



Taking action to prevent and mitigate pollution of groundwater bodies

Newsletter – Issue 2

April 2024

WELCOME

Welcome to the second edition of the [NINFA](#) Newsletter!

We are excited to bring you the most recent developments regarding our project's advancement and forthcoming activities. Through this newsletter, our goal is to ensure you stay well-informed and actively involved in our mission to establish a groundwater management and protection system.

We invite you to read our [first issue](#) and explore our website! Follow us on social media and learn more about the world of [NINFA](#) and its accomplishments.

[Ninfa website](#)

Celebrating the first year of NINFA

The [NINFA](#) project conducted its 13M meeting on 9 and 10 November 2023 in Leeuwarden, NL. Our host, [Wetsus](#), European Centre of Excellence for Sustainable Water Technology, organized a great meeting and a lab-tour at its spacious environmentally friendly offices. More details [here](#).



Project Framework

This project has received funding from the European Union's Horizon Europe 2022 research and innovation program under grant agreement No. 101081865.



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Main Accomplishments

Over the past 18 months, all partners have dedicated efforts towards achieving the primary objectives of [NINFA](#), with various notable achievements outlined below:

In WP1 IMT defined eight case studies taking into account, climatic, socio-economic, hydrogeological, GW quality data and proposed validation strategies for Key Performance Indicators (KPIs). Furthermore, IMT conducted a survey investigating citizen acceptance of wastewater reuse. AQUALIA conducted a State-of-the-Art analysis on sensors and treatment technologies while IMT gathered and studied European and national (Spain and France) legislations and guidelines to obtain potential parameters to characterize treated wastewater for reuse.

In WP2 the highpoints are: Sapienza Rome University is enhancing hydrogeological models for two case studies, [Achterhoek](#) (Netherlands) and [Los Alcazares](#) (Spain), integrating various data sources to assess pollutant migration and mitigation strategies under different stressors like drought and increased sea levels. WETSUS is developing fiber optic sensors to observe several parameters (flow, temperature, and salinity) along different depths of the aquifer. WETSUS has also developed a bio-assay sensor to detect the toxicity of hydrophilic organic compounds in polluted water.

In WP3, LEITAT and Aqualia focused on creating an experimental design of all the laboratory experiments based on a deep State-of-the-art analysis and much progress has been made regarding technologies applied to urban runoff: Platinum Group Elements (PGE), Hydrocarbons and Microplastics have been characterized in different runoff fractions from field. Furthermore, targeted Contaminants of emerging Concern (CEC) were selected from CS4 ([Butry-sur-Oise WWTP](#)) and LEITAT developed an analytical protocol to measure them, while IMT performed a set of experiments at lab scale.

In WP4, Deltares has finalized the identification and prioritisation of climate and global change effects, as well as strategies for adaptation and mitigation, and pollution prevention measures on groundwater for CS1 is complete. In addition, simplified geohydrological models are used to test various AI techniques and two flow charts have been created, illustrating the negative effects of the global changes on groundwater quality.

In WP5, all [NINFA](#) components (sensors and monitoring equipment, water/wastewater treatment technologies, AI and simulation models, decision support/alert systems, GW Knowledge Observatory and citizen engagement tools, data acquisition and communication platform, including interconnection mechanisms, APIs, and databases) that will be part of the [NINFA](#) platform have been defined and the [NINFA](#) software platform architecture has been presented by WINGS. Also, three representative scenarios under Case Study 2 and the associated data flows have been used to showcase important aspects of the [NINFA](#) Decision Support System.



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1. During the Amsterdam International Water Week ([AIWW2023](#)) held on 8–9 November 2023, our partner Hilde Passier from [Deltares](#) chaired a workshop session on “Nature based solutions improving water quality, while Ainhoa Gaudes, our NINFA coordinator from [Leitat](#), made a presentation with title: “Nature based Solutions: source or sink for alternative water sources in a context of climate change”. More details [here](#).



2. [Leitat](#) participated at the “[3rd International Conference on Advances in Water Treatment and Management](#)”, on 1-2 March 2024, in Gandhinagar, Gujarat, India – ICAWTM. More details [here](#).



3. In February 2024, [IMT](#) conducted a survey in Montaignu, France, to assess citizen perceptions of water-related issues and their views on water reuse schemes. Sociology students and experts from IMT spent a week interviewing residents about topics like water stress, climate change, and perceptions of reclaimed water use. The study used a semi-structured interview format covering various themes, with researchers also exploring the city to observe water-related infrastructure and urban development.



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ZeroPollution4Water Cluster News

1. [SafeCREW](#)
2. [ToDrinQ](#)
3. [UPWATER](#)
4. [MAR2PROTECT](#)
5. [NINFA](#)
6. [H2OforAll](#)
7. [intoDBP](#)



The first Policy brief of the ZP4W Cluster is ready. It will be disseminated by the end of April through the website and the social media channels of the cluster and each project's social media platforms.

This policy brief aims to present and gather inputs from the different activities of the seven EU-funded projects related to the protection of surface and groundwater, to safe drinking water provisions and other uses. Discover more about the [ZeroPollution4Water Cluster](#)

Future Events

1. During the [EU Green Week partner event 2024](#), from 29 May to 1 September 2024, hundreds of organisations will join this big festival dedicated to promoting, debating and enjoying European environmental policies. This year, Partner Events will be dedicated on the topic of water resilience.
The European projects within the ZeroPollution4Water (ZP4W) cluster will present how they support building water resilience in the face of climate change and global change - insights from Lisbon and Barcelona areas as follows:
 - 6 June 2024 - Joint webinar of groundwater projects - Mar2Protect, UpWater, NINFA.
 - 11 June 2024 - Public debate and raising awareness on DBPs - IntoDBP, SafeCrew, H2OforAll.
2. World Groundwater Congress IAH2024 in Davos, Switzerland, 8-13 September 2024, www.iah2024davos.org
3. [26th Water Information Congress](#), Poitiers, France, 8-10 October 2024
4. [19th Congress of the French society of Process Engineering \(ACCUEIL - SFGP 2024\)](#) in Deauville France, 15-17 October 2024.



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Ninfa Partners



www.leitat.org

www.cetri.net

www.imt-atlantique.fr/en

www.wetsus.nl

www.wings-ict-solutions.eu

www.deltares.nl

www.uniroma1.it

www.aqualia.com

losalcazares.es



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Project Coordinator

Mireia Escaler – Leitat – email: mescaler@leitat.org

Ainhoa Gaudes – Leitat – email: agaudes@leitat.org

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