

### **Project title:**

AgriExcel – Accelerating Agritech evolution for competitiveness and resilience in EU agrifood system

### **Call topic:**

Smart - digitisation

### **Summary**

EU agrifood sector is facing significant (environmental, social, and economic) crises and transitions that affect the industry competitiveness and viability. Greater resilience and ability to respond to disturbances are needed to ensure the competitiveness and viability of the agrifood system – policy makers must recognize this need and adjust the strategies for policy implementation accordingly.

The resilience of agrifood industry need digitalization and adoption of emerging technologies (i.e., 4th industrial revolution). Adoption of smart agritech to support data-based decision making and knowledge management in agrifood system is a key to increasing ability to respond to disturbances; to grow competitiveness of the operations and to adopt new sustainable business models in the industry.

However, as agrifood is typically a smart specialization priority in rural regions, there is an inherent lack of innovation capacity due to limited number of actors, networks, and cross-sectoral connections (i.e., between the ICT and agrifood sectors) in EU.

The project meets the need of accelerating the digital transition in the agrifood system by promoting inter-regional innovation partnerships and transfer of (good practice) solutions across the regions. This means capacity building of policy authorities on

- 1) mission-oriented innovation policy approach via application of innovation platforms connecting end-users, technology providers, stakeholders, and policy makers. Lessons on mission-oriented innovation methodology are applied in policy action.
- 2) innovative digital and technology solutions to solve sustainability challenges of the agrifood system. Identified good practices transferred into concrete projects in the connected regions.

### **Context and challenge**

**EU agrifood sector is facing significant crises and transitions that affect the industry competitiveness and viability.** There is a growing policy and market-driven pressure to address the environmental impact of the sector, including the carbon footprint and biodiversity impact. Shifting consumer preferences towards transparency and sustainability challenge the whole agrifood system while providing new market niches and opportunities for innovative companies. Severe external disturbances, such as the Russian aggression and related energy crisis, have shown weaknesses that threaten food security and self-sufficiency in EU. The rate and severity of external disturbances hitting the EU agrifood sector is foreseen to grow as the climate crisis deepens and shifts in political environment and global markets become less predictable.

**Greater resilience and ability to respond to disturbances are needed to ensure the competitiveness and viability of the agrifood system – policy makers must recognize this need and adjust the strategies for policy implementation accordingly.** Speed is of the essence here, fast change requires

cross-sectoral and inter-regional learning, co-operation, and expertise exchange within the EU framework.

**Digitalization and adoption of emerging technologies, i.e. the 4th industrial revolution, are seen essential for industry resilience.** Resilience and sustainability can be boosted e.g. via technologies that a) track supply chains and collect secure data, b) allow consumer access to production information, c) monitor and predict environmental changes to prevent risk and to apply data-based resource management. Although digital solutions exist on the markets, the ICT companies often fail to respond to the needs and market opportunities in agrifood sector due to the lacking connection between the sectors.

Innovation partnerships, regional and macro-regional co-operation and workable innovation support mechanisms can drive the digital transition of the agrifood system. **However**, as agrifood is typically a smart specialization priority in rural regions, **there is an inherent lack of innovation capacity due to limited number of actors, networks, and cross-sectoral connections. There is a need for building connections between the ICT and agrifood sectors in EU. The inter-regional innovation partnerships and transfer of solutions across the regions can play a key role for speeding the digitalization in response to the challenges of the agrifood system.**

### Objective

Capacity building for policy authorities on

- 1) **Design and application of mission-oriented innovation policy approach to the smart specialization strategy process** in response to solving societal challenge related to agrifood system sustainability and viability as well as to ensure that the vulnerable small-scale economic actors of the agrifood system are not left behind in the economic transition.

Policy needs to drive digitalization with a purpose to accelerate and orient the transition of the agrifood system for ensuring resilient and sustainable development with a focus of maintaining food security and self-sufficiency while supporting discovery of innovative business opportunities also in rural regions. Mission is defined in the terms of a future-oriented societal vision to help engagement of business, and citizens into the strategy implementation and dialogue.

The mission-oriented innovation policy approach offers methods for leveraging stakeholder and business-driven dialogue for solving societal challenges relevant to the smart specialization strategies of the region. Building co-operation models within and between the regions to support the long-term interregional co-operation responding to the joint missions driven by the smart specialization strategies of the region.

Good practices on platforms for inter-regional co-operation and cross-sectoral connections as well as business-driven dialogue for solving societal challenges are transferred via peer reviews and staff exchange. Foreseen policy actions involve implementation of innovation-driven policy via concrete regional projects and pilot actions initiated as a result of the identification and analysis of good practices.

- 2) **Transferring and accelerating the adoption of innovative digital and technology solutions** that help to solve the regional challenges of the agrifood system. Challenges are connected to competitiveness, ability to respond to external disturbances and conditions hindering the digital transition. The policy learning entails understanding the policy conditions needed for supporting the uptake of the innovative digital and technology solutions in the agrifood system as well as stakeholder dialogue.

Foreseen policy actions involve implementation of innovation-driven policy via concrete regional projects and pilot actions initiated as a result of the identification and analysis of good practices.

### **Methodology /Action Plan Outline**

Policy learning and transfer of lessons into policy action are conducted via two learning processes supported by physical visits, online and hybrid events as well as co-operation & exchange of experiences on an online co-learning platform.

**Step 1: Definition of joint digitalization mission for supporting the resilience and sustainability of the agrifood system in EU.** Missions arise from the collective needs of the connected regions and their agrifood sector businesses. Definition is supported by a stakeholder need analysis (including regional stakeholder group meetings) carried out in the connected regions; regional the 1<sup>st</sup> interregional webinar to share regional mission statements; and the 1<sup>st</sup> inter-regional meeting & study visit to formulate the joint mission statement with five prioritized action areas to be focused on in the later activities.

*Implemented in Semester 1.*

- 1 open inter-regional webinar
- 6 stakeholder group meetings
- 1 inter-regional meeting & study visit - 2-3 Good practices collected from the hosting region. Documented as a good practice to be shared in the Interreg Europe platform + video stories produced to showcase inspirational examples of digitalization solutions and methods to accelerate digitalization to boost resilience and sustainability in the agrifood system.

**Step 2: Elaboration, training, and co-piloting of a methodology for innovation camps.** Innovation camps have been piloted by JAMK University of Applied Sciences as an open platform for connecting and engaging stakeholders to work on policy recommendations and solution ideas to tackle a specific mission. The tested methodology will be upgraded in regional dialogue to involve inter-regional expertise exchange via hybrid mentoring and sharing of inspirational case examples. The partnership will be trained to implement an innovation camp via peer learning as they will follow each step of a pilot innovation camp organized in Central Finland by JAMK. This peer learning is supported by a series of training webinars that also entail a collaborative planning workshop to define the upgrades to the methodology, including interregional expertise exchange and co-operation. Final, jointly elaborated methodology will be presented in the 2<sup>nd</sup> inter-regional webinar and the 2<sup>nd</sup> inter-regional meeting & study visit.

*Implemented in Semester 2.*

- 1 open inter-regional webinar
- 1 regional innovation camp
- 1 inter-regional meeting & study visit - 2-3 Good practices collected from the hosting region. Documented as a good practice to be shared in the Interreg Europe platform + video stories produced to showcase inspirational examples of digitalization solutions and methods to accelerate digitalization to boost resilience and sustainability in the agrifood system.
- Good practice: Regional Innovation Camp model for mission-driven policy and stakeholder dialogue

**Step 3: Implementation of innovation camps (12, 2 per region, 3 per semester) to make policy recommendations & define pilot actions to accelerate the digitalization missions.**

Innovation camp focus areas are based on the regional mission statements and the stakeholder group guidance. Each connected region will carry out one innovation camp involving interregional co-operation and expertise exchange. Innovation camp results are shared on interregional webinars (3rd- 6th). The interregional meetings and study visits (3rd - 6th) will support the planning and implementation of the interregional co-operation and expertise exchange at the innovation camps. Inspirational good practices are documented at the study visits as video stories shared to the participants of the innovation camps. Inter-regional meetings will also offer a forum for connecting experts across the regions to the coming innovation camps.

Innovation camp methodology will be continuously evaluated via collecting and analyzing the experiences from regions and stakeholder groups.

*Implemented in Semester 3-6.*

- 4 open inter-regional webinars
- 12 innovation camps connecting regional stakeholders and involving inter-regional expertise exchange
  - 12 pilot plans
  - 12 policy recommendation papers
- 4 inter-regional meeting & study visits - 8 -10 Good practices collected from the hosting region. Documented as a good practice to be shared in the Interreg Europe platform + video stories produced to showcase inspirational examples of digitalization solutions and methods to accelerate digitalization to boost resilience and sustainability in the agrifood system.
- Good practice: Inter-regional Innovation Camp model for mission-driven policy and stakeholder dialogue

#### **Step 4: Monitoring and follow-up of the pilot activities and impact in the regions.**

*Implemented in Semester 7-8.*

- 2 open inter-regional webinars to share news on started pilot actions
- Video stories on started pilot actions
- 1-2 inter-regional meetings

### **C3. Innovative character**

In the previous IE period, there are several projects contributing to capacity building in research and innovation in the agrifood system. These projects have identified good practices on strengthening of the agrifood innovation ecosystem, innovation mechanisms and sustainable agrifood innovations (FoodChains 4 EU, STRING, Agri Renaissance). Also, digital transition and data as an innovation asset have been address in the REGIONS4FOOD. The unique approach of AgriExcel is the policy learning on the application of mission-oriented innovation that enhances ability to tackle complex challenges facing the agrifood system (e.g. climate change) via steering the agrifood system digital transition. It encourages wider stakeholder involvement in the entrepreneurial discovery process to ensure that vulnerable small-scale economic actors of the agrifood system are not left behind in the digital transition, while supporting discovery of innovative business opportunities also in rural regions.

AgriExcel is a new project that arises from a dialogue between the core partners and the lead applicant Jamk University of Applied Sciences. Jamk is a leader of a significant regional development project (JFT funded), Finnish Future Farm, that brings together new smart farming technologies,

national and international networks, funding, and solutions in a co-creation environment at Saarijärvi, Central Finland. As an international connector of smart agritech, end-users, investors, researchers, and other stakeholders of the digital transition of agrifood system, Jamk is well-positioned to lead the AgriExcel project. Via the partner involvement, the project will also benefit from the outcomes (good practices) of IE projects SMEOrigin and 3F GREEN MODEL where relevant to the digitalization missions identified.

## **PARTNERSHIP (TBC)**

1. Jyväskylä University of Applied Sciences (JAMK) (Lead partner, North, Finland)
  - a. Associated policy partner: Regional Council of Central Finland
  - b. Policy instrument: Innovation and Skills in Finland 2021–2027 Operational Programme
2. Vidzeme Planning Region (North, Latvia)
  - a. Policy instrument: Vidzeme Planning region development program 2022-2027
3. Steirische Wirtschaftsförderungsges.m.b.H. (East, Austria)
  - a. Policy instrument: Styrian Economic Development Act 2001
4. Creaccio - Agency of Entrepreneurship, Innovation and Knowledge (South, Spain)
  - a. Associated policy partner: Vic City Council
  - b. Policy instrument: Osona Biocircular Strategy
5. Province of Overijssel (West, Netherlands)
  - a. Policy instrument: The Innovation Profile East Netherlands (Th!nk EastNetherlands)
6. Stara Zagora Regional Economic Development Agency (East, Bulgaria)
  - a. Associated policy partner: Ministry of Regional Development and Public Works
  - b. Policy instrument: Program Regional Development 2021-2027, priority axis 3: Territorial Just Transition Plan
7. **Expert partner:** Open Food Chain Foundation (Netherlands)
8. **New candidates partner:** Under search