

Gaia X España

INNOVANDO CON CONFIANZA



RegenAg-X

Leading the Future of Regenerative Agriculture Through Secure Data Sharing



gaia-x
Hub España

RegenAg-X: Transforming agriculture through data sharing

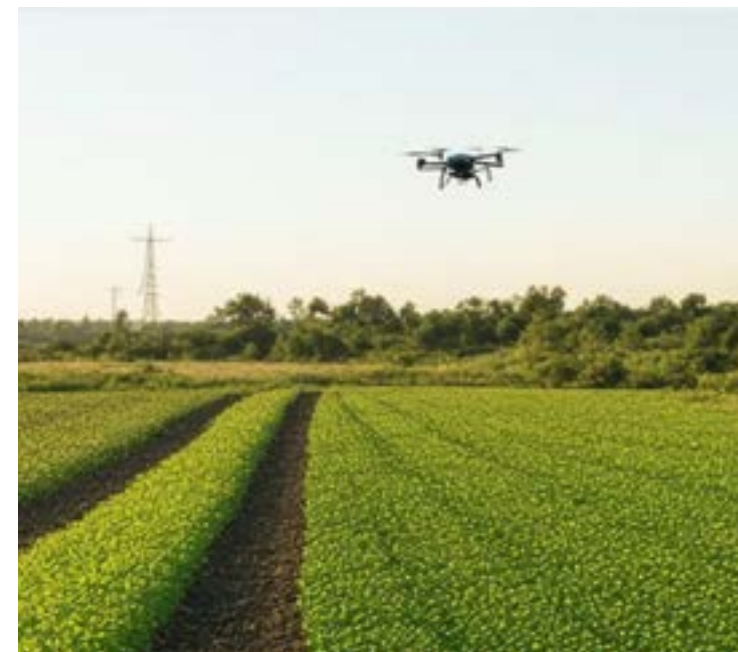


Overview:

- RegenAg-X is an innovative Agri-Food Data Space designed to support **regenerative agriculture**.
- Part of the Tech4RegenAg initiative funded by EIT Food, aligning with EU sustainability and resilience goals.

Core Focus:

- Facilitates **secure data sharing** and **collaboration** among farmers, researchers, and businesses.
- Drives **agricultural transformation** through technology and **data-driven** insights.



Advanced Technology and Architecture



Key Technologies:

- Web3 and Blockchain: Decentralized control through self-sovereign digital identities.
- Integration with Gaia-X:
 - Ensures compliance with EU privacy standards.
 - Provides secure, **federated data exchange**.



Architectural Components:

- IDS Connectors (ECLIPSE): Secure, policy-compliant data exchange.
- Clearing House: Transaction and contract validation.
- Data Marketplace: Monetization of agricultural insights.

ZertiFarm – Powering RegenAg-X



ZertiFarm: Multi-Tenant Cloud Platform for Agriculture

Integration with RegenAg-X architecture for seamless data processing.

Features:

- **Web3 identities:** Ensures the authenticity and traceability of data by providing each farmer with a unique and secure digital identity.
- **Event system:** Captures and records relevant events for farm management, such as health actions and production records.
- **User-friendly:** Intuitive tools for precision agriculture, carbon credit tracking, and supply chain visibility.
- **RegenAg-X marketplace:** Publishes data in the specialized agricultural marketplace, enabling its commercialization and reuse for various purposes.



Real-World Applications of RegenAg-X



Use case: Azores Milk Production

1. Digital Identity & Trust

- Secure digital profile
- Verified Azorean milk producer credential

2. Data Management

- Granular consent controls
- Selective data sharing
- Automated anonymization

3. Data Transformation

- Standardized formats (JSON)
- Semantic mapping
- Interoperable terminology

4. Secure Exchange

- IDS connector routing
- Traceable transactions
- Cooperative integration



5. Marketplace Value

- Research data sales
- Climate pattern correlations
- Direct farmer monetization

Ecosystem Benefits:

- Optimized collection routes
- Predictive supply management
- Enhanced market negotiations
- Transparent agricultural data

Future trends and possible developments



- **AI and Machine Learning:** Enhanced predictive analytics for farming.
- **Tokenization of agricultural assets:** Using blockchain to represent and trade agricultural resources.
- **Integration with climate data:** For better environmental impact assessment and adaptation strategies.
- **Expansion to global markets:** Connecting RegenAg-X with federated agricultural data networks.



VISIT THE WEBSITE:

<https://www.regenag-x.com>



Gracias