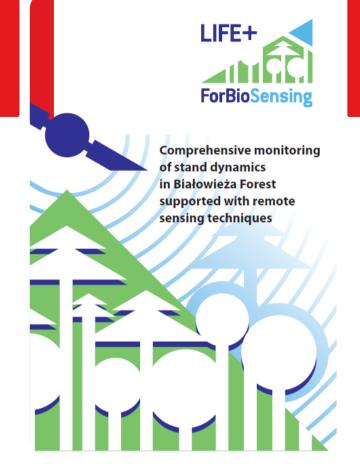
# ForBioSensing | Comprehensive monitoring of stand dynamics in Białowieża Forest supported with remote sensing techniques



Comprehensive monitoring method of a large forest area with the use of innovative techniques and data.

Project activities were focused on a comprehensive representation of changes in forest stands and their dynamics (using different time series of remote sensing data) and the transition from spot monitoring (field measurements on sample plots) to large-scale monitoring. This will improve the efficiency of forest ecosystem protection and management measures. Project results have been presented in the form of publications and maps showing specific changes over the years. In addition, radio and television broadcasts, meetings, brochures and promotional films were used to inform the general public.

The main objectives of the project were:

• Monitoring of stand dynamics in Białowieża Forest (including analysis of tree species composition, monitoring of changes in the forest stand caused,

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among others, by tree death)

- · Analysis of natural forest regeneration and rejuvenation, including the role of gaps,
- Establishment/determination of the combination of different remote sensing techniques and data sets that are optimal for forest monitoring,
- Characteristics of the microclimate of the Białowieża Forest,
- Promotion of Białowieża Forest through the use of multimedia.

### The main expected results of the project:

- Detailed analysis and maps showing in subsequent years, following information about the Białowieża Forest: Forest stand characteristics (growing stock and biomass, tree height, DBH, canopy cover and its diversity, forest diversity, tree species composition, vertical structure, biomass, etc.), location and size of dead trees, location and size of gaps, dynamics of natural forest regeneration and amount of lying dead wood.
- · Map of plant communities with identification of different tree species;
- Development of monitoring methods for the dynamics of the Białowieża Forest using a small number of sample plots and additional remote sensing data covering the entire study area;
- Master tree ring chronology of the selected tree species in the Białowieża Forest;
- A unique geoportal containing created spatial data on the Białowieża Forest.

DETALII	
SURSA DE LEMN TIPUL DE LEMN	POTENțIALUL DE MOBILIZARE POTENțIAL DE SUSTENABILITATE - VALOARE
TIPUL DE LEMN îN CAUZă	FACILITATEA DE IMPLEMENTARE
IMPACTUL ASUPRA MEDIULUI ȘI BIODIVERSITĂțII 	FACILITATEA DE IMPLEMENTARE - EVALUARE
EFECT ASUPRA VENITURILOR	CONDIțII CHEIE PREALABILE 
POTENţIAL DE EXPLOATARE	TIPUL DE EVENIMENT LA CARE A FOST PREZENTAT ACEST IPB
HUB Hub central-est	EFECT ASUPRA LOCURILOR DE MUNCĂ
IMPACT ECONOMIC	COSTURI PENTRU IMPLEMENTARE (EURO - €)
CUNOșTINțE SPECIFICE NECESARE	

### MAI MULTE DETALII

**PROVOCARE ABORDAT**ă

DOMAIN

TIP DE SOLUTIE

1. Îmbunătățirea rezilienței pădurilor și adaptarea la Inventariere, evaluare, monitorizare

Platforme de date, hub-uri de date, date deschise

schimbările climatice

**CUVINTE CHEIE** 

**SOLUTIE DIGITAL**ă

**INOVAțIE** 

stand dynamics monitoring; forestry; remote

Da

Da

sensing; biodiversity

**TARA DE ORIGINE** 

SCARA DE APLICARE

ANUL DE ÎNCEPUT SI DE SFÂRSIT

Polonia Național

2014 - 2022

DATE DE CONTACT

PROPRIETAR SAU AUTOR

REPORTER

Instytut Badawczy Leśnictwa

Łukasiewicz Research Network - Wood Technology Institute

Krzysztof Stereńczak

Dobrochna Augustyniak-Wysocka

K.Sterenczak@ibles.waw.pl

dobrochna.augustyniak@itd.lukasiewicz.gov.pl

https://www.ibles.pl/en/web/guest/home

REFERENCES AND RESOURCES

**PAGINĂ WEB** 

**RESURSE** 

http://www.forbiosensing.pl/home

Stereńczak K., Mielcarek M., Modzelewska A., Kraszawski B., Fassnacht

F.E., Hilszczański J. 2019. Intra-annual Ips typographus outbreak

monitoring using a multi-temporal GIS analysis based on hyperspectral and

ALS data in the Białowieża Forests. Forest Ecology and Management, 442:

105-116.

**WEBSITE PROJECT** 

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# REFERINță PROIECT

ForBioSensing project is co-funded by the European Commission under European Union financial instrument LIFE+ and by the National Fund for Environmental Protection and Water Management





## PROIECTUL ÎN CADRUL CĂRUIA A FOST CREATĂ ACEASTĂ FIȘĂ INFORMATIVĂ

Rosewood 4.0

**DATA POSTĂRII** 

21 Dec 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



