



# THE POWER OF EARTHWORMS

INNOQUA is a four-year EU-funded Horizon 2020 project. Bringing expertise from multiple disciplines, the 20 project partners are seeking to demonstrate a novel, modular system for wastewater treatment based on the purifying capacity of earthworms, zooplankton and microalgae, operating under real conditions.

Due to its modular configuration, the INNOQUA system can address multiple aspects of wastewater treatment and water re-use in water stressed communities, rapidly expanding cities and industries – both in developed and developing countries. The decentralised approach helps to reduce pressure on inadequate wastewater networks while reducing the water and energy demands of typical centralised wastewater treatments – supporting sustainable development.

**INNOQUA has installed pilot and demonstration sites in 11 countries (France, Ireland, Italy, Romania, Scotland, Spain, Turkey, Ecuador, Peru, India and Tanzania) to demonstrate the long-term viability of modular and locally sustainable solutions under real conditions. The modules include lumbrifilter, daphnia filter, bio-solar purification and UV lamp. The sites provide a robust platform for scientific research and act as a focus for local training and dissemination activities.**

**KEEP IN TOUCH – [innoqua-project.eu](https://innoqua-project.eu)**



UCSM's Fundo Huasacache campus

## DEMO SITE AREQUIPA

Arequipa is located in southern Peru and has a population of slightly more than one million people. Nearly 5% of the population lack access to water and 15% lack access to sanitation.

**BENEFICIARIES:** The INNOQUA system treats the wastewater from the Fundo Huasacache campus of UCSM. This campus, with an area of 2000 m<sup>2</sup>, consists of classrooms, laboratories, greenhouses, sports and recreational spaces, and a small food court. It hosts approximately 350 students and 25 personnel. All the wastewater produced here, lacking proper treatment, ends up in the nearby Socabaya River.

**DESIGN CAPACITY:** 1 m<sup>3</sup>/day

**SOURCE OF WASTEWATER:** Toilets, kitchen, laboratories, veterinary and agronomic faculties

**SPECIFIC SCIENTIFIC RESEARCH OBJECTIVES:** To assess the potential for the INNOQUA technology to be implemented in the complex environment of a university campus.

**CONFIGURATION:** In Peru the INNOQUA system consists of a lumbrifilter, a daphniafilter, a bio-solar purification system and a UV unit installed on the outflow from a septic tank. Different combinations of these components are possible.

**LOCATION:** Fundo La Banda s/n (Vía Paisajista),  
Jacobo Hunter  
Arequipa - 04001  
Peru

To arrange a visit to this site, please contact the INNOQUA partner whose details are provided below.



Constructing a cover for the demo site

This demo site is run by the INNOQUA partner



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