Earth observation based service supporting local administration in non-state forest management



# SAT4EST

An R&D project aimed at developing a simple, intuitive and cost-effective web-based service to support forest management supervision, integrating remote sensing satellite data with data acquired from other sources.

The system consists of four components:

- remote sensing data quick access to current and historical data, enabling the user to compare satellite images from different periods;
- complementary data cadastral data and detailed forest inventory data from management plans (FMP);
- remote sensing data products geometric layers resulting from the processing of satellite images, showing the condition and health status of vegetation and forests;
- geospatial analyses juxtaposition of remote sensing data products with cadastral data and detailed forest inventory data, enabling to identify inconsistencies between the actual state of the forest and the state recorded in databases, as well as recent changes.

The entire solution is based on an intuitive map portal for users, which is used to generate various types of maps, including maps of forests and tree cover, forest changes, maps of forest types, maps of forest condition, maps of crown density, maps of aboveground forest biomass and the extent of stand damage due to windstorms, fires, floods and insect infestations. Users of the system have access to current and archival satellite images, and they can compare

different types of maps with complementary data as well as upload their own data sets.

### DETAILS

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ORIGIN OF WOOD MOBILIZATION POTENTIAL	
 TYPE OF WOOD	
SUSTAINABILITY POTENTIAL - VALUE	
KIND OF WOOD CONCERNED EASE OF IMPLEMENTATION	
IMPACT ON ENVIRONMENT & BIODIVERSITY EASE OF IMPLEMENTATION - EVALUATION	
INCOME EFFECT KEY PREREQUISITES	
EXPLOITATION POTENTIAL TYPE OF EVENT WHERE THIS BPI HAS BEEN FEA	TURED
HUB JOB EFFECT	
Central-East Hub	
ECONOMIC IMPACT COSTS OF IMPLEMENTATION (EURO - € )	
SPECIFIC KNOWLEDGE NEEDED	

# MORE DETAILS

CHALLENGE ADDRESSED	DOMAIN	TYPE OF SOLUTION	
2 Improve infrastructures and capacity of public	Inventory, monitoring	Advice and services for forest owners	
actors	Forest management, ecosystem, resilience		
KEYWORDS	DIGITAL SOLUTION	INNOVATION	
forest management plan; monitoring; web app	Yes	Yes	
COUNTRY OF ORIGIN	SCALE OF APPLICATION	START AND END YEAR	
Poland	Regional/sub-national		

## CONTACT DATA

OWNER OR AUTHOR	REPORTER
Taxus IT Sp. z o.o.	Łukasiewicz Research Network - Wood Technology Institute (ITD)
Sylwester Kulik	Dobrochna Augustyniak-Wysocka
sylwester.kulik@taxusit.pl	dobrochna.augustyniak@itd.lukasiewicz.gov.pl
www.taxusit.pl/english	

# REFERENCES AND RESOURCES

MAIN WEBSITE	RESOURCES
http://www.sat4est.pl/	
PROJECT WEBSITE	
http://www.sat4est.pl/	
PROJECT REFERENCE	
Earth observation based service supporting local administration in non-state	
forest management (SAT4EST), funded by European Space Agency (ESA)	
through the Polish Incentive Scheme Programme	

### LOGO OF BEST PRACTICE



#### PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood 4.0

POST DATE

12 Aug 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



