

Topic: Improvements in modelling processes, interactions, and feedbacks

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Watch It Grow, an innovative platform for a sustainable growth of the Belgian potato production.

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Belgium is the largest exporter of frozen potato products in the world. Each year, Belgian companies process over four million tons of potatoes into French fries, potato chips and other products. To ensure a sustainable growth of the potato sector, a higher potato production is needed. In this context, expansion of agricultural land is not an option.

Potato processors, traders and packers largely work with potato contracts. The close follow up of contracted parcels is important to improve the quantity and quality of the crop and reduce risks related to storage, packaging or processing. The use of geo-information by the sector is limited, notwithstanding the great benefits that this type of information may offer. At the same time, new sensor-based technologies continue to gain importance and farmers increasingly invest in these technologies.

The combination of geo-information and crop modelling might strengthen the competitiveness of the Belgian potato chain in a global market.

In the frame of the iPot project, financed by the Belgian Science Policy Office (BELSPO), a commercial webtool called Watch iT Grow helping potato traders, the processing industry as well as farmers to monitor the potato growth has been developed.

By using weather data, satellite images, aerial images (taken with drones) and data from ground measurements, users are for instance able to follow whether the crops emerge properly from the ground, how the growth is developing, whether diseases might be present or when farmers can start harvesting. The collected data are combined into crop growth models allowing the webtool to propose as well yields estimations and predictions per plot.