



II Conferência SDR Portugal
Economia Circular e Inovação
31 de Maio - Museu do Oriente



A FRAMEWORK FOR CIRCULAR ECONOMY IN PACKAGING

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GLOBAL RESOURCES OUTLOOK 2019

NATURAL RESOURCES FOR THE FUTURE

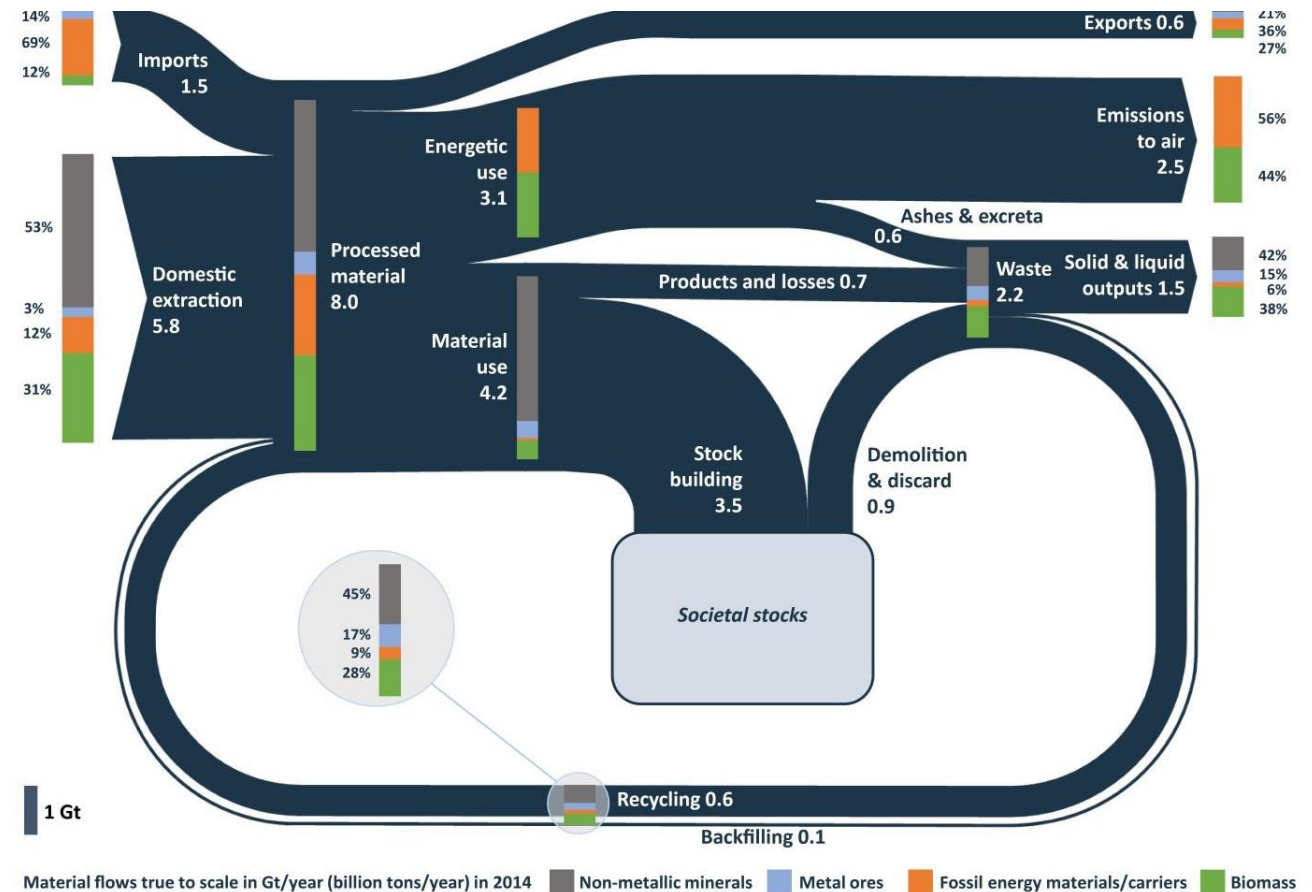


The cost of linear economies

- **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
- **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

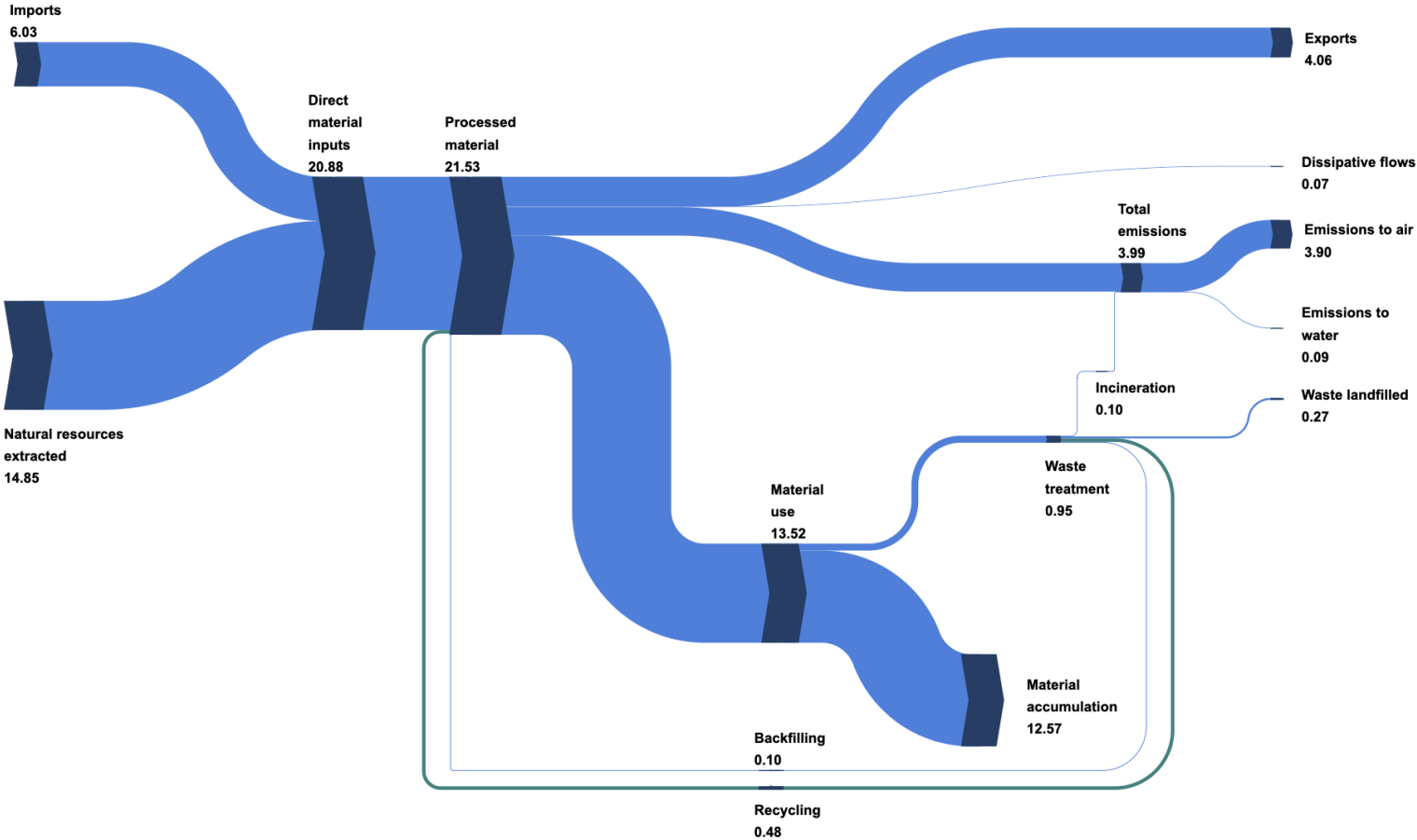
Looking at Circular Economy

- One way of looking at the circular economy is to see how materials enter, flow within and (eventually) leave the economy. Such a visual overview can be provided by a material flows diagram, which shows all raw materials — aggregated as well as grouped by categories of materials — throughout the economy, from their extraction until they become waste.



Does Portugal have a circular economy ?

Portugal - year 2021
Tonnes per capita



Legend

- Total

+
100%

How has the plastics circular economy evolved ?

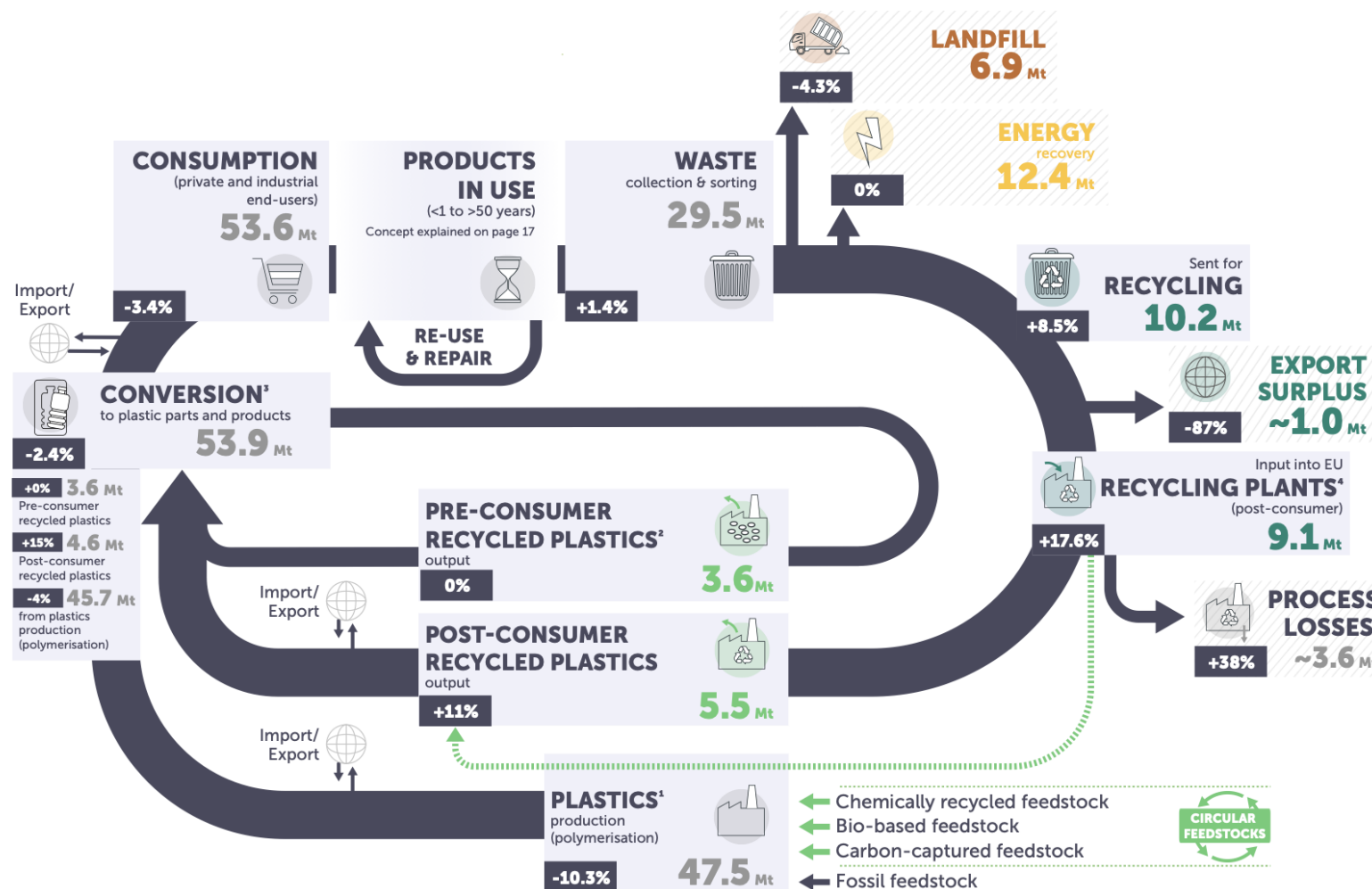
BETWEEN 2018-2020

From 2018 to 2020, a positive trend towards higher circularity emerged.

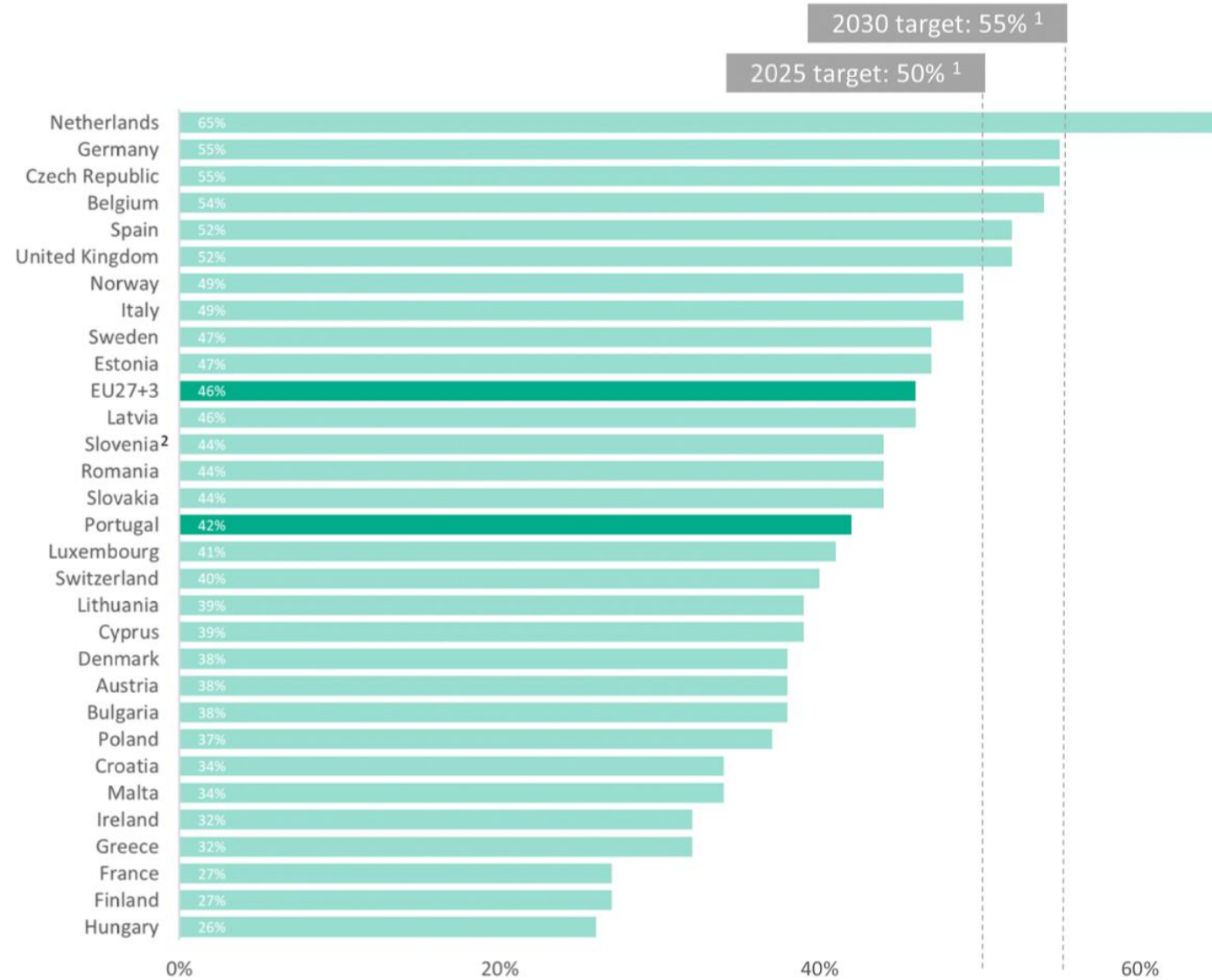
Plastics production (polymerisation) has decreased by 10.3%.

At the same time, the post-consumer plastics waste quantities sent to recycling have increased by 8.5%. Quantities sent to landfill decreased (-4.3%) and energy recovery remained the same for the first time since 2006. As a consequence, the supply of post-consumer recycled plastics increased by 11% compared to 2018, and their use into new products rose from about 4 million tonnes to 4.6 million tonnes – an increase of 15%.

This demonstrates an initial shift towards a higher share of recycled plastics in the manufacturing of new products (from 7.2% in 2018 to 8.5% in 2020).



Plastic packaging recycling per country in 2020



Plastics Europe. Plastics – the Facts 2022. Technical report, Plastics Europe, 2022.

Data is shown under the former calculation methodology: Materials sent for recycling - Directive (EU) 94/62/EC

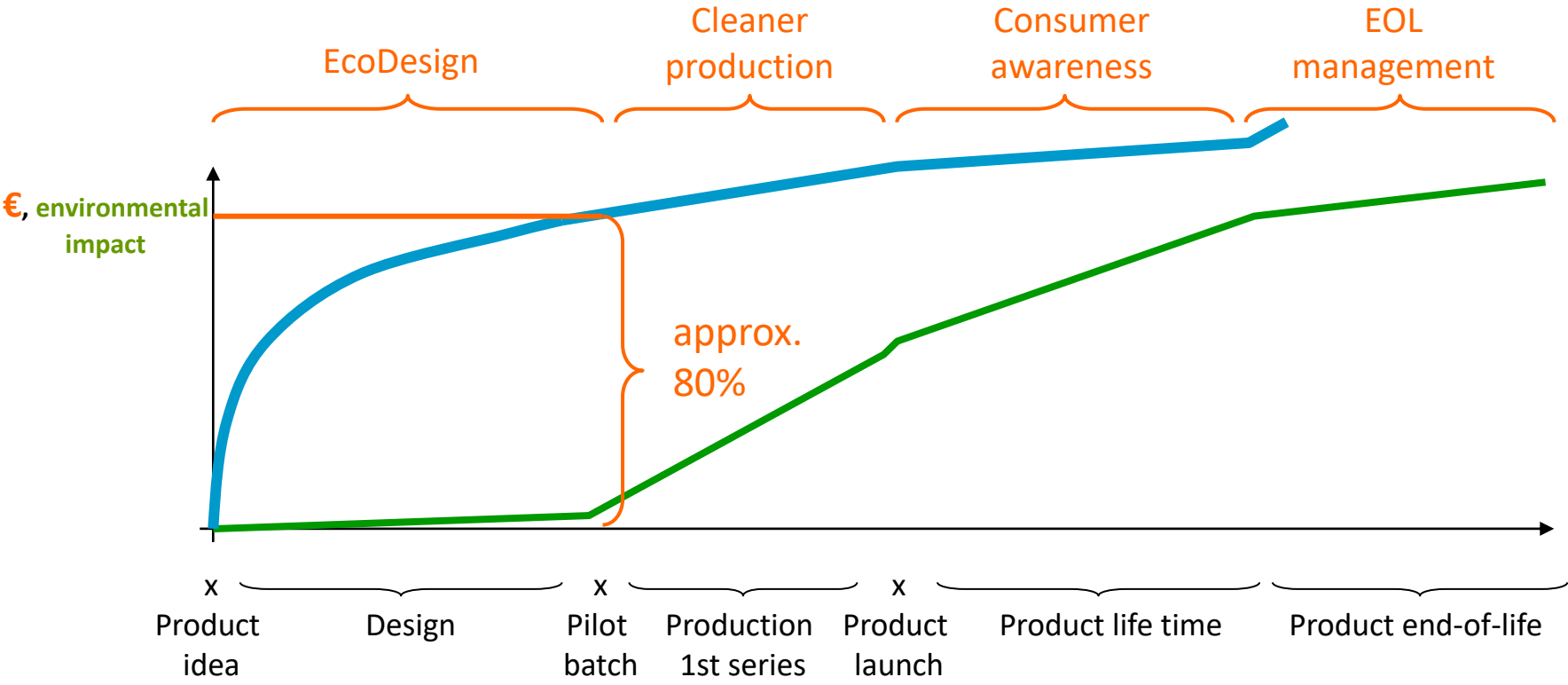
¹ Under new calculation methodology: Materials entering pelletisation, extrusion and moulding processes - Directive (EU) 2018/852

² Would potentially equal 32% under new methodology

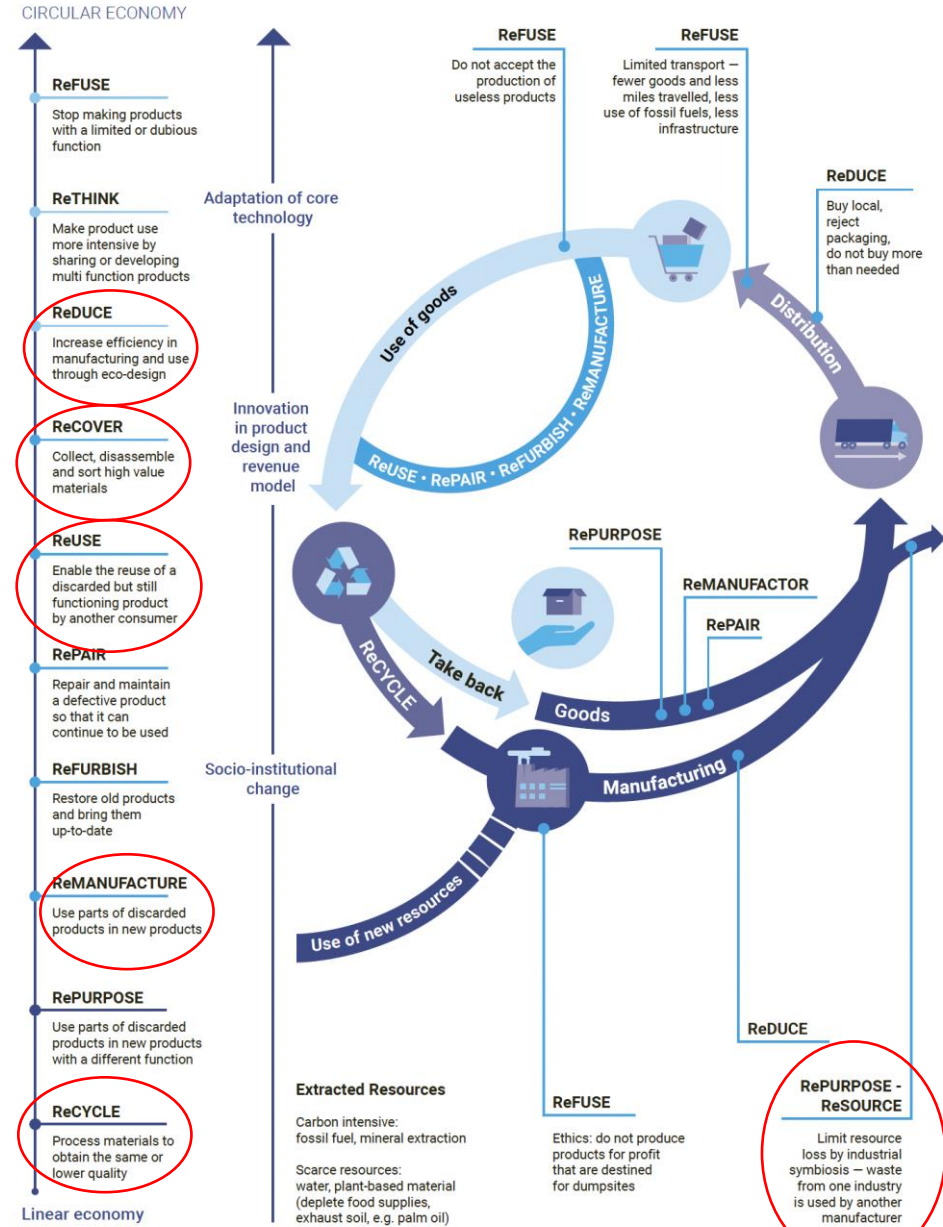
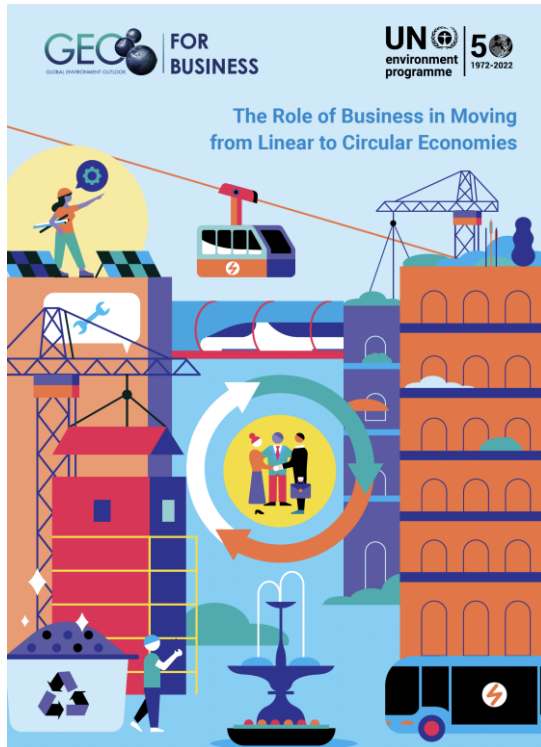
- One of the main reasons for the low recycling rate in Portugal is that almost half of the plastic packaging in the market is not recyclable *.
- In this context, the recyclability of plastic packaging corresponds to plastic that can be recycled in an upcycling logic. In other words, at the end of the recycling process, the packaging material can be used for the same application or another of similar value.
- Therefore, **recycling that allows for the preservation of the original value of the material should not be wated – this is the case of packaging.**
- This requires **Ecodesign** and the **fundamentals of circular economy**

* **Pacto Português para os Plásticos** [Portuguese Pact for Plastics]. 1º Relatório de Progresso do Pacto Português para os Plásticos [1st Progress Report of the Portuguese Pact for Plastics]. Technical report, Pacto Português para os Plásticos, 2021.

Design determines most of the product related environmental impacts!



Steps to build a more circular economy



Circular Economy principles will only be able to materialise if some **thinking principles** are followed, as a crucial part of circular strategies and the policy framework:

- **Systemic thinking**: the focus is not just on the products, but rather on the entire value chain (product life cycle). Organizations should adopt a holistic, long-term perspective. This means considering the interrelationships between different dimensions and considering **all impacts throughout the life cycle of products** – from design, production, distribution, use and end-of-life/use;
- **Integrate externalities** (polluter-pays principle): value chain externalities should be integrated into market prices, including accounting for environmental damage;
- **Traceability of resources** (accountability and transparency): to achieve the key principles it is necessary to track the flows of resources, which must be done in a transparent, normalized and accountable way.
- **Collaboration and inclusion**: Organisations must collaborate along the value chain and across value chains, and it is also crucial to engage all stakeholders, considering different perspectives and interests in an inclusive way to ensure that no one is left out of the transition process.

We have got the most difficult,
we need to engage the last missing link



- Over 90% refreshing drinks market;
- Over 80% retail

National and regional authorities
are certainly committed, and it is
now time to do their part!



Thank you !

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