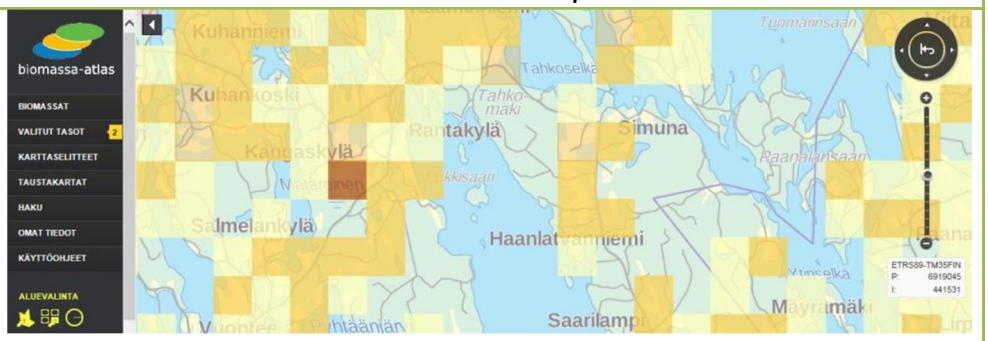
Description of best practice

Best practice	
Title	Biomass Atlas – a new web based map service
Picture	
Domain	Digitalization, data security, IT driven solutions; Sustainable management and planning
Source of wood	Stemwood; Above and below ground woody biomass
Location	Kuopio, Finland (in the future also Sweden and Baltic sea countries)
Implementers	Companies, authorities, research, education
Actual status	Running
Approach	Biomass Atlas is an open service which collects the location data of biomasses under one, single user interphase. Developed by Luke together with Finnish organizations SYKE, TAPIO, UEF and UVA, and by the funding of the Finnish Ministry of Agriculture and Forestry, the service enables calculations of the amount of biomass in a given geographical area, as well as examining the opportunities and restrictions to utilise the biomass. The map user interface is easy to use and allows user to watch, analyse and report biomasses from forestry, agriculture and biodegradable wastes from communities and industry. You will find approximately 300 map layers of different biomass types or land use categories in map user interface.
Main results	The biomass data is planned to support investment decisions and sustainable use of natural resources, for example, and to help decision-makers to do sustainable energy politics. At the moment Biomass Atlas is available in Finnish. International version of Biomass Atlas will be built in cooperation with Baltic Forbio project, which starts at autumn 2017 and exports the Biomass Atlas concept to Sweden and Baltic sea countries. In Biomass Atlas you will find GIS data and maps of different biomass and land use types: • the multisource national forest inventory data describes biomass that is growing in forests • forest chip potential

	• field and crop areas • crops and crop side streams • manure of production animals • biowaste from communities • biodegradable waste from companies in scale that requires environmental authorization (VAHTI-database). Field area, crops and waste data is updated yearly. Manure data is updated when needed, and forest data approximately in every five years. All the data in Biomass Atlas is described also in Finnish metadataportal for geodata, Paikkatietohakemisto.
Lessons learned	Based on Biomass Atlas, assessments of regional availability of biomass, procurement and logistical costs of biomass, procurement technology and optimization in Luke and other organizations have been successfully accomplished. Analyses of content of biomasses, their nutrients, energy potential, and the nutrient recycling have been optimized regionally using Biomass Atlas. The potential to utilize biomass regionally can be assessed with focus in employment, regional economy or environmental impact. It is also possible to make scenarios, how these things will develop in the future.
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Link to website	https://www.luke.fi/biomassa-atlas/en/ https://www.luke.fi/biomassa-atlas/wp-content/uploads/sites/19/2018/02/Biomass-Atlas-A4-en.pdf
Code	BP_FI_03

Best practice assessment

Region	Finland
Time scale	From 2017
Mobilization Potential	Not possible to assess.
Kind of wood concerned	Stemwood; Above and below ground woody biomass
Sustainability Potential	Positive, gives a picture of different kind of available biomasses and enhances sustainable use of natural resources
Impact on environment & biodiversity	Medium
Ease of implementation	Medium, IT skills needed
Economic impact	Positive, Atlas can be used in planning processes of different organizations including companies
Job effect	Positive, see above
Income effect	Positive, see above
Specific knowledge needed	IT skills
Costs of implementation	Open source
Technical readiness level	Immediately applicable
Key information for adoption	Web pages, see above.