February 2022

SENTINELS FOR FLOOD AND YIELD LOSS MAPPING

A few years later

Over the last few years, the service for flood mapping and yield loss estimation was not further developed. The main reason is that an emergency situation, such as the one dating back in the summer of 2017, has not occurred again. However, the knowledge acquired is kept in the "toolbox" of Rural Support Service and the solution is considered to be still of interest for the organisation.

Zane Atstāja, RURAL SUPPORT SERVICE OF THE REPUBLIC OF LATVIA (Control department)

	TIER 1: SERVICE PROVIDER	TIER 2 PRIMARY USER	TIER 3 SECONDARY USER	TIER 4 END USER BENEFICIARIES
BENEFICIARIES	Rural Support Service of the Republic of Latvia, Control department	Rural Support Service	Farmers; Rural Support Service	Citizens and Society
SERVICES	Sentinel-1; Sentinel-2	Integration of space-based information into Land Parcel Information System	Timely compensation for yield loss; Better planned and targeted on-site visits (smaller parcels)	Improved emergency management; Improved territorial management of land cover

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

The space-based solution

This Copernicus-based solution developed by the Public Administration for internal use. 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.

Thematic Area: AGRICULTURE, FOOD, FORESTRY AND FISHERIES

Region of Application: LATVIA - LATGALE

Sentinel mission used: S1, S2

Copernicus Service used: –

Usage Maturity Level: 5

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://earsc.org/sebs

Interesting facts...

Although the service for flood mapping and yield loss estimation was not further developed, the knowledge acquired is kept in the "toolbox" of Rural Support Service. The solution is considered to be still of interest for the organisation.

Outlook to the future

The solution remains of high interest for the organisation. In case that flood mapping and yield loss estimation will be necessary in the future, it will be possible to generate maps even faster due to the fact that Sentinel data are currently gathered and pre-processed automatically. They are currently widely used in everyday work.

Acknowledgements

Thanks to the Copernicus programme for Sentinel missions and data, ESA for training courses and tutorials for data processing.

Contacts

Zane Atstāja | zane.atstaja@lad.gov.lv

Find the original story at
www.nereus-regions.eu/copernicus4regions/user-stories-sheets
or Download the full publication
www.nereus-regions.eu/copernicus4regions/publication

ABOUT COPERNICUS4REGIONS

www.copernicus.eu

https://sentinels.copernicus.eu