Circular economy: strategies and policies

The diagram illustrates different strategies for looping material and energy flows to reduce resource extraction (top half) and avoid waste creation (bottom half). Two types of circularity strategies are depicted: for technical inputs from non-renewable resources (right-hand side) and for biochemical inputs from renewable resources (left-hand side).

In principle, the shorter the loop (e.g.: maintenance, reuse), the greater the likelihood of maintaining economic value and minimizing environmental impacts.

Diagram from the Ellen MacArthur Foundation

Source: Ellen MacArthur Foundation, Circular economy systems diagram (February 2019) www.ellenmacarthurfoundation.org
Drawing based on Braungart & McDonough, Cradle to Cradle (C2C)
This map, taken from a European Environment Agency study, shows countries which had adopted a national resource efficiency or circular economy strategy or action plan as of 2019. The color legend indicates the state of progress with these measures. The map does not show countries that have simply indicated an intention to take action in the future. In total, 21 of the 32 countries in the study stated they had begun work on drafting national policies relating to the circular economy.

MEASURING CIRCULARITY

The Circularity Gap

Last year, Circle Economy’s Circularity Gap Report revealed that: our world is only 8.6% circular, leaving a massive Circularity Gap. The outlook is grim. Just two years ago that number was 9.1%. Humanity has breached two severe milestones:

- The world is consuming 100 billion tonnes (Gt) of materials a year
- It is 1-degree warmer

We researched how these GHGs are linked to societal needs and wants and found that:

70% of GHGs emitted are directly linked to material handling and use (from extraction and transportation to processing and use of our clothes, phones and meals).

80% of all emissions are linked to housing, mobility and nutrition.

The Circularity Gap is a global indicator measured annually by the Platform for Accelerating the Circular Economy, a collaboration between over 70 private and public sector actors established by the World Economic Forum and currently hosted by the World Resources Institute. This indicator is obtained from the ratio between the quantity of material recycled and the total quantity of material inputs into the global economy each year. In 2020, the Circularity Gap was assessed at 8.6%, down from 9.1% in 2018.

As well as a global indicator, an annual report also assesses the quantities of resources used per category of material (mineral, ores, fossil fuels, biomass and waste), greenhouse gas emissions caused by the extraction of these resources, the quantity of materials used per activity sector (housing, communication, mobility, healthcare, services, consumables and nutrition) and their carbon impacts.
CIRCULAR ECONOMY AND EMPLOYMENT IN FRANCE

Jobs sustained by various waste management activities:

1 FTE
for each 10,000 metric tons
sent to landfill

3 to 4 FTE
for each 10,000 metric tons
sent for incineration, composting, sorting-methanization

11 FTE
for each 10,000 metric tons
entering waste sorting centers

50 FTE
for each 10,000 metric tons
of complex end-of-life products sent for dismantling


Job breakdown by pillar and sector in 2017 in terms of number of people employed

This is one of 11 indicators used to track circularity in the French economy. It seeks to quantify the number of jobs associated with economic activities within the circular economy. Only activities relating to “extended life” and “recycling” are studied here, i.e. reuse and repair of goods, waste collection and materials recovery. These activities create more jobs per unit managed than activities relating to waste disposal (landfill and incineration).