

Description of innovation

Innovation		
Title	Assessment method for energy wood biomass feedsto	
	availability and transport costs at regional level	
Picture	Wood Balance of Small Trees m/ / km² 0.0 -3940.0 -3940.0 -3940.0 -3940.0 -3940.0 -3940.0 -3940.0 -3940.0 -3940.0 -3940.0 -3940.0 -39 - 30.0 -39 - 30.0 -39 - 10.0 -30 - 10.0 -3	
Domain	Sustainable management and planning Infrastructure/logistics	
Source of wood	Above and below ground woody biomass (wood for fibres, wood for energy)	
Location	Rovaniemi, Finland	
Implemente rs	Natural Resources Institute Finland (Luke)	
Actual status	Running	
Approach	Spatially explicit GIS-method and a collection of tools to assess the energy wood biomass availability and transport costs at regional level to any given end-use location. In the process the technical harvesting biomass potential, local competing demand and the wood resource balance are assessed. The transport costs from the grid of supply points can be viewed as a function of transport distance. Also, different future growth and demand scenarios can be included into calculations thus providing a valuable decision support to investors of energy wood industry.	
Main results	 Numerical (GIS) maps of biomass potential for any given timber assortment, biomass demand and wood resource balance (e.g. balance of small trees, see picture above). Graphs depicting transport costs as a function of distance. 	



	 Spreadsheets of the result data used for graphs. Summary report of the results for the customers. 	
Lessons learned	Most customer projects differ from every other project in some respect. Calculation methods need more or less adjustment.	
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Link to website	N/A	
Code	IN_FI_02	



Innovation assessment

Region	Finland
Time scale	Since 2016
Mobilization Potential	Not possible to assess.
Kind of wood concerned	Above and below ground woody biomass (ex. shrubs, wood for fibres, wood for energy), Stemwood, Industry
Sustainability Potential	Medium (Maximum technical harvesting potentials comply with the sustainable energy wood strategy set by the Finnish government)
Impact on environment & biodiversity	Medium (see above)
Ease of implementation	Easy (the assessment is done by research experts, customers only need to define the basic requirements and calculation area)
Economic impact	Positive, helps the customers to plan their business in a more detailed way
Job effect	Positive, helps the customers to plan their business in a more detailed way
Income effect	Not possible to assess.
Specific knowledge needed	Comprehensive database, coding
Costs of implementation	Medium, depending on the size and location of the area.
Technical readiness level	Immediately applicable
Key information for adoption	Available on request for the customers in Finland only at the moment.