



## TITLE

**ANSWER** - ANTIBIOTICS AND MOBILE RESISTANCE ELEMENTS IN WASTEWATER REUSE APPLICATIONS: RISKS AND INNOVATIVE SOLUTIONS

## HIGHLIGHTS

To train a new generation of Early-Stage Researchers (ESRs) in the interdisciplinary technologies/frameworks required to meet the major challenges in the field of wastewater reuse and antibiotics & antibiotic-resistant bacteria & antibiotic resistance genes (A&ARB&ARG), in order to assess the environmental and possible public health risks associated with them.

## ABSTRACT

In response to the increasing problem of water shortage, treated urban wastewater is currently widely reused, considered to be a reliable alternative water source. Regions inhabited by more than 40% of the world's population already are in the situation where water demand exceeds supply. The ever-increasing shortage of water, the increasing needs for food due to the expanding world population, and for irrigation water, both in respect to good quality and quantity, render reuse a 'sine qua non' condition. Currently, sustainable and safe urban water cycles are of high priority on the policy agendas of many European countries and elsewhere.

The main objective of ANSWER Project is to develop well-trained and scientifically-creative Early-Stage Researchers (ESRs) through innovative PhD projects to unravel the highly complex factors driving antibiotics and antibiotic-resistant bacteria and antibiotic resistance genes (A&ARB&ARG) propagation in the framework of urban wastewater reuse, in order to assess the relevant environmental/public health risks, able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit.

The ANSWER projects expected to have a major impact on the enhancement of sustainable wastewater reuse at technological, economical and societal level.

## KEYWORDS

Antibiotic-Resistant Bacteria, Antibiotic Resistance Genes, Early-Stage Researchers, Interdisciplinary Technologies, ARG, ARB.

## PROMOTERS / PARTNERS

Escola Superior de Biotecnologia - Universidade Católica Portuguesa (Portugal); University of Cyprus (Cyprus) (Coordinator); Austrian Agency for Health and Food Safety (Austria); Abwasserverband Braunschweig (Germany); BioDetection Systems bv (The Netherlands); HighChem (Slovakia); ...

FINANCING PROGRAM	EXECUTION DATE	GLOBAL BUDGET
H2020-MSCA-ITN-2015/675530	2015-2019	€ 429 344,00

CONTACTS (ESB)	E-MAIL	PHONE
Célia Manaia	cmanaia@porto.ucp.pt	+351 22 558 0001