

XVII Summer School on Advanced Biotechnology

Wider-Uptake Session

**Palermo Botanical
Garden**

**3 and 7 September
2023**

**Water Resource
Recovery From
Wastewater Treatment –
The EU Project:
Achieving Wider Uptake
of Water Smart
Solutions**



**Università
degli Studi
di Palermo**



Description

Water, resources and energy are key elements that play an important role in the construction of a system that is sustainable. The possibility of recovering resources (nitrogen, phosphorus, carbon, bioplastics, etc.) from wastewater treatment is the main objective of the European Project Wider-Uptake: Achieving wider uptake of smart water solutions.

The University of Palermo is Partner of the project which began in 2020 and will end in April 2024. The activities of the project include the building of three experimental demonstration case studies in Sicily with the aim of breaking down the barriers (technological, legislative, administrative, organizational, social, etc.) that oppose innovation in the wastewater sector. One of the three experimental demonstration case studies has been carried out inside the university campus of the Parco d'Orleans of the University of Palermo.

The demonstration case study is constituted of different elements: innovative pumping station for the collection and transport of wastewater produced in the Campus; underground piping for water transfer and subsequent irrigation of green areas after their treatment; wastewater treatment plants with application of water-smart solutions; resource recovery lab, in laminated wood, for chemical-physical analyses and tests with batch bioreactors; greenhouse for experimentation on plant in vessels; storage for reuse and irrigation system for green tanks. The other two demonstration case studies are placed in Corleone and Marineo and are devoted to water reuse and bioplastic production, respectively.

The session and technical visit are aimed at sharing the insights and knowledge gained so far which move in a multidisciplinary area involving several disciplines: biotechnologies, environmental engineering, agriculture etc.

14.30-15.00 Registration

15.00-15.10 Welcome Words and Greetings

15.10-15.30 Achieving Wider Uptake of Water Smart Solutions – Overview of the 4-year project at Palermo University

Prof. Giorgio Mannina - *Wider - Uptake project Local Coordinator - University of Palermo*

15.30-16.00 Sewage sludge and greenhouse gas emissions from wastewater treatment plants: insights from Corleone and Palermo University Case studies

Eng. Daniele Di Trapani - *University of Palermo*

16.00-16.30 Water reuse from wastewater treatment: drivers and pressures

Eng. Alida Cosenza - *University of Palermo*

16.30-17.00 Coffee Break

17.00-17.30 Water-Plant-Soil Nexus: experiences at the Water Resource Recovery Facility of Palermo University

Prof. Vito Armando Laudicina - *University of Palermo*

17.30-18.00 Biotechnologies applied to water

Prof. Giuseppe Gallo - *University of Palermo*

18.00-18.30 Polyhydroxyalkanoates from wasted sewage sludge: a two-year experiments

Dr. Antonio Mineo - *University of Palermo*

18.30-19.00 Round Tables and Wrap-up

07 Sept. 2023 – Technical visit to Corleone and Marineo WWTPs

08.00-09.30 Departure by bus to Corleone

09.30-09.45 Welcome from Major

Dr. Nicolò Nicolosi

09.45-10.15 The wastewater treatment plant of Corleone: major activities
within Wider Uptake

Prof. Giorgio Mannina - *University of Palermo*

10.15-10.30 The wastewater treatment plant of Corleone: the operator point
of view

Eng. Giovanni Sciortino - *AMAP Spa Manager*

10.30-11.00 Coffee Break

11.00-12.00 Technical visit of Corleone wastewater treatment plant

12.00-12.30 Bus transfer to Marineo

12.30-13.00 Welcome from Major

Hon. Francesco Ribaudò

13.00-14.00 Lunch

14.00-14.30 The wastewater treatment plant of Marineo: major activities
within Wider Uptake

Prof. Giorgio Mannina - *University of Palermo*

14.30-15.00 The wastewater treatment plant of Marineo: the operator point
of view

Eng. Giovanni Sciortino - *AMAP Spa Manager*

15.00-16.00 Technical visit to Marineo wastewater treatment plant

16.00-17.00 Return to Palermo

Registration:

To attend the event please fill in the registration for at:

<https://tinyurl.com/3df54yas>

CONTACTS

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