8TH EAP THEMATIC PRIORITY OBJECTIVE
A regenerative circular economy

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3 A regenerative circular economy

A wellbeing economy that gives back to the planet more than it takes and accelerates the transition to a circular economy

A sustainable economy is a prerequisite to an economy of wellbeing. The EU adopted the circular economy action plan (1) in 2020 and aims to ensure that the resources it uses remain in the EU economy for as long as possible and that waste is prevented. Building on this, the 8th Environment Action Programme (EAP) (2) aims for a regenerative circular economy that gives back to the planet more than it takes.

In order to capture progress towards a regenerative circular economy, the European Commission 8th EAP monitoring framework (3) includes two indicators and corresponding targets for 2030:

- An indicator on raw material consumption to monitor whether the EU will significantly decrease its per capita material footprint.
- An indicator on total waste generation to monitor waste prevention efforts to significantly reduce per capita EU waste generation by 2030.

The indicator assessment results are summarised further below. In short, it seems that at present the EU may not meet the targets for these two indicators by 2030. Economic growth has so far been a key driver behind the trends in both cases. Legislation already in place to prevent waste generation and better manage waste, including recycling and re-using materials, has contributed to a limited decoupling of raw material consumption and waste generation from economic growth. Therefore, significant additional efforts to reduce consumption of natural resources and move further towards a circular economy would be needed to reach the 2030 targets.

The methodology used for determining the prospects of meeting the 2030 targets is described in Annex 2. It is also explained in the following key:

Methodology key

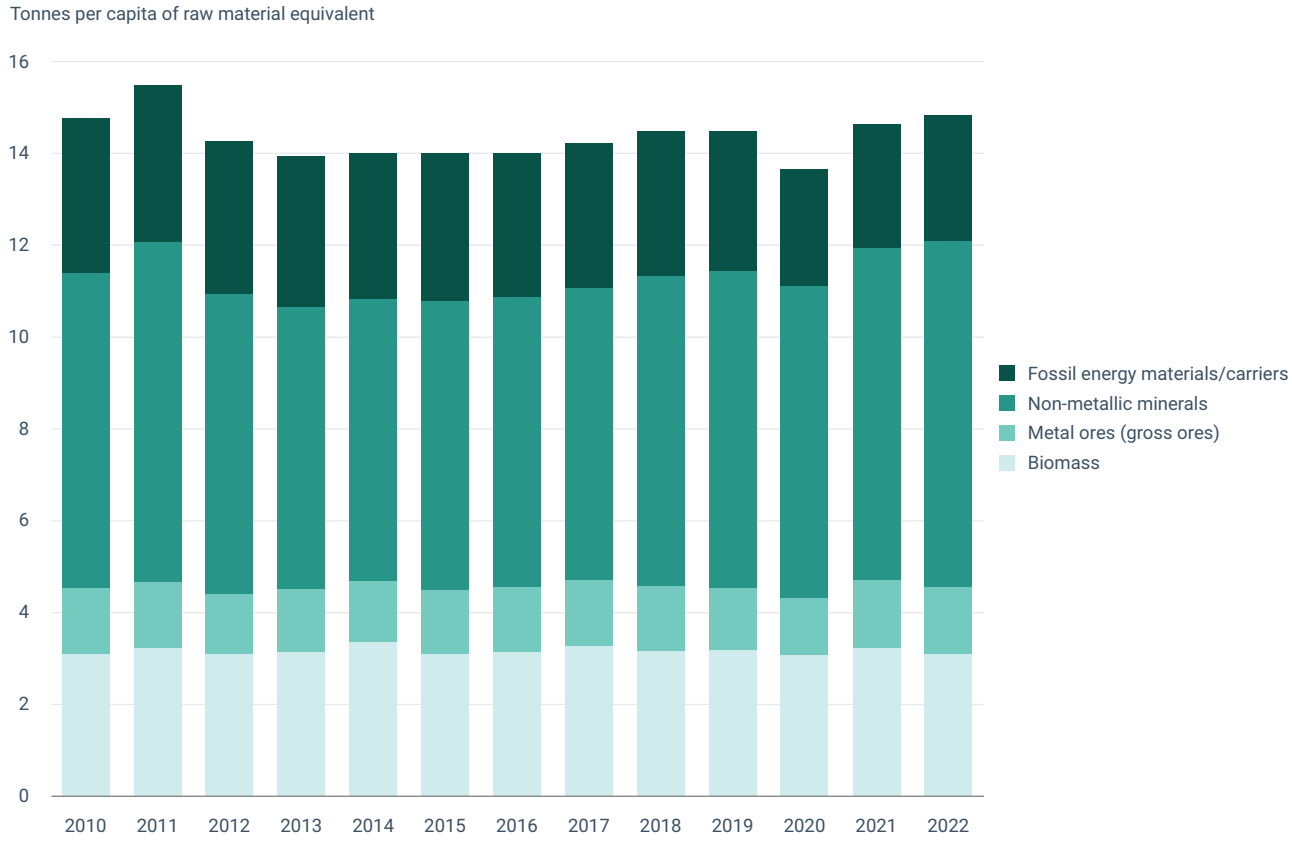
Will the objective be met by 2030?	
It is very likely	i.e. it answers 'yes' with a high degree of confidence to the question
It is likely but uncertain	i.e. it answers 'maybe yes' to the question
It is unlikely but uncertain	i.e. it answers 'maybe no'
It is very unlikely	i.e. it answers 'no' with a high degree confidence
It is unclear	i.e. the prospects cannot be determined (e.g., insufficient data/evidence, no correlation between indicator and selected objective)

Raw material consumption (also known as material footprint):

Will those who live in the EU significantly decrease their material footprint in the coming years?

Unlikely but uncertain. No real decrease has happened so far and some projections show increases in future demand for materials in the EU.

Figure 3.1 **Material Footprint, EU**



Source: Eurostat.

Relevance and policy target

- The material footprint shows the amount of extraction, both inside and outside the EU, of raw material needed to produce the goods and services that EU residents consume.

- The 8th EAP aims to significantly decrease the EU's material footprint in order to safeguard precious natural resources and reduce the significant environmental and climate impacts from extraction and processing of these resources, such as biodiversity loss and climate change.

Indicator past trend (2010-2022): stable →
Latest value (2022, preliminary): 14.8 tonnes of raw material equivalent per capita

- Since 2010, the EU's material footprint has remained relatively stable. Preliminary estimates show that in 2022 it was 14.8 tonnes per capita. The extraction of non-metallic minerals (e.g. gravel and sand) mainly serves the construction sector. It accounts for about half of the material footprint and is largely responsible for the overall trend in the period 2010-2022.

- The EU's current material footprint is higher than the global average and exceeds the planet's 'safe operating space' for resource extraction. In other words, if the world were to consume resources at the level of the EU, it would exceed the capacity of the planet to provide these resources ([4]).

2030 outlook

- It is unlikely but uncertain that the EU's material footprint will significantly decrease in the coming decade.

- There has been no progress in reducing the material consumption footprint over the years, while projections by the Organisation for Economic Cooperation and Development show an increase in future demand for materials in the EU ([5]). However, the results predate the policies the EU has recently adopted that aim to temper demand for primary material extraction and encourage longer lifetimes of products.

- Moving towards a circular economy could decouple economic activity from raw material consumption by substituting raw materials with recovered materials. Overall, significant efforts are needed to reduce consumption and material extraction, and a switch to goods and services that require less material.

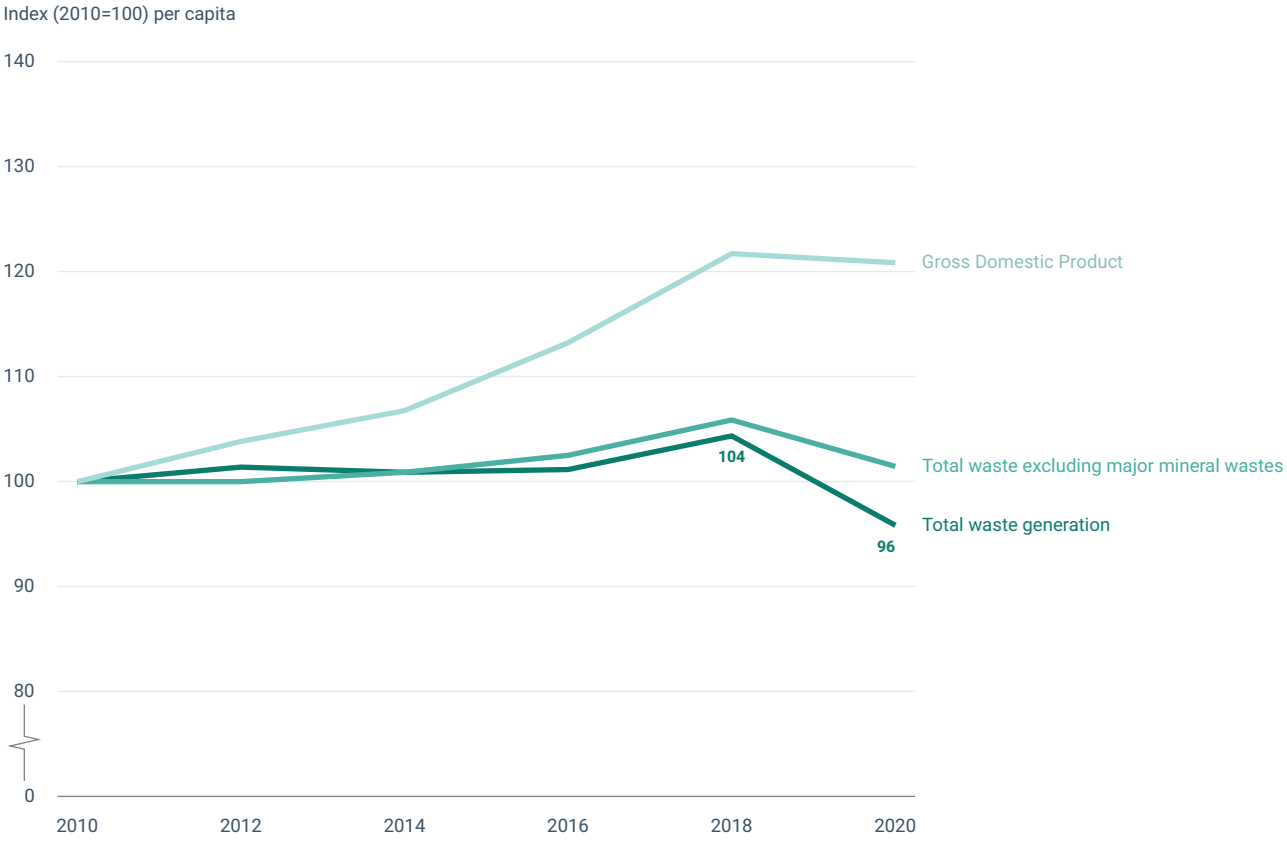
For more references and additional information, including at country level, see the full indicator version.

Total waste generation:

Will those who live in the EU significantly reduce the total amount of waste they generate by 2030?

Unlikely but uncertain. Historically, waste generation has closely followed economic growth trends, and economic growth is expected to be positive in the coming years. Policies in place can nevertheless limit the effect of economic growth on waste generation.

Figure 3.2 **Waste generation and decoupling, EU**



Source: Eurostat.

Relevance and policy target

- Reducing the generation of waste safeguards material and energy resources and reduces the environmental impacts associated with producing products and managing waste.
- The circular economy action plan aims to significantly reduce total waste in the EU by 2030.

Indicator past trend (2010-2020): increase (2010-2018) ↑, decrease (2018-2020) ↓
Latest value (2020): 4.8 tonnes per capita

- Between 2010 and 2020, per capita total waste generation decreased by 4.2% in the EU to 4.8 tonnes per capita in 2020. This decline was exclusively due to a decrease in waste generation in 2018-2020, reflecting the COVID-19 pandemic and the ensuing economic slowdown.
- The trend over the 2010-2020 period was driven by trends in mining and quarrying, and construction which together constitute the largest part of total waste generation (64% in 2020). Waste generated by households, and water and waste treatment activities, increased over the 2010-2020 period.

2030 outlook

- It is unlikely but uncertain that per capita total waste generation will significantly decrease by 2030.
- Economic growth has been a key driver of waste generation trends ([6]) and EU GDP growth rates are projected to remain positive in the coming years ([7]). Waste prevention and management policies currently in place could limit the causal relationship between GDP growth and waste generation ([8]).
- Substantial additional effort in implementing circular economy measures, including waste prevention, would be required to sustain the decrease in waste generation.

For more references and additional information, including at country level, see the full indicator version.

References

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4. EC, 2022, 'Consumption Footprint Platform', European Platform on Life Cycle Assessment, European Commission (https://eplca.jrc.ec.europa.eu/ConsumptionFootprintPlatform.html) accessed 26 June 2022.

5. OECD, 2019, *Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences*, OECD Publishing, Paris (https://doi.org/10.1787/9789264307452-en) accessed 27 November 2023.

6. EEA, 2023, *Tracking waste prevention progress — A narrative-based waste prevention monitoring framework at the EU level*, EEA Report No 2/2023, European Environment Agency (https://www.eea.europa.eu/publications/tracking-waste-prevention-progress) accessed 13 November 2023.

7. European Central Bank, 2023, 'ECB staff macroeconomic projections for the euro area', (https://www.ecb.europa.eu/pub/projections/html/ecb.projections202303_ecbstaff~77c0227058.en.html#toc2) accessed 8 September 2023.

8. EU, 2008, Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008L0098-20180705) accessed 13 November 2023.