



Update on revised EU monitoring framework on circular economy

Oscar GÓMEZ-PRIETO, Eurostat

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Background

- Original EU monitoring framework circular economy dates from 2018
- Dashboard of 10 indicators organised in 4 dimensions
- 1 indicator based on SEEA: circular material use rate
- The European Commission announced in 2020 an update of the monitoring framework
- Eurostat close to publication of the revised monitoring framework
 - Delayed several times for non-technical reasons

Revised monitoring framework

11 indicators in 5 dimensions

Circular economy monitoring framework

1 A-B MATERIAL CONSUMPTION

Material footprint and resource

2 GREEN PUBLIC PROCUREMENT

Share of major public procurement that includes environmental requirements

3 A-F WASTE GENERATION

Total waste generation, total waste generation (excluding major mineral waste) per GDP unit, municipal waste generation, food waste, generation of packaging waste and of plastic packaging waste

6 A-B CONTRIBUTION OF RECYCLED MATERIALS TO RAW MATERIAL DEMAND

Secondary raw materials share of overall materials demand – for the whole economy and for specific materials

7 A-C TRADE IN RECYCLABLE RAW MATERIALS

Imports, exports and intra EU trade of selected recyclable raw materials



4 A-B OVERALL RECYCLING RATES

Recycling rate of municipal waste and of all waste except major mineral waste

5 A-C RECYCLING RATES FOR SPECIFIC WASTE STREAMS

Recycling rate of overall packaging waste, of plastic packaging waste and of WEEE separately collected

8 A-C PRIVATE INVESTMENTS, JOBS AND VALUE ADDED RELATED TO CIRCULAR ECONOMY SECTORS

Private investments, number of persons employed and gross value added related to the circular economy

9 INNOVATION

Patents on waste and recycling

10 A-B GLOBAL SUSTAINABILITY

Consumption footprint and GHG emissions from production activities

11 A-B RESILIENCE

Material import dependency and EU self-sufficiency for raw materials

Most – but not all – indicators are based on official statistics sourced by Eurostat

Main changes in revised framework

- One new dimension on global sustainability and resilience
- New indicators:
 - Material footprint (raw material consumption) *
 - Resource productivity *
 - Greenhouse gas emissions from production activities *
 - Material import dependency *
 - Consumption footprint (based on LCA)

(*) indicators based on SEEA

Adjustments in indicators

- Improved calculation method for indicators:
 - Private investments, jobs and gross value added related to circular economy sectors (new method gets closer to SEEA)
 - Recycling rate e-waste
 - Food waste (new data source)

Old sub-indicators discontinued

- Recycling rates of specific streams: wooden packaging, biowaste
- Recovery rate construction and demolition waste

- Overview
- Monitoring framework
- Database
- Visualisations
- Publications
- Information on data

European Union

Production and consumption

Waste Management

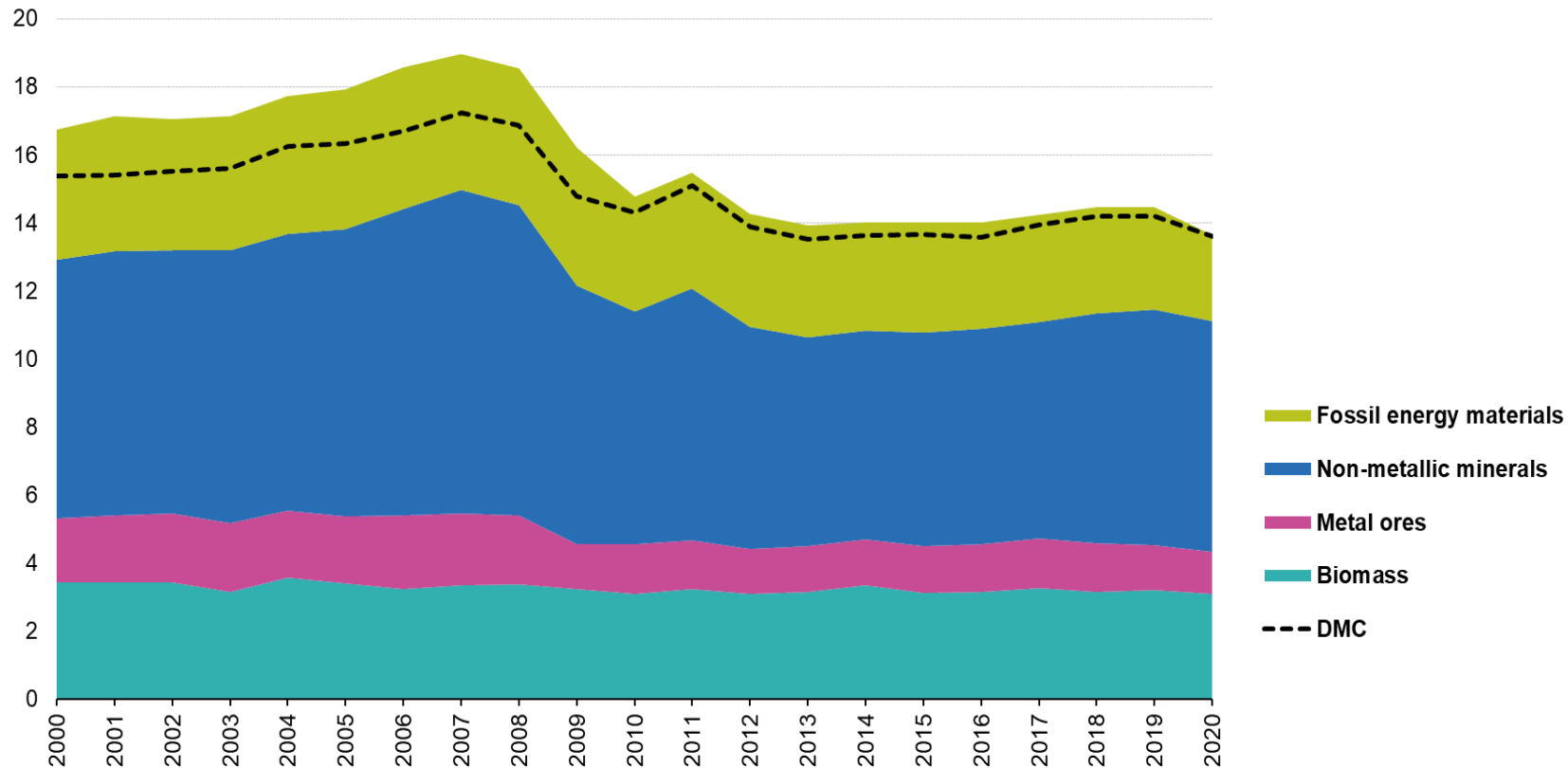
Secondary raw materials

	Value	Data	Trend	Metadata
Contribution of recycled materials to raw materials demand				
Circular material use rate percentage	11.5 (2022)			
End-of-life recycling input rates (EOL-RIR), aluminium percentage	N/A			
Trade in recyclable raw materials				
Imports from non-EU countries thousand tonnes	39 835.3 (2023)			
Exports to non-EU countries thousand tonnes	39 267.6 (2023)			
Intra EU trade thousand tonnes	82 445.7 (2023)			
Competitiveness and innovation				
Global sustainability and resilience				

The CEMF— look and feel

Examples indicators based on SEEA: Material footprints

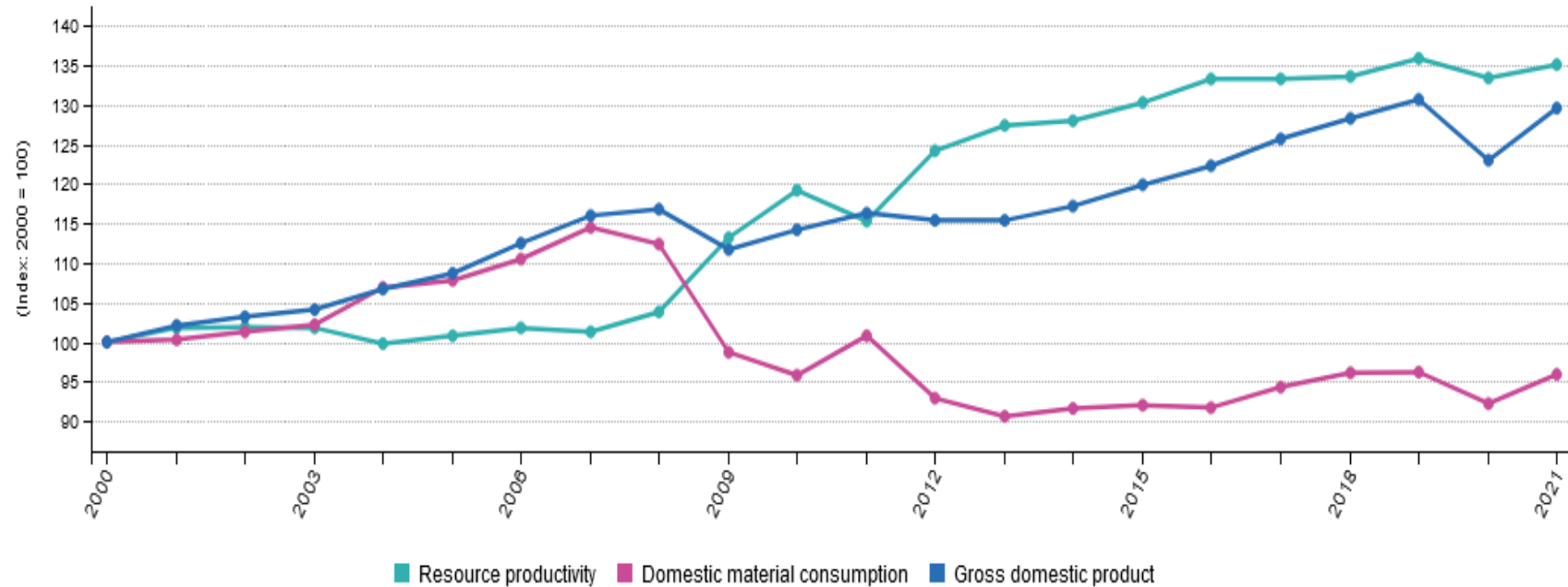
Based on economy-wide material flow accounts



Source: Eurostat (online data codes: env_ac_mfa, env_ac_rme)

Resource productivity

Based on economy-wide material flow accounts

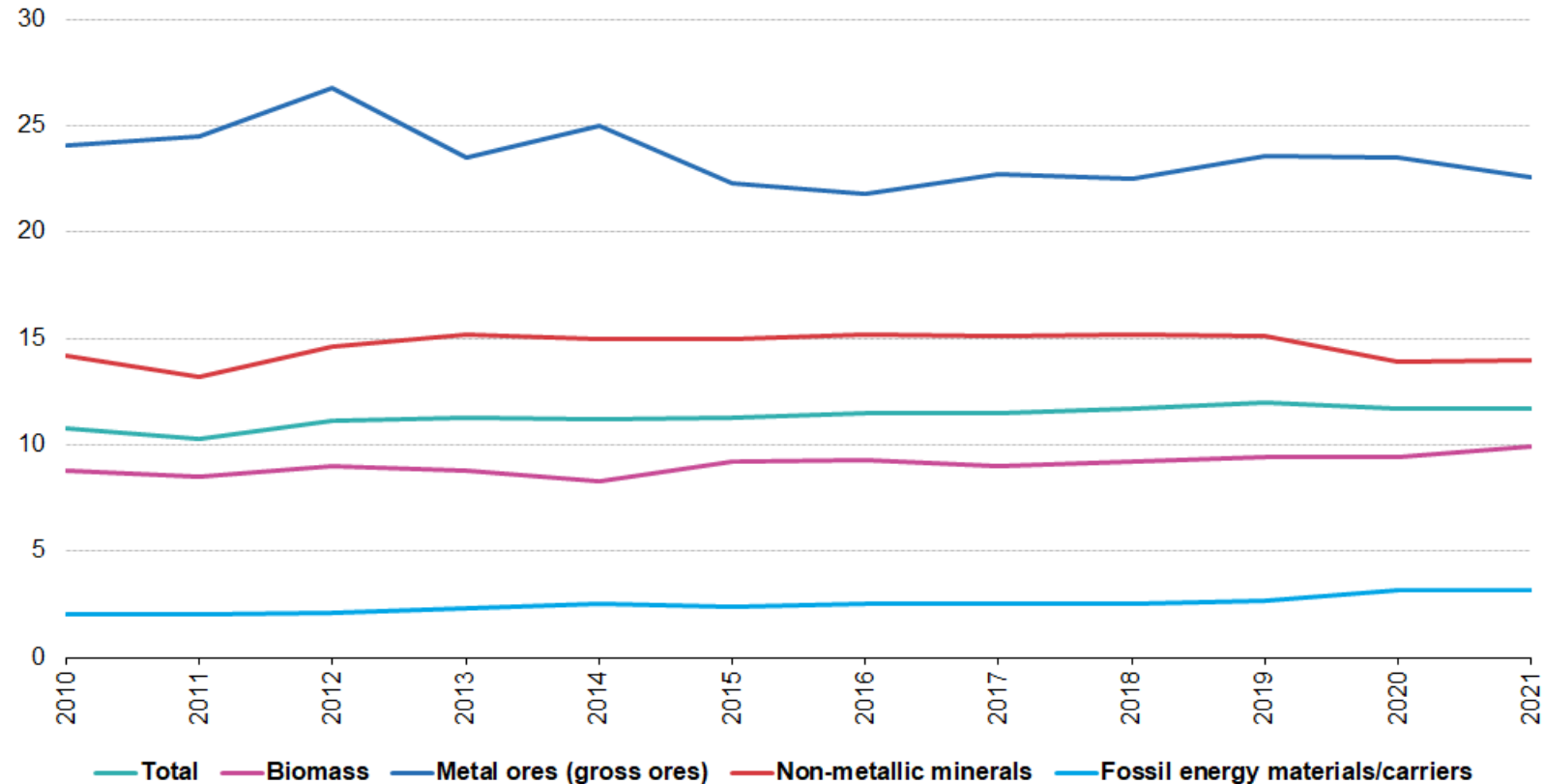


Note: GDP in chain-linked volumes, reference year 2015

Source datasets: [env_ac_rp](#) (resource productivity), [env_ac_mfa](#) (DMC) and [nama_10_gdp](#) (GDP)

Circular material use rate

Based on economy-wide material flow accounts

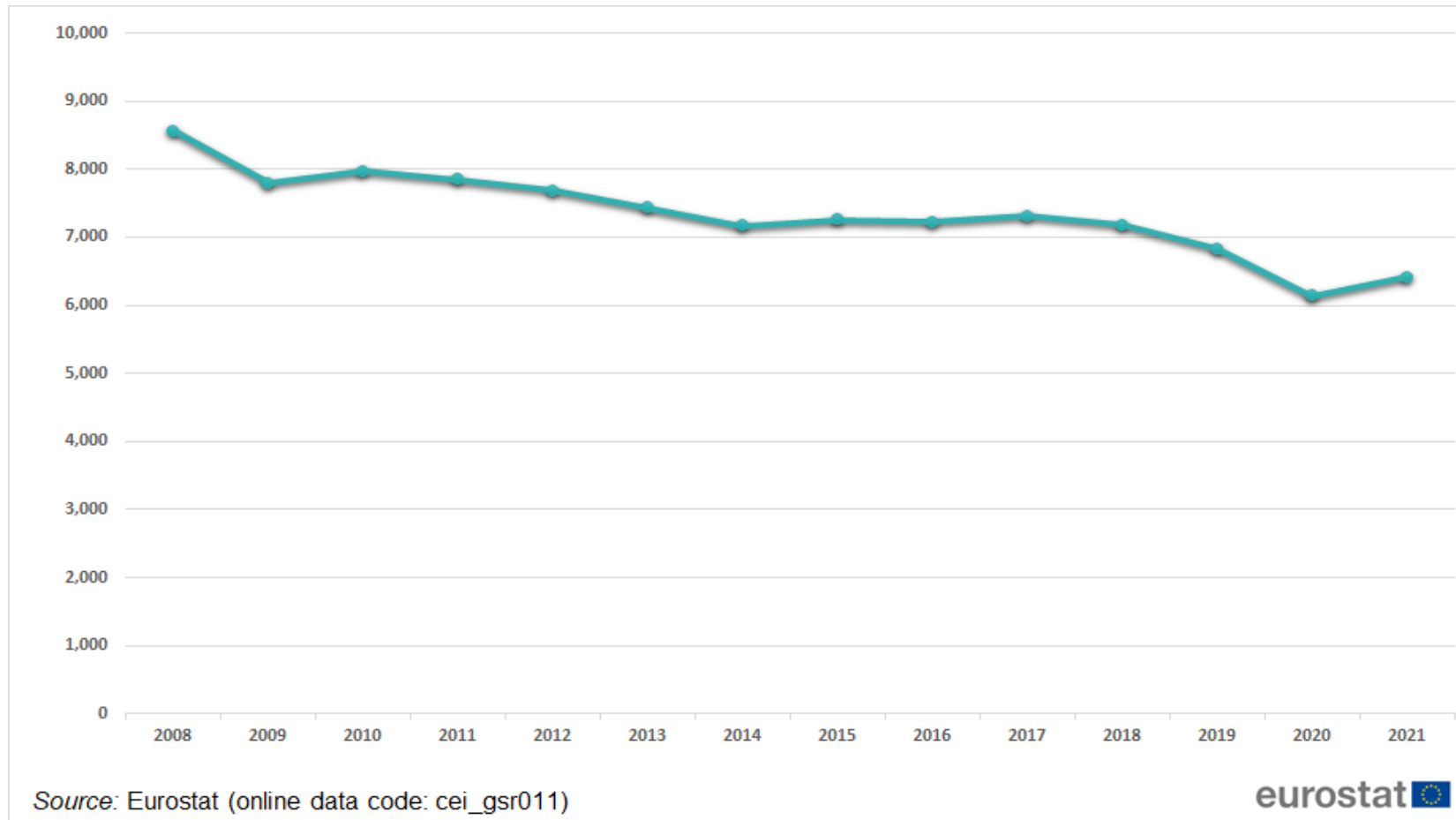


Source: Eurostat (online data code: env_ac_cum)

eurostat 

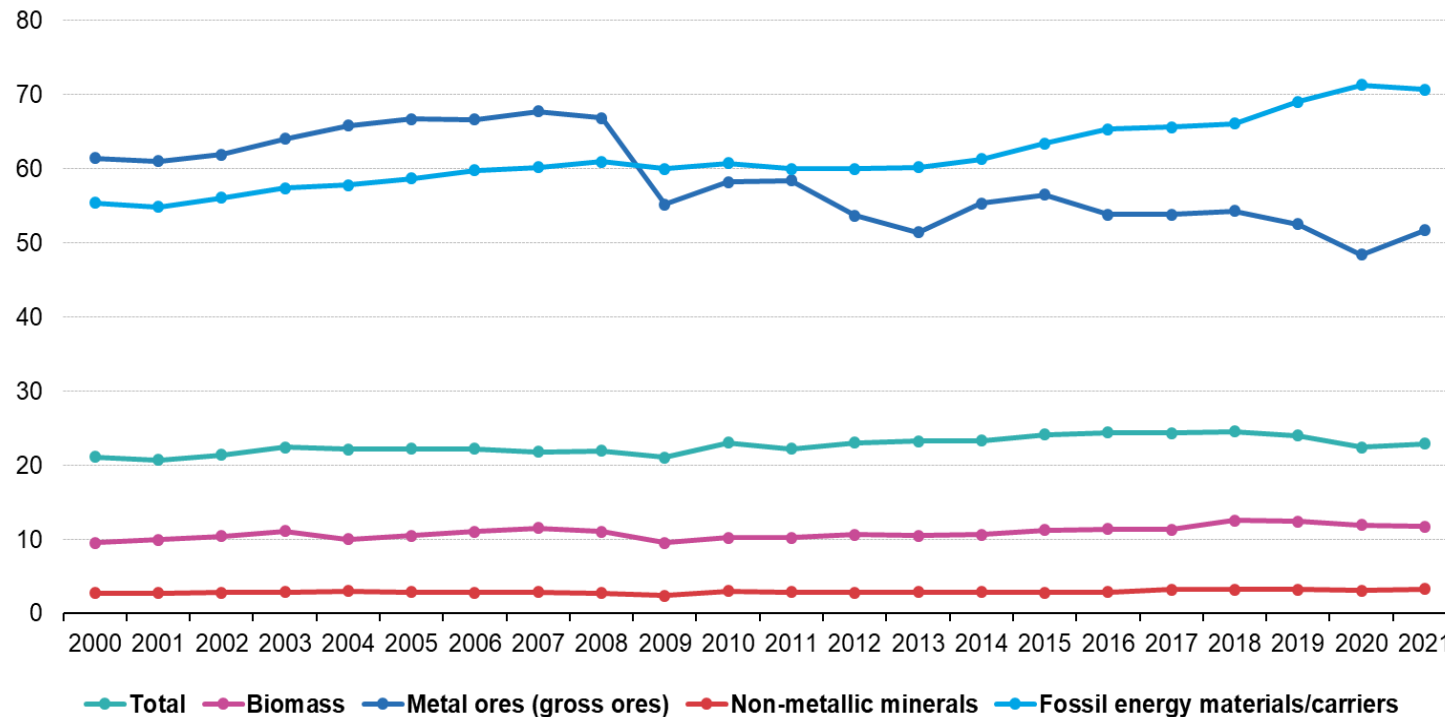
Greenhouse gas emissions production activities

Based on air emissions accounts



Material import dependency

Based on economy-wide material flow accounts



Note:

2020 and 2021 values are provisional estimates

Source: Eurostat (online data code: env_ac_mid)

eurostat 

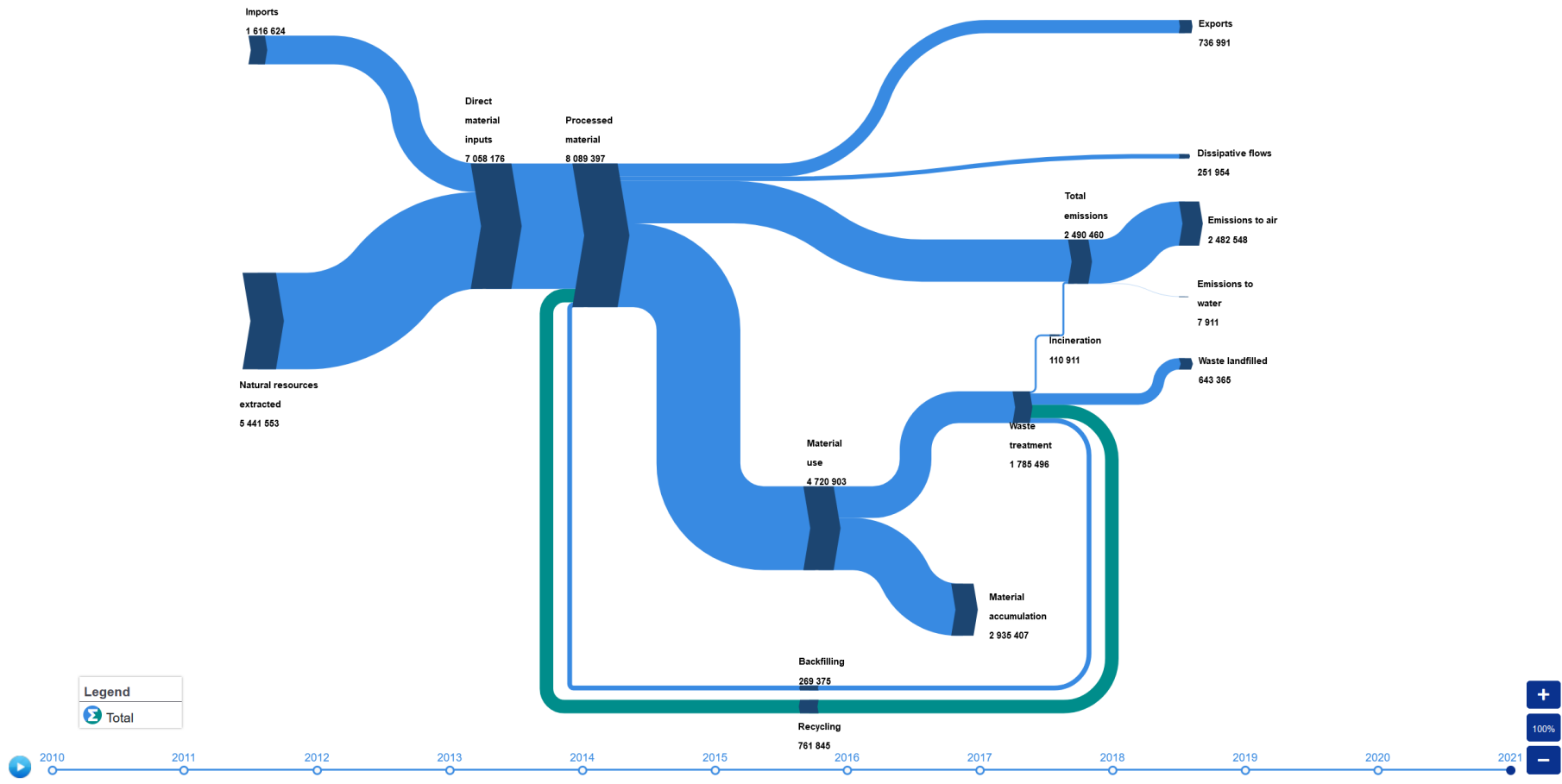
Sankey diagram material flows

Material flow diagram

European Union - year 2021
Thousand tonnes

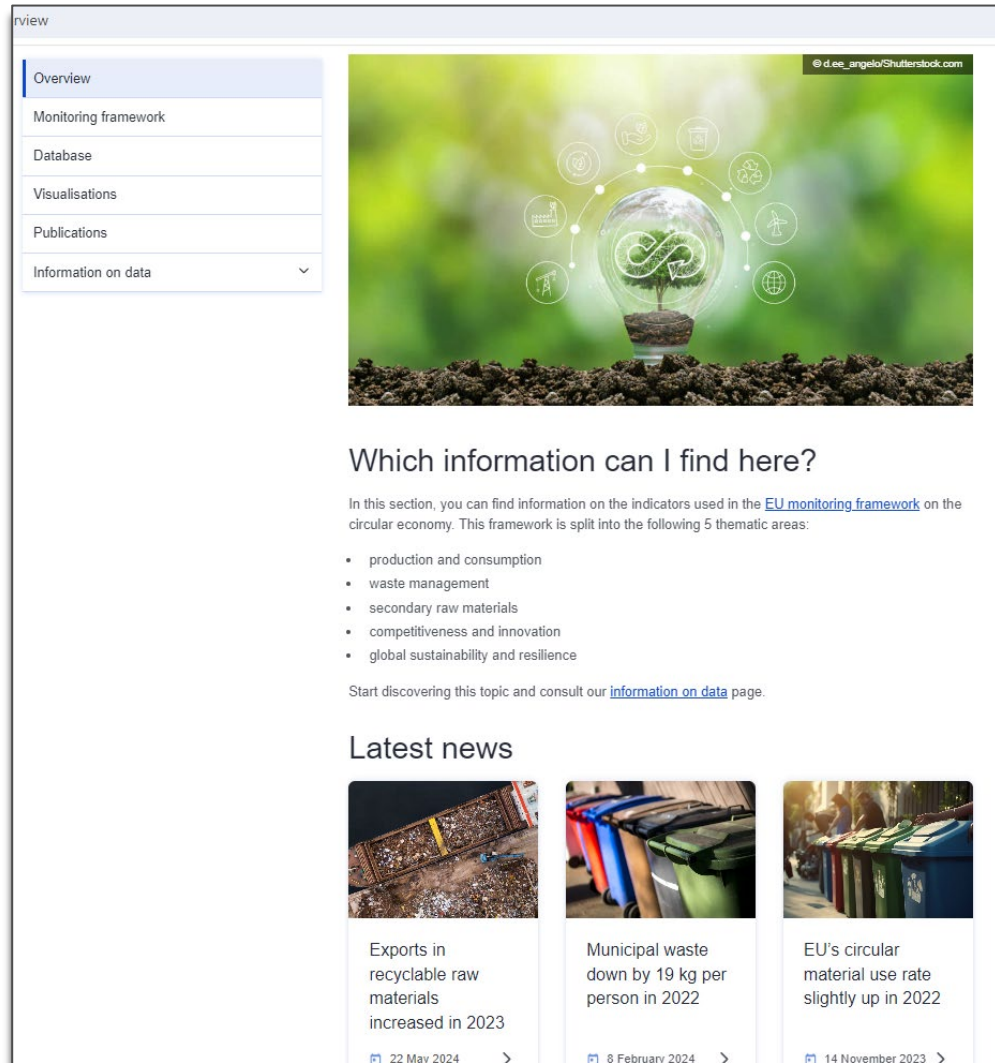
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To know more:

- Eurostat's circular economy website



The screenshot shows the Eurostat circular economy website interface. On the left is a navigation menu with the following items: Overview (selected), Monitoring framework, Database, Visualisations, Publications, and Information on data (with a dropdown arrow). The main content area features a large image of a lightbulb with a globe inside, surrounded by circular icons representing various aspects of the circular economy. Below the image is the heading "Which information can I find here?" followed by a paragraph explaining that the section provides information on indicators from the EU monitoring framework, which is divided into five thematic areas:

- production and consumption
- waste management
- secondary raw materials
- competitiveness and innovation
- global sustainability and resilience

Below this list, there is a link to the "information on data" page. The "Latest news" section contains three articles:

- Exports in recyclable raw materials increased in 2023** (dated 22 May 2024)
- Municipal waste down by 19 kg per person in 2022** (dated 8 February 2024)
- EU's circular material use rate slightly up in 2022** (dated 14 November 2023)

<https://ec.europa.eu/eurostat/web/circular-economy>

Thank you

oscar.gomez-prieto@ec.europa.eu

ESTAT-WASTE-STATISTICS@ec.europa.eu



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Slide 13: central picture on the screenshot of Eurostat's circular economy website and pictures on the bottom-left and bottom-center, source: Shutterstock.com; Slide 13: bottom-right picture on the screenshot of Eurostat's circular economy website , source: stock.adobe.com