# The Food Security & Sustainable Agriculture showcase; Supporting Agro industry with data

## Summary

**Connecting Copernicus Remote Sensing data with data of harvesters and planting machines**: In order to meet all the challenges of the growing world population, **more data-driven decisions in agriculture are needed**. These data-driven decisions can only be effective if different parties together generate quick and personal advice for our farmers, including the necessary guarantees for data ownership and data protection. By joining forces with the agricultural machine builder **AVR**, **VITO Remote Sensing** can provide a data integration between the new AVR Connect platform and the information platform WatchITgrow.

| Sponsor | | Project | Solution provider |
|---|---|---|---|
|  | The e-shape project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 82085 |  |  |

## Taxonomy

- Land
- Agriculture
- Monitoring crops

## User profile

AVR's mission is to help its customers store a higher percentage of sellable crops with less input. Reliability, steadfastness and commitment are key values in achieving that goal.

Around the year 1970, the company focuses on potato harvesters. The company takes potato harvester design to a higher level: from single to double row harvesters, and then to four-row harvesters. This step turns out to be a huge success, AVR is still one of the leading potato harvester manufacturers in the world.

# Service description

By joining forces with the agricultural machine builder AVR, VITO Remote Sensing can **provide a data integration between the new AVR Connect platform and the information platform WatchITgrow**. Through the connection between both platforms, **AVR can now for example use the field delineations from WatchITgrow to visualize the data on the fields in AVR Connect.** With permission from the farmer, users of the AVR Connect can also easily **exchange data about planting information and yields with WatchITgrow**. The combination of this data with the information in WatchITgrow on i.a. crop growth, weather and soil, enables better and more personal advice to be provided, and the possibility to continuously improve. This advice offers farmers the opportunity to take specific, timely and well-founded decisions with the aim of improving their yield. In short, thanks to this collaboration we can now obtain better insights, and provide faster, better and more personalized advice to farmers. This will in turn allow them to increase yields in a more environment friendly and sustainable way..

# Customer experience

AVR supports the further growth within the Belgian potato sector, and by extension the rest of the world. In addition to high-performance and user-friendly machinery and high tech 3D systems, AVR is also investing in data collection via VITO machinery. The field is always our focal point. Our harvesters and planters collect technical and agronomic data in and around the field. This data is then visualized in a new online application, AVR Connect.  To help the modern farmer cope with the current challenges in agriculture, we have fully linked our latest potato harvester, the Puma 4.0, to the web. **Via various sensors on the harvester, we can quickly and easily collect data from the field and visualize it in the online and individual user platform, AVR Connect**.

# Need

- improved indicators for agricultural monitoring based on in situ, meteo, soil and RS data, addressing the needs of agro industry and farmers
- Support agro consultants in their advice to farmers
- Information / methodologies implementable at field level

# Challenges

- Provide up to date and consistent data for operational monitoring at farm level
- Provide up to date and accurate data to support decisions at farm level.
- Combine in situ data from different sources (farm machines, crowd sourcing, agro experts)

# Results

- Combined information coming from farmers, harvesters and remote sensing
- Increased and sustainable production
- Detailed monitoring at sub field scale
- Improved RS based ag monitoring products
- Improved advice for farmers

# References

Learn more about the service: https://watchitgrow.be/en

Learn more about e-shape: www.e-shape.eu

A question? Contact the Helpdesk: https://helpdesk.e-shape.eu