

GeoFusion

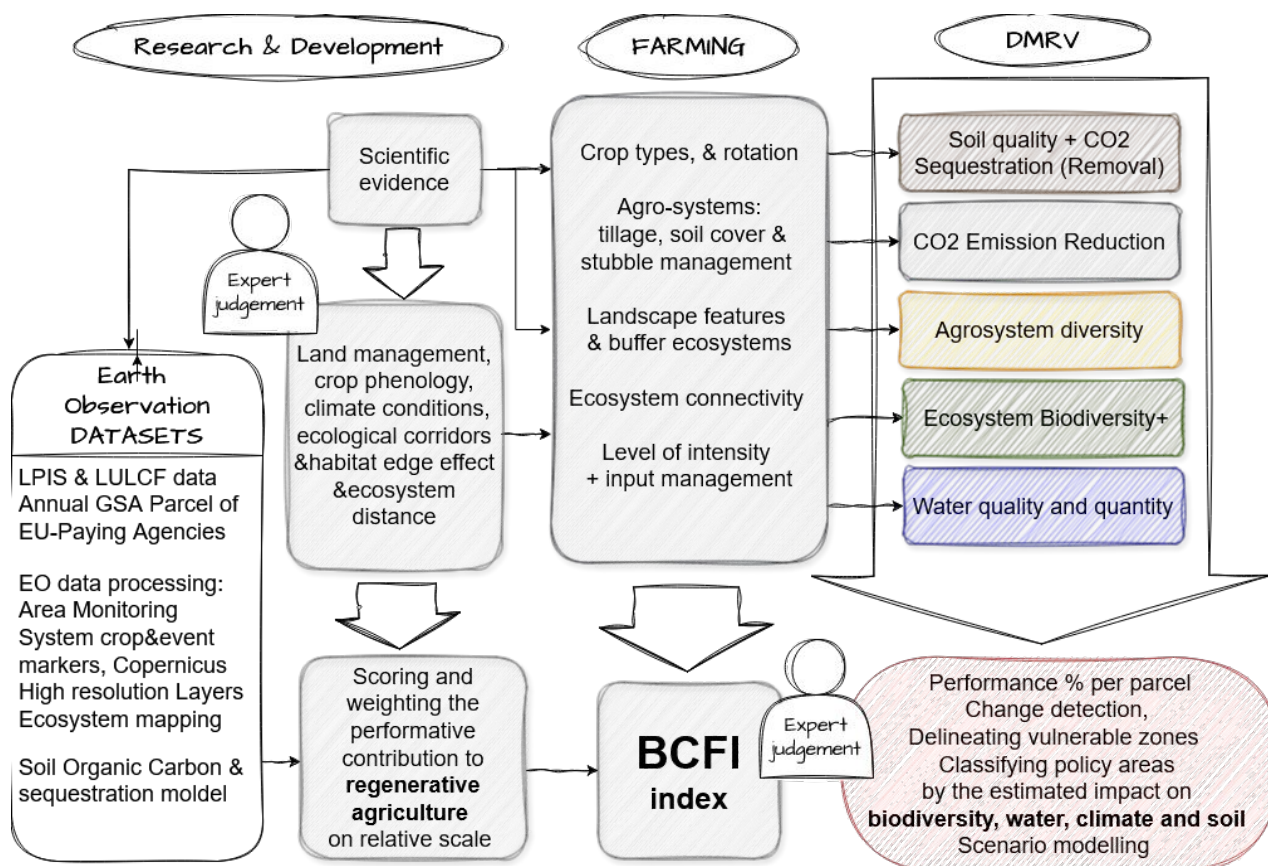
an ARTES 4.0 Downstream Applications Demonstration



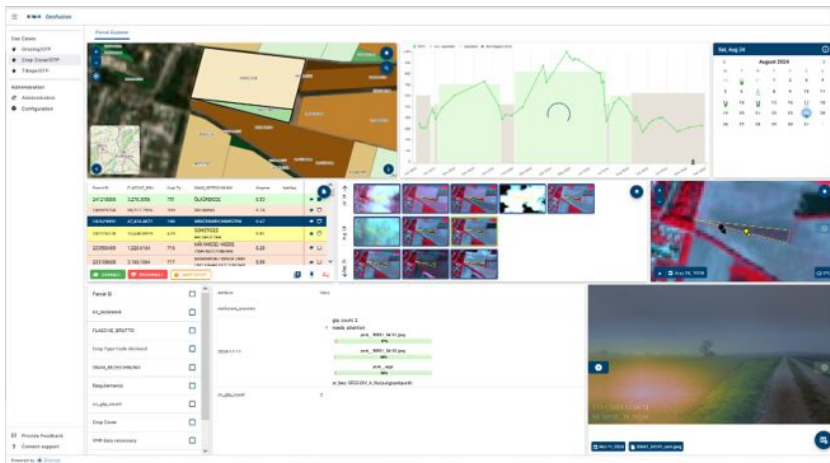
AI-based Earth Observation and proximal sensing data fusion for CAP Area Monitoring and Natural Capital Valuation

Advancing Area Monitoring & dMRV: Biodiversity Carbon Farming Index

Do you need a robust single index to follow the performance of ecosystem services on an agricultural parcel?
Our aim is to show a new logic: combining the dynamic of Earth Observation data with various large extent data sources to a multi dimensional single-scale index to show the “regenerative farming path” of a single parcel.



Precision-Driven Data for Land Areas and Verified Ecosystem Services on Parcel-Level:



Service Type-1+2: Enhances Sentinel-based markers of Area Monitoring System:

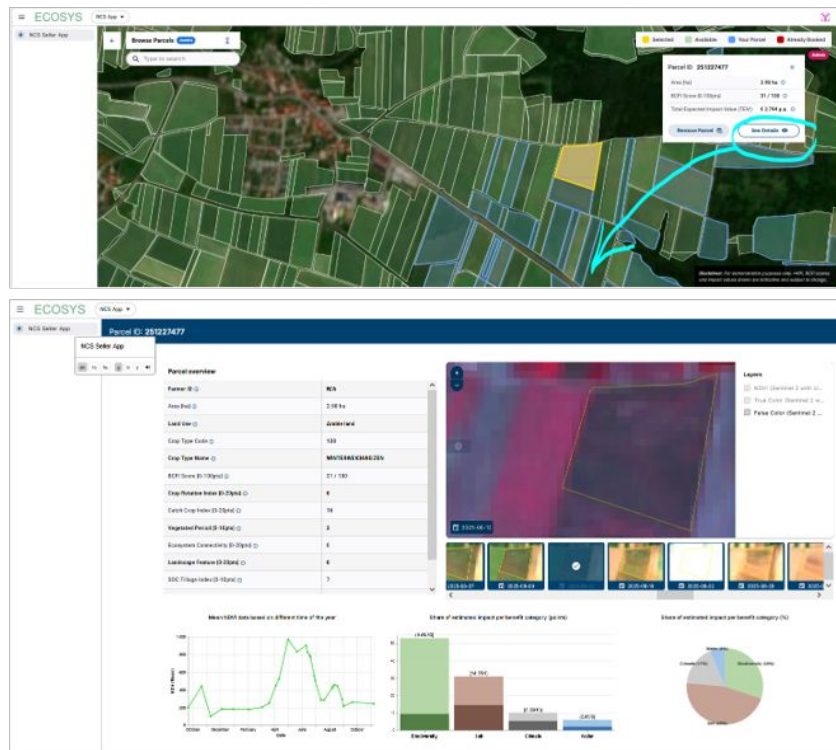
- **Automatic processing and classification of Geo-Tagged Photos (GTP)** to identify crop phenology and management with with image classification using AI;
- **AgriApp**, the interactive UI-Platform by synergistically analyzing EO and GTP data.

Improving **predictive and classification accuracies** with verifiable, high-resolution ground truth data.

Ecosystem Services Evaluation & Creation of Natural Capital Solutions: Building a Measurement, Reporting, and Verification (dMRV) tool that transforms IACS and in-situ data into information-ready insights, enabling the development of credible nature finance instruments (e.g. high-integrity carbon and/or biodiversity credits) in order to protect and regenerate nature-based agricultural activities. divides agricultural indicators into two main categories:

On-parcel Agrosystem Services evaluate active farming practices carried out directly on the parcel, including crop rotation, catch crops, the length of the vegetated period, and soil organic carbon (SOC) loss due to tillage.

Around-parcel Ecosystem Services evaluate the ecosystem connectivity (proximity to natural habitats) and on-parcel landscape features such as woody or grassy strips.



Join us in scaling agriculture & nature insights:



- Integrating EO for Digital Measurement
- Improving Area Monitoring System (AMS)
- Developing Natural Capital Solutions
- Enhancing Reporting & Verification

Led by EOX in collaboration with GeoVille, Pro-Natur, Agreio-Europe, and EU Paying Agencies, GeoFusion addresses critical gaps in agricultural subsidy management, ecological land stewardship, and market-driven solutions by quantifying the local agricultural ecosystems

Are you a paying agency official or SME or company in the food-industry, (sustainability) consultant and interested in partnering with us? - We are at Testing & Piloting stage and happy to explore new opportunities with you!

Contact us:

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Collaborating with:

