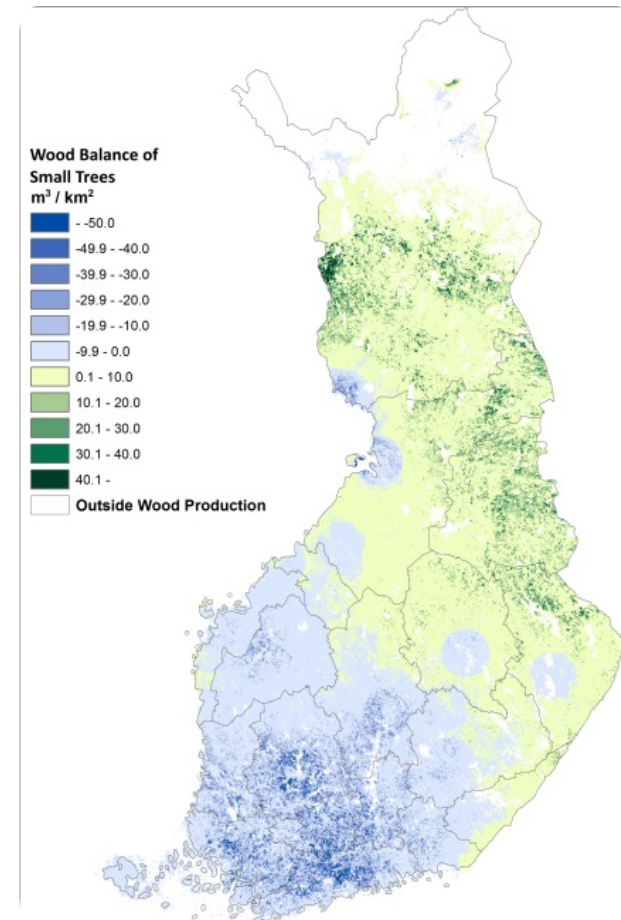


## Assessment method for energy wood biomass feedstock availability and transport costs at regional level



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.

Most customer projects differ from every other project in some respect. Calculation methods need more or less adjustment.

Results from the analysis: 1. 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).

2. Graphs depicting transport costs as a function of distance. 3. Spreadsheets of the result data used for graphs. 4. Summary report of the results for the customers.

For more information, see the reference.

## DETAILS

---

### ORIGIN OF WOOD

Forest

### TYPE OF WOOD

Stemwood

### KIND OF WOOD CONCERNED

Above and below ground woody biomass (ex. shrubs, wood for fibres, wood for energy), Stemwood, Industry

### IMPACT ON ENVIRONMENT & BIODIVERSITY

Medium (see above)

### INCOME EFFECT

Not possible to assess.

### EXPLOITATION POTENTIAL

--

### HUB

Northern Hub

### ECONOMIC IMPACT

Positive, helps the customers to plan their business in a more detailed way

### SPECIFIC KNOWLEDGE NEEDED

Comprehensive database, coding

### MOBILIZATION POTENTIAL

Not possible to assess.

### SUSTAINABILITY POTENTIAL - VALUE

--

### EASE OF IMPLEMENTATION

Easy (the assessment is done by research experts, customers only need to define the basic requirements and calculation area)

### EASE OF IMPLEMENTATION - EVALUATION

--

### KEY PREREQUISITES

Available on request for the customers in Finland only at the moment.

### TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED

--

### JOB EFFECT

Positive, helps the customers to plan their business in a more detailed way

### COSTS OF IMPLEMENTATION ( EURO - € )

--

## MORE DETAILS

---

### CHALLENGE ADDRESSED

5.- Enhance economic and environmental performance of forest supply chains

### KEYWORDS

--

### COUNTRY OF ORIGIN

Finland

### DOMAIN

Forest management, ecosystem, resilience  
Harvesting, infrastructure, logistics

### DIGITAL SOLUTION

Yes

### SCALE OF APPLICATION

National

### TYPE OF SOLUTION

Modelling, simulation, optimization

### INNOVATION

Yes

### START AND END YEAR

2016 -

## CONTACT DATA

---

### OWNER OR AUTHOR

Natural Resources Institute Finland (Luke)

Perttu Anttila

[perttu.anttila@luke.fi](mailto:perttu.anttila@luke.fi)

<https://www.luke.fi/en/>

### REPORTER

Natural Resources Institute Finland (Luke)

Vesa Nivala

[vesa.nivala@luke.fi](mailto:vesa.nivala@luke.fi)

## REFERENCES AND RESOURCES

---

### MAIN WEBSITE

[https://efi.int/sites/default/files/files/events/2018/innovation\\_workshop-Nivala.pdf](https://efi.int/sites/default/files/files/events/2018/innovation_workshop-Nivala.pdf)

### PROJECT WEBSITE

--

### PROJECT REFERENCE

--

### RESOURCES

--

LOGO OF BEST PRACTICE

---

LOGO OF MAIN ORGANIZATION

---



---

PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood

POST DATE

27 Sep 2019

---



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

---

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

