

# The EU Biomass Flows tool

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## USER GUIDE

Discover how get the maximum from the charts, graphs and data tables from this tool.

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## 1. What is the EU Biomass Flows tool?

Sankey diagrams illustrate flows of a specific commodity (money, materials, energy or other). In this case, the diagram represents flows of biomass through the different stages of its life cycle.

This tool was developed for the BIOMASS project at the Joint Research Centre, European Commission.

The data for the EU Biomass Flows tool has been collected from multiple sources and integrated into a single database for all biomass types. You will find more information about the methodology and data sources and the technical aspects of the tool in the accompanying reports to the EU Biomass Flows tool.

The new EU Biomass Flows tool has been developed based on the [Eurostat Energy flow Sankey](#)<sup>1</sup>.

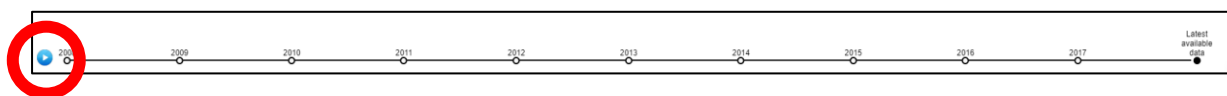
JRC's EU Biomass Flows tool displays a collection of Sankey diagrams, structured as a series of nodes connected by biomass flows. The black nodes represent biomass activities (e.g. imports, food and feed, etc.), while the coloured flows indicate the inputs and outputs of biomass commodity types (e.g. animal-based food). The width of each flow represents the amount of biomass in the flow.

The EU Biomass Flows tool is an interactive tool, with different selection options and menus. It also creates graphs and charts based on the user's selections.

## 2. Timeline

The timeline below the diagram will allow you to select a single year between 2008 and 2017. You can also select "**latest available data**". This is a data point created with the latest available data for each commodity, as some data is not available for the full time series.

To visualise an animation of the evolution through time, click on the blue arrow at the left of the timeline.



<sup>1</sup> <https://ec.europa.eu/eurostat/web/energy/energy-flow-diagrams>

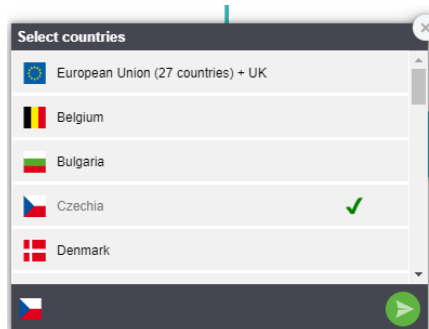
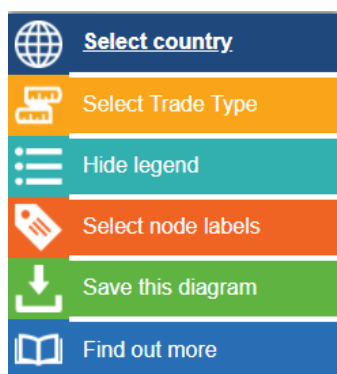
### 3. Main menu

The main menu is located at the left of your screen. In this menu, you can make some choices to customise the diagram according to your requirements. It also provides you with access to documentation and enables data download.

The different menu options are:

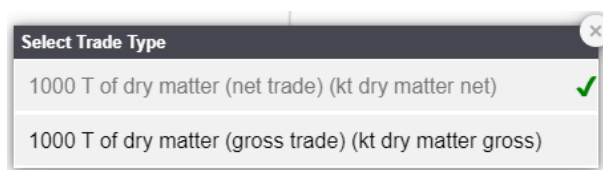
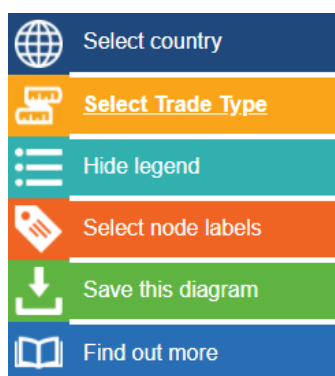
#### 3.1. Select country

You can select one or more EU Member States, or the EU27+UK.



#### 3.2. Select trade type

There are two separate views in the EU Biomass Flows tool: net and gross trade. Unfortunately, gross trade data is not available for some biomass commodities, in particular for the EU aggregate. Only extra EU trade is considered for the EU aggregate international trade.



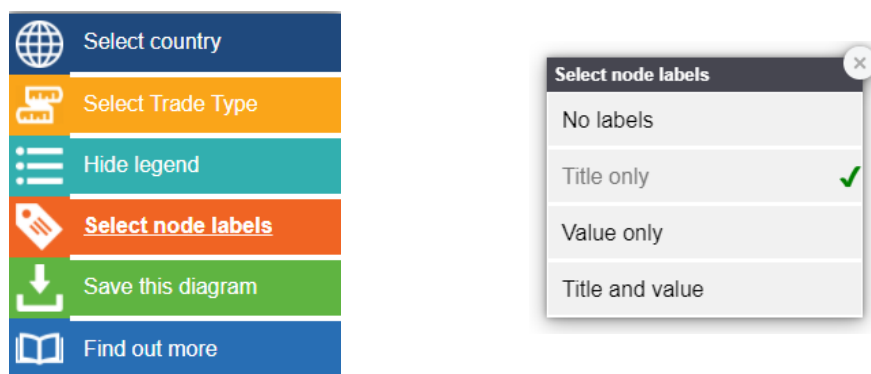
### 3.3. Hide/Show legend

This button shows or hides the legend box. You can also hide the legend by clicking on the close button at the top right corner of the legend box.



### 3.4. Select node labels

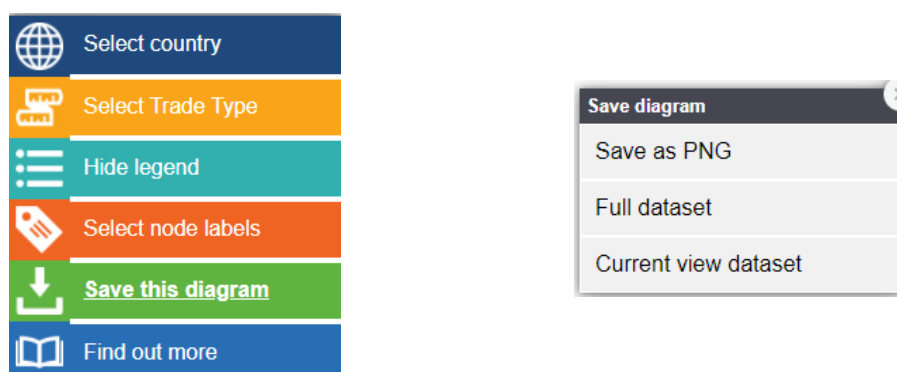
This button allows you to select what to show in the diagram. You can select to show commodity names and/or values for each commodity.



### 3.5. Save this diagram

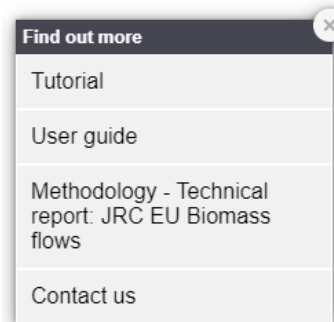
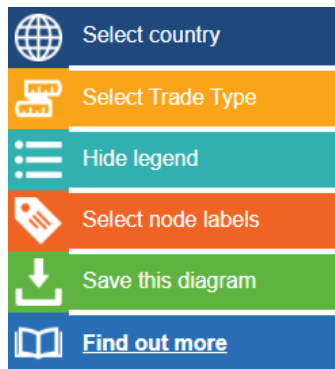
This button gives you the option of downloading the diagram currently shown on the screen as an image (.png) or a data table (.csv). It also allows downloading of the full data set.

You can also download and query the dataset from the DataM home page. See [Chapter 6](#) for more details on how to download data.



### 3.6. Find out more

Through this menu, you can launch the online tutorial, open the user guide, access relevant documentation or contact us.



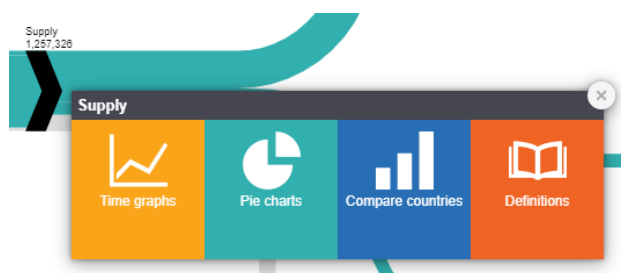
The following documentation is available:

- User guide
- Methodology - Technical report: EU Biomass flows. You can download this document via the following link:

<https://op.europa.eu/en/publication-detail/-/publication/74413f58-32be-11eb-b27b-01aa75ed71a1/language-en>

## 4. Node menu

Click on a node to access the node menu. The nodes are the black arrowheads or blocks in the diagram and they represent biomass activities (e.g. imports, food and feed, etc.).



### 4.1. Time graphs

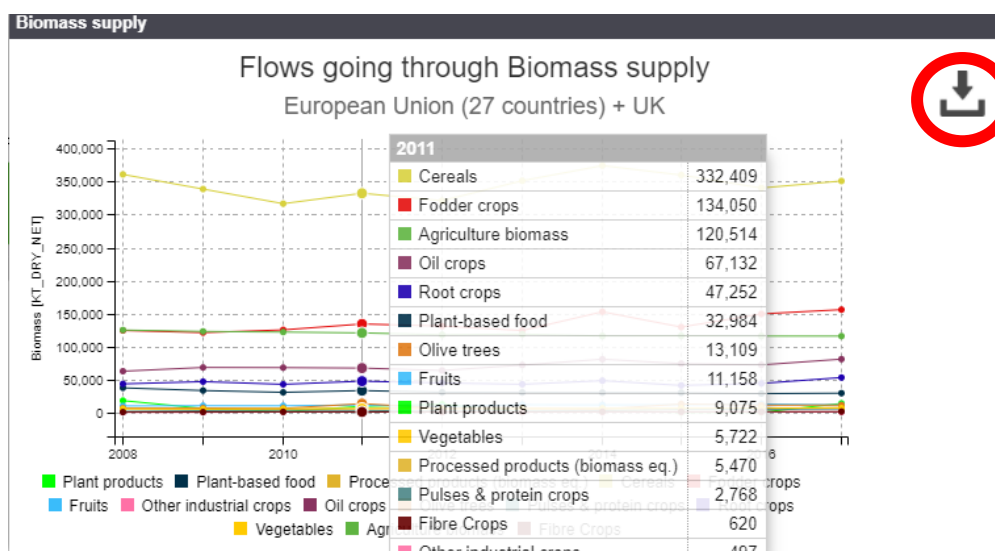


When you click on “Time graphs”, a screen showing different line graphs will open up. These graphs will show you how biomass values change over time. There will be three or four graphs depending on the level of granularity of the selected Sankey diagram. You will be able to see the different charts by scrolling up and down this new pop-up screen.

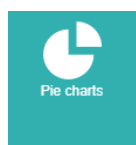
- Flows going into “Name of node”: shows all biomass types that go into the selected node.
- Flows going out from “Name of node”: shows all biomass types that exit the selected node.
- Flows going through “Name of node”: shows all biomass types that go through the selected node.
- Biomass by source type going into “Name of node”: shows all biomass types that go through the selected node, by type of origin.
- Biomass by type of use going out of “Name of node”: shows all biomass types that exit the selected node, by type of use.

For each of these diagrams, you can select or hide one or more specific biomass type (e.g. forestry), origin (e.g. imports), flow (e.g.) plant-based food) or type of use (e.g. Feed & food products). You will also be able to see the data by hovering over the line graph.

You can download all graphs as an image (.png) or a data table (.csv) by clicking the download button at the top right corner of each graph.

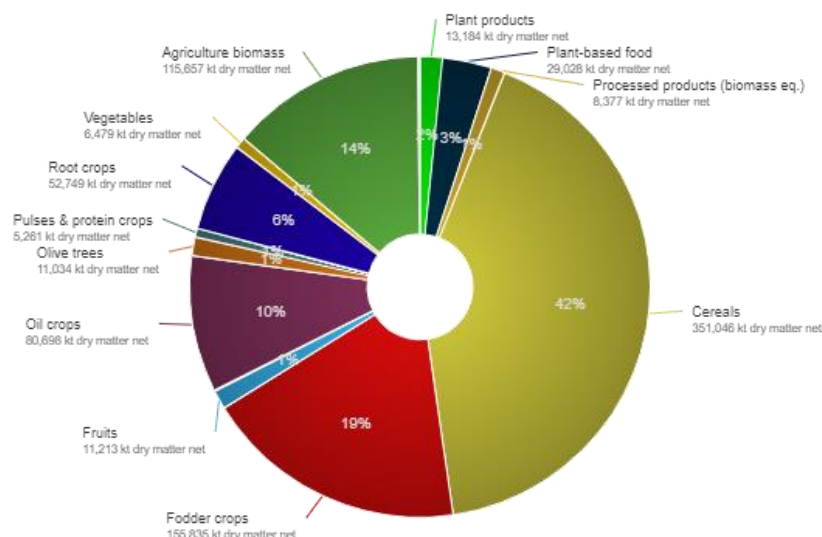


## 4.2. Pie charts



The pie chart screen works in the same way as the time graphs do. You will also be able to download the charts as an image (.png) or a data table (.csv). The charts display the distribution of the different types of biomass going through the selected node on a specific year, both in percentages and values.

Flows going through Biomass supply  
European Union (27 countries) + UK, latest available data

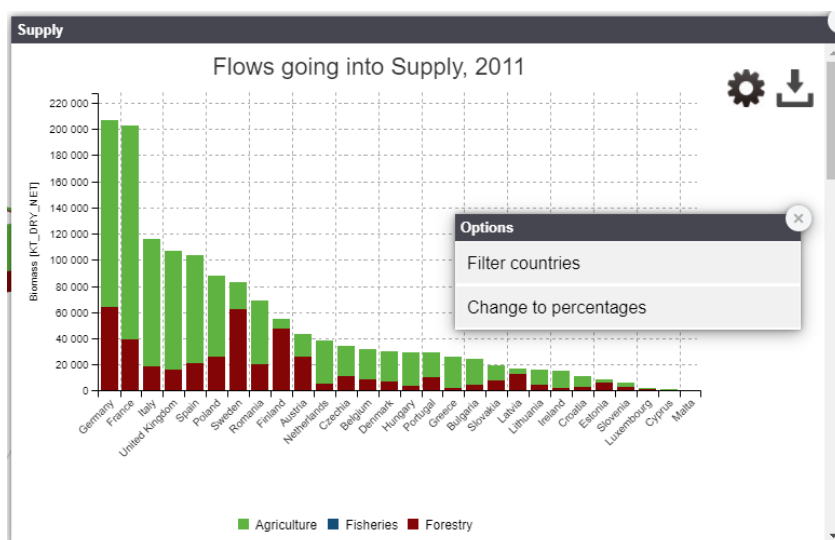


Source: EC, JRC

## 4.3. Compare countries



The “compare countries” button opens up a screen that shows a bar graph with all Member States. You can filter by one or more Member States or change from values to percentages by clicking on the cog icon at the top right corner of the graph, to the left of the download icon. You will also be able to download the charts as an image (.png) or a data table (.csv).



## 4.4. Definitions

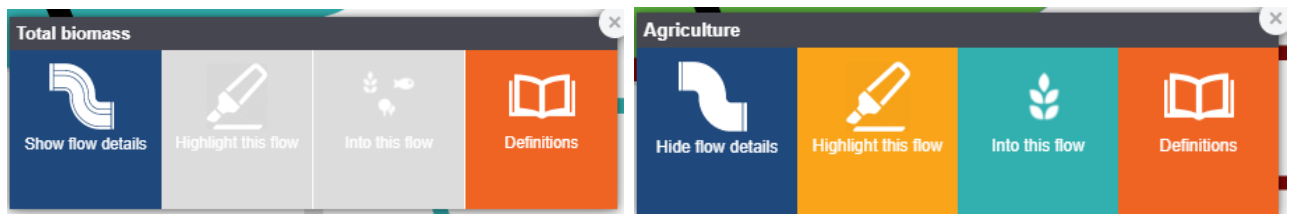


Click on the “Definitions” button to view how a node or flow is defined in the EU Biomass Flows tool.



## 5. Flow menu

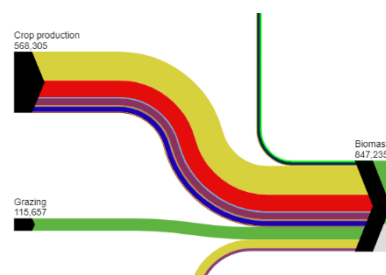
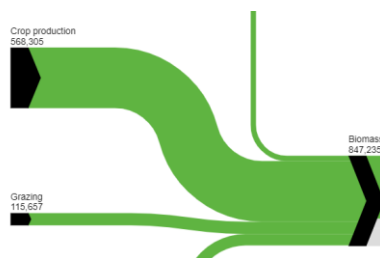
Click on a flow to access the flow menu. The flows are the streams that enter or exit the black nodes. They represent the inputs and outputs of biomass commodity types (e.g. animal-based food).



### 5.1. Show/Hide flow details



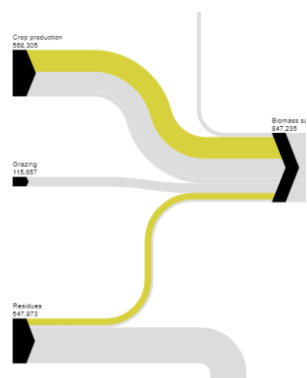
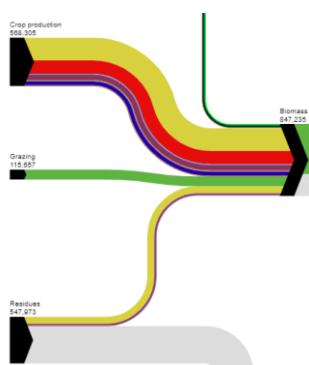
Show/Hide flow details will take you to a new Sankey diagram with a deeper level of granularity. It works at the highest level (from total biomass to biomass by sector) and also at the lowest level (from crop production to crop production by type of crop).



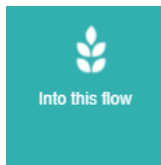
### 5.2. Highlight this flow



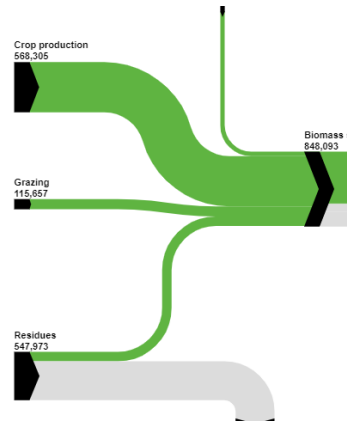
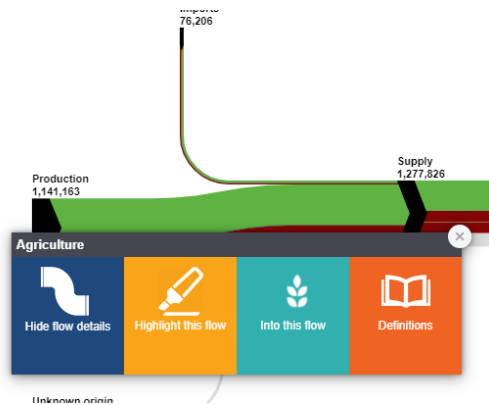
This button will highlight/unhighlight a specific type of flow.



### 5.3. Into this flow



This button will take you to the diagram for a specific sector (agriculture, forestry or fisheries). You can then access a higher level of detail for that same sector by selecting “Show flow details”.



### 5.4. Definitions



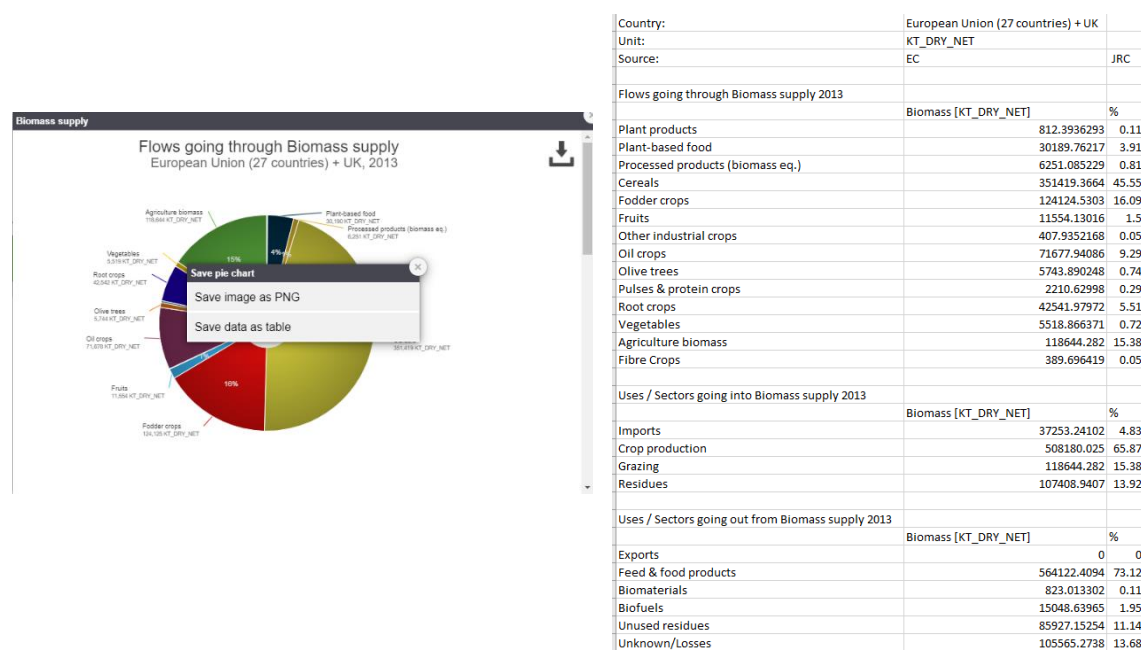
Click on the “Definitions” button to view how a node or flow is defined in the EU Biomass Flows tool.

## 6. How to download data

There are several download options.

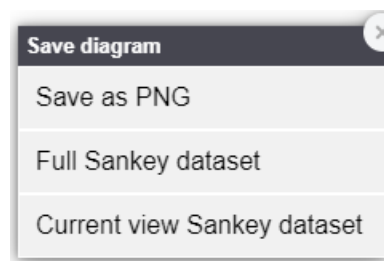
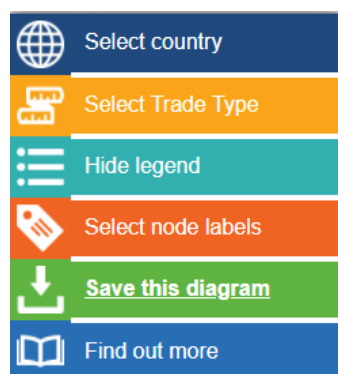
### 6.1. Downloading data from charts and graphs

You can download the data shown in a specific chart or graph as an image (.png) or a data table (.csv) by clicking the download button at the top right corner of the screen. Only the data shown on screen, filtered as per your choices, will be downloaded.



### 6.2. Downloading data from the EU Biomass Flows tool

You can download the data from a specific diagram (showing only your selection of data) from the main menu with the option "Save this diagram". You can download either the image (.png) or a data table (.csv).

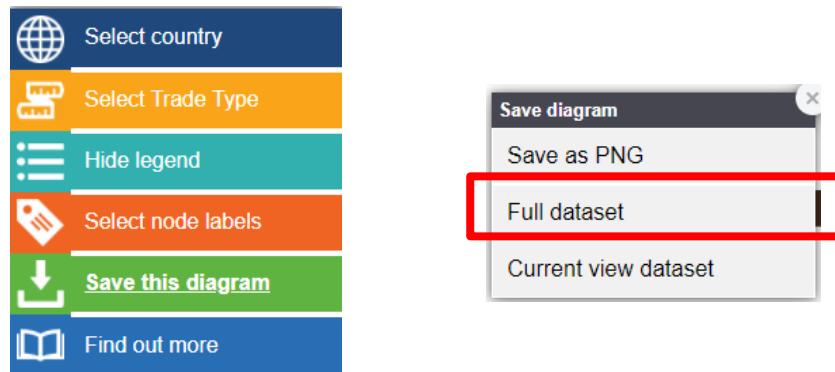


## 6.3. Downloading the full dataset

There are two options for downloading the complete dataset (all countries, all years, all commodities and levels):

### 6.3.1. From the main menu

Via the icon “Save this diagram”. The full dataset will be downloaded to your device as a .csv file.

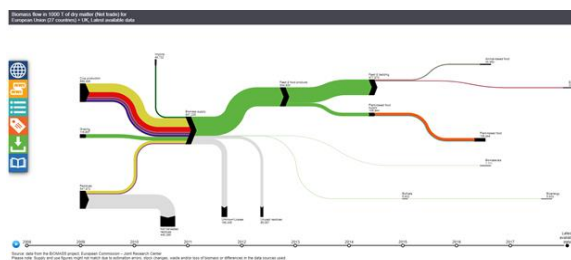


### 6.3.2. From the DataM site

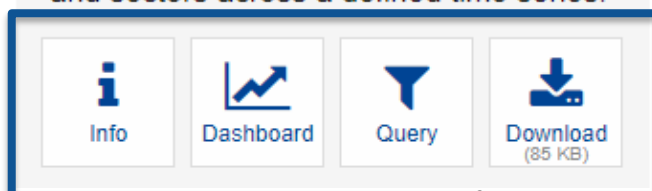
You can download the full dataset from the DataM home page, or create a query to download a selection of the data. The full or queried dataset will be downloaded to your device as a .csv file.

<https://datam.jrc.ec.europa.eu/datam/area/BIOECONOMY>

## Sankey biomass uses and flows



Harmonised data and interactive Sankey diagram on biomass supply, uses and flows in the EU, compiled by the JRC. The diagram enables deeper analysis and comparison of the different countries and sectors across a defined time series.



To create a query:

1. Select “Query”. A new screen will open where you can filter the data.
2. You can filter by any of the dimensions of the dataset:

Dimensions

- Geopolitical Entity - (1 element selected)
- Year - (1 years selected)
- Sector - (All elements selected)
- Level\_Sankey - (1 element selected)**
- Source - (All elements selected)
- Target - (All elements selected)
- Flow - (All elements selected)
- Unit - (1 element selected)

Hold the Ctrl key to select additional elements. Hold the Shift key to select adjacent elements. If you have the list of elements in a file, you may use the List submission tool.

Select all Clear selection

Flows per page: 10 20 50 100 1000

Name	Level
<input type="checkbox"/> L0 - Total biomass	L0
<input type="checkbox"/> L1 - Biomass by sector	L1
<input type="checkbox"/> L2 - Biomass by type	L2
<input checked="" type="checkbox"/> L3 - Biomass components	L3

- a. Geopolitical entity: one or more member states and/or the EU27+UK
- b. Year: a single year between 2008 and 2017. As not all commodities have data for the full time series, we have added the option “9999”. This mirrors the data point “latest available data” on the Sankey diagrams. This data point shows the latest available year of data for each commodity. As a general rule, this corresponds to 2017 for agricultural and food commodities, 2015 for forestry biomass and 2013 for fisheries and aquaculture.
- c. Sector: any combination of agriculture, forestry, fisheries and all sectors.
- d. Level\_Sankey: this dimension reflects the different levels of granularity in the diagrams.
  - L0 is the summary level, where all types of biomass are aggregated. It shows a summary of supply and uses of biomass in the main categories.
  - L1 shows the biomass flows by sector (agriculture, forestry and fisheries). It shows a summary of supply and uses of biomass by sector in the main categories.
  - L2 shows the biomass flows of a specific sector (agriculture, forestry or fisheries). It shows a supply and uses of biomass by type of origin or use (e.g. crop production, or aquaculture) for the selected sector.
  - L3 is the most detailed level and shows all data available for a specific sector (agriculture, forestry or fisheries). It shows a supply and uses of biomass by type of origin or use (e.g. crop production, or aquaculture) and commodity (e.g. cereals) for the selected sector.
- e. Lifecycle step: the stage of the flow of biomass. This option is intended to make filtering easier for the user. The possible stages are Imports, Production, Inner Uses, Uses, Unknown/Losses and Exports.
- f. Source is the origin of a flow. You can select a specific source if you want to filter all biomass with the same origin, e.g. all imports. Click on “Select all” if you do not wish to filter by this dimension.

- g. Target is the end of a flow. You can select a specific target if you want to filter all biomass with the same destination, e.g. all biomass supply. Click on “Select all” if you do not wish to filter by this dimension.
- h. Flow is the name of a specific flow. Click on “Select all” if you do not wish to filter by this dimension.
- i. Unit lets you select gross and/or net trade

While you can select several or all sectors for your query, please take into account only data of a single level should be used for analysis. Otherwise you run the risk of double counting.

3. Once you have made your selections, click on “Show data >”.
4. The data will be shown on screen. You can either download your results as a .csv file or create your own view before you download. All of your queries will be recorded in “My queries”, so you can access any past queries.

Home > ... > Knowledge centres and data portals > Data portal of agro-economics Modelling - DataM > Archive of queries of Patricia GURRIA

Archive of queries of Patricia GURRIA

Home Categories News **My queries** Link Usage statistics About Data management

### Archive of queries of Patricia GURRIA

Click on the title to access your old queries, to execute them again, if wished with modifications.  
The icon "NEW DATA AVAILABLE" means that the dataset has been updated after last execution of the query.

[14/10/2020 19:45:25 — Sankey\\_V2](#) ★

Revision date: 14/10/2020 13:45:46

- **Geopolitical Entity (1):** European Union (27 countries) + UK
- **Year - Years (1):** 2013
- **Year - Frequencies (1):** ANNUAL
- **Sector (4):** Agriculture; All sectors; Fisheries; Forestry
- **Level\_Sankey (1):** L3 - Biomass components
- **Source (30):** Aquaculture; Biofuels; Biomass supply; Biomass supply; Biomass supply; Biomaterials; By- & co-products (incl. wood pellets); C;
- **Target (30):** Animal-based food; Aquaculture; Aquatic-based food; Bioenergy; Bioenergy; Biofuels; Biomass supply; Biomass supply; Biomass
- **Flow (40):** Agriculture; Agriculture biomass; Agriculture biomass; Animal products (feed eq.); Aquaculture; Aquatic-based food; By- & co-produ

[Show all...](#)

- **Unit (1):** 1000 T of dry matter (Net trade)
- **Measures (1):** Value (THOUSAND TONS)

**Number of records:** 98  
**Execution time:** 21 seconds

## 7. Other documentation and links

- Biomass flows in the European Union. EU Biomass Flows tool, version 2020. Gurria et al., 2020. EUR 30454 EN, doi:10.2760/14342  
<https://op.europa.eu/en/publication-detail/-/publication/74413f58-32be-11eb-b27b-01aa75ed71a1/language-en>
- Biomass flows in the European Union. The Sankey biomass diagram – towards a cross-set integration of biomass. Gurria et al., 2017. EUR 28565 EN, doi: 10.2760/352412  
<https://ec.europa.eu/jrc/en/publication/biomass-flows-european-union-sankey-biomass-diagram-towards-cross-set-integration-biomass>
- The Sankey Biomass Diagram: Research Brief. Gurria et al., 2017  
<https://ec.europa.eu/jrc/en/publication/brochures-leaflets/sankey-biomass-diagram-research-brief>
- Biomass production, supply, uses and flows in the European Union: First results from an integrated assessment. Camia et al., 2018. EUR 28993 EN, doi 10.2760/539520  
<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/biomass-production-supply-uses-and-flows-european-union-first-results-integrated-assessment>
- Knowledge Centre for Bioeconomy, European Commission, Joint Research Centre.  
[https://ec.europa.eu/knowledge4policy/bioeconomy\\_en](https://ec.europa.eu/knowledge4policy/bioeconomy_en)
- Eurostat Energy flow Sankey  
<https://ec.europa.eu/eurostat/web/energy/energy-flow-diagrams>