

Polish Testing Ground Sugar Beet Farming System

Location

This Testing Ground is located in Poland and is based on a sugar beet farm

Goal

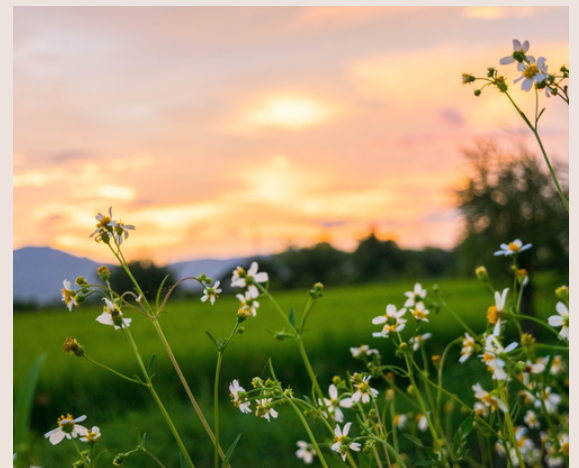
To support the transition towards more sustainable sugar beet production by combining agronomic innovation, technical support, and the economic valorisation of practices that promote soil health.

Innovation

It is the transition from individual farmer responsibility to a shared responsibility for soil health among the various actors in the value chain, including farmers, processors, certification bodies, and public authorities.

Soil Health Challenge

land managers generally have little incentive to invest in healthy soils, as they cannot sufficiently capture the value generated by these ecosystem services



SHBM Description

The model relies on a coordinated sugar beet value chain connecting different stakeholders. The adoption of soil health-friendly practices is enabled through technical support, monitoring and verification mechanisms, as well as knowledge-sharing platforms such as the Community of Practice (CoP), providing access to environmental and public remuneration mechanisms.

Actor Network

- Farmers
- Sugar factories
- Certification and MRV provider (Agreena)
- Research and advisory organisations
- Input suppliers
- Public authorities
- Potential downstream users of sugar and by-products.

The SHBM works by linking farm-level practice change to wider value-chain mechanisms that can potentially reward and stabilise the transition.



Value Creation Mechanism

Value is created through the adoption of regenerative farming practices such as diversified crop rotations, intercropping, organic fertilisation, no-till farming, and precision agriculture technologies.

These practices improve soil health and production resilience while generating ecosystem services such as carbon sequestration, climate regulation, biodiversity support, and erosion control. Certification, performance monitoring, and knowledge-sharing activities help make these benefits credible and valuable for the different actors across the value chain



Dominant Value Rationales



Green

Focuses on soil stewardship, regenerative practices, and long-term resilience.



Market

Focuses on entry costs, payback periods, productivity, and contract conditions.



Industrial

Focuses on measurement, certification, documentation, and quality requirements.



Civic-coordinative

Focuses on the Community of Practice (CoP) and creating shared responsibility across the value chain.

Main Results

It shows the strengthened connection between scientific knowledge and practical farming realities. Beyond implementing soil improvement measures and rotational grazing practices, the model has fostered more active, trust-based and practice-oriented relationships between experts, advisers and land managers, helping to make scientific knowledge more relevant and accessible to farmers.

Barriers and Challenges

The transition towards soil health-friendly practices requires significant investments in machinery, soil testing, and new practices, while economic returns often remain uncertain and delayed. Farmers also face unstable financial incentives, constraints related to certification and MRV requirements, as well as uneven access to knowledge and technical advisory support.

Lessons Learnt

- Cooperation within the value chain and the CoP is a key lever for supporting the transition towards regenerative practices.
- The credibility of regenerative practices relies on reliable monitoring and verification systems that remain workable from a farming perspective.
- Farmers are becoming more active in the co-design and organisation of regenerative production systems.



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Watch the Testing Ground in action