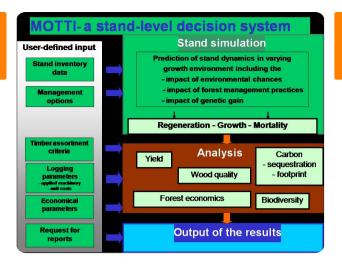
## **MOTTI software**



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

1

files exportable to Excel.

**DETTAGLI** 

**ORIGINE DEL LEGNO** 

POTENZIALE DI MOBILITAZIONE

foresta

Not possible to assess.

TIPO DI LEGNO

POTENZIALE SOSTENIBILITà - VALORE Fusto

TIPO DI LEGNO IN QUESTIONE

FACILITÀ DI IMPLEMENTAZIONE

Stemwood; Above and below ground woody biomass (ex. shrubs, wood for Easy

fibres, wood for energy)

IMPATTO SULL'AMBIENTE E LA BIODIVERSITÀ

FACILITÀ DI IMPLEMENTAZIONE - VALUTAZIONE

Positive, versions of software for carbon sequestrion and economical

impacts of protected forests are available

**EFFETTO SUL REDDITO** PREREQUISITI CHIAVE

Not possible to assess. 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).

POTENZIALE DI SFRUTTAMENTO TIPO DI EVENTO IN CUI QUESTO BPI è STATO PRESENTATO

HUB **EFFETTO SUL LAVORO** 

Positive, helps in planning of forest operations Polo Nord

I COSTI DI ATTUAZIONE (EURO - €) **IMPATTO ECONOMICO** 

Positive, helps in planning of forest operations

CONOSCENZE SPECIFICHE NECESSARIE

Normal IT skills

PIù DETTAGLI		
SFIDA RISOLTA	DOMINIO	TIPO DI SOLUZIONE
5. Migliorare le prestazioni economiche e ambientali La gestione forestale, selvicoltura, i servizi		software di progettazione
delle filiere forestali	ecosistemici, resilienza	
PAROLE CHIAVE	SOLUZIONE DIGITALE	INNOVAZIONE
	Sì	No
PAESE D'ORIGINE	SCALA DI APPLICAZIONE	INIZIO E FINE ANNO
Finlandia	Transfrontaliera / multilaterale	2005 -
CONTATTI		
PROPRIETARIO O AUTORE	REPORTER	
Natural Resources Institute Finland (Lul	ke)	
hannu.salminen@luke.fi		
https://www.luke.fi/en/		
REFERENCES AND RESOURCES		
<u></u>		
SITO PRINCIPALE	RISORSE	
https://www.luke.fi/en/natural-resource	es/forest/silviculture/motti-software	
enables-the-comparison-of-different-ted	chniques/	
SITO WEB DEL PROGETTO		
PROGETTO DI RIFERIMENTO		



## PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood

DATA DI INSERIMENTO

17 Set 2019







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## A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY



