# Deutsches Biomasseforschungszentrum
gemeinnützige GmbH

**DBFZ**

## Metadata: Quantification of European Biomass Potentials

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|---|---|
| **Title** | Quantification of European Biomass Potentials |
| **Version** | 1.0 (August 2021) |
| **Tags** | Biomass potential, residues, Europe, HyFlexFuel |
| **Data description** | The data-sets contain information on the technical biomass potentials of various biogenic by-products, residues and waste materials at district (NUTS-3), regional (NUTS-2), state (NUTS-1) as well as national (NUTS-0) level for all 27 EU countries and the United Kingdom. |
| **Format** | CSV |
| **Update frequency** | Irregular |
| **Reference year** | Single status, not harmonized: <br> Plant-based residues (cereal straw, grain maize (corn) straw, rapeseed straw, rice straw, sugar beet leaves, sunflower straw): 2016 <br> Cattle, pig, poultry excretions (manure, slurry, solid dung): 2010 <br> Urban residues (biogenic municipal waste, sewage sludge): 2016/2019 |

| **Data author** | Biomass potential | Author |
|---|---|---|
| | Cereal straw, grain maize (corn) straw, rapeseed straw, rice straw, sugar beet leaves, sunflower straw | Franz-Fabian Bellot |
| | Cattle, pig, poultry excretions (manure, slurry, solid dung), biogenic municipal waste, sewage sludge | Thomas Horschig |

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| **Data quality** | A large selection of variables and data-sets has been used to quantify and spatially model the European biomass potentials for 11 different biogenic residues. Due to the extensive variety of sources with varying temporal and spatial extents, a complete harmonization of reference years was not possible. Geographic extents have been spatially modelled and aggregated on four different NUTS-levels in order to be comparable. DBFZ will continue to work on the harmonization of information in order to enhance the temporal and spatial resolution. |
| **Geographic extent** | EU-27 countries and United Kingdom |
| **Reference area** | NUTS-0, 1, 2, 3 |
| **User license** | CC BY-NC-SA |
| **Citation** | Bellot, Franz-Fabian; Horschig, Thomas; Brosowski, André: Quantification of European biomass potentials. DBFZ. Leipzig 2021. Open Agrar Repositorium. |
| **Methodology and calculation elements** | See flowchart documentation for more detailed descriptions |
| **Supplementary material** | Cartographic visualizations of biomass preference regions: <br> https://www.dbfz.de/fileadmin/user_upload/Bilder/energiegrafiken/Hyflexfuel_Web.zip <br> https://www.dbfz.de/fileadmin/user_upload/Bilder/energiegrafiken/Hyflexfuel_print.zip |
| **Dataset language** | English |
| **Metadata language** | English |
| **Contact** | DBFZ Deutsches Biomasseforschungszentrum gemeinnützige GmbH, Franz-Fabian Bellot, Working Group Resource Mobilization, Torgauer Str. 116, D-04347 Leipzig |

## Additional Information on Usability of Data in Geographic Information Systems (GIS)

The provided information on biomass potentials (csv tables) can be integrated in GIS applications for the implementation of geospatial analysis as well as for the generation of cartographic visualizations. Therefore, separate columns with respective NUTS codes (Nomenclature of territorial units for statistics) are included in each csv table, which can be used for spatial joins with administrative boundary files (e.g. shapefiles). Geospatial boundary files for the respective NUTS level can be downloaded free of charge from the GISCO (Geographic Information System of the Commission) platform of the European Commission.

## Explanations of csv Data Tables

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|---|---|
| **LEVL_CODE** | Administrative NUTS (Nomenclature of territorial units for statistics) level |
| **NUTS_ID** | Administrative NUTS (Nomenclature of territorial units for statistics) code |
| **CNTR_CODE** | NUTS-0 country code associated with the administrative area<br>AT = Austria<br>BE = Belgium<br>BG = Bulgaria<br>CY = Cyprus<br>CZ = Czechia<br>DE = Germany<br>DK = Denmark<br>EE = Estonia<br>EL = Greece<br>ES = Spain<br>FI = Finland<br>FR = France<br>HR = Croatia<br>HU = Hungary<br>IE = Ireland<br>IT = Italy ITALIA<br>LT = Lithuania<br>LU = Luxemburg<br>LV = Latvia<br>MT = Malta<br>NL = Netherlands<br>PL = Poland<br>PT = Portugal<br>RO = Romania<br>SE = Sweden<br>SI = Slovenia<br>SK = Slovakia<br>UK = United Kingdom |
| **NUTS_NAME** | Name of administrative area |
| **XXX_min**<br>**XXX_max** | Minimum and maximum biomass potentials displayed in annual tonnes of dry matter (t dm) per NUTS area<br>BIO = Bio waste from private households – separately collected<br>SSM = Sewage sludge from public waste water treatment plants<br>CST = Cereal Straw<br>MST = Grain maize (corn) stover<br>RST = Rapeseed straw<br>RIS = Rice Straw<br>SBL = Sugar beet leaves<br>SST = Sunflower straw<br>CAX = Cattle manure, slurry, solid dung<br>PIX = Pig manure, slurry, solid dung<br>POX = Poultry manure and slurry |
| **Unit** | Unit of key information (t dm) |
| **Potential** | Type of potential/key information |
| **Source** | Institution and project responsible for the calculation of biomass potentials |