



# Residue

Risk reduction of chemical residues  
in soils and crops—impact due to  
wastewater used for irrigation

## THE PROBLEM

The use of reclaimed wastewater in agriculture shows many benefits, including the supply of water and nutrients for the cultivation of crops, ensuring food supply to cities and reducing the pressure on available freshwater resources. Despite this, there are safety concerns regarding the use of reclaimed wastewater for crop irrigation, especially related to the contamination of arable land with organic pollutants.



## THE SOLUTION

RESIDUE project tackles this challenge by **developing an innovative technology that significantly reduces risks of transferring organic contaminants into the agricultural products**, improving their safety. RESIDUE uses locally available resources and ensures the easy applicability of the new technique in common agricultural practice.

## THE SOLUTION

The new technology is based on:

- the **improvement of soil functions** leading to an *in-situ* removal and detoxification from organic pollutants introduced by waste
- new production procedures for **safe soil amendments** based on sewage sludge, through biochar addition and composting
- a **clear discrimination of non-bioavailable organic pollutants** introduced into soil that do not constitute a risk for agriculture

## THE BENEFIT

RESIDUE project will promote the development of a framework for the safe use of wastewater for irrigation, enabling:

- a more pragmatic approach to water management under **water scarcity**
- cost reductions in water treatment** through **residue revalorization** and reconsideration of wastewater depuration targets
- a more **effective and sustainable agriculture**

Budget: € 1.363.729,00  
Funding: € 1.111.488,00  
Duration: 36 months

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## Project partners



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