

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 CO₂ balance, biomass and annual allowable cut calculations; determine growing stock for any forest area; reduce cost of field work in forest management.

DÉTAILS

ORIGINE DU BOIS

--

TYPE DE BOIS

--

TYPE DE BOIS CONCERNÉ

--

IMPACT SUR L'ENVIRONNEMENT ET LA BIODIVERSITÉ

--

EFFET SUR LE REVENU

--

POTENTIEL D'EXPLOITATION

--

HUB

Centre-Est

IMPACT ÉCONOMIQUE

--

CONNAISSANCES SPÉCIFIQUES REQUISES

--

POTENTIEL DE MOBILISATION

--

POTENTIEL DE DURABILITÉ - VALEUR

--

FACILITÉ D'IMPLÉMENTATION

--

FACILITÉ D'IMPLÉMENTATION - ÉVALUATION

--

PRÉREQUIS CLÉS

--

TYPE D'ÉVÉNEMENT OÙ CETTE ICPE A ÉTÉ PRÉSENTÉE

Visite d'étude (T2.3)

EFFET SUR L'EMPLOI

--

COÛTS D'IMPLÉMENTATION (EURO - €)

--

PLUS DE DÉTAILS

DÉFI CONCERNÉ 1. Améliorer la résilience de la forêt et son adaptation au changement climatique	DOMAINE Inventaire, diagnostic, monitoring Gestion forestière, sylviculture, services écosystémiques, résilience Recherche et développement	TYPE DE SOLUTION Modélisation, DSS, simulation, optimisation
MOTS-CLÉS remote sensing techniques; carbon sequestration; forestry	SOLUTION DIGITALE Oui	INNOVATION Oui
PAYS D'ORIGINE Pologne	ECHELLE D'APPLICATION Nationale	DÉBUT ET FIN D'ANNÉE 2015 - 2018

INFORMATIONS DE CONTACT

PROPRIÉTAIRE OU AUTEUR
Instytut Badawczy Leśnictwa
Krzysztof Stereńczak
K.Sterenczak@ibles.waw.pl
<https://www.ibles.pl/>

RAPPORTEUR
Łukasiewicz Research Network - Wood Technology Institute (ITD)
Dobrochna Augustyniak-Wysocka
dobrochna.augustyniak@itd.lukasiewicz.gov.pl

REFERENCES AND RESOURCES

SITE WEB PRINCIPAL
<http://rembiofor.pl/en/>

RESSOURCES
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*

SITE WEB DU PROJET

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

RÉFÉRENCE DU PROJET

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 DE LA BONNE PRATIQUE



LOGO DE L'ORGANISATION PRINCIPALE

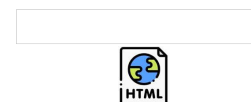


PROJET SOUS LEQUEL CETTE FICHE D'INFORMATION A été CRÉÉE

Rosewood 4.0

DATE DE PUBLICATION

12 août 2021



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

