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## ANALYSIS OF FOREST FIRES EFFECTS WITH SENTINEL

### >>> A few years later

Over the past few years, processing performance of the solution has been improved, while data availability time has been reduced. Currently, there are complementary tools that improve automatic analysis of wildfires.

*Celso Coco Megía, CENTRO INTEGRADO FP ALMÁZCARA - Junta de Castilla y León*



BENEFICIARIES	Centro Integrado de Formación Profesional de Almazcara	Regions of Galicia, Asturias; Provinces of León and Zamora in Castile y Leon	Public administrations in charge of restoring the burnt-out spaces	Citizens and society
SERVICES	<b>TIER 1: SERVICE PROVIDER</b> Sentinel-2	<b>TIER 2 PRIMARY USER</b> Maps of scar burn; Severity maps of forest fires	<b>TIER 3 SECONDARY USER</b> Improved and more effective decisions management; Possibility to prioritise the most urgent actions; Improved filtration level of runoff water hence reduce soil loss and loss of fertility	<b>TIER 4 END USER BENEFICIARIES</b> Improved biodiversity and habitat of species; Economic savings of the public budget

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 by a Public Administration (PA) for an internal use of the PA itself. From technical perspective, there were significant performance and automation improvements.

### The Usage Maturity Level

In the past few years, the solution remained more or less at the same UML. The main reason for this was identified in the fact that in-house expertise is still being developed.

Thematic Area



**BIODIVERSITY AND ENVIRONMENTAL PROTECTION**

Region of Application



**CASTILLA LEON**

Sentinel mission used



S2

Copernicus Service used



-

Usage Maturity Level



3

## Overall benefits

### ECONOMIC



- Efficiency gains have been registered
- The replicability of the solution was achieved

### ENVIRONMENTAL



- Reduced impact on biodiversity
- Reduced depletion of natural resources

### REGULATORY



- The solution has facilitated or improved the compilation of institutional reports by the PA

### INNOVATION



- The solution has helped to introduce some innovation in the functioning of the public administration

### 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 (e.g. positive technological externalities)
- There was an increase in technical/scientific expertise related to Copernicus/EO within the PA

### SOCIETAL



- Sense of trust/community for the involved actors has increased
- Civil security has improved
- Strategic added value was registered for society as a whole
- There have been improvements in public awareness

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

## Interesting facts...

In recent years, authors of this User Story have detected a growing interest in Copernicus data. However, in practice, it seems that assimilation and training to reach a more frequent use of these data is still in process. The key factor has been recognised in training activities.



## Outlook to the future

As a member of the Copernicus Academy, the service provider of this User Story will continue to organize courses to reach the largest number of users who want to use this Copernicus data for wildfire analysis.



## Acknowledgements

Thanks to all the forest firemen, pilots, forest rangers, technical team... without them it is possible that we would have been talking about an even bigger fire. Thanks to all the forestry engineers who do a great job for the environment.

## Contacts

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