

ISSUE 02

ZEFFIROS

PROJECT NEWSLETTER

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ZEFFIROS



**ZERO-WASTE ENERGY-EFFICIENT
AGRICULTURAL COMMUNITIES IN THE
GREECE - REPUBLIC OF NORTH
MACEDONIA CROSS-BORDER AREA**

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Guidelines, Specs & Training

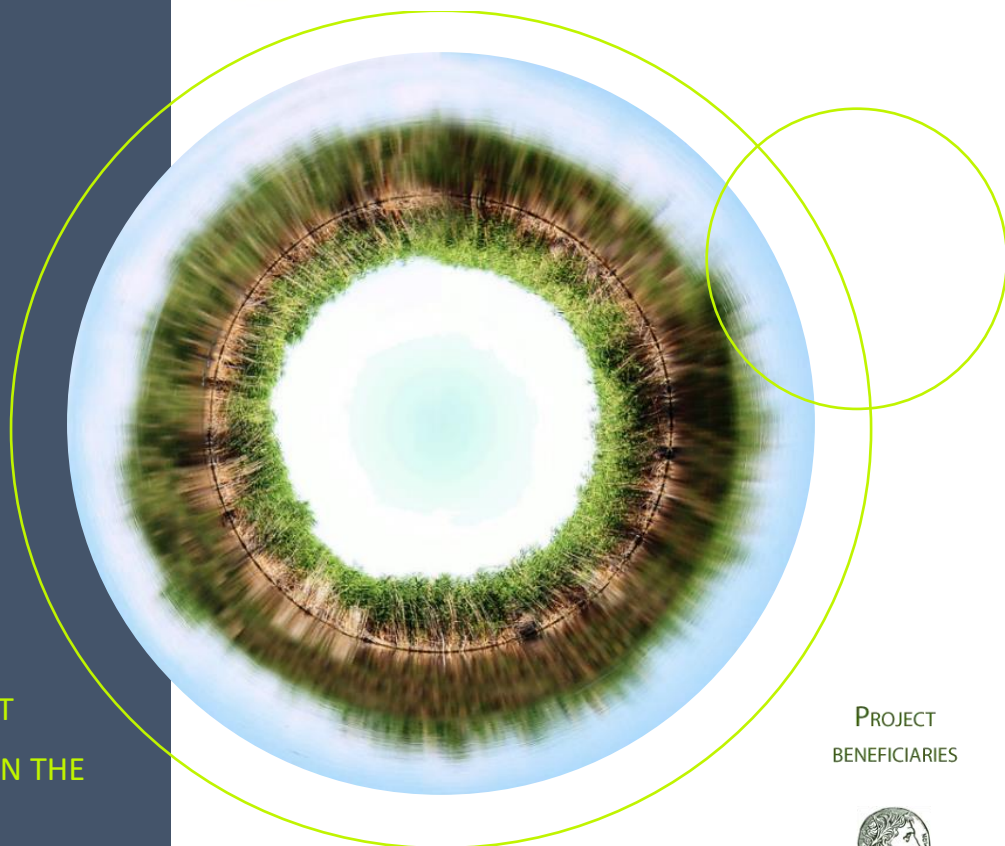
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The views expressed in this publication do not necessarily reflect the views of the European Union, the participating countries and the Managing Authority



**PROJECT
BENEFICIARIES**



ARISTOTLE UNIVERSITY
OF THESSALONIKI



SLAUGHTERHOUSE MUNICIPALITY
OF STRYMONA O.L.G. S.A.



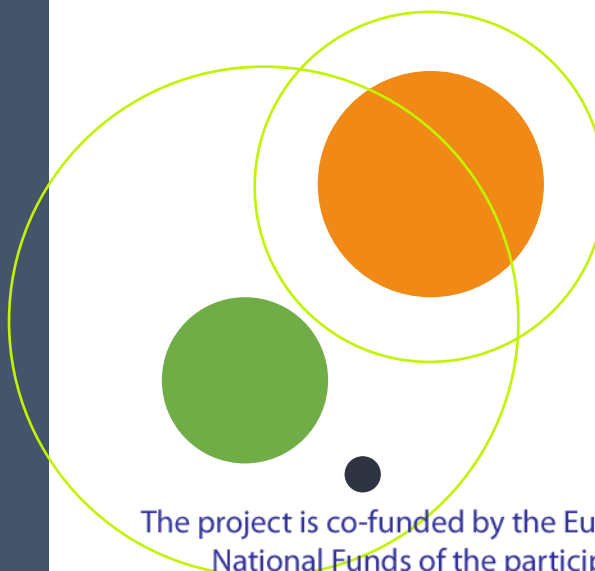
MUNICIPALITY
OF DOJRAN



MUNICIPAL PRIMARY SCHOOL
"KOCO RACIN" DOJRAN

Find out more at

www.zeffirosproject.eu



**The project is co-funded by the European Union and by
National Funds of the participating countries**



Complete EU circular economy frameworks, regional value chain analyses, biogas-based circular economy benchmarks & good practices as well as a detailed mapping of local biowaste resources are now available to the local administrative partners, **to serve as tools for planning future local policies and local initiatives that will foster a bio-based cross-regional growth.**

Moreover, backbone material to match capacity and training needs of the local population and the relevant business communities with any future local policies was deployed. The corresponding questionnaires and a structured dialogue framework as well as cornerstone training material on circular economy principles, biogas production fundamentals and a reference investment framework are ready.

GUIDELINES, SPECS & TRAINING

- Lists of suppliers of biowaste ranging from animal manures to crop leftovers to food processing wastes including contact details as participants in the local biogas supply chain.
- Complete reports on EU and EC, priorities, frameworks, policies, and initiatives with respect to circular economy.
- A business value chain model study based on the cross-border biogas energy potential accompanied by a structured dialogue framework for the relevant local stakeholders.
- Biogas plant operation benchmarks and good practices and guidelines for the setup of a biogas plant.
- Standards and specifications for effective compost QA and certification
- Capacity building questionnaires and basic training presentations and info on circular economy principles, biogas production and a reference framework for investment
- Technical specifications for an 18kW_{el} – 2,190 tons biowaste processing – 12.5 ha fertilizing capacity pilot biogas plant.





SFADIS S.A. IS SET TO GO CIRCULAR

The municipal slaughterhouse of Strymona (SFADIS S.A.), partner of ZEFFIROS project, is ready to go circular. After having completed a bunch of complementary procurements, SFADIS proceeded to the implementation of several upgrades in its facilities in Neos Skopos to become compliant with rules and regulations with respect to its production by-products.

Within the ZEFFIROS project, a newly designed, ergonomic cooling room including compatible thermal isolation, new refrigerators as well as a controlled ventilation system was created to serve as the main space for the processing and packaging preparation of by-products labelled in the relevant legislation as “*Category 2 & 3 by-products*”.

SFADIS is now ready to supply such by-products as input to the mix of biowaste to be processed for biogas & compost production in the ZEFFIROS’s pilot plant.

For the latter purpose, detailed procedures as well as the relevant supply logistics and annual delivery schedules were articulated as part of ZEFFIROS’s activities.

Safeguarding
compliance of
slaughterhouse
waste in the mix
towards biogas &
compost

ZEFFIROS IN SCIENCE & PROs

A scientific paper based on ZEFFIROS data was published in “Energies” journal

“Energies” is a peer-reviewed scientific journal of impact factor 3.06 and is published online by MDPI. The authors of the paper are part of the ZEFFIROS team while the topic analysed concerned a “Decision Support System to Implement Units of Alternative Biowaste Treatment for Producing Bioenergy and Boosting Local Bioeconomy”. The data used in presenting the rationale and functionality of the decision support system analyzed was a result of the mapping of the agricultural and food-based biowaste value chain in the Greek cross-border side and was applied for selecting the optimal site for the pilot biogas plant installation in the municipality of Serres. The paper is available online at: <https://www.mdpi.com/1996-1073/13/9/2306>

ZEFFIROS at the 7th Environmental Conference of Macedonia

On October 31st 2020, Dr. Christos Vlachocostas, member of the ZEFFIROS team, presented ZEFFIROS project’s works on the promotion of a sustainable model of bio-waste management to be used by regional authorities within the boundaries of the cross-border area of Greece and Republic of North Macedonia. 50 participants attended the presentation online while the corresponding abstract in Greek is included in the conference proceedings available at: <https://sites.google.com/gapps.auth.gr/persynmak/>

ZEFFIROS awareness raising and capacity building activity among professionals

On March 17th, 2021, ZEFFIROS’s objectives and activities were outlined in the capacity building webinar on “Energy consumption optimization and Renewable Energy Sources”, organized by the technical services department of Municipality of Serres. The webinar was attended by 25 professionals. After all presentations have been completed, questionnaires on capacity building with respect to circular economy concepts and behavior were delivered to all participants as part of the awareness raising and capacity building surveys in the context of ZEFFIROS activities.

