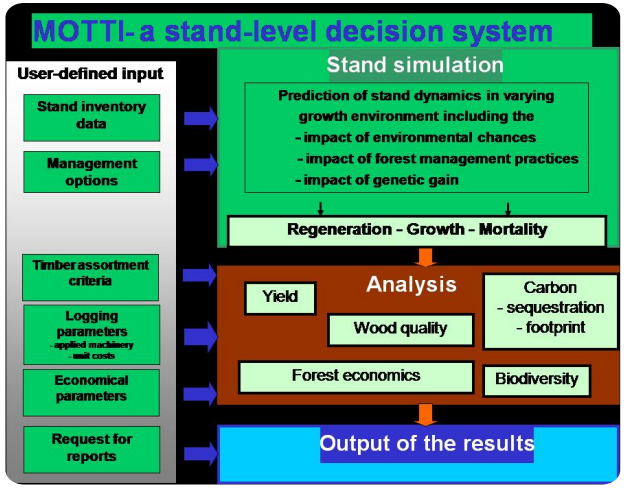
# MOTTI software




MOTTI is a stand-level analysis tool and decision support software by Luke. It contains the key results of the growth and yield research carried out by Luke, which can be used to predict the growth of forests managed using different techniques. The software also enables making comparisons between different silvicultural methods. MOTTI can also be used to investigate the effects of forest management or non-management, selection of tree species, regeneration chains or individual silvicultural measures, for example, on forest growth, harvesting volumes, profitability of forestry or the amount of carbon sequestered by forests.

MOTTI is widely used among professional foresters, forest owners, teachers, researchers, authorities and companies in Finland. It has been updated regularly with the newest growth models. It has also been tailored for special purposes, e.g. for teaching and for calculating economic effects of forest protection. It has been published in several languages (Finnish, Swedish, English, Russian) and it has also been piloted in other countries and tree species.

The core of MOTTI is a stand-level simulator, which includes growth and yield models for e.g. natural regeneration, growth and mortality. It is designed to simulate stand development under alternative management regimes and growth conditions in Finland.
MOTTI predicts the development of the user-defined initial stand until the end of the rotation. The user can define various management schedules including management practices, such as precommercial and commercial thinnings, fertilization, and ditch network maintenance in peatland forests. The user can adjust parameters such as timing and intensity of thinning and proportions of tree species, and define the timing of final cut. Timber assortments include logs, pulpwood and energy wood compartments. If the user do not define management practices, MOTTI simulates a default management program for the stand based on the current recommendations for forestry practice in Finland.
For the economic analysis (net present value and bare land value), the user can enter stumpage prices by tree species and timber assortments, costs (e.g. costs of first commercial thinnings, fertilisation and ditch network maintenance) and interest rate. The results will be presented in the form tables, graphs and

files exportable to Excel.

## DETALHES

### ORIGEM DA MADEIRA
Floresta

### TIPO DE MADEIRA
Tronco

### TIPO DE MADEIRA EM CAUSA
Stemwood; Above and below ground woody biomass (ex. shrubs, wood for fibres, wood for energy)

### IMPACTE NO AMBIENTE E BIODIVERSIDADE
Positive, versions of software for carbon sequestrion and economical impacts of protected forests are available

### IMPACTE NAS RECEITAS
Not possible to assess.

### POTENCIAL DE EXPLORAçãO
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### HUB
Pólo Norte

### IMPACTE ECONOMICO

### POTENCIAL DE MOBILIZAçãO
Not possible to assess.

### SUSTENTABILIDADE POTENCIAL - VALOR
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### FACILIDADE DE IMPLEMENTAçãO
Easy

### FACILIDADE DE IMPLEMENTAçãO
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### PRE-REQUISITOS CHAVE
Application loadable on Luke web pages (Windows 7):
http://www.metla.fi/metinfo/motti/asennus.htm (Finnish version)
http://www.metla.fi/metinfo/motti/index-en.htm (English version)
New versions will be published in 2019 (Windows 10).

### TIPO DE EVENTO EM QUE ESTE BPI TEM SIDO APRESENTADO
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### IMPACTE NO EMPREGO
Positive, helps in planning of forest operations

### CUSTOS DE IMPLEMENTAçãO (EURO - EUR)

| | |
|---|---|
| Positive, helps in planning of forest operations | -- |

CONHECIMENTOS ESPECIFICOS NECESSáRIOS

Normal IT skills

## MAIS DETALHES

DESAFIO ABORDADO

5. Melhorar o desempenho económico e ambiental das cadeias de abastecimento florestal

DOMíNIO

Gestão florestal, silvicultura, serviços do ecosistema, resiliencia

TIPO DE SOLUçãO

Desenho de software

PALAVRAS-CHAVE

--

SOLUçãO DIGITAL

Sim

INOVAçãO

Não

PAíS DE ORIGEM

Finlândia

ESCALA DE APLICAçãO

Além fronteiras/ multilateral

ANO DE INíCIO E FIM

2005 -

## DADOS DE CONTACTO

PROPRIETáRIO OU AUTOR

**Natural Resources Institute Finland (Luke)**

hannu.salminen@luke.fi

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

REPóRTER

## REFERENCES AND RESOURCES

WEBSITE PRINCIPAL

https://www.luke.fi/en/natural-resources/forest/silviculture/motti-software-enables-the-comparison-of-different-techniques/

RECURSOS

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WEBSITE DO PROJETO

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REFERêNCIA AO PROJETO

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## LOGOTIPO DA BOA PRáTICA

## LOGOTIPO DA ORGANIZAçãO PRINCIPAL

Luke
NATURAL RESOURCES INSTITUTE FINLAND

### PROJETO NO âMBITO DO QUAL A FOLHA DE DIVULGAçãO FOI CRIADA

Rosewood

### DATA DE ENTRADA

17 Set 2019

ROSEWOOD 4.0 Sustainable Wood for Europe

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

cesefor
Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León