

1st Newsletter

SEPTEMBER 2020

A circular economy system for multi-source biomass conversion to added value products

Aim of LIFE CIRCforBIO project

The overall aim of the CIRCforBIO project is to:

- achieve high GHG emission savings from the substitution of fossil fuels with advanced biofuels
- promote the realization of the circular economy concept for biomass

This will be achieved through:

- the implementation and demonstration of an innovative biorefinery concept for the production of bioethanol, used oil (raw material for biodiesel) and other bioproducts using municipal and industrial biomass
- the creation of an interactive platform for facilitating the realization of the circular economy concept for 2nd generation biomass in Greece

Coordinating Beneficiary



NATIONAL
TECHNICAL
UNIVERSITY OF
ATHENS (NTUA)

Beneficiaries



MUNICIPALITY
OF LAVREOTIKI



FEDERATION
OF HELLENIC
FOOD
INDUSTRIES



HELLENIC
PETROLEUM S.A.



ENVIRECO
CONSULTING S.A.



SATISTICA LTD.



NEVIS - NOVEL
ENVIRONMENTAL
SOLUTIONS S.A.



UNIVERSITA
DEGLI STUDI
DI VERONA

Kick-off Meeting

The Kick-off meeting took place on November 1st, 2019, in NTUA premises, with the participation of all beneficiaries involved in the project implementation.



Biorefinery feedstock

Municipal biomass from the Municipality of Lavreotiki

Municipal biomass that will supply the biorefinery unit includes:

- food waste from households and restaurants
- spent coffee grounds from cafeterias
- bread waste from bakeries
- agricultural residues from agricultural cooperatives

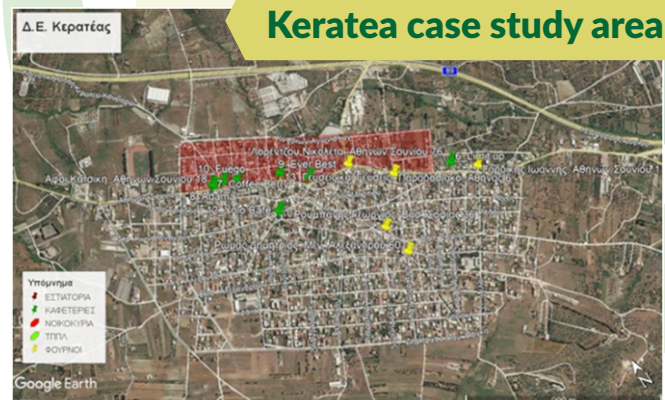


The source separation scheme of biomass in Lavreotiki Municipality will be applied in selected case study areas and residences of Lavrio and Keratea municipal units. The scheme has been designed by the National Technical University of Athens in cooperation with Lavreotiki Municipality to collect the biomass from 500 households & 100 businesses.

Lavrio case study area



Keratea case study area



Industrial biomass from food industries

Selected industries, in cooperation with the Federation of Hellenic Food Industries, have agreed to supply the biomass throughout the operation of the biorefinery unit.

Industrial biomass that will supply the biorefinery unit includes:

potato peel waste from
the potato chips industry
TSAKIRIS AVEE



brewer's spent grains from
the Hellenic Brewery
Atalantis (EZA) SA



orange peels and apple
pomace from the juice
industry ASPIS SA



Biorefinery location

All biomass collected will be transported to the biorefinery unit which will be installed at Lavrio Technological Cultural Park at Lavreotiki Municipality.

The exact location of the biorefinery installation area has been determined and the design of the demonstration plant is being finalized.



CIRCforBIO biorefinery approach

The CIRCforBIO biorefinery system shall constitute a flexible multi-feedstock biorefinery that will enable the treatment and valorization of municipal and industrial waste biomass by converting them into

a range of value-added products such as used oil for biodiesel production, bioethanol, biogas and fertilizer. The system capacity will be set to 1 tonne of waste biomass per day.



Communication and Dissemination Actions

A plethora of communication and dissemination actions have been designed to engage the relevant stakeholder groups ensuring maximum impact of the project during its LIFE and after LIFE span. So far, the project has been presented in conferences and events and the Launching Event has been organized with great success and wide participation from local stakeholders in Municipality of Lavreotiki

Presentation of LIFE CIRCforBIO project

Presentation of LIFE CIRCforBIO project by Dr Fotini Salta from Federation of Hellenic Food Industries (SEVT) at the LIFE PureAgroH2O Conference, Royal Olympic Hotel, Athens, 17th January 2020.



Launching Event

The launching event took place at KAPH Kerateas, at the Municipality of Lavreotiki on 1st February 2020.



Upcoming Information Campaigns

Upcoming information campaigns are scheduled in 3 Phases.

The aim of Phase 1 is to inform residents and businesses in the selected pilot areas of the source screening program and raise their awareness of active participation. Phase 2 aims to the citizens engagement to achieve gradual rise in the source separation rate of biomass as well as to the increase the participation rates of feedstock producers within the pilot areas. Further activities scheduled within Phase 3, aim to retain the interest and participation of feedstock producers at high rates during and beyond the duration of the project.

PHASE 1:

Information
& Awareness
Raising



PHASE 2:

Citizens
engagement-
guidance



PHASE 3:

Reminder-
Awareness

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