

# Circular Economy



Circular Economy is a system, that minimizes the amount of emissions, waste production, energy consumption and resource use. In order to reduce the amount of waste, the system focuses on reusing, recycling and repairing. The use of (limited) resources is reduced.

Waste prevention, eco-design, reuse and similar measures could save a lot of money while reducing greenhouse gas emissions. Currently, the production of materials used on a day-to-day basis accounts for 45% of CO2 emissions.

Advantages of a circular economy include:

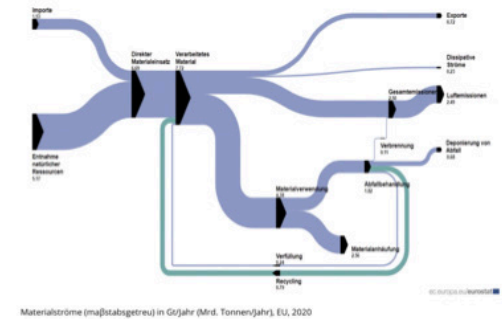
- less pressure on the environment
- increased security of supply of raw materials
- Increasing competitiveness
- Promotion of innovation
- Growth (increase of EU gross domestic product (GDP) by an additional 0.5%)
- Employment (creation of 700,000 new jobs by 2030)
- Solve problems such as pollution or supply shortages

In a circular economy, consumers benefit from more durable and innovative products that lead to cost savings and a higher quality of life in the long run.

The Disadvantages include:

- sometimes the materials after recycling have a lower quality and a lower value
- Recycling processes require a lot of energy and produce large amounts of CO2
- Products are often recycled prematurely, even though they could still have been repaired.

This Sankey diagram illustrates how the materials flow through the economy of the EU Member States and are ultimately returned to the environment or returned to economic processing.



Materialströme (maßstabsgetreu) in Gt/Jahr (Mrd. Tonnen/Jahr), EU, 2020

Explanations to the diagram:

- The width of the strips/arrows is proportional to the material flows;
- The materials are taken from the environment for the production of products and goods or as a source of energy; they accumulate in social stocks and are finally released into the environment as residues;
- Imports and exports, i. e. the product flows exchanged with other economies, are also shown;
- The closed loop represents the residual materials that are not released into the environment but are reused in the economy, used for the production of secondary raw materials or other purposes, thus avoiding further extraction of natural resources.



## Examples from reality

### How can we use circular economy? / examples from reality

#### Urban mining

The strongest use of resources is in the construction and real estate sectors. Urban mining has the focus to not demolish houses and disposing the materials, but to dismantle them and reuse the resources. In particular, concrete can be saved, like this, which requires sand and gravel for its production.

#### Outdoor Kleidung - Patagonia

Real sustainability must also work on an efficient, large-scale and low-cost scale. And here Patagonia is on the right track, because the measures are not aimed at exclusivity. And Patagonia is not taking the other "easy route" of making just one among many aspects sustainable and then creating a green image for itself with some "climate-neutral" intermediate product.

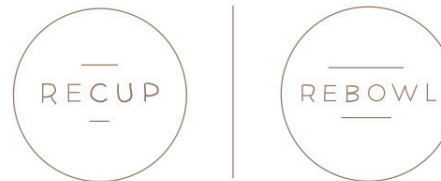
Patagonia mainly wants to improve environmental sustainability with a 4-point program; Reduce, Repair, Reuse, Recycle.

#### RECUP and REBOWL Germany's largest reusable system for the catering industry

RECUP and REBOWL offer Germany's largest reusable system for coffee-to-go and take-away food. In doing so, RECUP is particularly keen to maintain the "to-go philosophy" while offering an uncomplicated, sustainable and attractive alternative to disposable packaging.

One RECUP can replace up to 1,000 disposable cups over its lifetime.  
One REBOWL can replace up to 500 disposable packages.

It is cleaned in the catering dishwasher just like normal dishes and then returned to the cycle.  
RECUP deposit cups are 100% recyclable and BPA & toxin free. With it, you become a green leader!



There are many more possibilities to change into a circular economy. That includes every sector that uses resources.

<https://recup.de>

<https://www.europarl.europa.eu/news/de/headlines/economy/20151201STO05603/kreislaufwirtschaft-definition-und-vorteile>

<https://www.watson.ch/schweiz/international/445383304-11-beispiele-fuer-eine-erfolgreiche-kreislaufwirtschaft>

<https://www.europarl.europa.eu/news/de/headlines/economy/20151201STO05603/kreislaufwirtschaft-definition-und-vorteile>

<https://www.bergfreunde.de/blog/patagonias-nachhaltigkeitsprogramm/>

