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SENTINEL-BASED AZORES REGIONAL FOREST INVENTORY

>>> A few years later

In the past few years, the original conceptual workflow of this solution has been translated into a Google Earth Engine (GEE)-based application. The solution is now more accurate, fully web-based and user-friendly.

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BENEFICIARIES	University of the Azores	Forest Regional Department (DRRF)	Landowners; Land managers	Citizens and Society
SERVICES	TIER 1: SERVICE PROVIDER Sentinel-1 Sentinel-2	TIER 2 PRIMARY USER Accurate maps of Azorean forests through semi-automatic supervised classification; Assessment of vegetation greenness and moisture status based on spectral indices	TIER 3 SECONDARY USER Cost-effective forest management; Improvement of land use sustainability awareness; Mitigation of negative ecological impacts (e. g. loss or degradation of native vegetation areas; spread of exotic invasive plant species)	TIER 4 END USER BENEFICIARIES Alignment with multi-sectorial regional, national and EU policies related to Forestry Planning and Management, Land-use Management, Invasive Alien Species control, and Nature Conservation

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

The space-based solution

This Copernicus-based solution was produced by a scientific entity for a Public Administration. From a technical perspective the solution is now more accurate and reliable.

The Usage Maturity Level

In the past few years, the solution has consolidated at UML 2 "Ad-hoc user". The main reason for this transition is that new expertise was acquired in the organisation.

Thematic Area



AGRICULTURE,
FOOD, FORESTRY
AND FISHERIES

Region of Application



AZORES
ARCIPELAGO

Sentinel mission used



S1
S2

Copernicus Service used



-

Usage Maturity Level



2

Overall benefits

ECONOMIC



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

INNOVATION



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.

SCIENCE



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.

SOCIETAL



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

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

Interesting facts...

Thanks to the skill in Javascript and Google Earth Engine scripting of the co-author of this paper, Manuel Fernández Urrutia, the Service provider team was able to develop a Google Earth Engine (GEE)-based application, entitled 'ForestAz', fully available at <https://github.com/Manuferu/ForestAZ>.

Outlook to the future

For the future, the plan of the Service provider is to develop more tools for this application, namely for purposes of forest cover change detection and assessment.

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