

# 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.

## DETALJER

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### OPPRINNELSE FOR TRE

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### TYPE TRE

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### TYPE TRE INVOLVERT

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### PÅVIRKNING PÅ MILJØ OG BIOLOGISK MANGFOLD

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### INNTEKTSEFFEKT

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### UTNYTTELSESPOTENSIAL

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### HUB

Central-East Hub

### ØKONOMISK PÅVIRKNING

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### SPESIFIKKE KUNNSKAPSBEHOV

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### MOBILISERINGSPOTENSIAL

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### BÆREKRAFTPOTENSIAL - VERDI

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### ENKEL IMPLEMENTERING

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### ENKEL IMPLEMENTERING - EVALUERING

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### VIKTIGE FORUTSETNINGER

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### TYPE BEGIVENHET DER DENNE BPI HAR BLITT OMTALT

Studiebesøk (T2.3)

### EFFEKT PÅ ARBEIDSPLASSER

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### KOSTNADER MED IMPLEMENTERING (EURO - €)

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## MER INFORMASJON

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### UTFORDRING ADRESSERT

1. Forbedre skogens robusthet og tilpasningsevne til klimaendringer

### DOMENE

Inventering, vurdering, overvåking  
Skogforvaltning, skogskjøtsel, økosystemtjenester  
Forskning og utvikling

### TYPE LØSNING

Modellering, DSS, simulering, optimalisering

### NØKKEWORD

remote sensing techniques; carbon sequestration; forestry

### DIGITAL LØSNING

Ja

### INNOVASJON

Ja

### OPPRINELSESLAND

Polen

### POTENSIALE

Nasjonal

### START OG SLUTT ÅR

2015 - 2018

## KONTAKT INFORMASJON

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### EIER ELLER FORFATTER

Institut Badawczy Leśnictwa  
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### RAPPORTØR

Łukasiewicz Research Network - Wood Technology Institute (ITD)  
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## REFERENCES AND RESOURCES

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### HJEMMESIDE (HOVEDSIDE)

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

### RESSURSER

**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**

### PROSJEKTETS HJEMMESIDE

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

**REFERANSE TIL PROSJEKT**

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 FOR BESTE PRAKSIS



LOGO FOR HOVEDORGANISASJON



PROSJEKT SOM DETTE FAKTAARKET ER OPPRETTET UNDER

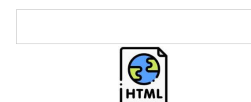
Rosewood 4.0

INNLEGGSDATO

12 aug 2021



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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

