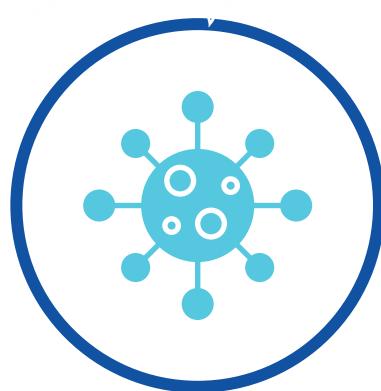




# Badajoz Spain



## CURRENT SITUATION

Rural wastewater plants need low-energy, circular solutions. Purple bacteria are promising but must improve nutrient removal to meet future EU rules.

## NEGATIVE EFFECTS



Without improvement, PPB systems may fail to meet future EU standards, limiting safe water reuse and increasing risks of water pollution.



## SOLUTIONS

WATERSENS will use a **new Photo-Bioelectrochemical system** that combines bacteria and charged biochar to improve nutrient removal.

The biochar helps bacteria work more efficiently, increasing nitrogen removal while keeping the system simple and low-energy.

## Challenges

PPB systems need improvement to ensure effective nutrient removal



Solutions should be low-energy, zero-waste, and future-proof

Alignment with upcoming EU water reuse and discharge rules is essential

