

April 2022



A NEW DETAILED CROP AND NATURAL LAND MAP

>>> A few years later

In the last few years, the map has evolved increasing its accuracy and reliability. Due to Common Agricultural Policy (CAP) Checks by Monitoring authority, the map is being updated monthly between April and October. The geographical area was expanded and it could be increased significantly in the future to cover other regions.

David A. Nafria, INSTITUTO TECNOLÓGICO AGRARIO DE CASTILLA Y LEÓN



| BENEFICIARIES | Regional Government of Castile and León; Regional Technical Agriculture Institute | Regional Government: Agricultural and Livestock Department, and the Environmental Department; River Basin Authority | Farmers; Food industry | Citizens and society |
|---------------|--|--|--|---|
| SERVICES | TIER 1: SERVICE PROVIDER Sentinel-1, Sentinel-2 (including ancillary data) | TIER 2 PRIMARY USER A detailed Land Cover classification map, updated annually with crop and forest identification | TIER 3 SECONDARY USER Check of crop rotations and land cover changes; Cost-effective land change monitoring and assessment of land-owners; Control of protected areas (Habitats Directive); Water use monitoring; Agricultural activities monitoring for CAP subsidies | TIER 4 END USER BENEFICIARIES Improved monitoring of agricultural land (and environment in general) |

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

The space-based solution

This Copernicus-based solution was developed and produced jointly by a scientific entity and by the PA. The use foreseen regards both PA internal use and other users such as companies, professionals, agencies, associations, single citizens. The current solution is now more accurate and reliable.

The Usage Maturity Level

UML of this solution has consolidated at Level 4. The main reason for this is that the new funds were allocated within the organisation itself.

Thematic Area



AGRICULTURE, FOOD, FORESTRY AND FISHERIES

Region of Application



CASTILLA Y LEÓN

Sentinel mission used



S1, S2

Copernicus Service used



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Usage Maturity Level



4

Overall benefits

ECONOMIC



- Efficiency gains have been registered
- Employment (e.g. increased employment in service provider)
- The replicability of the solution was achieved (e.g. the solution was proposed/implemented by other PAs)

ENVIRONMENTAL



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

REGULATORY



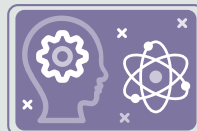
- The solution has helped to inform the design review of policy parameters
- There were improvements in the policy monitoring capabilities of the PA in charge
- The solution has facilitated or improved the compilation of institutional reports by the PA
- The solution improved compliance promotion with duty-holders
- The solution allowed to improve accountability of duty holders and/or regulators

INNOVATION



The solution has helped to introduce some innovation in the functioning of the public administration (e.g. adopted more efficient or effective business practice)

SCIENCE



There was an increase in the research budget share of the institutions involved in the solution (either the PA or others)

SOCIETAL



- Improved coordination and governance has been registered (e.g. increased internal cooperation for the involved actors)
- Strategic added value was registered for society as a whole

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

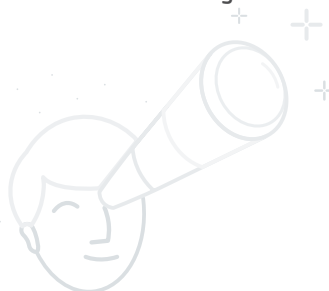
Interesting facts...

The solution is now more technically advanced. For example, more classes have been identified, while better accuracy can be ensured. These facts lead to a better level of detail in irrigation discrimination. An operational use of the tool is performed in order to automatically check Common Agricultural Policy (CAP) subsidies over 100% of the areas.



Outlook to the future

The plans for the future foresee an improvement of operational functionalities. Additionally, an adaptations to new Common Agricultural Policy (CAP) are envisaged.



Acknowledgements

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