



Clepsydra

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CLEPSYDRA NEWSLETTER #2



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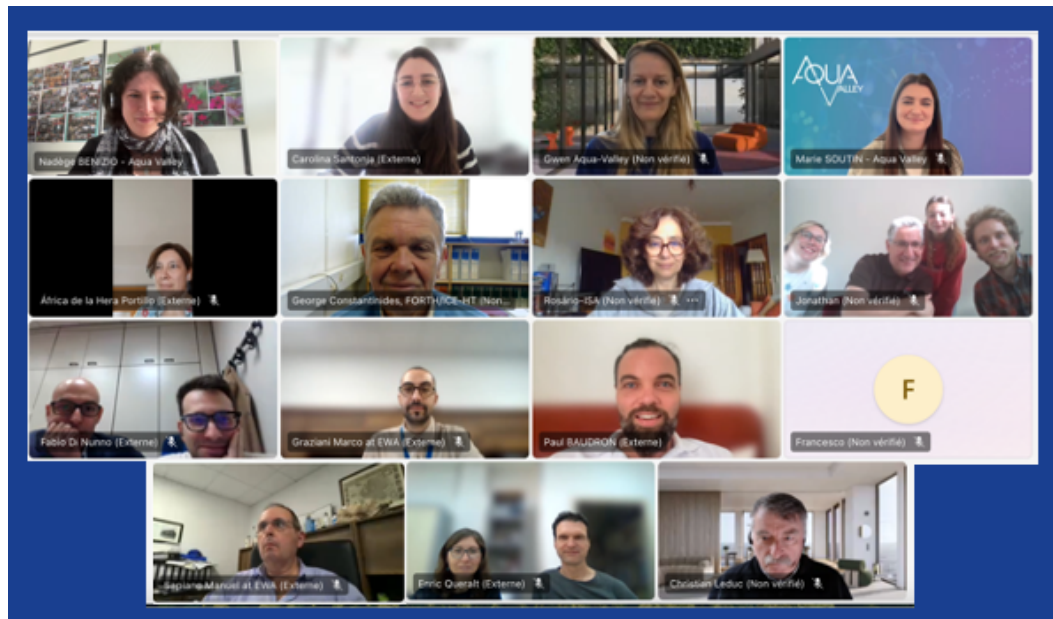
17/03/2025





CLEPSYDRA PROJECT FOLLOWING-UP MEETINGS CELEBRATE 1 YEAR!

Since 15 March 2024, the partners of the CLEPSYDRA project have been meeting monthly to monitor the progress of the project at the various sites and to remind them of the actions to be conducted. Already 1 year of adventure for our partners!



Monthly clepsydra project meeting

CLEPSYDRA PROJET VIDEO

The Clepsydra video presentation is finished, you can watch it here:

<https://clepsydra.interreg-euro-med.eu/2025/02/28/clepsydra-project-presentation-video/>

Also available on the Clepsydra Project YouTube channel, this is your chance to subscribe: <https://www.youtube.com/@ClepsydraProject-InterregMed>

This video is an educational opportunity to explain the Clepsydra project.

To highlight an intelligent decision support system designed to analyse hydrogeological data and better understand the behaviour of aquifers. Focusing on groundwater quality, particularly in the fields of agriculture and irrigation, where nitrate pollution is a growing concern.

By improving the environmental dimension of socio-economic activities, CLEPSYDRA is helping to protect water resources for a more sustainable future.



Extract from the clepsydra video

IN-PERSON MEETING IN MALTA

CLEPSYDRA Project Partners Meet in Malta for Collaborative Progress and Study Visits.

The CLEPSYDRA Project and GEMS partners, under the Interreg Europe and Interreg Euro-MED programs, gathered in Malta on October 2-3 2024, for a two-day meeting hosted by The Energy and Water Agency. This important event brought together experts and project partners to share progress, discuss challenges, and conduct study visits aimed at improving water resource management in Mediterranean agricultural environments.

On the first day, participants attended three insightful study visits focused on key aspects of groundwater monitoring:

- Unsaturated Zone Monitoring Network: exploring methods to monitor soil moisture and water infiltration into groundwater.
- Multi-level Sampling Depth Monitoring Network: assessing water quality at various depths within aquifers.
- Upper Coralline Limestone Natural Spring (sampling station): understanding the dynamics of a natural spring in Malta's geological context.

The group also had the opportunity to visit the National Water Conservation Awareness Centre in Rabat, where they explored strategies for raising public awareness on water conservation.



1er day: Strategic site visit in Malta

During the second day of the meeting, discussions focused on the progress of partners' work, particularly regarding:

- Data analysis from four pilot sites and Living Labs.
- Assessment of carbon and water footprints.
- The design of a Decision Support System (DSS) aimed at improving groundwater monitoring and optimizing decision-making in water-scarce, agriculturally sensitive regions.

The main objective of the CLEPSYDRA project is to enhance the official monitoring network for nitrate pollution in groundwater across the Mediterranean region. By developing innovative tools and improving monitoring systems, the project seeks to tackle the pressing challenge of managing water resources in areas heavily affected by agricultural activities and limited water availability.



Day 2: Plenary session

ADVANCING SUSTAINABLE GROUNDWATER MANAGEMENT: CLEPSYDRA AND GEMS JOINT MEETING

The Energy and Water Agency hosted, on March 7, 2025, in Malta, the second in-person joint meeting of the CLEPSYDRA and GEMS projects, bringing together local stakeholders to foster collaboration and share knowledge on innovative groundwater management solutions for agriculture. During this meeting, several key topics were discussed:

- Groundwater monitoring and hydrogeological data management: Presentation of progress within the Maltese monitoring networks.
- Policy frameworks and innovations to tackle nitrate pollution in groundwater from agricultural sources: Exploration of strategies and best practices.
- Synergies between CLEPSYDRA's Living Labs and GEMS' Stakeholder Groups: Highlighting opportunities for local and transnational exchange of best practices.

By joining forces, the CLEPSYDRA and GEMS projects promote innovation in groundwater management, improving water quality and policies through the engagement of key regional actors.

This collaboration highlights the importance of cooperation among researchers, policymakers, and local stakeholders in addressing the growing challenges of sustainable water resource management.



Clepsydra and GEMS Joint Meeting

CLEPSYDRA GROUNDWATER OPEN DAYS IN MURCIA

On the occasion of the Geology Olympics on the 21st of February, coordinated by the UPTC University of Cartagena, IGME and CRCC organized the Groundwater Open Day. The main focus of this event was to raise awareness about groundwater

monitoring and its importance in environmental sustainability with a special focus on the pilot site; Campo de Cartagena aquifer.

Over 200 people attended the event, including students and teachers. Still, their excitement clearly showed the growing interest in both geology and hydrogeology among teenagers.

Several groundwater monitoring instruments were displayed and explained in detail. The students were intrigued by the tools and asked a lot of questions, especially about how they're used in real-life situations, like monitoring the Campo de Cartagena aquifer. The experts from IGME and CRCC shared their knowledge, explaining how important these tools are for aquifer assessment, quality and quantity evolution trends. Whenever possible, they set up practical demonstrations so the students could see how the devices actually work. These hands-on activities really caught the teenagers' attention and made the learning experience more engaging, while also helping them better understand key concepts in hydrogeology.

Overall, the Groundwater Open Day was a resounding success, fostering interest in groundwater science and encouraging students to explore the field further.



Clepsydra Groundwater Open Days IN MURCIA – Two rich days of exchange on the pilot site (25 February) and at the Geology Olympics (21 February)

CLEPSYDRA GROUNDWATER OPEN DAYS IN LISBON

The Groundwater Open days was organised the 22 October 2024 at Quinta da Cholda, as part of the Local Living Lab in Lisbon, Portugal, under the coordination of ISA and LEAF. The event began with a presentation of the Clepsydra project: a

Interreg European project dedicated to groundwater monitoring and decision-support systems for water-scarce agricultural regions in the Mediterranean.

Throughout the day, eminent speakers presented a variety of topics:

- The critical role of groundwater in the urban water cycle.
- The value of groundwater in irrigation practices.
- Sustainable practices essential to conserving groundwater quantity and quality, particularly in irrigated areas, by Carina Arranja of FENAREG.
- Innovation in irrigation techniques by João Coimbra, an expert in his field.

A model for optimizing water use in sensitive environments was presented, reducing both nitrate leaching and surplus water while irrigating crops.

The event concluded with a field visit to local groundwater monitoring wells, where participants had the opportunity to observe first-hand the methods and tools used to assess groundwater quality. The session ended with an open discussion, allowing an exchange of ideas and thoughts on future conservation strategies.

FOCUS PARTNER

A series of interviews with the various partners in the Clepsydra project were conducted during the Clepsydra Assembly held on 21 and 22 May 2024 in Murcia, Spain, and on 2 and 3 October 2024 in Malta.



Let us introduce you to **José-Luis Garcia Arostegui**, Senior Researcher at the Instituto Geológico y Minero de España (IGME) in Spain.

<https://clepsydra.interreg-euro-med.eu/2024/06/02/focus-partner-igme/>



Equally, **Pablo Del Amor Saavedra**, Senior Researcher in the Comunidad de Regantes Campo de Cartagena (CRCC) in Spain.

<https://clepsydra.interreg-euro-med.eu/2024/08/02/focus-partner-crcc/>



As well as **Enric Queralt**, senior researcher at the Comunitat d'Usuaris d'Aigües de la Vall Baixa i Delta del Llobregat (CUADLL) in Catalonia, Spain.

<https://clepsydra.interreg-euro-med.eu/2024/11/10/focus-partner-cuadll/>



Also **Christian Leduc**, hydrogeologist, Research Director in the Institut de Recherche pour le Développement in Montpellier, France.

<https://clepsydra.interreg-euro-med.eu/2024/09/27/focus-partner-ird/>



Finally, here is **Luke Galea**, Policy Officer at the Malta Energy and Water Agency.

<https://clepsydra.interreg-euro-med.eu/2025/01/22/focus-partner-ewa/>

STAY CONNECTED!

To support the project, don't hesitate to follow future news and relay information.

Website: <https://clepsydra.interreg-euro-med.eu/>

YouTube Channel: <https://www.youtube.com/@ClepsydraProject-InterregMed>

LinkedIn: <https://www.linkedin.com/company/clepsydra-project/posts/>