

## **Danube S3 Cluster Project**

*“Transnational Cluster Cooperation active on Agro – food, based on Smart Specialization Approach in Danube region”*

# **Pilot implementation of Local Action Plan for Business Models that Work in Circular Economy, in Croatia**

Final Conference and 4th Policy  
Dialogue 21.10.2021.– virtual event



Mihajlo Nagy, Vinkovci, Croatia, 21.10.2021.



## **Danube S3 Cluster Project – Expected results**

Improved cooperation and coordination for cluster policies in Agro-Food sector based on smart specialization approach and development of 2 innovation tools to further allow implementation of 5 regional pilot initiatives in market intelligence, open innovation, business models for circular economy and healthy food that will lead to the generation of 15 cluster cooperation agreements.



# EKO-SUSTAV Ltd.

- EKO-SUSTAV Ltd. is involved in environment protection and energy saving projects in the county.
- SME with 43 employees (financed from projects and state/county funds)
- Providing services and EE (energy ef.) management through projects
- Company has ongoing cooperation with the Environmental protection and energy efficiency Fund in Zagreb
- Constantly working on creating conditions to attract investment in energy efficiency and renewable energy sources, create new 'green' jobs.
- Reducing dependence on classical sources of energy.

# Partners involved

- Partner 1 Mihajlo Nagy - EKO-SUSTAV Ltd.
- Partner 2 I Tanka Eszter - IFKA
- Partner 2: Milan Martinov – University Novi Sad, Serbia
- Contributors: Eszter Tanka, Tomaž Zadavec, Gilda Niculescu, Milan Martinov
- With final analysis (Quality Assurance) from Katrin Hochberg from Steinbeis 2i

# LAP CROATIA

- Local Action Plan (LAP) on Business models that work in circular economy in Croatia
- In terms of the **circular economy** concept, products and materials are highly valued, instead of the linear economic model where the main process is “take-make-consume-throw away”. This kind of production and consumption model consists of two complementary loops: one for biological materials (which can be decomposed by living organisms) and one for technical materials (which cannot be decomposed by living organisms). The aim is the same in both cases: use the resources as much as possible.
- With regards to the Danube S3 Cluster project – financed by Interreg Danube Transnational Programme, the most relevant aspects of the Action plan are the ones that address food, water, nutrients and waste.

# LAP CROATIA

- Croatia is only just beginning its transition from a linear to a circular economy, but it has the potential - and as the member of the EU the obligation, as well - to develop a circular economy, however several reforms must be realised in most sectors
- One of the key obstacles to innovation is the lack of adequate linkage between research institutions and the business sector. So cooperation has to be promoted between the academia, research institutes and the companies of the agro-food sectors.
- Besides financing - as this was also one of the most relevant conclusions from the EDP held in this topic in Tuzla March 2019 - there is a constant need to spread the concept of circular economy emphasising its role and potential also in the agro-food sector – also from legislative and from practice-oriented perspectives.

# LAP CROATIA

The proposed actions in this LAP all take into consideration the aforementioned situation and promote the concept of circular economy and bio-economy:

- Connecting Agro-food cluster member companies – offering a platform for them to:
  - Initiate and support cooperation between clusters companies, educational and development institutions
  - connect them with funds to finance new projects
  - Joint their forces to contribute to policy development
  - Sharing knowledge and provide trainings in the topic of circular bio-economy
  - Linking small producers operating in agro-food sector to optimize resource use
  - connecting with funds to finance new projects
  - Piloting the use of renewable energy sources in farming facilities
  - Piloting the energy efficient solution like using biomass as an energy source

# Business models for circular economy

- Title of project idea 1:
- Adoption of circular economy solutions by local clusters in Vukovar-Srijem County in Croatia
- Objective - Promoting energy efficiency in Agro-food sector by using circular economy solutions
- Starting regional initiatives on county level to promote agro-food sector and to foster cluster cooperation with the aim of enhancing bio-economy projects and promoting them in legislation processes.
- The project is closely related to sustainable development goals and climate change adaptation. Involving local stakeholders in planning activities and preparatory processes, promoting use of renewable energy sources, developing new financial models are essential parts during the project. These kind of information and knowledge sharing (organizing webinars, forums, trainings etc.) can help to enlarge awareness of agro-food sector and also circular economy and bio-economy business models. More efficient and environment friendly operation could be achieved in the region.
- Focus is on awareness raising that would at the end lead to impact to decisionmakers to better conditions for development of Agro-food sector in Vukovar-Srijem County.



# Business models for circular economy

- Title project idea 2
- Platform of joint representation for circular economy solutions for local Agro-Food clusters in Vukovar, Croatia
- Objective - Fostering cooperation of small producing companies in the Agro-food sector through the establishment of a joint platform. Joint forces might result in multiplied results – activities might include for instance joint production circular branding; common market analysis could be carried out.
- Increasing the knowledge and transfer of know-how on circular economy for local clusters in Vukovar-Srijem County in Croatia.
- Goal is to achieve easier approach to market for agro food producers by joint activities like branding and achieving market goals, which would be otherwise hard to accomplish.

# Business models for circular economy

- Title project idea 3
- Increasing energy efficiency in farming production facilities by using new technologies (photovoltaics, heat pumps systems) in Vukovar-Srijem County in Croatia
- Objective - Promoting energy efficiency in Agro-food sector by using circular economy solutions
- According to this project proposal the energy enhancement of Agro-food and agriculture/farming production facilities could be promoted and realized through energy savings and utilization of natural, bio-based materials and new technologies aiming to be energy independent. There is a need to test the possible solutions and methods for energy savings, in order to work out sustainable circular economy business models in this respect.
- 1. energy related assessment of the chosen facilities of cluster members with the help of the involved experts
- 2. Improvement of these facilities to make them more energy efficient, saving energy
- 3. Presentations of technologies (photovoltaics, heat pumps systems) that would help better energy utilization
- 4 Including experts and technical knowledge that would in future implement better energy solutions
- 5. Dissemination activities of the energy efficient solutions

# Business models for circular economy

- Title project idea 4
- Biomass/food residues usage for energy efficiency for small producers
- Objective - Increasing the usage of biomass and food residues as energy sources for small farms
- Using biomass/food production residues as basis for energy production for cluster members, using natural energy resources from fields like silage and energy crops which are otherwise unused waste (waste to energy)
- 1. Presentations of possibilities for utilization of natural resources
- 2. Cooperation of clusters and universities in developing solutions for energy production possibilities and assessment of existing conditions
- 3. Implementation of biomass technical energetic solutions in existing farms and clusters
- 4. Establishing of good practice database and create cooperation's for promoting this kind of biomass usage

# Thank you for your attention!



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