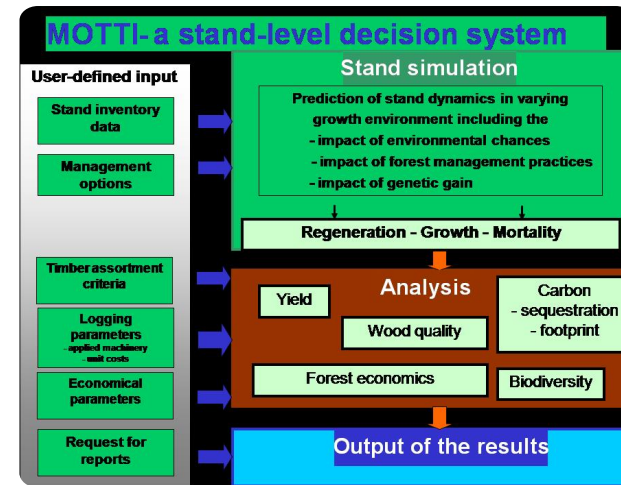


# MOTTI software



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

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### 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 sequestration 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

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## CONHECIMENTOS ESPECIFICOS NECESSÁRIOS

Normal IT skills

## MAIS DETALHES

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<b>DESAFIO ABORDADO</b>	<b>DOMÍNIO</b>	<b>TIPO DE SOLUÇÃO</b>
5. Melhorar o desempenho económico e ambiental das cadeias de abastecimento florestal	Gestão florestal, silvicultura, serviços do ecossistema, resiliencia	Desenho de software
<b>PALAVRAS-CHAVE</b>	<b>SOLUÇÃO DIGITAL</b>	<b>INOVAÇÃO</b>
--	Sim	Não
<b>PAÍS DE ORIGEM</b>	<b>ESCALA DE APLICAÇÃO</b>	<b>ANO DE INÍCIO E FIM</b>
Finlândia	Além fronteiras/ multilateral	2005 -

## DADOS DE CONTACTO

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### PROPRIETÁRIO OU AUTOR

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

### REPÓRTER

## REFERENCES AND RESOURCES

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### WEBSITE PRINCIPAL

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

### WEBSITE DO PROJETO

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### REFERÊNCIA AO PROJETO

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### RECURSOS

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PROJETO NO ÂMBITO DO QUAL A FOLHA DE DIVULGAÇÃO FOI CRIADA

DATA DE ENTRADA

Rosewood

17 Set 2019



Link to Rosewood 4.0



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

