



Practices and Challenges in Wastewater Reuse

A European research team has recently reviewed wastewater reclamation technologies and reuse applications in Europe. The authors estimate that the development of common guidelines and new economic tools, as well as improved communication between stakeholders, could enable better wastewater reclamation and reuse.

Despite substantial resources, water stress is growing in Europe, both in terms of scarcity and quality deterioration. The European Commission acknowledged the need to improve wastewater reclamation and reuse, and supports dedicated research projects.

Under the AQUAREC project financed by the Fifth Framework Programme of the European Commission, a European research team has recently reviewed water management practices in the EU by using existing bibliographic data. The authors assessed the status of wastewater treatment technologies and reuse practices across Europe and highlighted challenges for a better management of water resources.

The main conclusions of this study can be summarised as follows:

- Water stress exhibits great variations across Europe, particularly at the regional scale. Two regions have particularly developed reuse practices: the coastline and islands of the semi-arid Southern regions and the highly urbanised areas of the wetter Northern regions.
- An increased use of reclaimed wastewater is possible in Europe. The authors recommend the following complementary approaches to achieve this goal:
 - The adoption of integrated water management legislations (such as the WFD).
 - The harmonisation of standards and regulations through common guidelines between the member states.
 - The improvement of stakeholder cooperation to facilitate financing and cost allocation of the reuse projects.
 - The development of EU targeted and time-bound subsidies dedicated to wastewater reuse projects in order to correct market distortions and to share and lower the cost of reclamation processes.
 - The improvement of credibility and confidence among stakeholders notably by conveying coherent, simple and reliable information favouring the adoption of coherent and relevant quality control practices.

The proposed guidelines give new and useful insights for a more sustainable wastewater management in Europe.

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