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

ORIGIN OF WOOD

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TYPE OF WOOD

--

KIND OF WOOD CONCERNED

--

IMPACT ON ENVIRONMENT & BIODIVERSITY

--

INCOME EFFECT

--

EXPLOITATION POTENTIAL

--

HUB

Central-East Hub

ECONOMIC IMPACT

--

SPECIFIC KNOWLEDGE NEEDED

--

MOBILIZATION POTENTIAL

--

SUSTAINABILITY POTENTIAL - VALUE

--

EASE OF IMPLEMENTATION

--

EASE OF IMPLEMENTATION - EVALUATION

--

KEY PREREQUISITES

--

TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED

--

JOB EFFECT

--

COSTS OF IMPLEMENTATION (EURO - €)

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MORE DETAILS

CHALLENGE ADDRESSED

2.- Improve infrastructures and capacity of public actors

KEYWORDS

forest management plan; monitoring; web app

COUNTRY OF ORIGIN

Poland

DOMAIN

Inventory, monitoring

Forest management, ecosystem, resilience

DIGITAL SOLUTION

Yes

SCALE OF APPLICATION

Regional/sub-national

TYPE OF SOLUTION

Advice and services for forest owners

INNOVATION

Yes

START AND END YEAR

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CONTACT DATA

OWNER OR AUTHOR

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REFERENCES AND RESOURCES

MAIN WEBSITE

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

RESOURCES

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LOGO OF BEST PRACTICE

LOGO OF MAIN ORGANIZATION

PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood 4.0

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