



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

### Milestone D.1.1/Deliverable D.1.1 (+): Completion of the Monitoring Protocol

Action D.1: Monitoring and evaluation of the project impact

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Coordinating Beneficiary:



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LIFE18 CCM/GR/001180

## **Background**

This report entitled: *“Completion of the Monitoring Protocol”*, was produced under co-finance of the European financial instrument for the Environment (LIFE Programme) as Milestone D.1.1. / Deliverable D.1.1. (+) of Action D.1 of Project “LIFE CIRCforBIO” (LIFE18 CCM/GR/001180). This report presents the Monitoring Protocol of the Project, namely the methodology of monitoring the Project’ s Progress using the Key Project-level Indicators (KPIs) and the Project Progress Indicators.

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## Abbreviations and Acronyms

NTUA	National Technical University of Athens
LAVRIO	Municipality of Lavreotiki
SEVT	Federation of Hellenic Food Industries
UNIVR	Universita degli studi di Verona
HELPE	Hellenic Petroleum S.A.
SATISTICA	Satistica LTD.
NEVIS	Novel Environmental Solutions S.A.
ENVIRECO	Envireco Consulting S.A.
EASME	Executive Agency for Small and Medium Sized Enterprises
KPI	Key Project-level Indicator

## Executive Summary

The present technical report was prepared in the framework of the co-financed EC LIFE Programme for the Environment and Climate Change, in the framework of Action D1 "Monitoring and evaluation of the project impact" of the project with the title "A CIRCular economy system for multi-source BIOMass conversion to added value products" and the project acronym LIFE CIRCforBIO (LIFE18 CCM/GR/001180). Responsible for its preparation is the National Technical University of Athens (NTUA), in collaboration with all the project beneficiaries.

The project aims at the achievement of high GHG emission savings from the substitution of fossil fuels with advanced biofuels and at the promotion of the realization of the circular economy concept for biomass. The LIFE CIRCforBIO project is engaged to achieve the aforementioned two main objectives through two main suggested methods:

- a) By the development and demonstration of an innovative biorefinery concept for the conversion of waste biomass (biowaste, industrial food waste, agricultural residues) to added value products such as bioethanol, used oil (raw material for biodiesel), biogas and AD digestate and
- b) By the creation of an interactive platform for facilitating the realization of the circular economy concept for 2<sup>nd</sup> generation biomass in Greece.

The aim of this milestone is the presentation of the monitoring protocol to be used for the monitoring and evaluation of the impact of the project actions. For this purpose, the monitoring procedure is explained according to which indicators are selected, quantified, monitored and verified. The quantification of the monitoring indicators and their continuous monitoring during project implementation will allow for the evaluation of the project results so as to determine its progress and to identify and promptly address any obstacles and difficulties occurring during its implementation.

The indicators analyzed are grouped under the following main categories:

1. KEY Project-level Indicators (KPIs) and
2. Project Progress Indicators

## Conclusions

The present report aims at creating the basis for the periodical monitoring of the project' s impact. Monitoring will be based upon two sets of indicators the Key project-level indicators (KPIs) and the Project Progress Indicators.

Key project-level indicators are divided in Environmental KPIs and Socioeconomic KPIs and further categorized in more specific indicators. Along with the KPIs, the LIFE CIRCforBIO' s monitoring is completed with the extended list of Project Progress Indicators that have been specifically set for the evaluation of the progress of each one of the Project' s Action.

The periodical monitoring of the project will reported as Deliverables D.1.1, D.1.2, D.1.3 and D.1.4 and will follow the methodology and the quantification methods of the selected indicators as presented in the present report.