INNOVATIVE TOOLS FOR GROUNDWATER INTEGRATION IN A CONTEXT OF INCREASING SCARCITY OF WATER RESOURCES

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INTRODUCTION

Integral aquifer management (i.e. compared to other water resources) , and integrated (i.e. considering mainly socio-economic and environmental aspects) , is absent or even neglected in many parts of the world. This is particularly critical in arid and semi-arid areas due to pressures on hydro systems and a context of increasing demand for water, either directly (human supply) or indirectly (via consumer goods).

OBJECTIVES

The main objectives of the AQUIFER project are to capitalise, test, disseminate and transfer innovative practices for the monitoring and integrated management of aquifers. They will be particularly useful when making decisions on groundwater resources management by: 1) improving technology transfer to local actors, 2) creating new synergies and 3) developing common tools in a context of water scarcity and environmental threats.

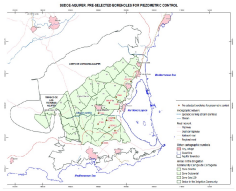
The AQUIFER project brings together Spanish (IGME-CSIC, CUADLL, CWP, CRCC), French (BRGM, AV) and Portuguese (AR, ISA-LEAF, PPA) partners with complementary profiles: scientists, users and private companies. This transnational design of the Project probably reduces ambitions in terms of scientific returns, but a window opens up for society to highlight the value of groundwater. The difficulty of understanding basic hydrogeological aspects outside the field of subjet specialists is very significant, but stakeholders and users consider it very necessary to have a better knowledge of groundwater.

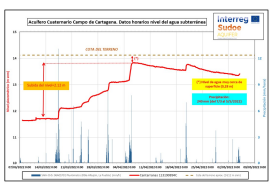
PROGRESS

The project considers the problem of groundwater in its entirety. Experiments are being carried out on the "quantity" and "quality" components of water and applied to case studies in Spain (Campo de Cartagena-Mar Menor) and France (Adour-Garonne) via groundwater flow modelling, real-time monitoring and forecasting of variations in water heads at medium-term level. An innovative experiment of artificial recharge in the Aquifer of the Llobregat Delta (Spain) is also implemented.

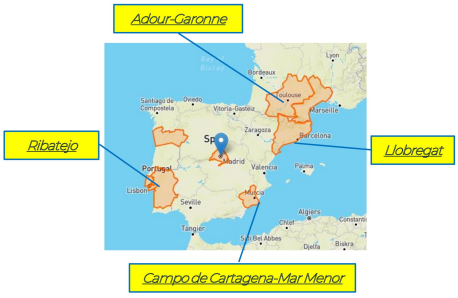
The agronomic aspects related to nitrate contamination of aquifers are taken into account and monitored in the Ribatejo area (Portugal).

Similarly, the project aims to detect, test and implement innovations through the 3 poles of water competitiveness linked to a network support tool to disseminate good practices through the creation of a permanent and free site of actors and startups in the water sector, and the creation of a decision platform for all water stakeholders involved.





Participant Regions and pilot sites



Tasks	Responsible	Participants	Budget
GT0. Project preparation. All partners will participate.	All partners	All beneficiaries	7.000€
GT1. Innovative applications for the aquifer monitorization.	BRGM	All beneficiaries	321.030€
GT2. Advanced solutions for groundwater management.	IGME	IGME, CUADLL, CRCC, BRGM, AR, ISA-LEAF	492.852,10€
GT3. Integration of aquifers in general schemes for the managing of hydric resources.	CUADLL	IGME, CUADLL, CRC, BRGM, AR, ISA-LEAF	152.331,25€
GT4. Analysis and promotion of the possibilities of innovative applications in the SUDEO territory.	AR	All beneficiaries	269.473,85€

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LEARN MORE ABOUT Interreg Sudoe AQUIFER project

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