

IC4WATER RDI FUNDED PROJECT

IDOUM



Outcomes and expected impact:

- Transition from traditional centralized energy-intensive water management practices towards satellite production of treated wastewater for its safe local reuse - avoiding large capital cost and reduced operation and maintenance – supporting local water recycling policies
- Depending on the project results, patent application and possibility of job creation for young researchers through spin-off companies
- IDOUM is expected to have an impact on environmental and public health by defining lists of priority contaminants in each participating country
- Knowing which contaminants and pathogens are regularly occurring in wastewater and solutions to eliminate them at source will contribute to UN Goal 6 “to ensure availability and sustainable management of water and sanitation for all”

Expected research results to communicate and disseminate (<i>in very general terms</i>)	Target groups for communication and dissemination activities:
1. To show decentralized wastewater treatment systems avoiding large capital costs and reduced operation and maintenance costs	SMEs, water agencies, farmers’ associations, hospitals
2. A list of priority antibiotics and ARB&Gs which are regularly occurring in wastewater of participating countries	National authorities and agencies, regulators
3. Green technologies able to remove antibiotics and ARB&Gs from wastewater	SMEs, water agencies, farmers’ associations, hospitals, water companies
Experiments / Case studies : location, type of experiments:	Small-scale studies will be implemented at the Mossay Bay sanitation facilities (South Africa), at the Helmholtz center in Munich, at the experimental platform for wastewater reuse in Montpellier and at the clinic Hospital of the University of Campinas (Brazil)
Water Policy context / project contribution to policies (National, European, International – UN SDGs):	<p>The project will contribute to: 1) the Regulation of the European Parliament and of the Council on minimum requirements for water reuse where the annex II also specifies specific requirements concerning pharmaceuticals and others organic micropollutants and</p> <p>2) UN Goal 6 “to ensure availability and sustainable management of water and sanitation for all”</p>

List of deliverables expected:
Deliverable 1: Selection of a common strategy to compare the performance of different technologies
Deliverable 2: Development of bioaugmented microorganisms constructed wetlands at laboratory scale
Deliverable 3: Development of nano-structured catalytic materials for oxidant activation at laboratory scale
Deliverable 4: Technology integration and technology demonstration at pilot scale