

From Field to Plate:

Blockchain technology in a short food supply chain in the Pomurje and Podravje Region (SLO)

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How we started?



- In 2017 we were invited by the University of Maribor to become a pilot area in the Smart Villages project
- In the same year **DIH AGRIFOOD** was established, which supported us in our digital journey
- Together with the University of Maribor we started with the development of a blockchain system for food traceability
- In 2022 we were invited by Innovation Technology Cluster to become a pilot area in the SmartCommUnity project
- ▶ In 5 years we've established a fully operational Living Lab a community where we co-create the transformation of food systems
- In **2023** I've become a LL Manager
- In the same year we become full members of ENOLL
- In 2023 first 5 farmers were enrolled into the blockchain system, while in 2024 we have 15 farmers fully onboarded
- ▶ In **2024** we are expanding to the **Podravje region** mainly to the **HORECA** sector



SmartCommUnity

AGRA 2024



Green point short food supply chain

- Founded by farmers
- Delivering to public institutions (kindergartens, schools, hospitals, elderly homes), HORECA and citizens (online, store, delivery)
- Strong engagement of local actors

Public actors
Long term perspective & regulatory role

Knowledge institutes

Expertise & scientific substantiantion

Area: 1.337 km2

Location: bordering Austria, Hungary & Croatia

Inhabitants: 117.000 inhabitants



- Over 100 local producers of different seasonal fruit, vegetable and local produce
- > Over **500** different types of **local products**
- ➤ Higher quality, environmentally friendly and eco products, geographical origin



Green Point Slovenian Living Lab

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Green Point is the biggest and most advanced SFSC in Pomurje region!

Aiming at: Achieving economically sustainable, socially responsible and environmentally friendly business for the benefit of all involved stakeholders and wider community



- Blockchain-based traceability
- Data collection platform (IoT, EO, in-situ data, value chain actors)
- Circular economy models
- Zero Food Waste and Loss models
- Zero GHG logistics and Delivery system



Living Labs (LLs) are defined as user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings



BIS BlockIS

BlockIS is a traceability solution is for food supply chains stakeholders. The solution is enabling farmers, food producers, food processors and other actors to automatically generate digital certificates about the events in the supply chain. BlockIS traceability solution ensures transparency and trust, from farm to fork.



CircEco platform is cloud-based marketplace, enabling citizens, farmer and businesses to sell their surplus food – perishable food close to expiry and food not meeting marketing standards.

Our role in SmartCommUnity

Overview

- Aim of LTA: Transform smart rural areas through digitalization and sustainability
- Origin: Addresses food production and distribution challenges in the Pomurje region due to its unique natural and economic conditions

Methodology:

- Employing a Living Lab approach through LTA Green Point
- Involving stakeholders and consumers in co-creating and testing new technologies and services

Key Features:

- Enhancing food system traceability, safety, and resilience
- Promoting circularity and reducing food waste
- Greening the delivery routes
- Encouraging sharing of best practices
- Contributing to systemic food system changes at the EU level

Activities:

- Conducting workshops
- Supporting the alternative food networks in FTA Podravje region
- Facilitating collaborations between involved regions





Alpine Space













SmartCommUnity

Resources and stakeholders

Resources Needed:

- Support from ITC and DIH AGRIFOOD
- Combination of EU funding, local partnerships, and human resources
- Involvement of stakeholders from rural areas, tech experts, and community leaders

Stakeholders involved:

- Local authorities and policymakers: municipalities, key ministries, chambers and development agencies
- Academia and Business support organizations: universities, clusters, innovation hubs, developmentoriented companies
- Key actors in the field of food production and consumption: farmers and companies for the production of food products, public institutions, the HORECA sector, utility companies for waste processing, etc.
- **Civil society and non-governmental organizations**: residents (providers or customers), Murska Sobota Health and Development Center, food banks (food donors)





INOVACIJSKO TEHNOLOŠKI GROZD NNOVATION TECHNOLOGY CLUSTER





Policy and strategic support

- · City of Murska Sobota (public awareness, rural development support)
- · Slovenian Ministry of Agriculture, Forestry and **Food** (direct support and strategic orientation)
- Chamber for agriculture and forestry (advisory) service)
- Development center Murska Sobota (development projects)

Academia and Business environment

- University of Maribor (technology deployment)
- SMEs solution providers (delivering innovative products and services)
- DIH AGRIFOOD (tech transfer, European projects)
- ITC Innovation Technology Cluster (technology transfer office)

Food supply actors and consumers

- Farmers & local food suppliers
- Consumers citizens
- Public institutions (kindergartens, Schools, Hospitals, Nursery homes...),
- HORECA sector(hotels, restaurants, spa resorts, and canteens)
- Other food supply chains and waste processing actors

Civil society and NGOs

- Citizens (Living lab involvement)
- Centre for Health and Development Murska **Sobota** (health and local food promotor)
- Food bank SIBAHE (Food donation)





THANK YOU!

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