

# Remote sensing based assessment of woody biomass and carbon storage in forests



## RemBioFor

*R&D project, which aim is to work out the complex method of defining selected forest stand descriptions as well as aboveground biomass and carbon sequestration, based on the use of remote sensing for the purposes of forest management planning.*

The aim of the project was to work out the complex method of defining selected forest stand descriptions as well as aboveground biomass and carbon sequestration, based on the use of remote sensing for the purposes of forest management planning.

Among main goals were:

- acquisition and processing of remote sensing, laboratory and field data,
- determining the amount of biomass and carbon in the forest based on radar data,
- development of methods for the inventory of selected stand descriptions, growing stock and biomass with the use of active remote sensing techniques,
- local correction of dendrometric volume equations based on terrestrial laser scanning data (TLS),
- development of the merchantable volume conversion factors into biomass and carbon.

Results of the project allow to: reduce time needed to carry out the work of the forest management, especially inventory of growing stock; obtain higher accuracy of the CO<sub>2</sub> balance, biomass and annual allowable cut calculations; determine growing stock for any forest area; reduce cost of field work in forest management.

## DETTAGLI

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ORIGINE DEL LEGNO

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TIPO DI LEGNO

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TIPO DI LEGNO IN QUESTIONE

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IMPATTO SULL'AMBIENTE E LA BIODIVERSITÀ

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EFFETTO SUL REDDITO

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POTENZIALE DI SFRUTTAMENTO

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HUB

Polo Centro-Est

IMPATTO ECONOMICO

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CONOSCENZE SPECIFICHE NECESSARIE

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POTENZIALE DI MOBILITAZIONE

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POTENZIALE SOSTENIBILITÀ - VALORE

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FACILITÀ DI IMPLEMENTAZIONE

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FACILITÀ DI IMPLEMENTAZIONE - VALUTAZIONE

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PREREQUISITI CHIAVE

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TIPO DI EVENTO IN CUI QUESTO BPI È STATO PRESENTATO

Visita di studio (T2.3)

EFFETTO SUL LAVORO

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I COSTI DI ATTUAZIONE (EURO - €)

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## PIÙ DETTAGLI

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### SFIDA RISOLTA

1. Migliorare la resilienza delle foreste e l'adattamento ai cambiamenti climatici

### DOMINIO

Inventario, la valutazione, il monitoraggio  
La gestione forestale, selvicoltura, i servizi  
ecosistemici, resilienza  
Ricerca e sviluppo

### TIPO DI SOLUZIONE

Modellazione, DSS, la simulazione, l'ottimizzazione

### PAROLE CHIAVE

remote sensing techniques; carbon sequestration;  
forestry

### SOLUZIONE DIGITALE

Sì

### INNOVAZIONE

Sì

### PAESE D'ORIGINE

Polonia

### SCALA DI APPLICAZIONE

Nazionale

### INIZIO E FINE ANNO

2015 - 2018

## CONTATTI

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### PROPRIETARIO O AUTORE

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### REPORTER

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## REFERENCES AND RESOURCES

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### SITO PRINCIPALE

<http://rembiofor.pl/en/>

### RISORSE

**Parkitna K., Krok G., Lisańczuk M., Mitelsztedt K., Ukalski K., Magnussen S., Markiewicz A., Miścicki S., Stereńczak K. 2021. Modelling growing stock volume of forest stands with the use of selected LiDAR Area Based Approaches in various predictive models. Forestry: An International Journal of Forest Research**

## **SITO WEB DEL PROGETTO**

<http://rembiofor.pl/en/>

## **PROGETTO DI RIFERIMENTO**

Remote sensing based assessment of woody biomass and carbon storage in forests (REMBIOFOR), National Centre for Research and Development within the program „Natural environment, agriculture and forestry” BIOSTRATEG, agreement no. BIOSTRATEG1/267755/4/NCBR/2015

LOGO DELLE MIGLIORI PRATICHE

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LOGO DELLA PRINCIPALE ORGANIZZAZIONE

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PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood 4.0

DATA DI INSERIMENTO

12 Ago 2021

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[Link to Rosewood 4.0](#)



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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

