

Producción en Ciclo Cerrado y Economía Circular



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Problema de Energía?



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Problema

| Sostenibilidad

| Cradle to Cradle

| Casos

3

Healthy Indoor Climate?



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Problema

| Sostenibilidad

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| Casos

Reciclaje?



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Problema

| Sostenibilidad

| Cradle to Cradle

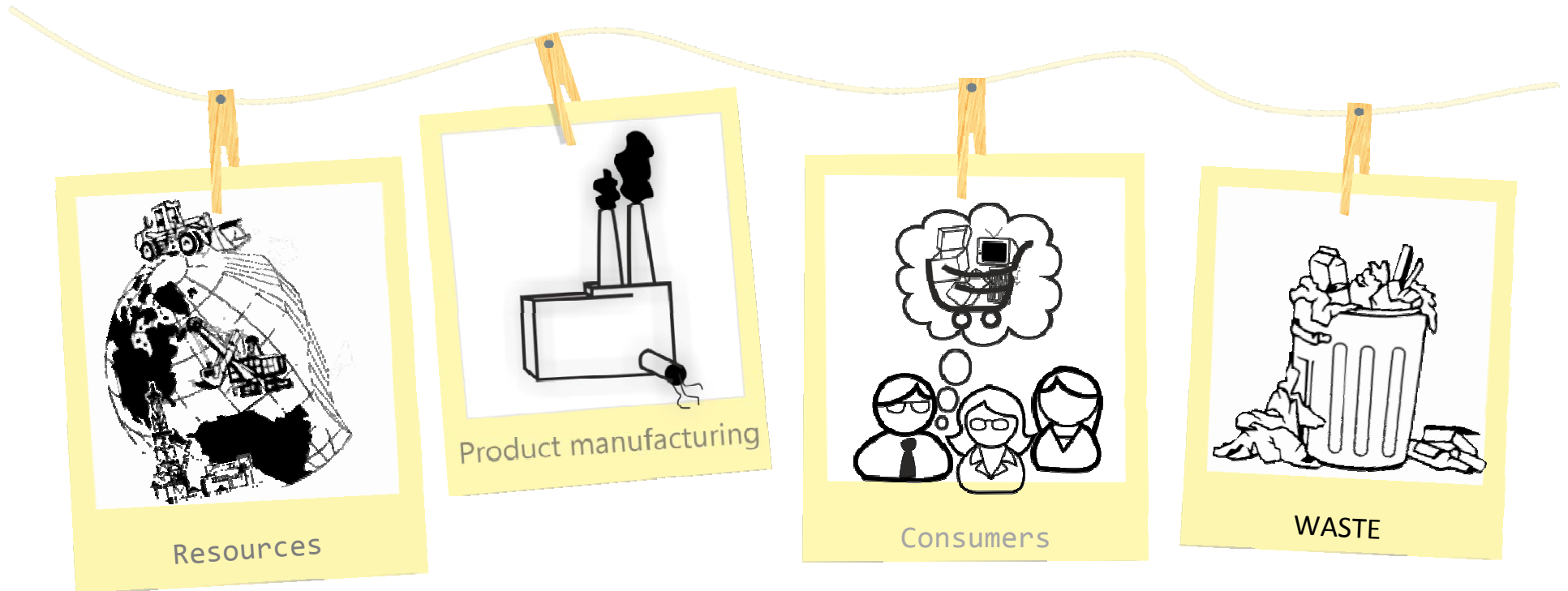
| Casos

5

Problema de residuos?



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Tomar-Producir-Disponer

65 millones de toneladas de materias primas en el 2010
82 mil millones de toneladas en 2020

Problema

| Sostenibilidad

| Cradle to Cradle

| Casos

Sopa de Plásticos(1)



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Problema

| Sostenibilidad

| Cradle to Cradle

| Casos

Sopa de Plásticos(2)



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Problema

| Sostenibilidad

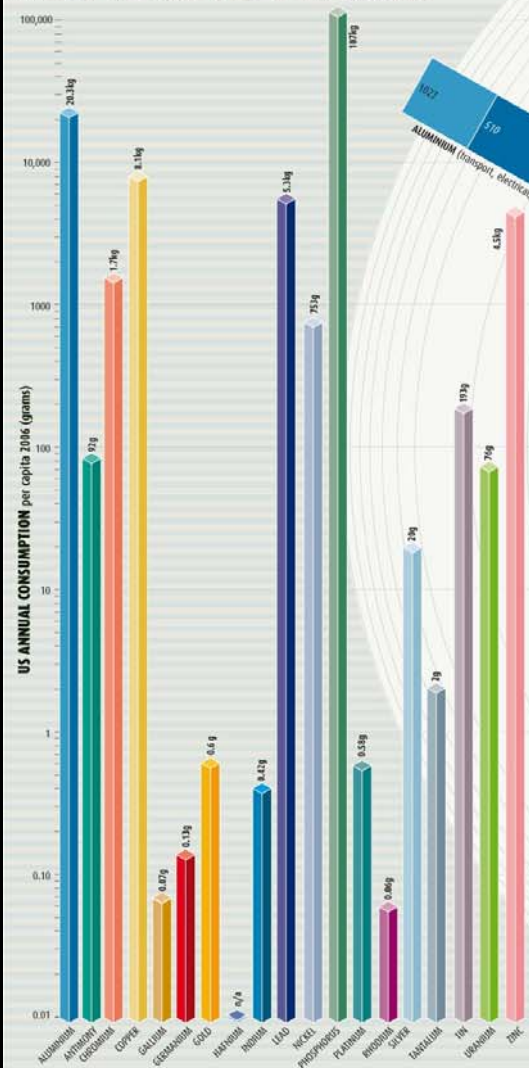
| Cradle to Cradle

| Casos



Disponibilidad de los materiales

HOW LONG WILL IT LAST?



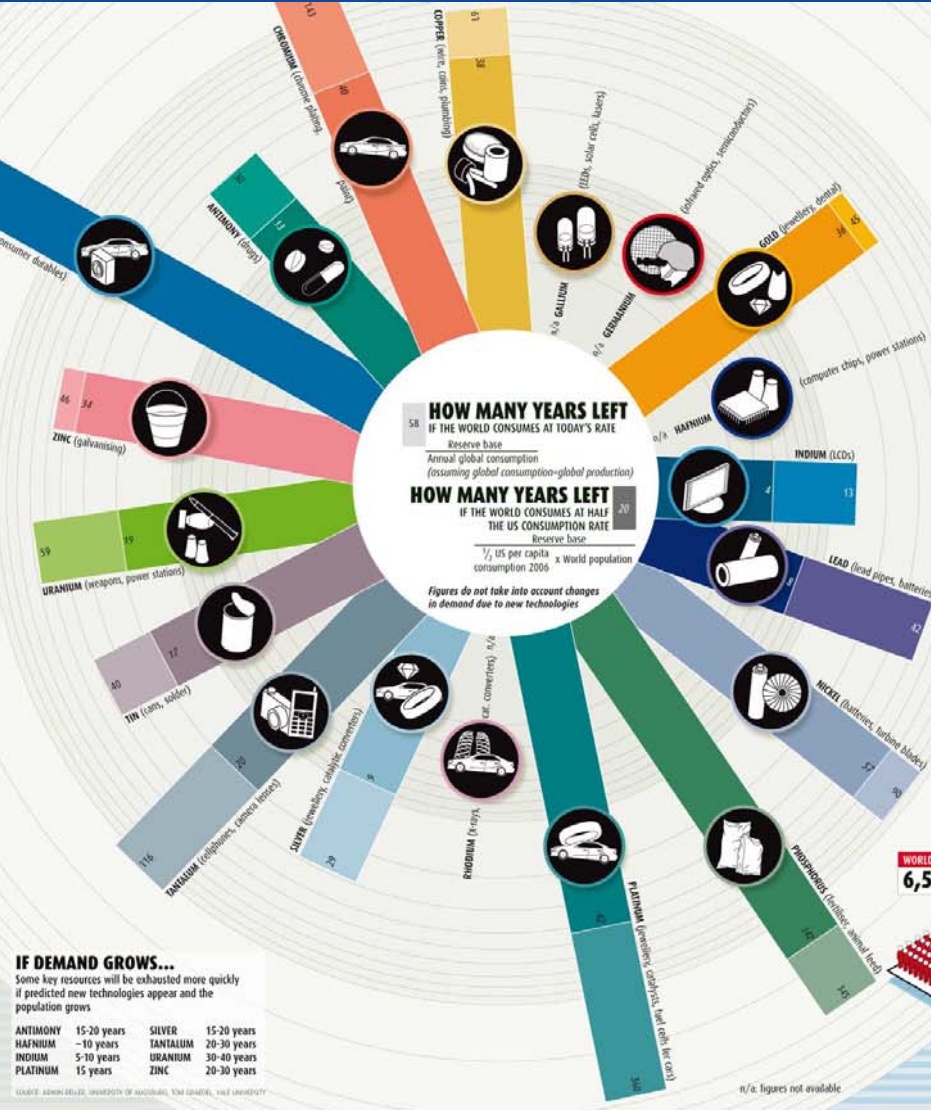
IF DEMAND GROWS...
Some key resources will be exhausted more quickly if predicted new technologies appear and the population grows

ANTIMONY	15-20 years	SILVER	15-20 years
HAFNIUM	~10 years	TANTALUM	20-30 years
INDIUM	5-10 years	URANIUM	30-40 years
PLATINUM	15 years	ZINC	20-30 years

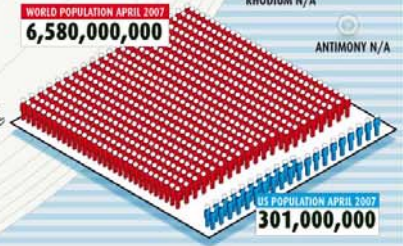
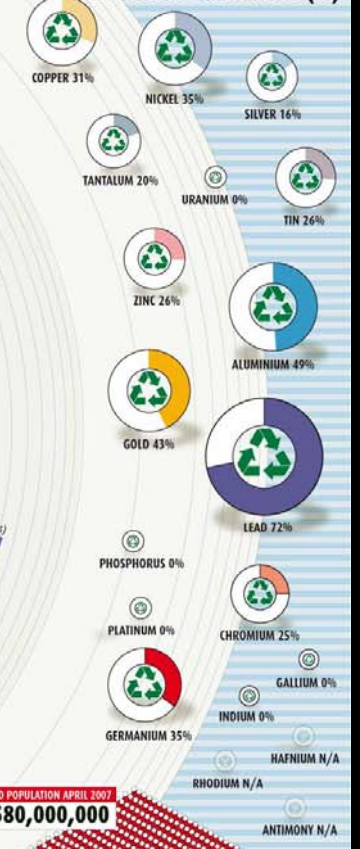
HOW MANY YEARS LEFT IF THE WORLD CONSUMES AT TODAY'S RATE
Reserve base
Annual global consumption (assuming global consumption-global production)

HOW MANY YEARS LEFT IF THE WORLD CONSUMES AT HALF THE US CONSUMPTION RATE
Reserve base
1/2 US per capita x World population consumption 2006

Figures do not take into account changes in demand due to new technologies



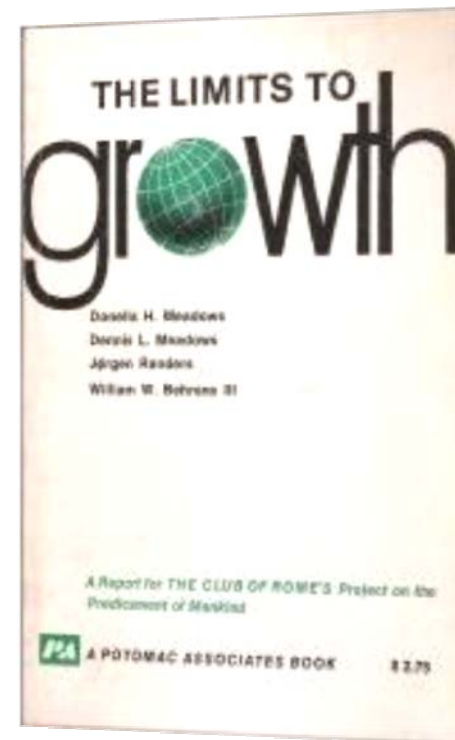
PROPORTION OF CONSUMPTION MET BY RECYCLED MATERIALS (%)

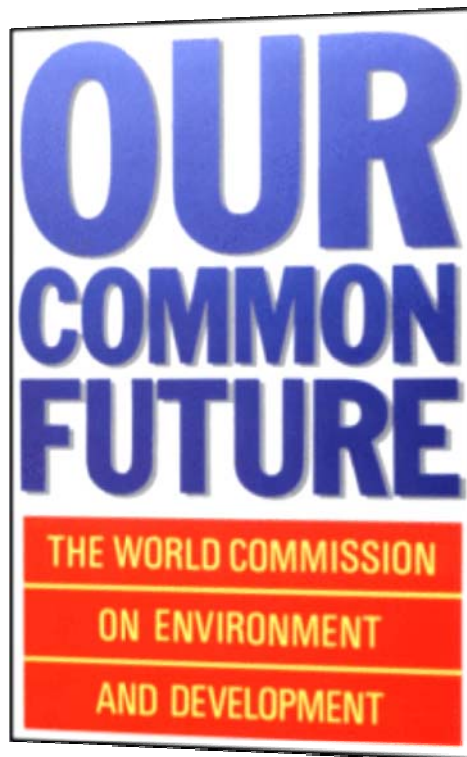


Las primeras advertencias



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Nuestro Futuro Común
Brundtland Report:

*“ desarrollo que asegura las
necesidades del presente sin
comprometer la capacidad de
las futuras generaciones para
enfrentarse a sus propias
necesidades ”*

Eco-Eficiencia



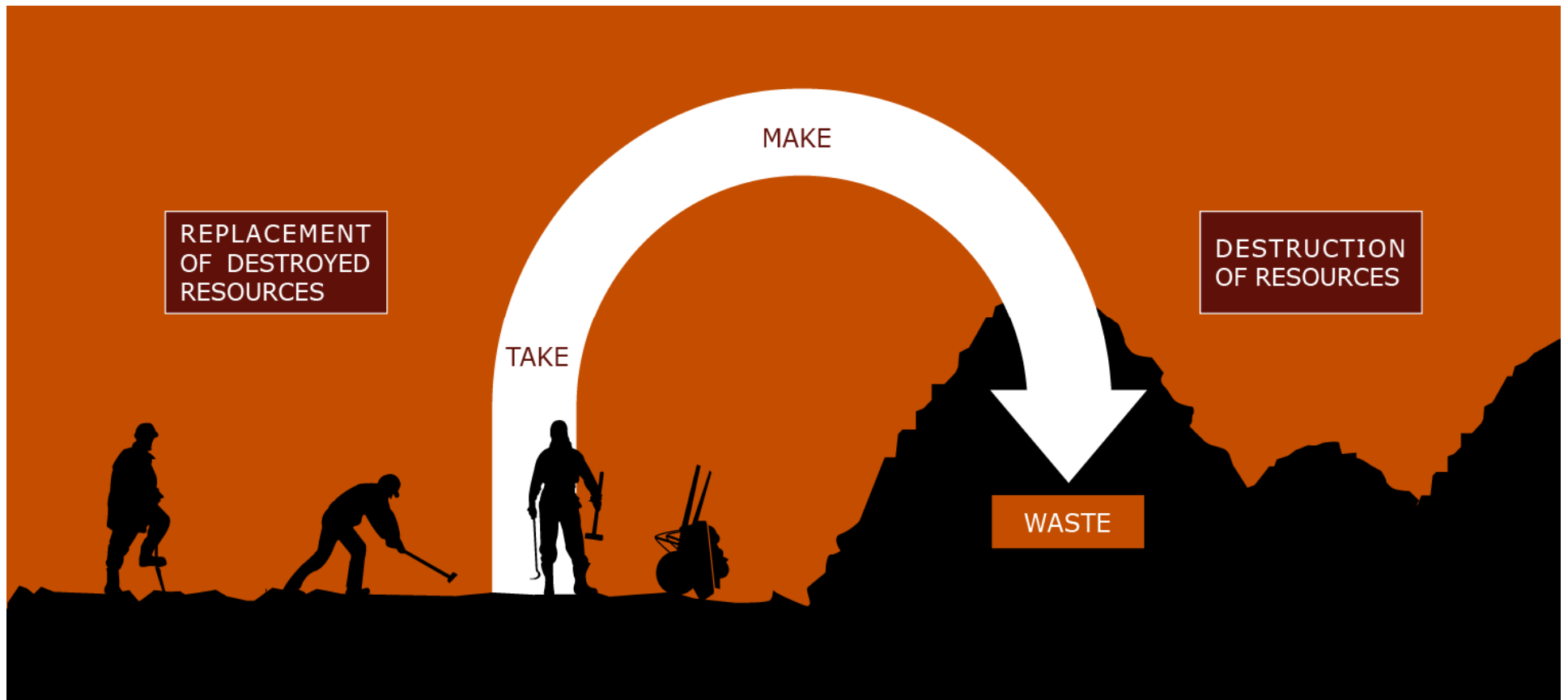
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Cradle to Grave



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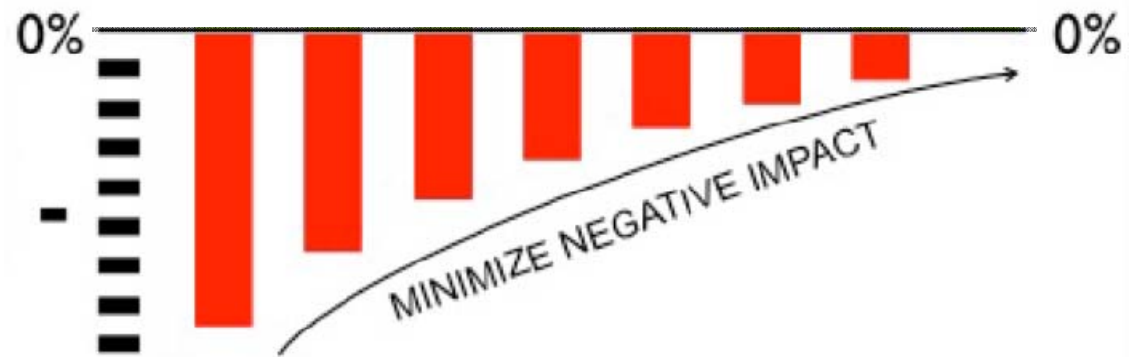


Source: EPEA

Eco-Eficiencia



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Source: C2C PII

The Cherry Tree





Waste is Food

Everything is a nutrient for something else

Use Current Solar Income

Energy that can be renewed as it is Used

Respect Diversity

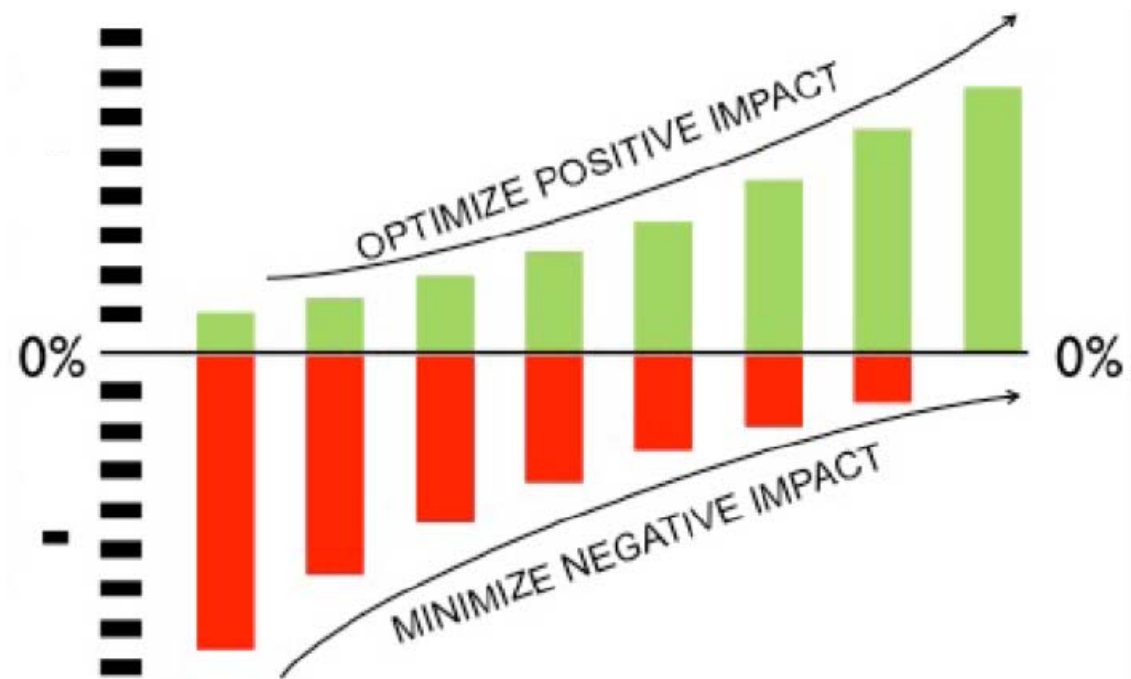
Species, Cultural, and Innovation Diversity

Ciclo Biológico y Ciclo Técnico



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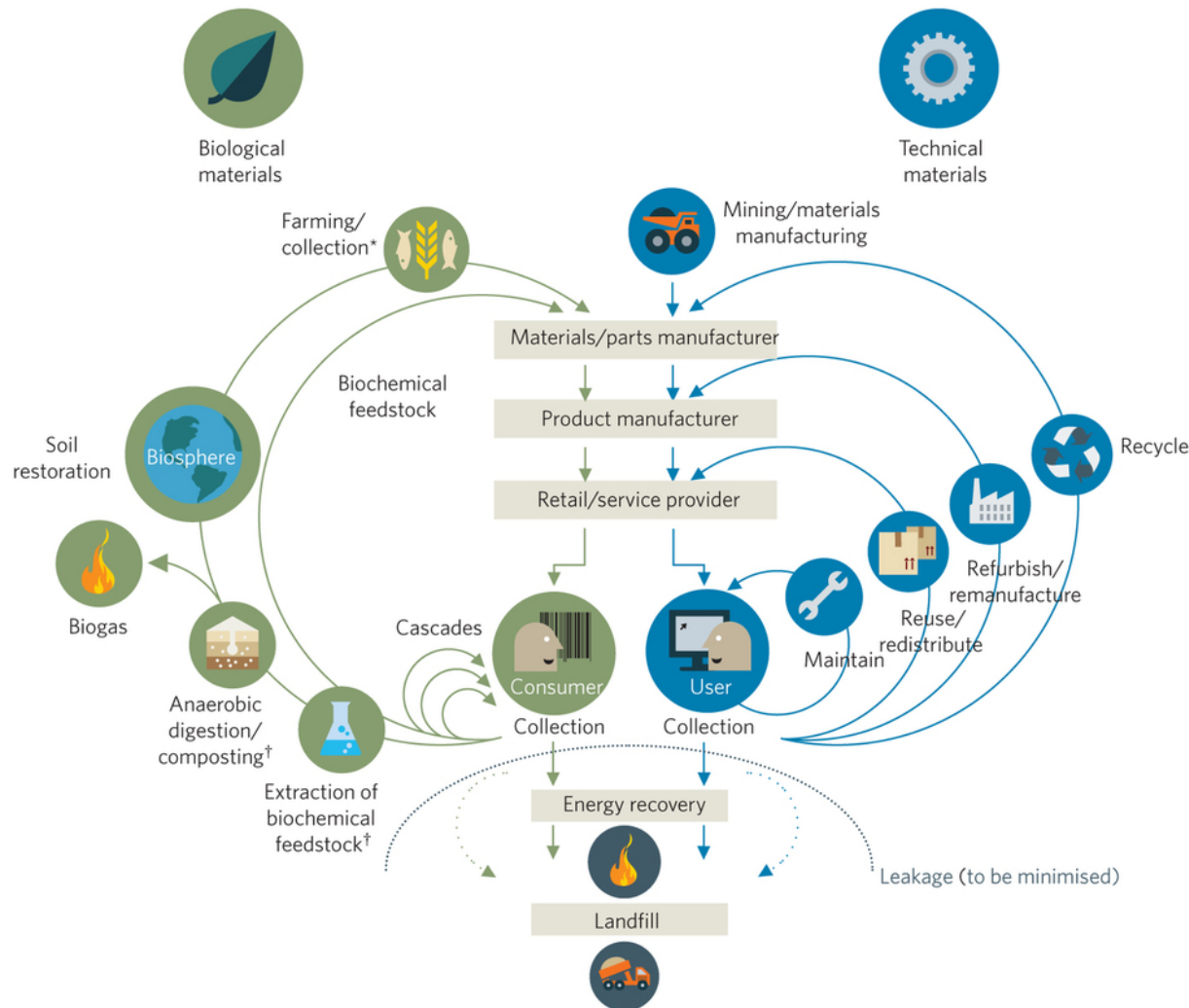


Source: C2C PII

Principios de una Economía Circular



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1. Residuos se conviertan en nutrientes para la biosfera o la industria

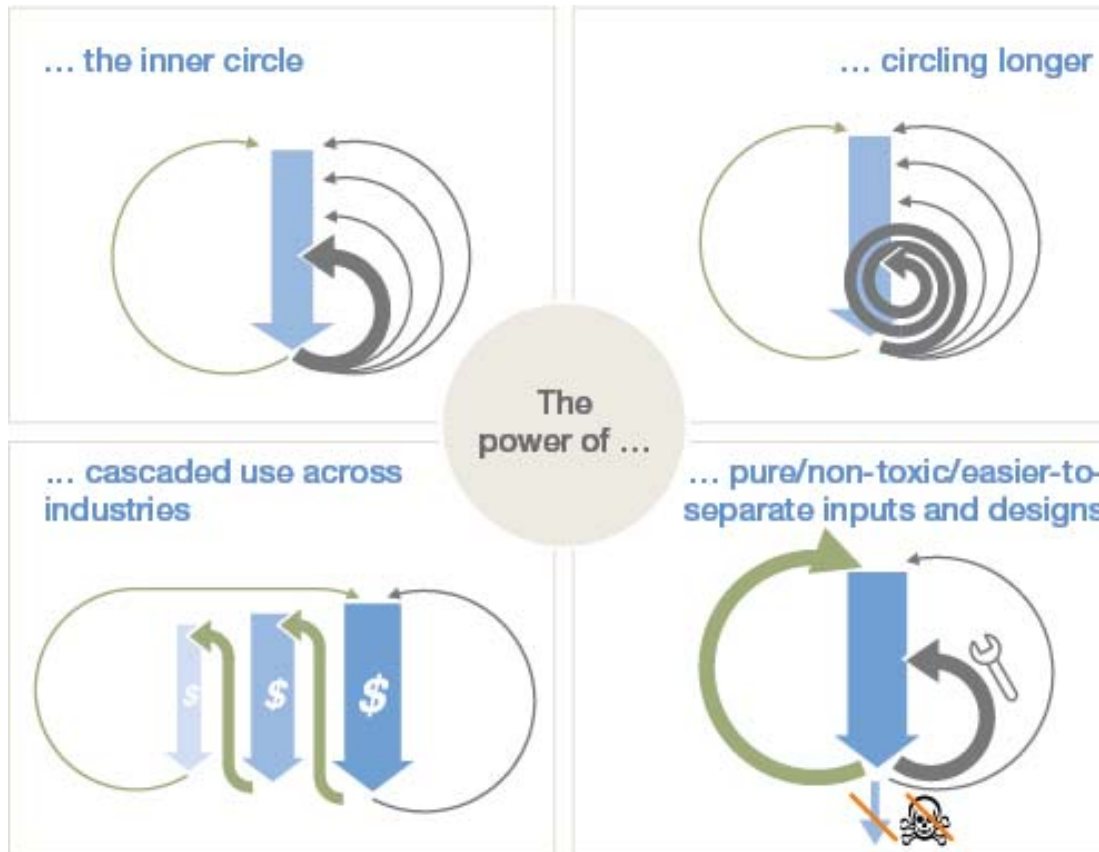
2. Circularidad introduce una diferenciación entre los componentes consumibles y duraderos de un producto

3. La energía necesaria para alimentar este ciclo debería ser renovable por naturaleza

Source: Ellen MacArthur Foundation circular economy team drawing from Braungart & McDonough and Cradle to Cradle (C2C)



Fuentes de creación de valor



1. El poder del círculo interno

2. El poder de circularidad prolongada

3. El poder de uso en Cascada

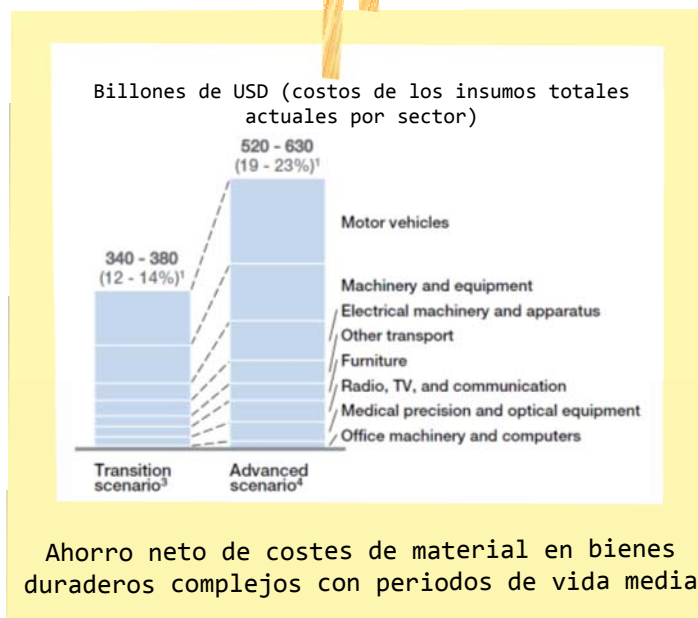
4. El poder de insumos y diseños puros, no tóxicos y fáciles de separar

SOURCE: Ellen MacArthur Foundation circular economy team.
Towards the Circular Economy: Accelerating the scale-up across
global supply chains

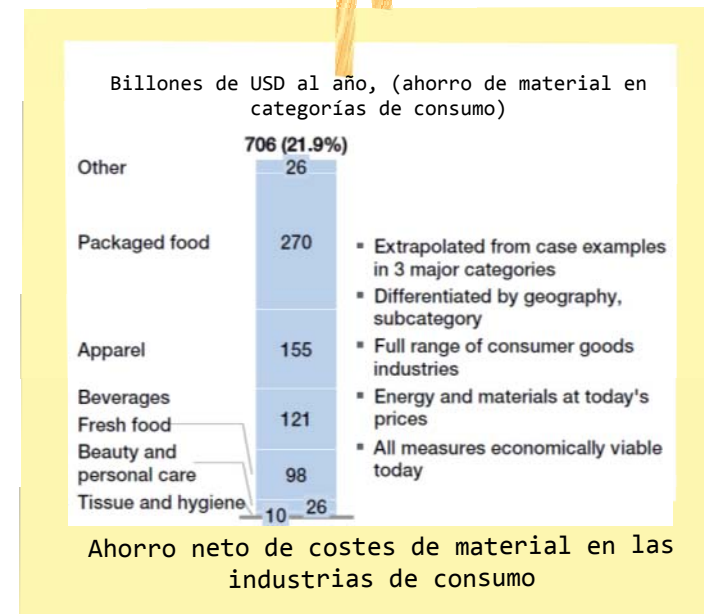
Beneficios de una Economía Circular



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Fuente: Eurostat 2007 input-output tables for EU-27 economies; Ellen MacArthur Foundation





Fuente: Ellen MacArthur Foundation

Ahorro sustancial de materiales netos, Mitigación de los riesgos de volatilidad y de suministro, Innovación y creación de empleo, Productividad de la tierra y la salud del suelo, Capacidad de recuperación a largo plazo de la economía

Puma

PUMA has developed a compostable sneaker, called **Incycle**, which holds Cradle to Cradle BASIC certification.



Compared to the conventional PUMA sneakers, the impact of the certified product results in:

Category	Impact
Environmental impact	-87% smaller impact at the end of use and is a nutrient to the soil.
Materials	+97% compostable materials, substantially cutting its end-of-use impacts.
Energy	-48% reduced energy for more energy efficient manufacturing.
Water	-51% reduction of water use, more water efficient to make, with 21 liters per pair.
Sustainability leader	Enhancing PUMA's reputation as a sustainability leader by showcasing a design-focused solution to waste clothing.
Reduced cost to human well-being	A potential increased environmental net benefit of \$1.14 per pair of shoes is seen if 100% of footwear is recovered and composted.

Problema |

Sostenibilidad |

Cradle to Cradle |

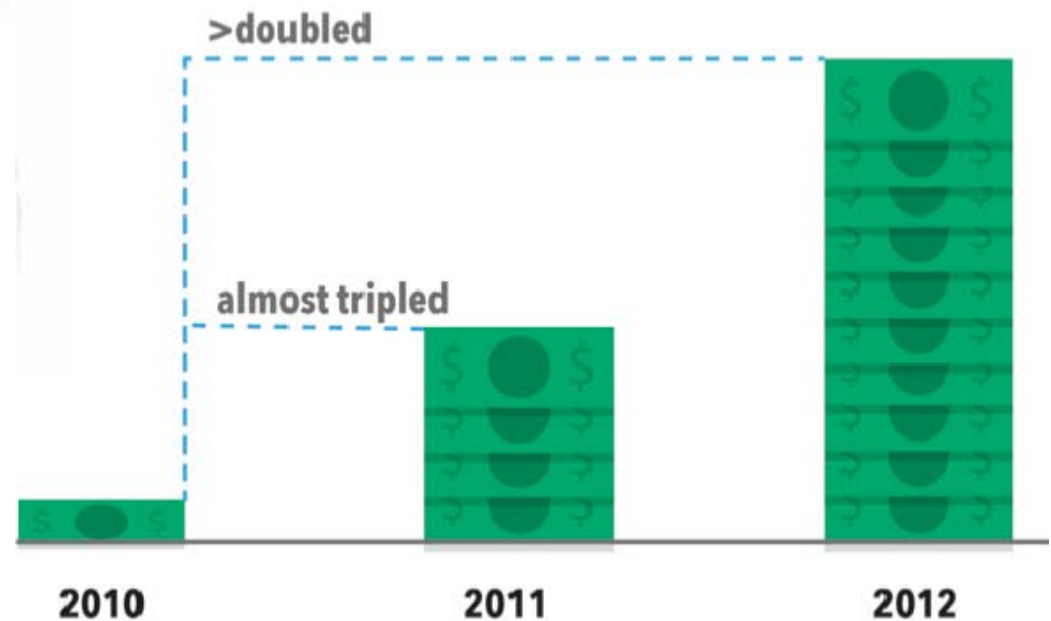
Casos

Van Houtum



SATINO BLACK HAND TOWELS VAN HOUTUM B.V.
Certification Standard Version 3.0

SILVER		BASIC	BRONZE	SILVER	GOLD	PLATINUM
	Material Health			✓		
	Material Reutilization					✓
	Renewable Energy				✓	
	Water Stewardship				✓	
	Social Fairness				✓	



Venlo



Problema | Sostenibilidad | Cradle to Cradle | **Casos**



Gracias

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