Agricultural Monitoring: adding value to the **agro-food industry** and **“CbM as a Service",** country-wide demonstration for Austria

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GeoVille

Clustering Event
2022.02.09

A LEADER IN SATELLITE-BASED LAND MONITORING


Agriculture & Rural


Energy & Infrastructure


Environment & Natural Resources


ICT & Transport


Urban & Population

- > 465 implementations in over 138 countries
- "End-to-end" geo-spatial land monitoring applications through 20+ years of business

20+ years

of successful research, innovation & operational implementation

Agriculture & Environment

Vegetation

Crop

Moisture

Water

Soil

Agriculture & Environment

Vegetation

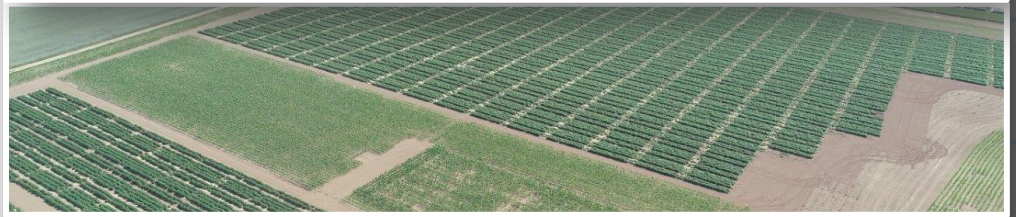
Crop

Moisture

Water

Soil

Agriculture & Environment



Vegetation

Crop

Moisture

Water

Soil

GEO-4A

SATELLITE-BASED AGRI INSIGHTS

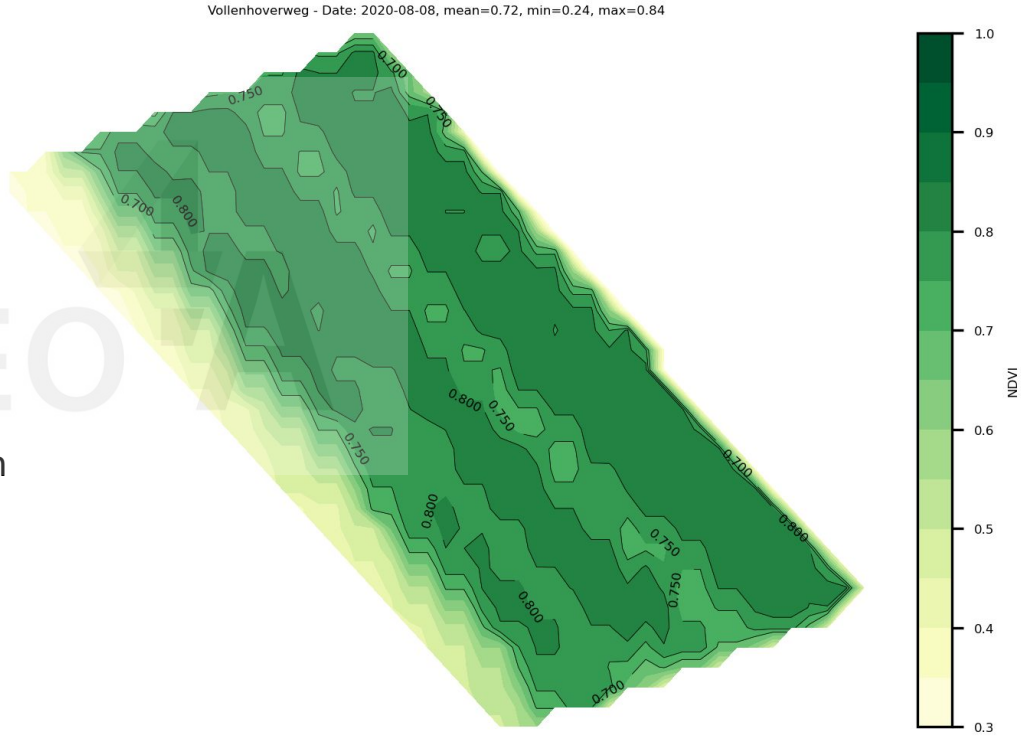
Variation in field

Growth variation in field

Growth variation in field (example):

- Variation in field/samples
- Min 0.24
- Max 0.84
- **Mean 08.08.2020 = 0.72**
- **Advice for field sample (location) = 0.72**

- Usable for:
  - E.g. for correct spot for validation sample(s)
  - Information for potato grower



Checks by Monitoring - Product overview

Monitoring products delivered:

- **Via as-a-Service concept**
- **In-season delivery and updated monthly with corresponding GSAA data**
- **Product properties evolved from Sen4CAP basis**
- **Full-country Beta operations in Austria in 2020 and 2021, 2022 already started**
- **Quality report for each product**
- **Relevant meta data such as signals**
- **Database access as well as visualization in GUI**
- **VHR integration ongoing**

AgrarMarkt Austria

Checks by Monitoring - Product overview

EO-WIDGET .Type

- Variable grouping in between deliveries
- Increasing performance over the season
- No overfitting
- >90 overall accuracy with more than 60 classes

EO-WIDGET .Harvest

- Based on S-1 and S-2 markers
- Harvest for > 98 percent of parcels detected
- In-situ validation ongoing

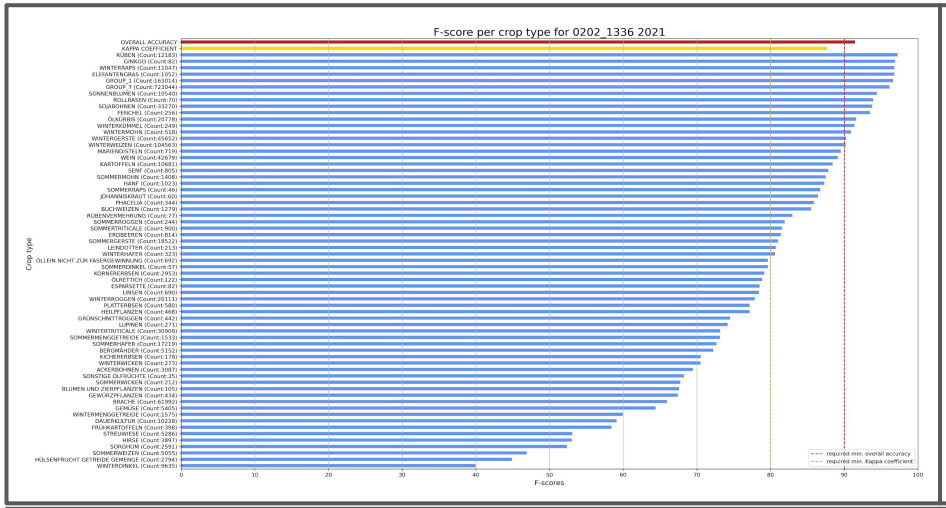
EO-WIDGET .Mowing

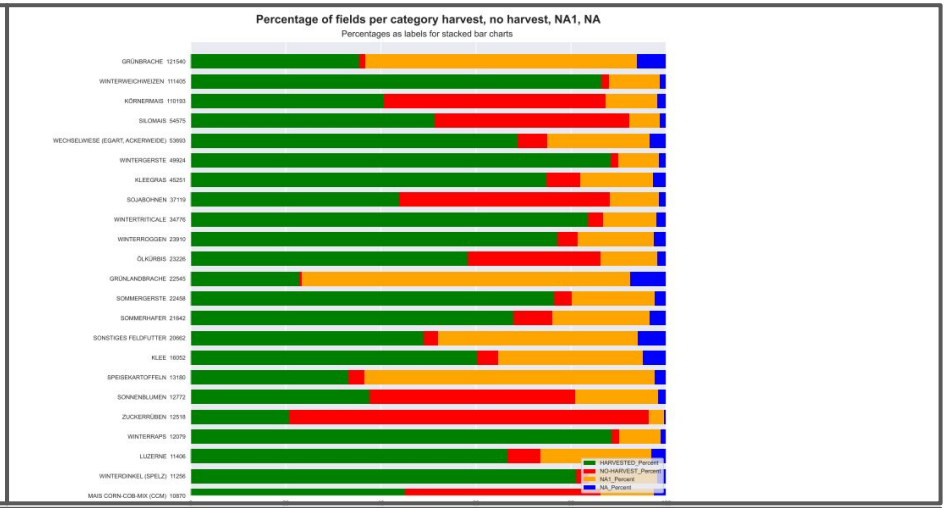
- Over 1 million parcels monitored
- Detected per grassland type
- In-situ validation ongoing

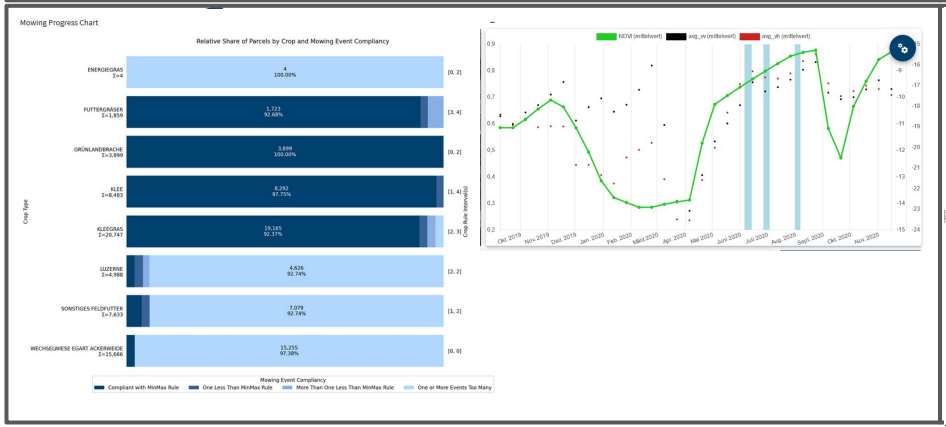
EO-WIDGET .Cover

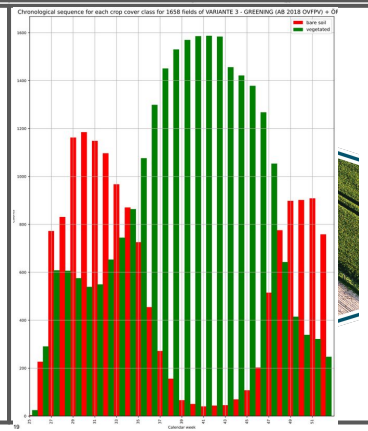
- Identifies bare soil exposure and crop/plant cover periods
- In-house development
- Based on topological models
- >85 percent accuracy

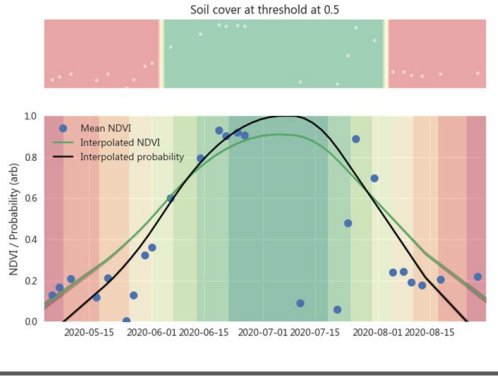
Checks by Monitoring - Product overview









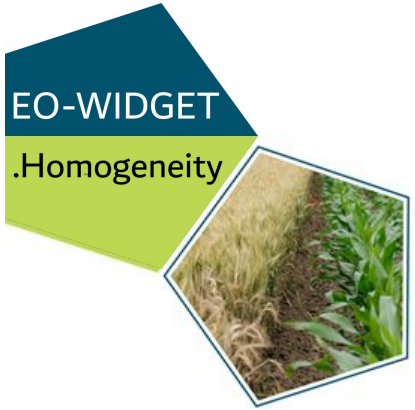


Outlook

Working on new product implementations according to the new IACS regulations:

Presence of ineligible area, in particular due to permanent structures - Monitoring of changes of soil sealing due to substitution of original (semi-) natural land cover with artificial, often impervious cover

Change in the category of agricultural area - Monitoring of changes between arable land, permanent crops, and permanent grassland



Presence of non-homogenous land use - Provide homogeneity indicators for given field geometries accompanied by metadata to support traceability

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Further Info - Get Your Demo

GeoVille & Geo4A:

www.geoville.com & https://www.geo4a.com/

Project Web Site:

https://eowidget.services

Public demo:

https://agri-ogd-at-public.demo.hub.eox.at

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