

Biomass Atlas – open tool for biomass assessment

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Biomass atlas

- Free to use tool for biomass assessments
- Funded by Ministry of Agriculture and Forestry as a part of Finnish Bioeconomy Strategy
- Responsible organisations and persons
 - **Luke:** Eeva Lehtonen, Virpi Alhainen, Perttu Anttila, Kaija Hakala, Sari Luostarinen, Anil Maharjan, Oiva Niemeläinen, Harri Pitkänen
 - **SYKE:** Kirsi Merilehto, Teija Haavisto, Tuuli Myllymaa
 - **Tapio:** Risto Juntunen, Saara Lilja-Rothsten, Matti Kymenvaara, Ari Kotiharju
 - **University of Vaasa:** Harri Lehtinen
 - **University of Eastern Finland:** Mikko Kolehmainen, Robert Ciszek, Markus Stocker



Ministry of Agriculture and Forestry of Finland



Biomass atlas –

The web based map service provides open sight and analysis to Finnish biomass data

Amount and location of biomasses and land use: woodchips from forestry, field use, field biomass, crop side streams and manure in agriculture, biowaste from municipalities and industry

- 300 data and map layers on biomass or land use type
- Thematic background maps for additional information
- 1 km grid data help to make effective queries
- Tools for updating the data to the newest available

- Data and knowledge to support contract work, investments, planning, energy and environmental policy
- Open map user interface, analysis tools and reporting
- Future plans include interfaces to data transfer and modeling
- Available in Finnish, Swedish and English

www.biomassa-atlas.fi

How much raw material can be found in my neighborhood?

Where are the fields that can take the digestate?

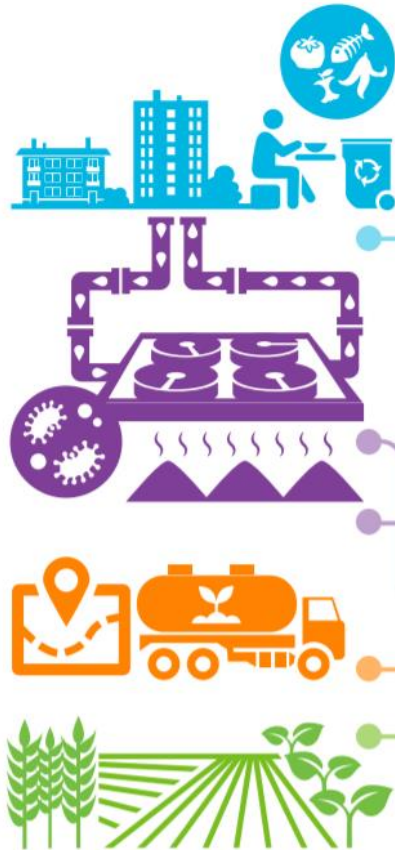
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Tools for exploring biomass potential

- Biomass atlas site
<https://www.luke.fi/biomassa-atlas/en/>
- Biomass atlas map and analysis service
<https://biomassa-atlas.luke.fi/?lang=en>
- Forest Energy Atlas is a Biomass Atlas extension to Estonia, Latvia, Lithuania and Sweden with forest energy biomass. It is realized in Interreg BSR project - Accelerating production of forest bioenergy in the Baltic Sea Region - Baltic ForBio.
<https://forest-energy-atlas.luke.fi/>



Further analysis on biomass availability



Natural Resources Institute Finland (Luke) offers its expertise for sustainable and productive utilization of biomasses based on the data in the Biomass Atlas.

A USE CASE: Treatment of biodegradable municipal wastes

The aim is to utilize the sewage sludge and biological waste in energy production and their nutrients in plant production.

1. An analysis how much biological waste and sewage sludge forms in the region. Calculation of the methanisation potential of the masses.
2. The summary of fields and crops for evaluation the nutrient requirement. Calculation of the nutrient content of the masses.
3. Comparing the nutrient amounts of the bio-waste and sludge with the requirements of plants.
4. Computation of the transport distances to the fields where the nutrients from the masses can be utilized.
5. Generating a review on which fields sludge can be spread on by selecting suitable plant groups.

Thank you!