

June 2022



EO BASED SERVICE FOR FOREST MANAGEMENT

>>> A few years later

In the last few years, the development of the service has been finalised and implemented in three pilot districts. The service is updated regularly and a set of EO products is provided to the users on annual bases. At the moment, the service provides data and products for the period 2016-2021.

Agata Hoscilo, Institute of Geodesy and Cartography, Poland



BENEFICIARIES	Institute of Geodesy and Cartography	Local administration in Nowy Targ	Local administration; Private forest companies	Citizens and Society
SERVICES	TIER 1: SERVICE PROVIDER Sentinel-1 Sentinel-2	TIER 2 PRIMARY USER Thematic maps of forest and woodlands cover, forest change mapping, forest type, canopy coverage and forest conditions; Specific "on-demand" products like damage assessment and estimation of forest aboveground biomass	TIER 3 SECONDARY USER More efficient and transparent administrative process (tenders preparation and evaluation; Control of forest management tasks implementation; Overall forest management cost reduction; Preparation of forest inventories	TIER 4 END USER BENEFICIARIES Preservation of biodiversity; More sustainable forest management

Value chain definition following SeBS Methodology - <https://earsc.org/sebs>

The space-based solution

This Copernicus-based solution was produced by a scientific entity and commercial company for a Public Administration.

The Usage Maturity Level

Over the past few years, the solution stayed at the same UML=3. The main reasons for this are because the necessary administrative process is still to be finalized and due to lack of additional funding.

Thematic Area



AGRICULTURE, FOOD, FORESTRY AND FISHERIES

Region of Application



MAZOVIA (MAZOWIECKIE DISTRICT REGION)

Sentinel mission used



S1
S2

Copernicus Service used



-

Usage Maturity Level



3

Overall benefits

ECONOMIC



No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

ENVIRONMENTAL



No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

REGULATORY



No noticeable additional modification/impact on the functioning of the public administration nor on the lives of the citizens since 2018.

INNOVATION



- The solution has helped to introduce some innovation in the functioning of the public administration
- There were positive market externalities

SCIENCE



- The solution has helped to improve understanding about a specific topic of interest traditionally not related to Earth Observation (EO)
- The solution has enabled some technological advancement
- There was an increase in technical/scientific expertise related to Copernicus/EO at the service provider

SOCIETAL



- Improved coordination and governance have been registered
- There have been improvements in public awareness

Benefits classification following SeBS Methodology - <https://ears.org/sebs>

Interesting facts...

In the past few years, there were significant performance and automation improvements. The process of preparation of Sentinel-2 images for visualisation has been automatized, as well as the preparation of EO based forest related products.



Outlook to the future

Since the service is easily transferable, Service provider intends to expand the solution over other regions or districts in the future. Such replicability activity will depend on the financial capabilities of local administration.



Acknowledgements

The SAT4EST project is founded by the European Space Agency (ESA) in the framework of the Polish Incentive Scheme programme. The EO based service is a joint effort of the Remote Sensing Centre of IGIK and Taxus.IT.

Contacts

Agata Hoscilo | agata.hoscilo@igik.edu.pl

ABOUT COPERNICUS4REGIONS

The views expressed in the Copernicus User Stories are those of the Authors and can in no way be taken to reflect the official opinion of the European Space Agency or of the European Commission. Funded by the European Union, in collaboration with NEREUS. Paging, printing and distribution funded by the European Space Agency. IPR Provisions apply. Copernicus4Regions material may be used exclusively for non commercial purposes and provided that suitable acknowledgment is given.

Find the original story at
www.nereus-regions.eu/copernicus4regions/user-stories-sheets
 or Download the full publication
www.nereus-regions.eu/copernicus4regions/publication

www.copernicus.eu
<https://sentinels.copernicus.eu>