



ACADEMY ON SOCIAL AND SOLIDARITY ECONOMY (12th EDITION)

BUILDING BACK BETTER: THE ROLE OF SOCIAL
AND SOLIDARITY ECONOMY IN A HUMAN-
CENTRED AND PLANET-SENSITIVE RECOVERY

15-26 NOVEMBER 2021

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*Elective 3: SSE, just transition to climate-neutral
and circular economy: innovative ways of production and
consumption*



EURICSE



REPÚBLICA
PORTUGUESA

TRABALHO, SOLIDARIEDADE
E SEGURANÇA SOCIAL



CASES

Cooperativa António Sérgio para a Economia Social



International
Labour
Organization



International Training Centre

Social Circular Economy

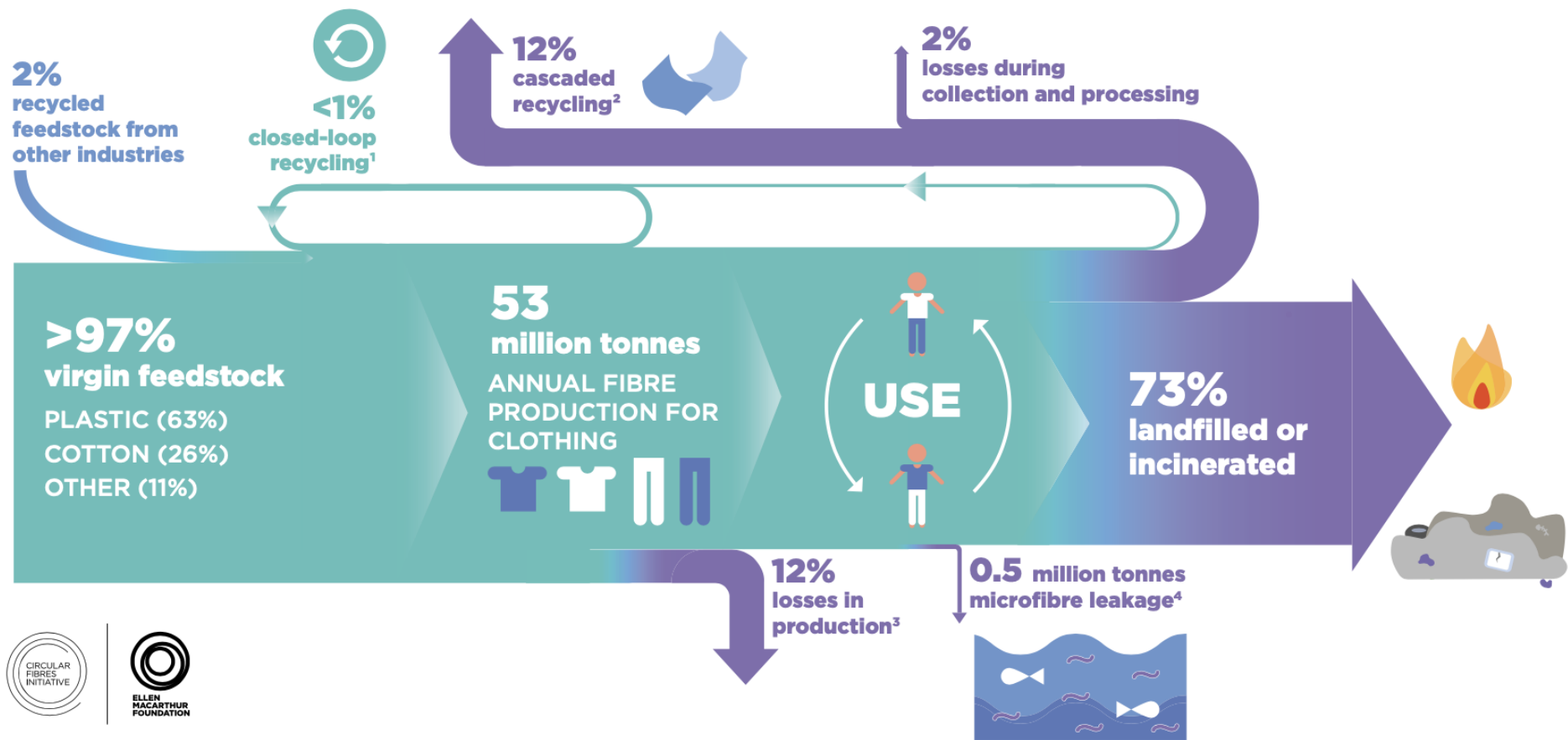
Opportunities for people and resources
Examples from Portugal

The life and death of resources

- Where do things come from?
- Where do they go?



FIGURE 3: GLOBAL MATERIAL FLOWS FOR CLOTHING IN 2015



- 1 Recycling of clothing into the same or similar quality applications
- 2 Recycling of clothing into other, lower-value applications such as insulation material, wiping cloths, or mattress stuffing
- 3 Includes factory offcuts and overstock liquidation
- 4 Plastic microfibres shed through the washing of all textiles released into the ocean

Source: Circular Fibres Initiative analysis – for details see Appendix B

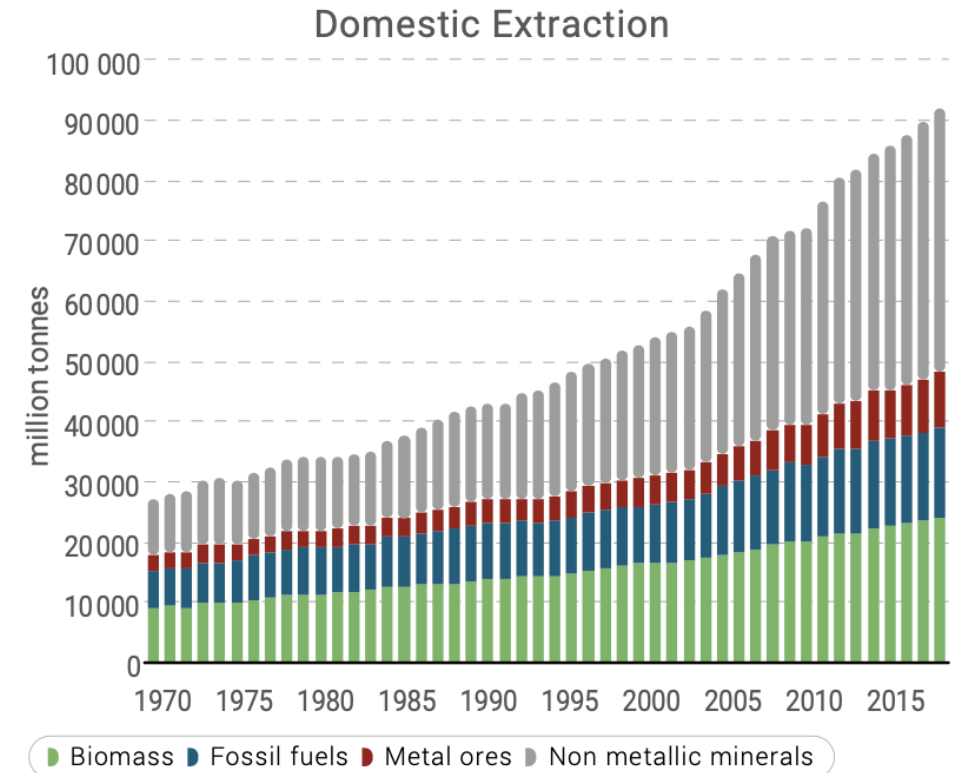
Resource extraction

Exponential increase since 1970

- The extraction and processing of materials, fuels and food contribute half of total global greenhouse gas emissions and over 90 per cent of biodiversity loss and water stress
- Resource extraction has more than tripled since 1970, including a fivefold increase in the use of non-metallic minerals and a 45 per cent increase in fossil fuel use
- By 2060, global material use could double to 190 billion tonnes (from 92 billion), while greenhouse gas emissions could increase by 43 per cent

Source: UN Environment's [Global Resources Outlook 2019](#)

FIGURE 2.7 Global material extraction, four main material categories, 1970 - 2017, million tons. Obtained by totalling domestic material extraction for all individual nations



Source: UNEP & IRP, 2018

Consumption

Faster cycles and new needs

Lifespan of consumer electronics is getting shorter, study finds

Source: [The Guardian](#)

Investigation of built-in obsolescence for German environment agency finds percentage of products sold to replace defective ones has increased remarkably, **reports ENDS Europe**



▲ European consumers are upgrading to larger TV sizes, even though more than 60% of replaced televisions were still functioning in 2012. Photograph: Bloomberg/Bloomberg via Getty Images

Manufacturing a 3 megawatt wind turbine requires:

335 tonnes of steel
4.7 tonnes of copper
1 200 tonnes of concrete
3 tonnes of aluminium
2 tonnes of rare earth elements
as well as zinc

Source: [Euractiv](#)



Waste and pollution

An exemple: eutrophication

Eutrophication in marine, coastal and estuarine ecosystems is a consequence of nutrient over-enrichment, mostly inputs of nitrogen and phosphorus from land-based sources, marine activities and atmospheric deposition, as well as fluxes from neighbouring water bodies. Source: [EEA](#)

ENVIRONMENT | JUNE 7, 2021

‘Sea Snot’ Wreaking Havoc on Coast of Turkey

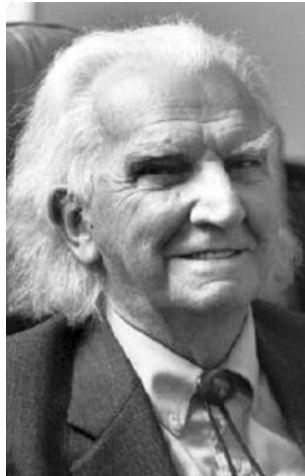
Source: [New York Magazine](#)

Baris Salihoglu, head of METU's Institute of Maritime Sciences, said it was hard to know what exactly was causing the sudden surge. But he told DW that pollution from organic compounds like nitrogen and phosphorus, as well as climate change had certainly played a part. Source: [DW](#)



Spaceship Earth

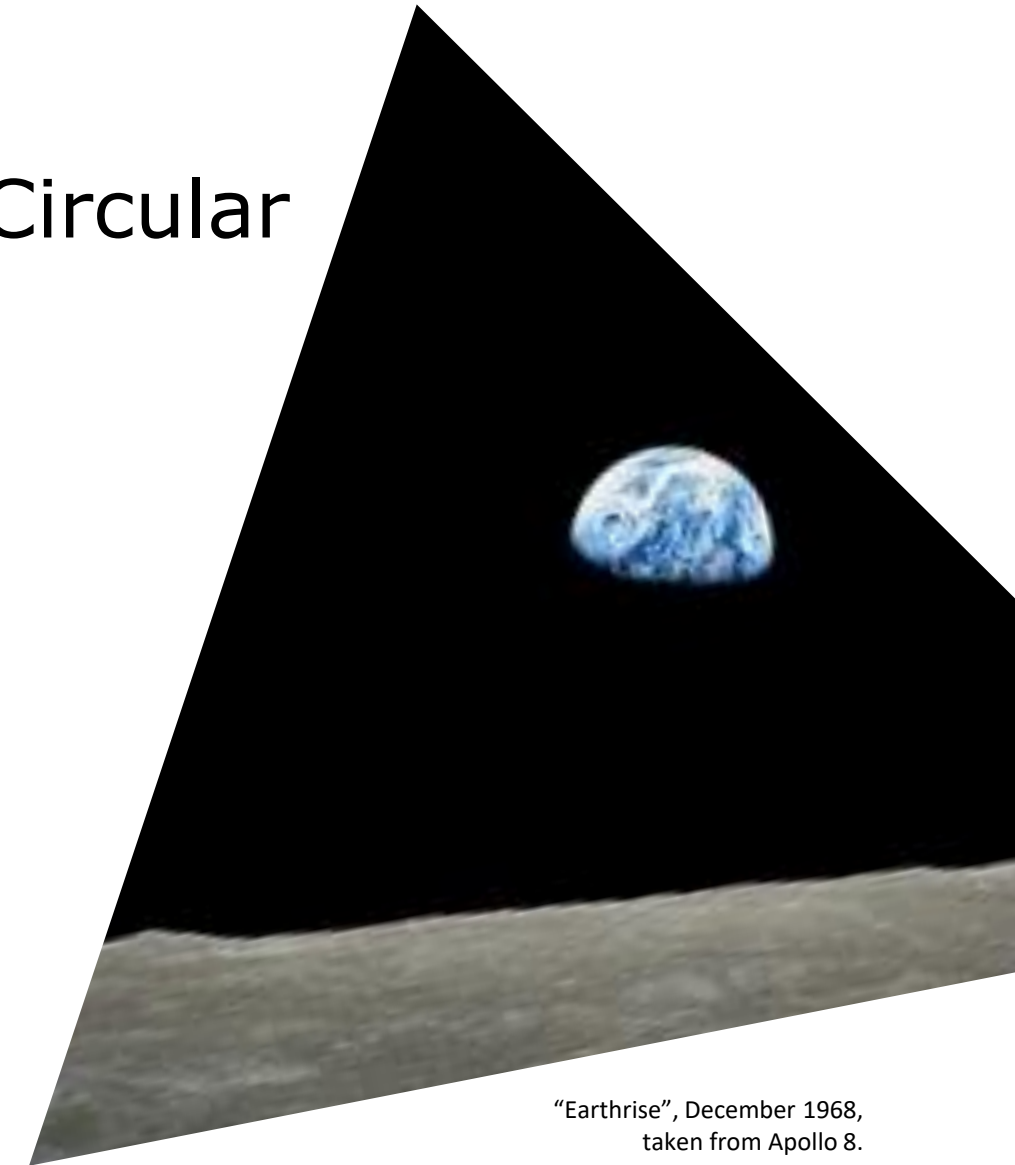
Kenneth Boulding, “father” of Circular Economy



The essential measure of the success of the economy is not production and consumption at all, but the nature, extent, quality, and complexity of the total capital stock, including in this the state of the human bodies and minds included in the system.

Boulding, Kenneth. 1966. [*The Economics of the Coming Spaceship Earth*](#)

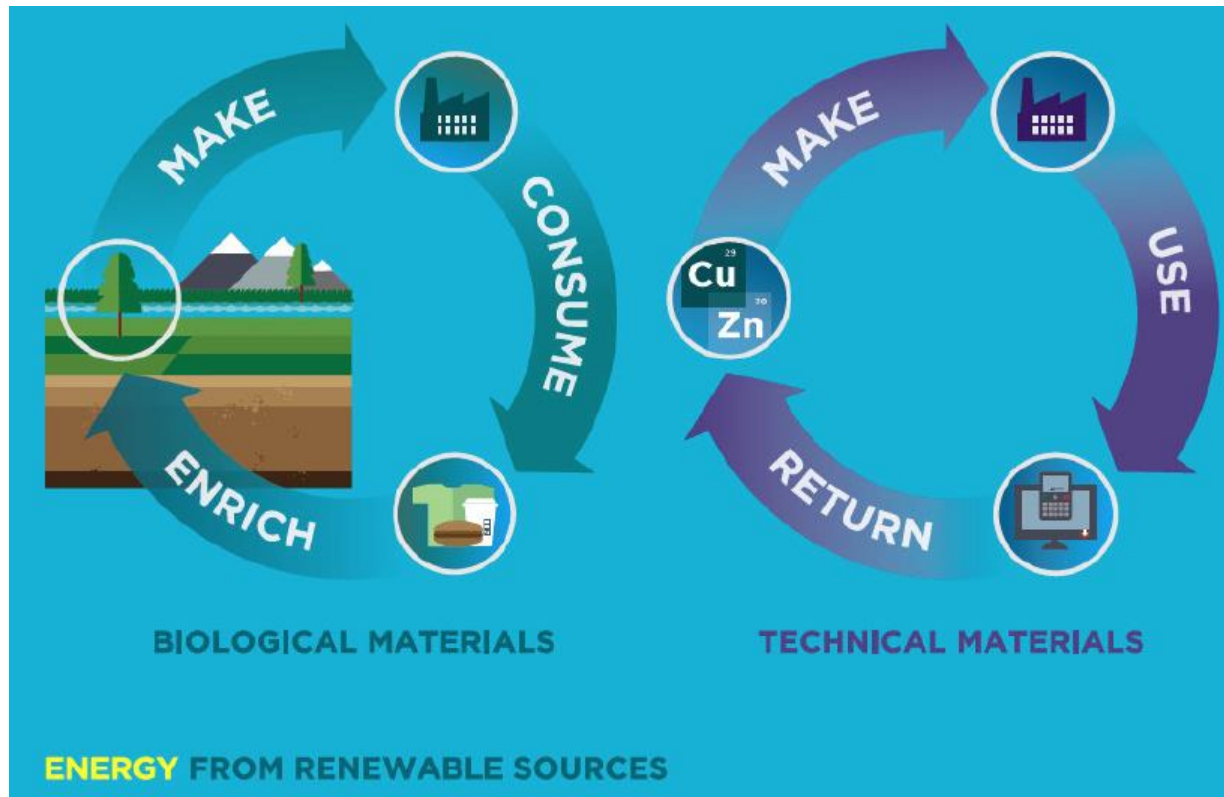
Human resources are part of the equation



“Earthrise”, December 1968,
taken from Apollo 8.

Circular Economy strategies

Organic and technical cycles



Source: [Ellen McArthur](#) Foundation

1. Rethink, reduce: ecodesign
2. Regeneration
3. Sharing
4. Life-cycle extension
5. Waste as resource

1. Ecodesign

Integrate circularity in urban planning, infrastructure, logistics, products and services

Basic principles:

Close material flows: enable recycling, remanufacturing, upcycling

Slow down material flows: enable repair, sharing, product as service

Reduce material flows: maximum utility with minimum resources



Solid shampoo



Recycled modular carpet

2. Regeneration

Restoring ecosystem health



[Agroforest of Bela Flor](#), Lisbon, Portugal



Gorla Maggiore water park (Milan, Italy). It includes a flood prevention area, a pollutant removal area (phragmites reed bed and natural-like multispecies wetland) and a leisure and recreational area. Source: [Naturvation](#)

3. Sharing

New business models,
community practices



Library of things

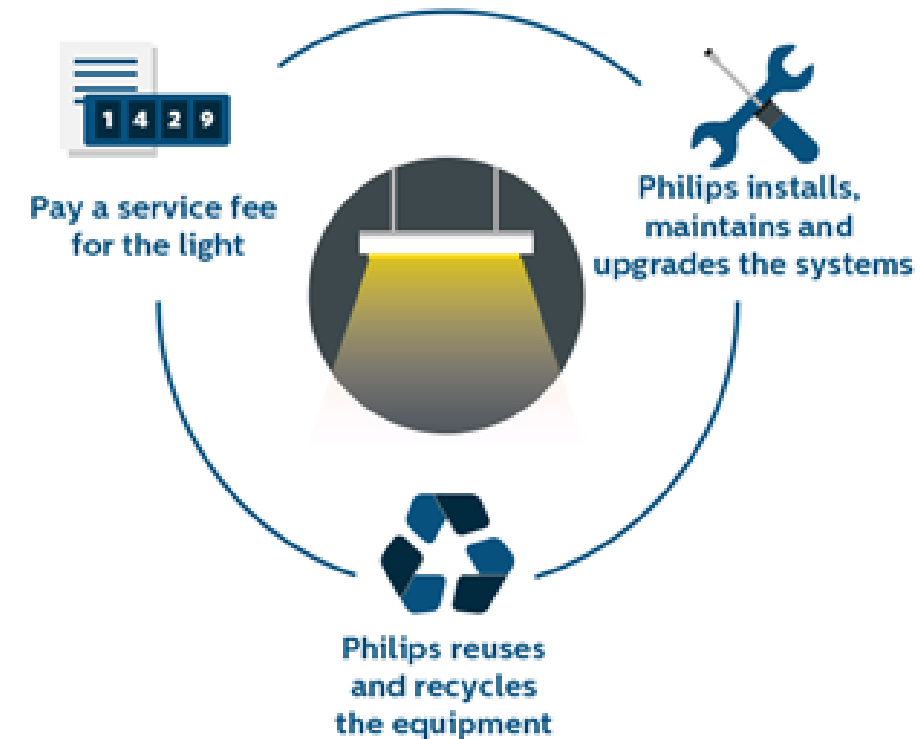


Shared bikes

Using vs. owning

Business Model Innovation

Selling light as a service instead of bulbs



Lighting service provider instead of
equipment seller

4. Life cycle extension

Repair, refurbish, reuse



Repair and refurbishment of
electronic equipments



Casaco Mango Collection

Esmoriz - hoje 12:24

20 €



Second-hand digital
marketplace

5. Waste as resource

Nothing is to be wasted



NAM: mushrooms from coffee grounds



Urban furniture from recycled mixed plastics

Sectorial trends

Expected transformations and related employment opportunities

Agriculture and Bioeconomy

Regenerative agriculture

Digital technologies applied to agriculture and its supply chain

Biorefining: chemicals, fuels and biobased materials (from domestic and agro waste, food industry subproducts, wastewater sludge)

Anaerobic digestion (biogas and fertilizer production)

Infrastructure and Equipments

Disassembly or reuse of obsolete infrastructure

Repair and refurbishment of equipments (potential for collaboration between companies and social economy /informal economy)

Construction

Offsite construction (modularity, material and energy efficiency)

Closed-loop cycling of building materials and components: selective deconstruction, sorting, logistics, restoration

Housing Insulation

Digital management of materials and buildings

Textiles

Rental and reuse

Recycling, enabled by innovative fiber and garment design

Separate collection

Sources: *The Future of Work: Baseline Employment Analysis and Skills Pathways for the Circular Economy in Scotland, 2020*; *Uma Economia Circular no Brasil – uma abordagem exploratória inicial, 2017*

Portugal

Circular Economy Action Plan (2017)

7 macro actions, mirroring EU orientations

Sectorial approach (5 priority sectors)

Construction

Public Procurement

Tourism

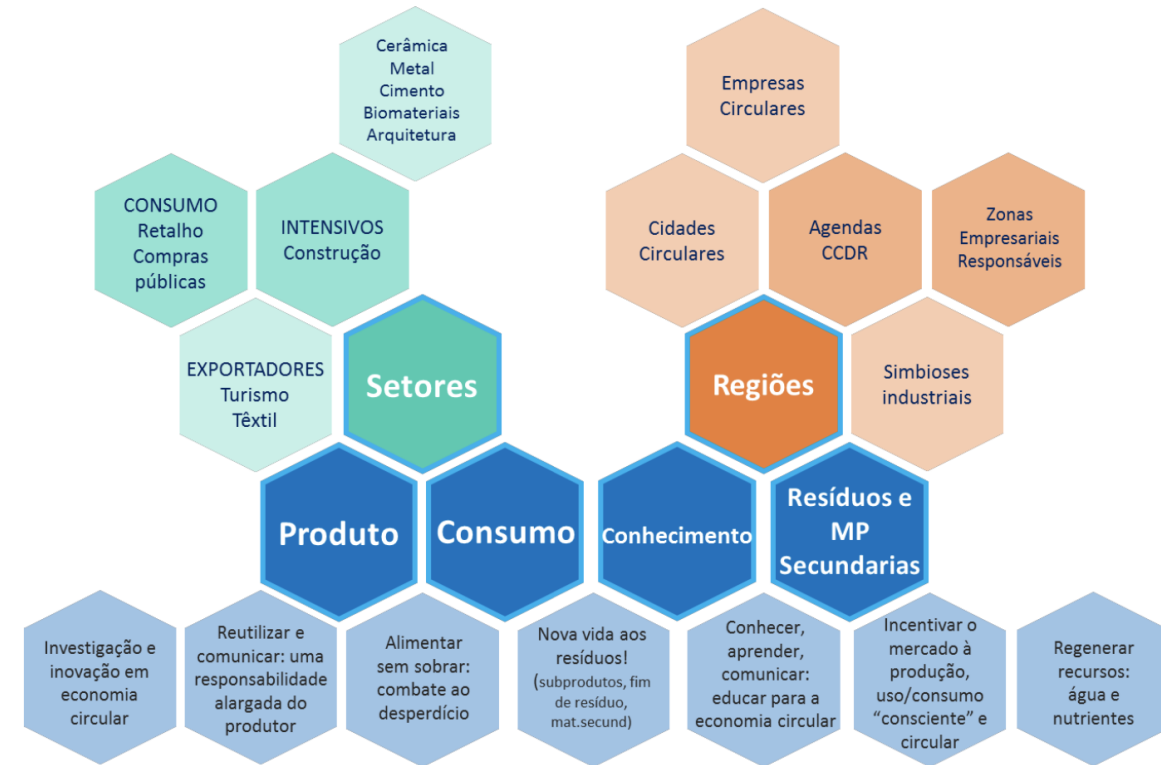
Textiles

Retail

Territorial orientations

LIMITATIONS

- Doesn't build on assessment of actual practices and level of compliance
- Doesn't set targets
- Relies on soft tools: voluntary agreements, incentives



Source: LIDERAR A TRANSIÇÃO: Plano de Acção para a Economia Circular em Portugal 2017-2020

Portugal - Resilience and Recovery Plan

Circular Economy gets little attention

At least 37% of investments should concern the green transition pillar – according to Green Recovery Tracker, in PT it is only 19%

C.E. AREAS

Sustainable Bioeconomy: High Added Value
Production from Biological Resources

Ex. Chemical recycling of cellulose-based textiles

Energy Efficiency in Buildings: Rehabilitation and
Energy Efficiency, Energy and Climate Transition, Job
Creation and National and Social Resilience

(...) little or nothing is said about the potential for job creation, increasing the resilience of the Portuguese economy through the availability of multiple resources/waste that can be reintegrated into production processes, as well as the enormous environmental benefits (in the country and all over the country world, given the great dependence of our economy on the import of resources) that may result from it.

Francisco Ferreira in [Público](#), 2021-03-31

Portugal

JUNTAr: Promoting Circular Economy at District Level

Ex. 2019: Mercearia Solidária (*Solidarity Grocery Shop*)
In Massamá /Monte Abraão (Lisbon suburban área)

Infrastructure for
distribution of food
leftovers

Capacity building and
awareness raising



Portugal

BIP/ZIP Program (Lisbon): urban disused land recovery through agroforestry





Agrofloresta de Campolide



Portugal: SSE & Food Waste Prevention

Large scale volunteer-based projects: Refood, Zero Desperdício, Fruta Feia



- Created 2011 in Lisbon
- Replicated nationally
- Over 30 local groups in Lisbon area



- Cooperative, created 2013 in Lisbon
- 12 distribution points in Lisbon and Oporto areas
- Awarded LIFE best project prize 2020 (Flaw4Life)



Portugal: SSE & reuse

ENTRAJUDA: support, sharing and reuse platform for the SSE

Since 2006

2 large warehouses in Lisbon

Human resources: 16 employees; 300 volunteers

Providing to SSE organizations: goods, appliances, equipments, furniture; training; volunteers





Entrajuda – Banco de Equipamentos

Portugal

The Construction Sector and the Built Environment

Sector accounts for **> 40% energy consumption**, **> 38% GHG emissions**, **> 50% material consumption**

Construction and Demolition Waste (CDW)

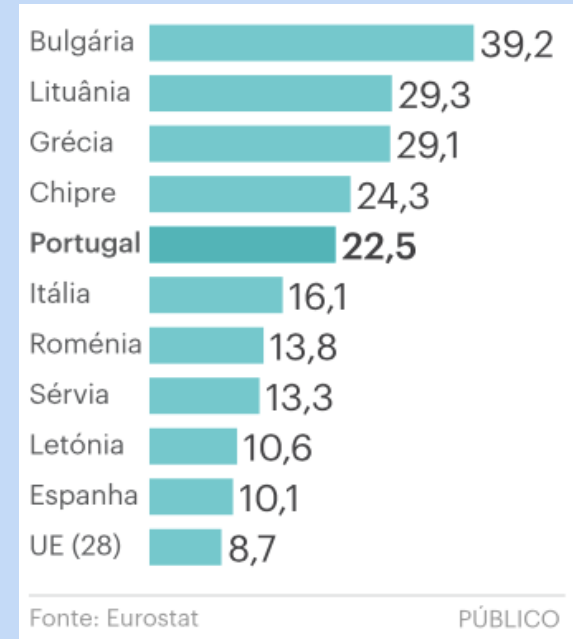
Treatment capacity for CDW largely underused:

- Not enough amounts
- Low cost of landfilling
- Low demand for recycled materials (more expensive than virgin)

Energy Poverty

- Poor construction quality
- Low salaries
- High electricity prices

Challenge: reduce consumption while increasing thermal comfort



<https://www.publico.pt/2020/12/13/sociedade/noticia/pobreza-energetica-portugal-piores-ue-1942219>

Mission: reuse

Materials Repository



Catálogo

A mostrar 1-16 de 52 resultados



Pio de mármore

Sold By Repositório de
Materiais



Taco de madeira

Sold By Repositório de
Materiais



Portas brancas –
Edifício 1735
[Indisponível]

Sold By Repositório de
Materiais



Espelhos de
puxadores em pau
santo

€45,00

Sold By Repositório de
Materiais

Mission: impossible?



Renovation of Supreme Court:
what happened to 200 windows?



There are many possibilities

Reuse architecture

SUPERUSE

superuse-studios.com

*What could be done to
promote reuse and reuse
organizations in the
construction sector?*



PHOTO © DENIS GUZZO

Portugal

Public Procurement Strategy – poorly implemented

Since 2016: [ENCPE](#) - Estratégia Nacional para as Compras Públicas Ecológicas. 21 Priority Goods and Services, criteria established for 12 of them

2020 evaluation

- Low implementation: non-recognition of benefits; difficulties in applying environmental criteria (lack of skills and training of human resources)
- Follow-up and monitoring of execution and results not ensured as foreseen
- Hardly any dissemination or training

Source: [Expresso](#)



<https://encpe.apambiente.pt/>

Mutual reinforcement

Synergies between Social and Circular Economy

The will to care for the planet generates bonds, work opportunities and sharing models

Concern for social justice, employment as inclusion tool, absence of profit imperatives enable labour-intensive circular activities



“Social and solidarity principles fill the gap toward CE opportunities that would otherwise be cost-ineffective.”

“Perhaps the most important contributions of SSE to the CE are precisely that of equity, **avoiding cost shifting in time and place**, and **models of collaborative and democratic governance systems**, which challenge the profit motive.”

Moreau, Vincent, Marlyne Sahakian, Pascal Van Griethuysen, e François Vuille. 2017. “Coming Full Circle: Why Social and Institutional Dimensions Matter for the Circular Economy”. *Journal of Industrial Ecology* 21(3): 497-506.

Social circular economy

A policy model for employment and ecological transition in France



The “zero long-term unemployed territory” (TZCLD) project aims to solve long-term unemployment through a **methodological innovation** (a new recruitment method based on a reverse process) an **organizational innovation** (the creation of a social firm with an employment objective and horizontal management) and a **legal innovation** (conversion of unemployment benefits into subsidies)

- **Nobody is unemployable**

All those who are permanently out of work possess useful know-how and skills that they can use if adequate employment is provided.

- **There is no lack of work**

There is a lack of employment, since many needs in society are not properly satisfied.

- **There is no lack of money**

Each year long-term unemployment leads to expenses and shortfalls that the community pays for.

<https://www.tzcld.fr>

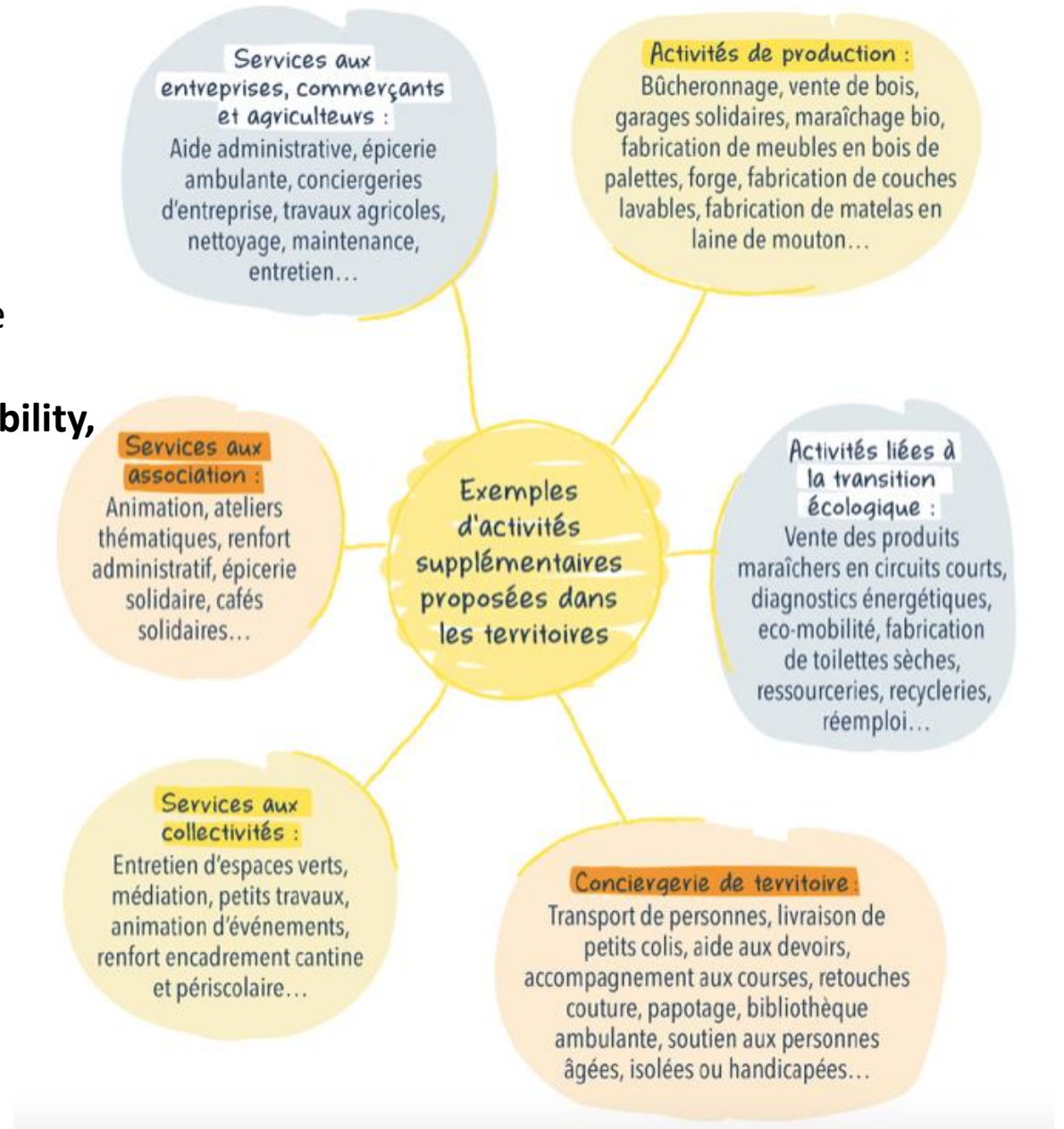
Social circular economy

Synergies at work

About 50% of the activities already implemented by the experimental territories are linked to the **ecological transition**, in four main sectors: **energy poverty, ecomobility, sustainable agriculture and the circular economy**.



Source: [tzcl](https://www.tzcl.fr/)



Thank you!

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www.circulareconomy.pt