, introduced obligations for public institutions to be equipped with water fountains, fast-food restaurants to provide reusable tableware, and the use of reusable containers and bulk sales in retail stores.



An EPR scheme on construction waste

France's construction sector generates 42 million tonnes of waste annually and accounted for 26% of the country's CO2 emissions. To better manage resources and promote construction material reuse, an EPR scheme on building materials is operational since 2022.

Novel measures for system change



Ecodesign for Sustainable Products

EU - A groundbreaking policy framework focused on setting mandatory, minimum-level ecodesign criteria for all products in scope. The ESPR also foresees the roll-out of Digital Product Passports (DPP).



Fiscal measures

Belgium: tax deductions of up to 40% on investments in energy efficiency and circular economy operations.

Novel measures for system change

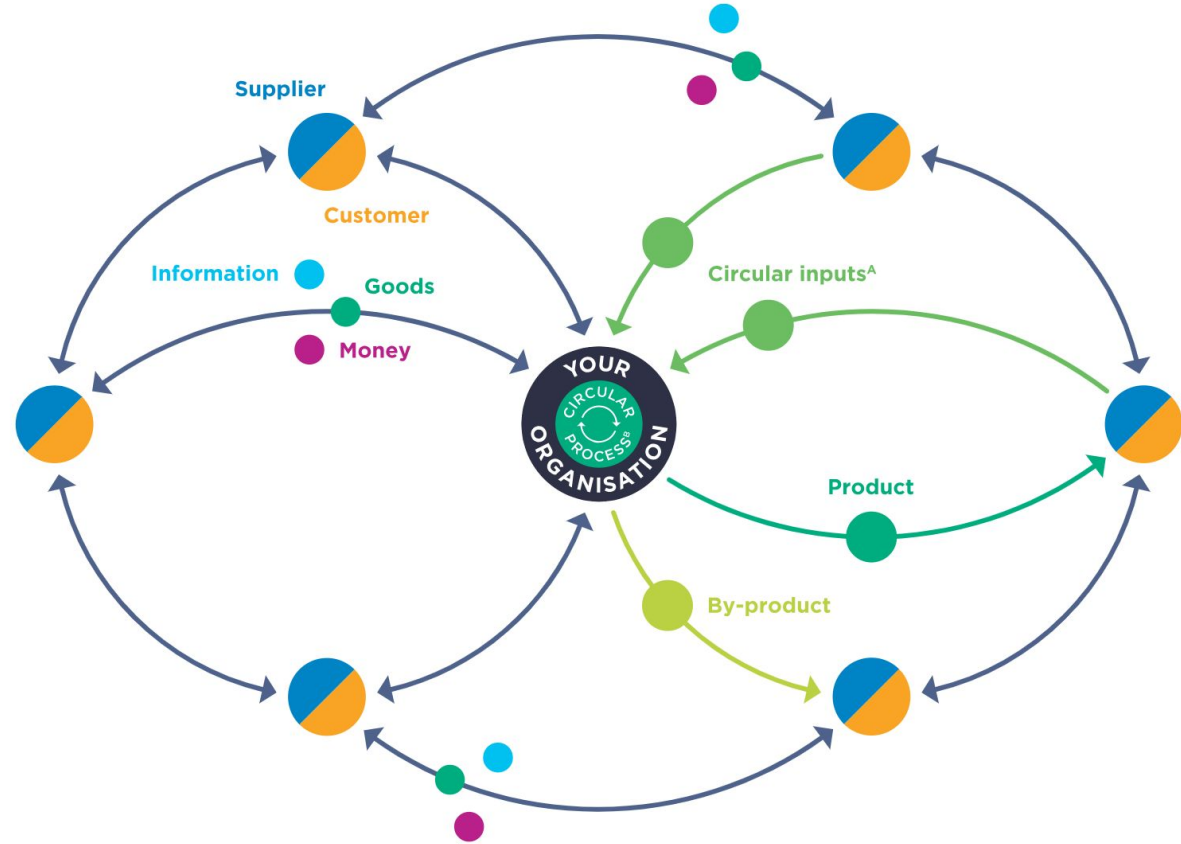


Chile Circular Economy Roadmap

Chile has created a long-term circular economy roadmap, with a range of goals pertaining to the creation of green jobs, the decrease of municipal solid waste and the increase of recycling rates.

Supply chains have traditionally been built to support our linear 'take-make-waste' models. Now is the time to redesign them.

Rather than mere throughput of materials, the circular economy achieves the circulation of materials in an interconnected system.



As a result, collaboration across government is key.



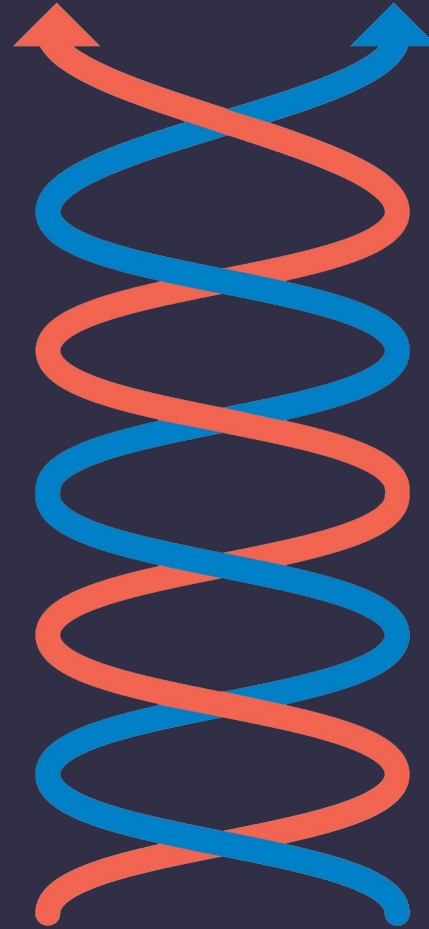
CIRCULAR ECONOMY POLICY GOAL 5

Collaborate for system change

Goal 5 underpins all other Goals. It focuses on the 'how' of policymaking for system change - the mechanisms for developing new policies and aligning existing ones in order to unlock a systemic, economy-wide transition to a circular economy.

**Actions from businesses
and policymakers are
mutually reinforcing,
resulting in an ambition
loop.**

Government policy



Business action

Thank you.

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