



ZEFFIROS ACTIVITIES

- POLICIES & REGULATIONS REVIEW
- BEST PRACTICES REVIEW
- SPECIFICATIONS SETTING
- VALUE CHAINS DEFINITION
- PILOTS IMPLEMENTATION
- AWARENESS RAISING
- CAPACITY BUILDING
- MODEL BUSINESS PLANNING
- GUIDELINES CONDUCTION
- e-GUIDANCE

Project Beneficiaries







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





MINICIPAL PRIMA

www.zeffirosproject.eu



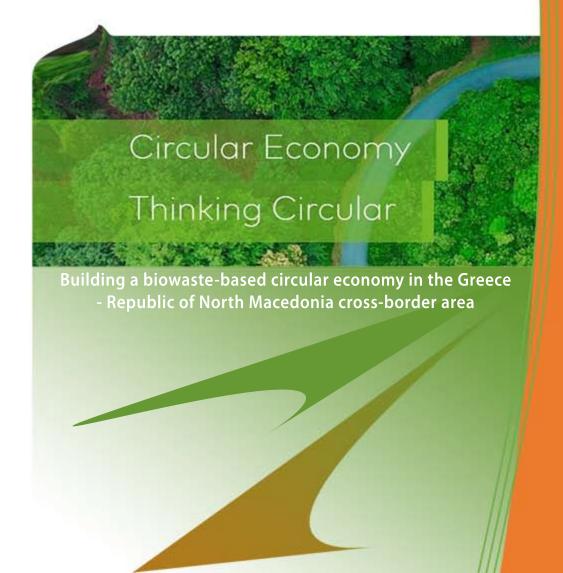




The project is co-funded by the European Union and by National Funds of the participating countries

ZEFFIROS

Zero-waste energy-efficient agricultural communities in the Greece - Republic of North Macedonia cross-border area





GUIDELINES based on BEST PRACTICES

ZEFFIROS deals with energy and environmental challenges in the Greece – Republic of North Macedonia cross-border area (CBA).

It specifically **addresses under-utilization of organic waste** from local farming, food-processing and household activities.

It demonstrates alternatives to inefficient disposal and sets a transferable circular economy good practice for future sustainable rural communities.



Cross-border area sustainability

SPECIFICATIONS & OA

Setting specifications for collection, transport and treatment of local bio-waste streams.

Guaranteing optimum conditions for efficient anaerobic digestion and regulative compliance.

ZEFFIROS designs QA procedures for:

- Efficient and compliant local biowaste supply
- Compliant end-to-end treatment of bio-waste streams
- Uninterrupted thermal-electrical energy production
- Certifiable production of digestate by-products

Rural development

based on bio-waste

AWARENESS RAISING AND CAPACITY BUILDING

ZEFFIROS engages the crossborder society through

- ° piloting
- ° public surveys
- ° public campaign
- ° open events

ZEFFIROS **trains** local farmers, business owners, municipal staff, civil servants, teachers and other stakeholders

VALUE CHAIN MODELING

ZEFFIROS identifies complete business value chains around two pilot biogas units in the CBA.

- It investigates technical and legal frameworks
- ° It sets operational specifications
- It articulates scale-up plans for future public and public/ private investments





Procedures on

- · Biogas plant O&M
- Bio-waste streams
- Digestates certification
- Energy management
- Compost management

PILOTING

ZEFFIROS implements **two small-scale pilot biogas production plants** - one **in Serres** and one **in Dojran** - digesting bio-waste substrates supplied by nearby farms, crops, food processing facilities and a slaughter-house in Greece.



ZEFFIROS also implements a pilot on the use of urban compost bins.

The project offers rural and semi-urban households the opportunity to use neighborhood-based compost bins.

The **ZEFFIROS** pilots aim to:

- ° verify and showcase real local value chains
- ° indicate **new markets** for digestate fertilizers
- ° showcase **energy autonomy** aspects
- present working examples to investors and local authorities
- ° demonstrate **social benefits**
- ° pave the way for scale-up in the CBA



e-Value Chain

A web-based GIS app locating professionals and other stakeholders in the biogas value chain to promote synergies in the CBA.



e-Guides & Handbooks

Regularly updated e-Learning materials. e-Handbook with international good practices of sustainable use of local biowaste resource