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## EO FOR BIOTOPE-TYPE MAPPING IN THE ALPINE ZONE IN AUSTRIA

### >>> A few years later

In the last few years, the solution has evolved mainly from a technical perspective: methods regarding automatic pre-classification, multi-sensor integration, time-series analysis and multi-scale applications have been further investigated.

*Stefan Lang, Paris-Lodron University Salzburg*



BENEFICIARIES	Paris-Lodron University Salzburg	Provincial Government of Salzburg	Nature conservation authorities	Citizens and Society
	<b>TIER 1: SERVICE PROVIDER</b>	<b>TIER 2 PRIMARY USER</b>	<b>TIER 3 SECONDARY USER</b>	<b>TIER 4 END USER BENEFICIARIES</b>
SERVICES	Sentinel-2	Identification of areas with high degree of potential changes; In-field mapping assessing biotopes (based on the HR & VHR imagery), used for validating the satellite-derived information	Improved regular monitoring of remote/inaccessible areas (Alpine areas); Mitigation of biodiversity decline through targeted nature protection practices; Reduction of efforts and costs for nature conservation activities.	Overall improved biodiversity safeguard of alpine habitats

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

### The space-based solution

Copernicus-based solution produced by a scientific entity for a Public Administration and for other users such as companies, professionals, agencies, associations, single citizens.

### The Usage Maturity Level

In the past few years, the solution has transitioned to high UML 4. The main reason for this is due to new expertise was acquired in the organisation.

Thematic Area



**BIODIVERSITY AND ENVIRONMENTAL PROTECTION**

Region of Application



**SALZBURG**

Sentinel mission used



**S2**

Copernicus Service used



**-**

Usage Maturity Level



**4**

## Overall benefits

### ECONOMIC



- Cost savings of operating expenditure have been registered;
- The replicability of the solution was achieved

### SOCIETAL



- Administrative burden reduction for citizens was achieved;
- There has been an increased access to public utility;
- There have been improvements in public awareness

### REGULATORY



- The solution has helped to inform the design/ review of policy parameters;
- The solution has facilitated or improved the compilation of institutional reports by the PA;
- The solution allowed to improve accountability of duty holders and/or regulators

### INNOVATION



- The solution has helped to create some new business;
- 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 within the PA;
- There was an increase in technical/scientific expertise related to Copernicus/EO at the service provider

### ENVIRONMENTAL



- Reduced impact on biodiversity;
- Reduced depletion of natural resources

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

## Interesting facts...

From technical perspective, additional information is now generated by the solution. In the future, the specific information on soil sealing and its development over time is envisaged to be contained within the current solution.



## Outlook to the future

In the future, a (prototype) service component on soil sealing based on Very High Resolution (VHR) data will be included in the solution.



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## Contacts

**Stefan Lang** | [stefan.lang@sbg.ac.at](mailto:stefan.lang@sbg.ac.at)

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