



Πανεπιστήμιο Κύπρου  
University of Cyprus

## After-LIFE Communication Plan WINEC LIFE+08 ENV/CY/000455



Advanced systems for the enhancement of the  
environmental performance of WINeries in Cyprus



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**RTD Talos Ltd**  
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**S.K. Euromarket Ltd**  
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**Tsiakkas Winery**  
[www.swaypage.com/tsiakkas/](http://www.swaypage.com/tsiakkas/)

## After-LIFE Communication Plan



Funded by:

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Prepared by:

GAIA – Laboratory of Environmental Engineering, University of Cyprus

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## PROJECT DESCRIPTION

WINEC project aimed to identify the major environmental problems associated with the operation of wineries and to implement environmentally friendly solutions to address these problems. The implementation of an effective Environmental Management System can significantly improve the environmental performance of wineries and aims, at the effective treatment of wastewater, at minimizing and reusing solid waste, at reducing the consumption of electricity and water, at the reduction of gas emissions, and at the reduction of the use of chemicals and compliance of wineries with the relevant environmental legislation in all relevant areas.



## PROJECT OBJECTIVES

- ⊙ Analyse the wine industry in Europe and in Cyprus.
- ⊙ Become aware of the operation of wineries, their main environmental impacts and the actors involved in the wine production sector in Cyprus.
- ⊙ Become familiar with the relevant EU and local statutory provisions related to the operation of wineries.
- ⊙ Identify, analyse and present selected wineries in Europe that have established successful Environmental Management Systems (EMS) in order to exploit best-practices and know-how.
- ⊙ Conduct an Environmental Analysis and Review for wineries in Cyprus.
- ⊙ Identify specific environmental objectives, exact actions and a set of indicators in order to implement an Environmental Management System in Tsiakkas Winery (pilot study).
- ⊙ Set up an environmental policy for Tsiakkas Winery.
- ⊙ Launch an EMS and train the relevant personnel in order to achieve the above mentioned objectives and gradually improve the environmental performance of the specific winery.
- ⊙ Produce relevant design data and identify specific parameters in order to develop and commission a pilot unit for advanced Winery Wastewater Treatment (WWWT) with consideration to practical aspects (e.g. cost, materials, components and process controls).
- ⊙ Develop mechanisms for the frequent internal control (audit) and reporting of the wineries' environmental performance including the operation of WWWT.
- ⊙ Investigate the potential of further exploiting the project's results (possible users, benefits, costs and possible constraints).
- ⊙ Suggest solutions to overcome the constraints identified regarding the establishment of an EMS and units for WWWT.
- ⊙ Develop a Best Practice Guide for the improvement of the environmental performance of wineries and specifications for WWWT to be disseminated to a number of stakeholders (wineries, wastewater engineering companies, environmental consultants, authorities etc).

The following actions have been carried out:

The LIFE logo and the project logo have been affixed to all the dissemination material and memorabilia. Leaflets and newsletters have been produced and copies have been distributed through all the project partners to local wineries, environment related companies, public authorities, the general public and other relevant stakeholders.

### **Design and maintenance of the project website**

The most important dissemination method was the launch of the website of the project [www.eng.ucy.ac.cy/WINEC](http://www.eng.ucy.ac.cy/WINEC). Through the website, it is possible to access all the information related to the project, its objectives and actions. It also contains details of all the results obtained, rich photographic and informational material, reference and contact details of the operators of the project. The information is available in Greek and English to increase the potential number of visitors interested in the project.

### **Posters, Leaflets and Newsletters**

Two posters, three leaflets in Greek and six newsletters both in Greek and English, have been produced. Copies of them have been distributed through all the project partners to local wineries, environment related companies, public authorities, the general public and other relevant stakeholders.

### **Questionnaire Survey**

All 54 wineries in Cyprus have been informed about WINEC through the questionnaire survey conducted through telephone in summer 2010, some of them showing a particular interest on the results of our survey.

### **Demonstration**

A solar prototype reactor demonstration took place at the Technical University of Crete (Greece). This demonstration was organized, in order to demonstrate the operation of the solar prototype photocatalytic reactor for the treatment of winery wastewater. Many wine related actors participated to the demonstration (winery owners, engineers, farmers, public water services, inter-municipal water company waste management, etc.).

### **Guided tour**

The tour at Tsiakkas winery was attended by representatives from local agencies, authorities, winery owners, oenologists, academic institutions, etc. The purpose of the tour was to highlight the main objectives of the program and its compliance with the relevant environmental legislation.



## Workshop

The workshop held in 11 June 2012 in Limassol discussed the project objectives and the Tsiakkas winery experience from the Project. EMS and funding opportunities, the project outcomes and results, the WWWT plant technical specifications and the best practice guide were also presented.

## Final Conference

The project was presented during the final conference of the LIFE+ program in Nicosia, (Cyprus) on 19 October 2012. The conference entitled "Environmental management in wineries and olive mills - current challenges and opportunities" discussed the current situation of the wine and olive mill industries in Cyprus. It also presented the existing management measures and legislation, the objectives of the project WINEC, the project outcomes and results, WWWT plant technical specifications, the EMAS certification opportunities and the Tsiakkas winery experience from the Project.

## Scientific Papers

Two scientific publications in international journals present the research results (bench, pilot and industrial scale) of the project have been carried out.

## Media Dissemination

Further dissemination of the project took place in Greece and Cyprus, through various communications media. Specifically, project partners participated in a radio broadcast interview at the 3<sup>rd</sup> program of the Cyprus Broadcasting Corporation and at a TV show. Further dissemination of project results, was made through various publications of articles in both Cypriot and Greek newspapers as well as in internet news portals.

## Dissemination to the Scientific Community

An oral presentation and a poster were presented at 7th European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA7), Porto 2012 (Portugal). In addition UCY participated at the course "Decontamination and disinfection of water and air by solar advanced oxidation processes (CIEMAT)", Madrid, Spain. The main objective of this course was to communicate the information and the experience accumulated in the research group of Plataforma Solar de Almería in water and air solar decontamination and disinfection. RTD TALOS participated in a lecture organized by Columbia University Alumni Association in collaboration with the Cyprus Scientific and Technical Chamber and the Environment Commissioner related to "Corporate Environmental Responsibility" that took place in Nicosia on 2 June 2010 within the framework of the European Environment Week.



## Project Posters

A project poster was produced in April 2010 and printed in 50 copies. It was distributed among the project beneficiaries and was located at key places accessible to the public (central places at the beneficiaries' offices) and the Tsiakkas winery.

A second poster was specially designed for the project's final conference in October 2012 and was printed in copies.

## Notice Boards

One notice board is placed at Tsiakkas Winery and provides information about the goals of the project and the characteristics of the winery wastewater treatment plant.

Another board is placed at the premises of UCY where the solar prototype photocatalytic reactor is located and provides information about the goals of the project and the technical characteristics of the solar pilot plant.

Additionally one board is placed at the TUC and gives information about the objectives of the project and the specifications of the solar prototype photocatalytic reactor.

Three notice boards are placed at UCY, DoE and Tsiakkas winery describing the project objectives.



## Best Practice Guide

The working group of the University of Cyprus has prepared a Best Practice Guide of guidelines and standards for proper management of both solids (organic and non-organic waste) and wastewater. Moreover, good practices to save energy and water are given, as well as practical for proper use of chemicals.

## Technical Specifications Manual

The technical specification manual includes a list of specifications that have to be followed by any winery that wants to install a similar winery wastewater treatment plant (WWWTP). The manual was presented and disseminated both at the workshop and the final conference of the project.

## FUTURE CONTINUOUS DISSEMINATION PLAN

Through the following activities the project partners intend to further disseminate the project results.

### Printed material

The produced dissemination material (newsletters, leaflets, layman's report, technical specification manual and the best practice guide) will be distributed to stakeholders in Cyprus, European countries, Mediterranean region countries (e.g. Jordan, Israel), Central Asia (e.g. Kazakhstan). Some project partners are also involved with other European funded projects and they will disseminate the results of this LIFE+ project through their networking activities. In addition UCY will distribute printed material at the 3<sup>rd</sup> European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP3) which will take place in October 2013 in Almeria, Spain.

### Project website

The project website will continue to be accessible for the next five years. The information on the website will be updated if needed and all partner contact information will be available to the public.



### Promotion of the project

All partners will disseminate the project result to different target groups.

- ⊙ The Department of Environment of Cyprus will process the project results and especially the characterization of the treated effluent in order to set winery wastewater discharge limits through new legislation.
- ⊙ University of Cyprus and the Technical University of Crete will continue to disseminate the project to the scientific community.
- ⊙ Tsiakkas Winery is being visited daily and free guided tours at the winery premises where the winery wastewater treatment plant is located. The printed material of the project will be available at the wine tasting room at the winery, so that every visitor can be informed about the WINEC Project.
- ⊙ As a result RTD Talos Ltd can disseminate the project results to companies and organizations.
- ⊙ SKE Euromarket Ltd can present these results to water and wastewater treatment related companies and industries.

## WINEC LIFE+08 ENV/CY/000455

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### Project Data

<b>Project Location</b>	Cyprus (CY)
<b>Project Start Date</b>	01-FEB-2010
<b>Project End Date</b>	31-OCT -2012
<b>Total Project Duration</b>	33 Months
<b>Total Budget</b>	1,371,357.00 €
<b>EC Contribution</b>	682,954.00 €



<http://www.eng.ucy.ac.cy/winec>