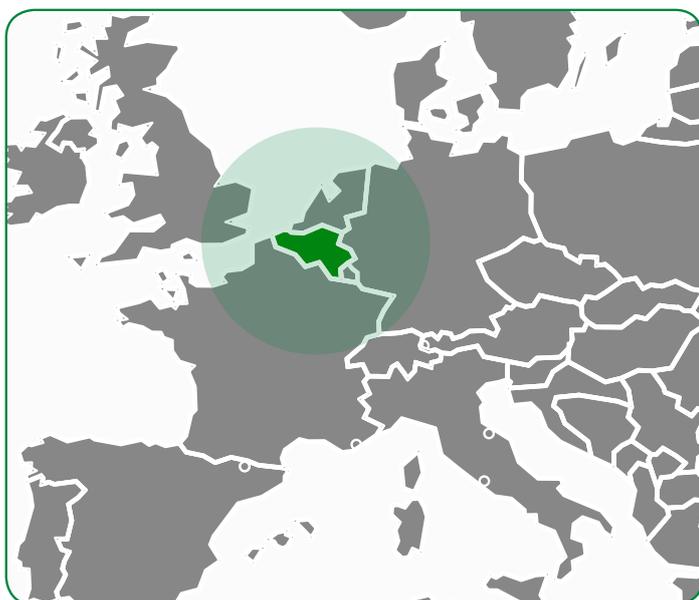


GROWING POTATOES IN BELGIUM

What it is about

Potatoes are very important for Belgium! Pommes frites or more appropriately Belgian Fries are at the heart of a very important part of the Belgian industrial sector. Recognising this importance and future challenges to the sector, VITO in cooperation with other players in the field has developed WatchITgrow (WIG), an application that makes use of Sentinel-2 (and, in the future, also Sentinel-1) data to support and advise

farmers with regards to optimised use of chemicals, irrigation, harvest time and many other parameters, saving time and cost for farmers. The industry benefits through market information and can adjust their planning to become more efficient. The service aims at both increasing output of the sector and mitigating anticipated future effects such as climate change induced extreme weather events or labour shortages.



What we found

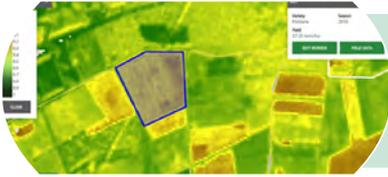
- The WIG platform brings farmers closer together as they can exchange information and question neighbouring farms that are more productive. The platform favours knowledge sharing between farmers and the powerful food processing industry.
- Given that farmers have scattered fields or lease remote fields with unknown characteristics, WIG enables remote inspections of a field's status and reveals information about the characteristics of a leased field.
- Sentinel data lies at the heart of it and whilst other data also plays an essential role in the performance of the system, the regular Copernicus Sentinel imagery updates are what make it work.

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The Satellite Data

Copernicus Sentinel-2 provides free-of-charge frequent wide-swath, high-resolution multispectral imagery with 13 spectral bands over Belgium. In the future, also Sentinel-1 will be used.



The Service Provider

VITO has drawn upon the Sentinel data in combination with other data sources to develop the platform WatchITgrow that provides a farm management system and decision-support service to farmers.



The Primary User

Thanks to better management of inputs, irrigation, field inspections and optimised harvest time, farmers have become more efficient and thus currently save time and costs. With full technical maturity and market uptake, benefits can reach between €60.33m and €85.33m in the future.

€1.195-1.595m pa



Other Direct Users

Agronomists, consultants and the industry make use of the information to get an overview of crop growth and yield forecasts to better adapt their strategy, planning and logistics, making their operations more efficient.

€150-180k pa



Secondary Beneficiary

Processors, distributors, exporters and logistics companies will benefit from an increased output by the farmers to produce more fries and export more on the world market.

€425-850k pa



Tertiary Beneficiary

Supermarkets and shops are not heavily affected economically by the increasing potato yields, though shortage and oversupply can lead to promotion actions.



End Use Beneficiary

The general public benefits from stable prices, "healthier potatoes", a more efficient use of water and more sustainable environment.



Total benefits: €1.78-2.6m pa

About the project

Through a series of case studies, EARSC aims to gather quantitative evidence that the usage of Copernicus Sentinel data provides an effective and convenient support to various market applications. These studies are undertaken in the frame of the project "Showcasing the benefits brought by the

usage of Sentinels data to society, environment and economy: a bottom-up assessment based on traceable impacts along selected value chains", under an assignment from the European Space Agency (ESA) funded by the European Union as part of the Copernicus Programme.

Download the full report from the project website



<http://earsc.org/sebs>

