

We are pleased to extend this open **invitation** to our upcoming focus groups on **Groundwater Protection**, part of **EU Green Week 2024** and the **UPWATER project**. These online events, taking place in June, will feature engaging 1.5-hour facilitated discussions among a select group of European and international experts. Please find further descriptions of each Focus Group in the hyperlinks of their titles, or apply using the indicated links.

Challenges in Water Governance (1st edition)	June 12 th 8:30 AM CET	Apply to participate here
Challenges of the European Nitrate Directive	June 14th 8:30 AM CET	Apply to participate here
Economic Approaches to Groundwater Protection	June 18 th 8:30 AM CET	Apply to participate here
Polluters Pay Principle (PPP)	June 26th 8:30 AM CET	Apply to participate here
Water Governance (2nd edition)	June 27 th 8:30 AM CET	Apply to participate here

These EU Green Week 2024 partner events are aligned with the ongoing <u>UPWATER project</u>, which seeks to understand groundwater pollution and safeguard water quality. In collaboration with stakeholders, UPWATER aims to develop and submit Policy Brief Recommendations for groundwater protection at the European level by early 2026. Further details can be found in the brochure (next page) or on our <u>website</u>.

If you are interested in participating, please read the informed consent at the end of this document, and kindly request your participation through the application links provided above. We will do our utmost to secure a spot for you in the Focus Group. Confirmation will be sent upon request, subject to spot availability and ensuring diversity within the group. Please register **before June 6th** to expedite the confirmation process.

If you need further information or have any questions the methodology or application, do not hesitate to contact Andrea Calsamiglia at andrea@fnca.eu.

Looking forward to your participation and insightful contributions.

Best regards,

Enric Vázquez-Suñé, Dr.

Principal Responsible for the UPWATER project, Senior Researcher and Deputy Director of the Institute of Environmental Assessment and Water Research (IDAEA) of the Spanish National Research Council (CSIC)

Julia Martínez, Dr.

Senior Researcher at the Ecologist Department at the University of Murcia (UM) and Executive Director at the New Water Culture Foundation (FNCA)





Understanding groundwater Pollution to protect and enhance WATER quality



THE CHALLENGES

Groundwater (GW) is an important freshwater resource that provides water supplies and livelihoods and helps during dry periods. Pollution of GW is a global issue that harms human and environmental health, ecosystem services and ultimately causes economic losses. A recent report from the European Environmental Agency found that 26% of the European Union's GW bodies have poor chemical status. The issues these GW bodies face are mainly due to the use of fertilizers and pesticides in farming but industrial and urban activities also leave their footprint on the GW via recharge of water polluted with e.g. contaminants of emerging concern (such as plasticizers, halogenated compounds, pharmaceutical, personal care and industrial compounds), highly toxic heavy metals, and/or pathogens. Once the pollutants reach the GW, they can harm the environment for a long time, and fixing the damage is difficult and expensive. Hence, to protect our GW, we need effective and affordable measures to prevent and mitigate pollution.

UPWATER GOALS AND METHODOLOGY

The UPWATER project will assess the effectiveness of various preventive strategies (e.g., regulation, governance, etc.) and of different nature-based technologies for the safe and contaminant-free recharge of water into aquifers. To accomplish this, UPWATER will:

- increase the scientific knowledge related to the identification, occurrence and fate of pollutants in the GW
- develop and apply cost-efficient sampling methods based on passive samplers for chemicals and pathogens
- develop isotopic tracer methodologies for identifying and quantifying pollution sources

- develop water quality modelling tools to simulate scenarios for the proposed measures under multiple stressors and climate change scenarios
- develop, implement and validate bio-based engineered natural water treatment systems designed as mitigation solutions to protect GW pollution
- develop a framework for integrated risk analysis and impact assessment
- develop a participatory framework to analyse and prioritise the non-technological preventive measures and provide policy recommendations at local and EU levels

3 CASE STUDIES

The monitoring, modelling and mitigation solutions will be validated in 3 case studies, representing different GW pollution problems in different socio-economical contexts, hydrogeological and climate conditions.

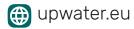
ZEROPOLLUTION4WATER CLUSTER

We are proud to be part of the ZP4W Cluster, a new-born initiative that originated from the coalition of seven different water projects, all funded by the EU. The cluster seeks to foster collaboration and synergy not only among its own projects but also with other existing or forthcoming initiatives. By joining forces, we accelerate the transition to a zero-pollution future for water. Take a look at the ZP4W website!





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PROJECTPARTNERS





































LEGEND:

CECs: Contaminants of Emerging Concern

CPS: Ceramic Passive Sampler

Viral Passive Sampler

DGT: Diffusive Gradients in Thin films MBBR: Moving Bed Biofilm Reactor

ZVI: Zero Valent Iron

PFAS: Per- and Polyfluorinated Substances

PAHs: Polycyclic Aromatic Hydrocarbons

1 STENGAARDEN **DUMPSITE IN DENMARK**

· Polluted area at which the groundwater is impacted by pesticide wastes

· Pollutants to be studied: pesticides, pesticide metabolites, trace metals

· Monitoring systems: CPS, DGT

· Mitigation solution: Biofilters and MBBR



CASE STUDY

2 ATHENS

METROPOLITAN REGION IN GREECE

- · Polluted urban area
- · Pollutants to be studied: CECs PFAS, PAHs, trace metals, and pathogens
- Monitoring systems: CPS, DGT, VPS
- Mitigation solution: ZVIbioelectrochemical wetland

STUDY

• Monitoring systems: CPS, DGT, VPS

· Pollutants to be studied: CECs, PFAS, pesticides, trace metals, and pathogens

• Mitigation solution: floating wetland + ZVIbioelectrochemical wetland



RESEARCH INFORMED CONSENT

Purpose:

You have been invited to participate in a participatory event (focus group or participatory workshop), organised by the New Water Culture Foundation (Fundación Nueva Cultura del Agua- FNCA) as partner of the UPWATER project, funded by Horizon Europe's "Clean Environment and Zero Pollution" program. The purpose of this event is to gather insights and expertise regarding pollution prevention measures and innovative policy solutions for maintaining clean groundwater. The emerging information will be used to shape the project, influence policy recommendations, and contribute to the safeguarding of groundwater resources.

Please ensure that you carefully review the procedure, benefits and risks, confidentiality terms, and contact information prior to completing your registration. This will enable you to provide your informed consent for participation in this event.





PROCEDURE:

As part of this study, you will be placed in a group with other experts on the topic. A professional facilitator and a groundwater-specialized environmental scientist will guide the discussion and ask questions related to groundwater preservation. This event will be audio-recorded, and a note-taker might be present. However, please rest assured that your responses will remain confidential and anonymized, and no names will be included in any reports. You have the freedom to decide whether or not to participate in the event, and you may choose to withdraw at any point.

We encourage diverse viewpoints and value everyone's contributions. Out of respect, please refrain from interrupting others, but feel free to be honest and express your thoughts, even if they differ from those of other group members.

BENEFITS AND RISKS:

Your participation may benefit the project and contribute to improvements in groundwater management and environmental sustainability. There are no anticipated risks beyond those typically associated with engaging in a conversation. Your privacy and anonymity are of utmost importance to us.

CONFIDENTIALITY:

Should you choose to participate, you will be asked to respect the privacy and confidentiality of other focus group members by not disclosing any content discussed during the study. Researchers within the UPWATER Project will analyze the data, but, as mentioned earlier, your individual responses will remain confidential, and no personal names will be used in any reports.

DATA, SHARING, PUBLICATION AND ARCHIVING:

Data in research refers to the information collected to answer questions or explore topics. Your valuable input in this focus group generates data.

Sharing. Data will be shared within the researchers in the UPWATER, and sharing to a wider public audience is not foreseen.

Publication. Findings will be disseminated through reports, articles or papers. Publication might reach a broader audience or the public.

Archiving. Data will be preserved within the UPWATER archives.

CONTACT:

If you have any questions or concerns regarding this study, please feel free to contact Andrea Calsamiglia Madurga from the New Water Culture Foundation (FNCA) at andrea@fnca.eu.



Declaration of Consent Form for participation in the Scientific Research of the UPWATER Research Program

You are invited to participate in a research study for the UPWATER project. Your participation is absolutely voluntary. Please read the information provided about the project, and address questions about anything you need further clarification about.

I, the undersigned, hereby certify (please check the appropriate box):				
	ended the project information pro-	vided in the related		
\square I have had the opportunity to ask questions about the project and my involvement				
\square I willingly agree to participat	te in the project.			
reasons and without incompleted confidentiality, such as data have had the chance to specific controls.	thdraw from the project at any timurring any penalty or accountable anonymization, have been clearly ou ecify conditions for consent in cases data collection matheds.	lity. Procedures for tlined. If applicable,		
recordings, videos, or other data collection methods. I have been briefed on the use of data in research, publication, sharing, and archiving I am aware that, upon completion of the research, the data will either be destroye or repurposed. I understand that other researchers can access this data only if the agree to maintain its confidentiality and adhere to the terms specified in this form.				
☐ I consent to the use of my name, and I understand that my contributions to this				
	ed in reports, publications, and other	research outputs.		
☐ I do not grant permission for	r the use of my name in this project.			
I, along with the Researcher, agree	to sign this informed consent form.			
PARTICIPANT				
Full name	Signature	Date		
UPWATER RESEARCHER				
Full name	Signature	 Date		