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## COPERNICUS DATA USED TO UNDERSTAND LANDSCAPE HISTORICAL TRANSFORMATIONS

### >>> A few years later

In the last few years, the topic of seismic assessment became more and more relevant. The integration of different data sources into a unique framework as in the Geopan App proved being an interesting solution to bridge the gap between historical cartography, current risk assessment strategies and remote sensing information.

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BENEFICIARIES	Politecnico di Milano	Lombardy Association of Geologists	Geologists; Civil engineers and other practitioners in the field	Citizens and society
	TIER 1: SERVICE PROVIDER	TIER 2 PRIMARY USER	TIER 3 SECONDARY USER	TIER 4 END USER BENEFICIARIES
SERVICES	Sentinel-2 (integrated by historical cartography information)	Geopan APP implementing maps of relevant soil moisture indexes such (NDMI, NDWI)	Identification of possible former (historical) riverbed areas; Access to high resolution seismic classification of land parcels (Lombardy region SDI)	More informed decisions regarding environmental monitoring and new interventions (e.g. new constructions); Improved risk mitigation actions

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

### The space-based solution

This Copernicus-based solution produced by a scientific entity for other users. In the past few years there was no noticeable modification and the solution is the same as it was.

### The Usage Maturity Level

The solution remained more or less at the same UML. The main reason for this is that, during the last period, there was not the opportunity to perform any other activity.

Thematic Area



TERRITORIAL MANAGEMENT AND URBAN PLANNING

Region of Application



LOMBARDY

Sentinel mission used



S2

Copernicus Service used



-

Usage Maturity Level



2/3

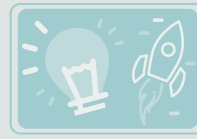
## Overall benefits

### ECONOMIC



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

### 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...

The integration of historical topographic and territorial maps with satellite-born remote seeing data is not currently implemented in the regular workflow. At the moment, the financing that inspired the development of the solution expired; however, in the case of new financing the solution will be further tested because it is still of interest for the PA.

## Outlook to the future

For the future, the plan is to widen the test area of the solution to prove its replicability into different scenarios. In addition, a more in-depth integration between historical data and remote sensing information will be tested to provide a continuous and responsive update.

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