SHOWCASE CAMPAIGN

COLLECTION OF ARTICLES

SUMMARY

Water JPI: Sharing a Decade of Expertise for Sustainable Futures

The Water Joint Programming Initiative (Water JPI), launched in 2010, is an inter-governmental structure created to tackle water challenges in Europe and beyond. It has developed in over more than ten years a vast amount of expertise to help mitigate the effects of anthropic impacts on water.

Supported by the EU, the Water JPI consortium gathers national funding agencies from different countries to support scientific research in the field of freshwater. Its main goal is to boost, share and communicate scientific research and findings to ultimately improve water management and quality.

Since its launch, the Water JPI has organised a wide variety of activities (joint calls, thematic and exploratory workshops, etc). It has created a new way to tackle water challenges by enabling the coordination of national research and innovation agendas by using available human and financial resources more efficiently. The work led by the Water JPI has aimed to define actions that should be adopted by society at large and policy-makers in particular.

The data, tests and experiences accumulated in the long run are of high scientific value to direct decisions for policy making and inform stakeholders. All the knowledge produced by Water JPI's activities has the objective to put policy actions in the right track. Stakeholders have always played a key role in Water JPI's activities by supporting the design and implementation of appropriate solutions (co-design and co-implementation principles). For this reason, the Water JPI actively fosters the participation of citizens, as well as the industrial and economic sectors, in shaping its initiatives.

Water, a central issue

Freshwater is a central issue for human society and environmental fields. All forms of life on earth rely on water. This invaluable resource is more and more under stress: scarcity is increasing, as demand is growing for its use. Pollution is another stress factor due to human habits and activities and climate change also worsens the situation.

Everyone should be aware of the value of this important resource and how we all need to preserve it for life quality and future well-being of our society.

Water JPI Communication Campaign

During the "10 Years JPIs Conference", held in Austria in 2018, JPI representatives underlined the need for reinforced communication in order to showcase the results obtained to date and to inform the European research community of upcoming and past activities. Later discussions between Water JPI's Chair and vice-Chair highlighted the need for the Water JPI to implement an effective communication campaign using the available resources at the Secretariat and Coordination team, hosted by ANR. The present campaign comes as a response to this latent need.

This communication has for objectives to:

- Widely communicate all Water JPI's activities, including those undertaken within the framework of supporting projects, Horizon Europe projects, and the Task Force "Horizon Europe and Alignment".
- Disseminate and contribute to the sustainability of Water JPI's results and its key player role in the shaping of European water policies and the provision of solutions with a potential market uptake.
- Inform the European research and innovation community, policy-makers and society in general of the Water JPI achievements and running activities.

After more than 10 years of functioning, the Water JPI has gathered and created a great amount of knowledge in the scientific fresh water field.

For the coming months, we will give you information on different topics, such as the importance of funding scientific research for fresh water as a central subject – with interviews to different funded project coordinators, policy makers, citizens or members of the Water JPI – and about the necessity of cooperation at different levels on research in the water field. We will publish regular content on our website and on our social media profiles (LinkedIn group and Twitter).

Water4All & Water JPI: what is the difference?

AS YOU MAY KNOW, A NEW INITIATIVE TO TACKLE GLOBAL WATER CHALLENGES HAS TAKEN SHAPE IN 2022, THE EUROPEAN PARTNERSHIP WATER4ALL – WATER SECURITY FOR THE PLANET (WWW.WATER4ALL-PARTNERSHIP.EU). THIS PARTNERSHIP IS CO-FUNDED BY THE EUROPEAN UNION IN THE FRAMEWORK OF HORIZON EUROPE AND BUILT ON THE EXPERIENCE AND EXPERTISE OF THE WATER JPI.

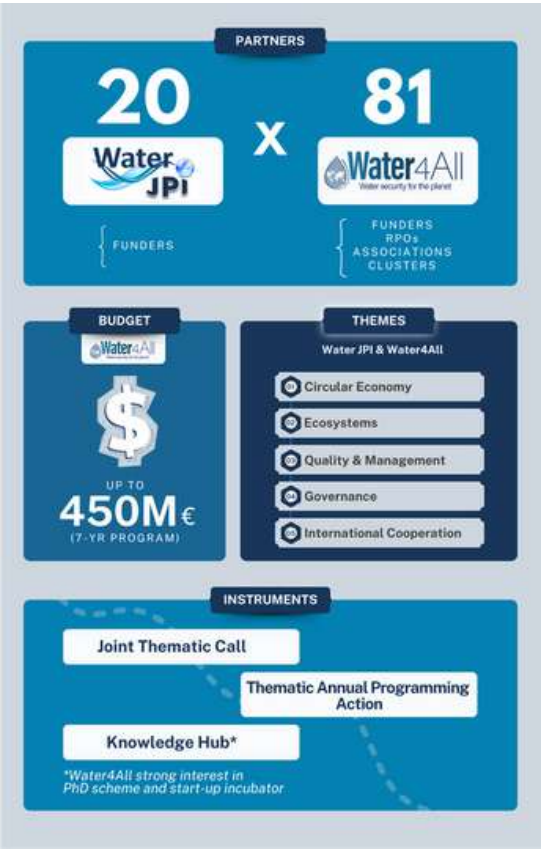
Thanks to more than 10 years of expertise, the Water JPI gained a lot of experience in the management of a large consortium, in the launch of calls for research and innovation projects and for the valorisation of scientific knowledge in the field of water. The Water JPI was thus involved in the setting-up of the Water4All work programme and actively participated in the development of the Water4All's Strategic Research and Innovation Agenda (Water4All SRIA, 2022), a reference document setting guiding principles and identifying policy-relevant research priorities for the future. The Water JPI experience enabled the new partnership to avoid some problems encountered by Water JPI in its early days, and to organise itself to think bigger!

A continuity between the activities implemented over the past years within the Water JPI is ensured thanks to the sharing of best available practices, lessons learned and recommendations for the development of the Water4All's communication, dissemination and exploitation strategy. The work initiated by the Water JPI for the development of tools and online platforms for the collection and access of open data or for promoting the access to Research and Infrastructures will also be used as a baseline by Water4All for better communicating water-related knowledge and data. Similarly, the outcomes of the mapping exercise carried out in the framework of the Water JPI and its strategy for international cooperation for 2022-2027 (Water JPI International Cooperation Strategy[1], 2022) were also considered as reference documents to feed the International Cooperation Strategy of the Watert4All partnership.

If both initiatives are supporting water research and innovation, Water4All is more ambitious in order to achieve the overall goal of securing water for all. Whereas the Water JPI brings together 20-member countries, represented mainly by research and innovation funders, Water4All is gathering 31-member countries from Europe and beyond and is encompassing more than 80 partners from the whole water Research, Development and Innovation (RDI) chain, including representatives from academia, research and innovation funders, water management authorities and water associations.

To meet its ambition, the Water4All's scope of action is larger than the one of the Water JPI, including multi-national and cross-sectoral activities from physical and biological sciences to human and social sciences, and adopting a systemic approach from the source to the sea. In the light of Water JPI actions fostering the alignment of national and regional water-related programmes and strengthening water RDI collaboration at international level, Water4All will be supporting and promoting the demonstration and access to market of innovative solutions, providing tools for water management, fostering capacity development of policy-makers, stakeholders and citizens, and designing and implementing approaches to enable participatory development of innovation.

To summarize, Water4All has a larger consortium and an ambition that goes well beyond fundamental research. Partners come from different types of organisations including national research and innovation funders, researchers, end users, policy makers, associations, networks and economics actors. The articulation of those two initiatives and their complementarities will, thanks to the Water JPI Action Plan aimed at valorising the results of research projects, enable Water4All to take over the funding of research projects. This complementarity will allow the development of new joint activities and instruments to ultimately meet the objectives of the Green Deal and the Sustainable Development Goals.



A brief overview of the different WaterJPI calls

Since its creation in 2011 different calls have been launched. A quick overview of them is provided below.
The first one, in 2013, the Pilot Call, had for topic "Emerging water contaminants – anthropogenic pollutants and pathogens" (all documents related to this call can be found here). This call funded seven projects for a total budget of 9€ million.

The second joint call, WaterWorks2014, was launched in March 2015, and was funded by the EC under Horizon 2020. This Era-Net cofund had for aims to tackle European water challenges through the development of transnational and transdisciplinary research and innovation actions in the area of "Developing Technological Solutions and Services for Water Systems". Topics of the WaterWorks2014:

1. Water treatment, reuse, recycling and desalination.
2. Water resources management.

Mitigating impacts of extreme events (floods and droughts) at catchment scale. **16 projects** were funded under this call.

In February 2016, a third joint call was launched, named WaterWorks2015. This Era-Net cofund aimed to support research on the sustainable management of water resources in agriculture, forestry and freshwater aquaculture sectors, through the funding of 21 projects with a budget of over 17€ million. Supported by 22 countries and co funded by the EC, the scope of this call was around the following challenges:

- Increasing the efficiency and resilience of water uses
- Monitoring and reducing soil and water pollution

Integrating social and economic dimensions into the sustainable management and governance of water resources

CALLS	PROJECTS	BUDGET
Pilot Call	7	9 M€
WaterWorks 2014	16	15 M€
WaterWorks 2015	21	17 M€
IC4Water	8	6,8 M€
WaterWorks 2017	18	15,2 M€
AquaticPollutants	18	20 M€
BiodivRestore	22	21,3 M€

The success of those calls led Water JPI members to launch a fourth one, named IC4Water, in February 2019. The focus of this call was on water resource management in support of the United Nations Sustainable Development Goals (UN SDGs), around two challenges:

1. Multiple pressure effects on ecosystems and ecosystem services as well as effective mitigation – adaptation tools and assessments for implementing the water related targets of the UN SDGs
2. Developing accessible solutions for clean water management to address UN SDG6 targets and associated SDGs.

Eight projects were funded as a result of this call.

The fifth call, calledWaterWorks2017, was launched in 2018. Based on the topic "Closing the water cycle gap – sustainable management of water resources", this call funded 18 projects, covering a wide range of disciplines (from social and economic sciences to nature sciences), for a total amount of over 15.2€ millions.

In 2020, an unprecedented collaboration between the three JPIs, Water, Oceans and Antimicrobial Resistance (AMR) and the European Commission, funded 18 projects, on the risks posed to human health and the environment by pollutants and pathogens present in water resources. This call, AquaticPollutants, was awarded with 20€ million.

Finally, the Era-Net Biodiversa and Water JPI launched in October 2020 a joint call called BiodivRestore on the "Conservation and restoration of degraded ecosystems and their biodiversity, including a focus on aquatic systems". 22 projects were funded.
At this time, WaterWorks2017 is closuring soon, in December 2023, but AquaticPollutants and BiodivRestore are still ongoing!

The main water subjects treated by Water JPI

SINCE ITS LAUNCH, THE WATER JPI HAS ADDRESSED MANY THEMES UNDER THE WATER FIELD. THE WATER JPI'S MAIN GOAL IS TACKLING THE CHALLENGE OF 'ACHIEVING SUSTAINABLE WATER SYSTEMS FOR A SUSTAINABLE ECONOMY IN EUROPE AND ABROAD.' TO MEET THIS GOAL, THE WATER JPI HAS IMPLEMENTED RESEARCH PROJECTS IN THE WATER FIELD FROM COMPLEMENTARY FIELDS AS BIOLOGY, ECOLOGY, ECONOMY, HUMAN HEALTH OR TECHNOLOGIES.

Throughout its duration, the Water JPI spearheaded impactful joint calls, each addressing diverse themes and critical subjects in the realm of water research and innovation.

The 2013 Pilot Call, focused on Emerging Water Contaminants, saw the allocation of resources to tackle novel challenges and understand potential risks.

Subsequently, the 2015 Joint Call concentrated on Developing Technological Solutions, emphasizing services for water distribution and measurement, wastewater treatment and reuse, desalination, floods, and droughts. The joint call aimed at Improving Water Use Efficiency and Reducing Soil and Water Pollution for Sustainable Agriculture, emphasizing the intersection of water management and agricultural sustainability.

2017 Joint Call centred around Water Resource Management in support of the United Nations Sustainable Development Goals (UN SDGs), aligning research efforts with global sustainability targets.

In 2018, the Joint Call addressed Closing the Water Cycle Gap, emphasizing sustainable water resources management to bridge critical gaps.

The 2020 Joint Call, in collaboration with JPI Oceans and JPIAMR, delved into Risks Posed to Human Health and the Environment by Pollutants and Pathogens in Water Resources, acknowledging the interconnectedness of water quality and public health.

Lastly, the 2020-2021 Joint Call with Biodiversa emphasized Conservation and Restoration of Degraded Ecosystems and Biodiversity, highlighting the crucial role of aquatic systems in broader ecosystem health.

These joint calls underscore the Water JPI's commitment to fostering collaborative research initiatives that span a spectrum of water-related challenges and contribute to sustainable solutions on both local and global scales.

It was crucial to consider various areas of expertise instead of concentrating on a particular field. The goal was to foster connections between complementary disciplines, allowing them to mutually enhance each other and contribute to the development of innovative technologies, the generation of knowledge, and the provision of holistic policy insights.

Given the intrinsic multidisciplinary of water challenges, the Water JPI has enabled collaboration with other partnering initiatives. Some of Water JPI calls have been co-implemented with other joint programming initiatives, such as the water and agriculture call in 2016 in collaboration with the JPI FACCE, BiodivRestore with the Era-Net Biodiversa, and AquaticPollutants in cooperation with the JPI AMR and JPI Oceans.

In addition to the different calls, which have allowed the funding of more than a hundred research projects, the Water JPI has launched a wide range of additional activities contributing to the coordination of research agendas and the alignment of thematic priorities. A few examples include knowledge hubs or networks of experts, clusters of projects funded at the national level (Thematic Annual Programming actions, TAPs), and impact assessments.

What's New for 2024?

The WaterWorks2017 ERANET, co-funded by the European Commission, came to its end on the 31st December 2023.
This was the end of some very interesting work on strategies for filling the water availability – water demand gap. As part of the ERANET, a call for proposals was launched in 2018. Based on the topic "Closing the water cycle gap – sustainable management of water resources", this call funded 18 projects, covering a wide range of disciplines (from social and economic sciences to nature sciences), for a total amount of over 15.2€ millions.
A brochure summing up key results of projects and expected impacts will be available soon.
The AquaticPollutants ERANET will continue its activities and some very interesting events will be held in 2024. Let's highlight the European RoadShow of the project, which will allow the wide dissemination and valorisation of results (the European RoadShow will be followed by another one in South Africa in 2025). The roadshows will also strengthen international cooperation, establish partnerships to facilitate the uptake of the project results and where applicable advocate for regional partnerships to pilot and extend some of the projects in member countries.

BiodivRestore – KnowledgeHub
The healthier our ecosystems are, the healthier the planet - and its people. Taking this into account, the United Nations General Assembly proclaimed 2021–2030 the United Nations Decade on Ecosystem Restoration to call for the protection and revival of ecosystems all around the world, for the benefit of people and nature. On this basis, and in collaboration with Biodiversa, the Water JPI will implement in 2024 a Knowledge Hub on Nature restoration (the BiodivRestore Knowledge Hub).
This BiodivRestore knowledge hub will contribute to the integration and sharing of knowledge, research and technological excellence to support countries in the development and implementation of their National Restoration Plans, to help ensure they can reach the targets set out in the EU Biodiversity Strategy 2030 and Global Biodiversity Framework. It will also improve communication and networking between researchers and stakeholders to enhance research impact and knowledge transfer towards policy and society, and feed the European research & innovation strategy on this topic.
The Knowledge Hub will seek strong synergies with the Biodiversa+ and Water4all Partnerships, as well as relevant organisations (such as the European Environment Agency; IUCN; environmental NGOs) and networks (such as Society of Ecological Restoration; EGU Biodiversity Task Force etc.). Finally, the Knowledge Hub will provide a hands-on mechanism to feed the Science Service (i.e. the scientific pillar of the Knowledge Centre on Biodiversity) for issues dealing with nature restoration/nature-based solutions, and provide concrete inputs to relevant Missions (most notably the Soil Mission, and Mission on Adaptation to Climate Change).

SD WISHEES
Gathering several members of the Water JPI, the SD-WISHEES project! will pursue activities to enhance strategic coordination and cross-sector collaboration between national Research and Innovation (R&I) funding members, researchers, innovators and a wide variety of stakeholders. This enhanced collaboration should translate into more efficient strategies for the protection of cultural heritage and beyond in response to more and more frequent and severe hydroclimatic extreme events such as droughts and floods.
Some activities planned for 2024 include:

- Roadmapping of the strategic R&I needs and priorities in the field of hydroclimatic extreme events and cultural heritage.
- Completion of actions leading to the launch of a TAP action at the beginning of 2025.
- Collaboration with other neighbouring initiatives, notably the Water4All Partnership, the JPI Cultural Heritage and the upcoming Partnership on Cultural Heritage.
- Identification of main obstacles for transnational cooperation.

Last but not least, the Water JPI team will keep on posting information on latest activities. Keep a look at our website, where as part of a new showcase campaign we will publish one article per month. Have a look at the articles we will prepare on the results of WaterWorks2017 and the IC4WATER (completed at the end of 2022) funded projects, and the progress of the SD-WISHEES.

Closing the Water Cycle Gap: Achievements of WaterWorks2017

THE WATERWORKS2017 PROJECT CAME TO AN END IN DECEMBER 2023. THIS PROJECT, INITIATED BY WATER JPI PARTNERS AND CO-FUNDED BY THE EUROPEAN COMMISSION, ADDRESSED THE CHALLENGE OF "CLOSING THE WATER CYCLE GAP – SUSTAINABLE MANAGEMENT OF WATER RESOURCES" (THEME 5 OF THE WATER JPI' SRIA 2.0) IN ORDER TO IDENTIFY INNOVATIVE SOLUTIONS TO MANAGE IMBALANCES BETWEEN WATER DEMANDS AND THE SUPPLY CAPACITY OF THE NATURAL SYSTEM. AMONGST OTHER ACTIVITIES, WATERWORKS2017 POOLED RESOURCES FROM PARTICIPATING FUNDING AGENCIES TO IMPLEMENT A JOINT CALL FOR PROPOSALS.

Eighteen projects were selected for funding. These projects cover different areas including the management of surface and groundwater in urban and agricultural areas, pollution removal approaches in drinking water, governance and economics.

The Water JPI's team will offer in successive articles detailed information on the main results achieved by funded projects. This month we wish to focus on the political relevance of WaterWorks2017.

Through the implementation of different activities and the funding of research and innovation, WaterWorks2017 has strived to contribute to the overall objective of European water policy: "To ensure access to good quality water in sufficient quantity for all Europeans, economic sectors and the environment, and to ensure the good status of all water bodies across Europe. The priority is to move towards a water-efficient and water-saving economy" (Water scarcity and droughts, European Commission).

More specifically, the work performed by WaterWorks2017 should support the following pieces of legislation/ frameworks:

- The Water Framework Directive, which promotes sustainable water use through the protection of water resources and the mitigation of the effects of droughts.
- The 8th Environment Action Programme, which calls for the transition towards a climate-neutral and resource-efficient economy.
- The European Green Deal.
- The 2021 European Strategy on Adaptation to climate change.
- The 2020 Circular Economy Action Plan.
- The European Urban Wastewater Treatment Directive.
- The European Drinking Water Directive.
- The European Floods Directive (25/2018).
- The Regulation on minimum requirements for water reuse for agricultural irrigation.
- The United Nations Sustainable Development Goals (UN-SDGs).

The Water JPI is fully engaged to the wide dissemination and valorisation of project results. To this end, partners will implement an action plan leading ultimately to a full consideration of research findings by the policy community and the market. Amongst others, a new Water JPI Conference is planned in 2025.

Lessons learned from the Pilot Call: a review

As part of the additional activities of the WaterWorks2017, which recently came to an end, partners carried out an analysis of the socioeconomic, technological, environmental and political impacts of the Water JPI's Pilot Call.
The Pilot Call is the first common call launched by the Water JPI in 2013. This call, aimed to enable multi-national, collaborative research, development and innovation projects was on the topic "Emerging water contaminants – anthropogenic pollutants and pathogens". Three specific challenges within the Pilot Call were:

1. Identification and prevention of emerging freshwater contaminants;
2. Control, mitigation and methods for treatments and removal;
3. Impact on ecosystems services and human health

Seven projects were funded (to read more on the funded projects click here).
From a scientific and technological point of view, funded projects have contributed to:

- Developing analytical techniques for groups of substances in order to detect and prevent biological risks;
- Understanding and predicting the environmental behaviour and effects of by-products, pollutants and pathogens, including their environmental effects;
- Developing strategies to reduce pollutants;
- Improving the performance of water systems.

The knowledge produced by projects has been presented in numerous conferences and has been the object of media news. All these dissemination activities have enhanced the visibility of the Water JPI. Needless to say, that all these projects have a key social role in progressing towards the protection of humans' life, health and assets.
Some of the projects funded have as well important economic implications. New improved methods for the treatment of wastewater and monitoring should generate new business opportunities and the optimisation of financial resources. Amongst other results, it should be highlighted the publication of the policy brief. This was the first policy brief produced by the Water JPI.
The writing of a policy brief under the scope of the Pilot calls' funded projects was decided very early (during the mid-term evaluation meeting of the Pilot calls projects), in order to prepare an effective way to inform about the projects' results and their expected impacts for the relevant policymakers involved in water management. This Policy Brief gathered recommendations based on the latest scientific results from the funded projects under the Water JPI Pilot Call.
The work to be conducted by the Water4All Partnership over the next two years will provide a better understanding of the long-term impacts of the projects funded by the Pilot Call. The results of this analysis will be published as soon as they become available.

WaterWorks2017 International cooperation: What has been done?

The Water JPI is acting since more than 10 years as a facilitator of cooperation between countries on water research through the coordination and funding of collaborative projects. The international cooperation dimension of the Water JPI is reflected by the continuous efforts of partners to integrate new partners to its general governance structure or to participate in some joint activities. That is the case of the Egyptian Academy of Scientific Research and Technology or the Tunisian Institute for Agricultural Research and Higher Education, which participated to the launch and funding of the WaterWorks2017 call.

As a reminder, WaterWorks2017pooled resources from 23 participating research programme owners / managers of 19 countries to implement a Joint Transnational Call (the WaterWorks2017 call) for research proposals, with EU co- funding, in the area of sustainable management of water resources to reconcile water supply and demand, both in terms of quantity and quality, and in terms of space and time. It covered the following sub-themes of the Water JPI's SRIA:

- Enabling Sustainable Management of Water Resources;
- Strengthening Socio-economic Approaches to Water Management.

Indeed, this EraNet Cofund funded18 international projects, all of them gathering entities from at least three partner countries (final booklet available here).

In addition to the call, WaterWorks2017 included other activities aimed at expanding the Water JPI's international cooperation portfolio.

Thus, WaterWorks2017's partners have also contributed to the shaping of the international water agenda. Indeed, in 5 years, WaterWorks2017's partners participated and/ or contributed to numerous conferences and Fora, despite of the Covid pandemics, such as the World Water Forum 2018 in Brazil, the Cairo Water Week in 2021, the World Water Forum held in Senegal in 2022, the Water Innovation Europe in 2022, the EcoMondo Conference in 2022 and 2023, the 5th Asian Europe Meeting in 2022, and the India-EU Water Forum in 2022.

Participation to these events allowed the Water JPI and WaterWorks2017 to valorise and share the work done by the funded scientific projects teams during the lifetime of the EraNet, and to promote a dialogue between partners of WaterWorks2017 and the Water JPI with policymakers, end-users, citizens and the scientific community worldwide.

All the key lessons and recommendations from WaterWorks2017 will be also put at the service of the Water4All Partnership, which is currently developing its strategy on international cooperation. As an observing partner to Water4All, the Water JPI is contributing to this strategic document.

WaterJPI promotion video: 10 years of achievements

Over the last few decades, water resource sustainability has become a major issue. It is more urgent than ever to combat the degradation of ecosystems and therefore, of natural water resources, to protect and conserve biodiversity, and to meet the growing water demand of the world's population.
In this context, the 10th World Water Forum was held in Bali (Indonesia) from May 18th to 25th 2024. More information on the forum is available on the following website: https://worldwaterforum.org/.
For this exceptional occasion, the Water JPI has developed a video that is now available. The video, displayed in the Water4ll's booth during the Forum, mainly presented the work achieved by the Water JPI, the list of partners involved and the seven transnational joint calls launched. The video also includes a short interview to the Water JPI's coordinator, Dr Esther Díez Cebollero, who talks about the impact of the programme and its contribution to improved water management.

Boosting Impact and Strengthening Networks: Additional Activities in WaterWorks2017

DURING THE LIFETIME OF THE WATER JPI, MANY ADDITIONAL ACTIVITIES (AAS) HAVE BEEN SET UPTHIS MONTH ARTICLE DESCRIBES THE AAS FOR THE WATERWORKS2017 PROJECT. THE AIM OF THE AAS IS TO ENHANCE AND PROMOTE THE WORK DONE DURING THE PROGRAM, COMMUNICATE ABOUT THE JOINT THEMATIC CALL (JTC) AND IMPROVE THE NETWORKING BETWEEN SCIENTISTS AND/OR THE PROJECTS PARTNERS.

During the lifetime of the Water JPI, many additional activities (AAs) have been set upThis month article describes the AAs for the WaterWorks2017 project. The aim of the AAs is to enhance and promote the work done during the program, communicate about the Joint Thematic Call (JTC) and improve the networking between scientists and/or the projects partners.

In WaterWorks2017 the AAs were focused on the Water JPI visibility and impacts, including the contribution to the EU and international political agendas on water related challenges. A 'Pilot Call Workshop' for the funded projects was organised on the 5th June 2018 in Helsinki, from which a Policy brief "Emerging water contaminants - anthropogenic pollutants and pathogens", based on the impact from the results of the 2013 Pilot Call, was published.

Regarding the Water JPI visibility, a second international Water JPI Conference on "Emerging pollutants in freshwater ecosystems", held in Helsinki on the 6-7th June 2018 was organised and hosted by AKA (Finland), with contributions from the Finnish Ministry of the Environment and the Natural Resources Institute Finland. The conference attracted over 200 participants from 27 countries (European and international), and over 90 abstracts were submitted for presentations. You will find more information on the Water JPI website.

In 2021, a 3rd conference has been organised in Mülheim, Germany, gathering experts from different Europe countries and Water JPI member countries, offering an insight into the projects funded. They had report on challenges and solutions from the perspective of research and practice (more details here).

Also, two participations of the Water JPI and WaterWorks2017 to the EcoMondo conference, in Remini, Italy, have been organised in order to valorise the projects funded under WW2017. During those conferences coordinators of WaterWorks2017's funded projects were invited to present their results to an audience of mainly end users, and provided an opportunity to further discuss the use and usefulness of this research, and to promote the work carried out.

We couldn't talk about the AAs without mentioning the several participations of the Water JPI to international Fora like the World Water Forum in Brazil, the 5th ASEM seminar on Urban Water Management or the India-EU Water Forum! (find more details of these events on the Water JPI website).

To conclude, many AAs have been set up during the lifetime of the WaterWorks2017, through different forms, different topics and different purposes. They helped to highlight the work done by the Era-Net cofund and the Water JPI but also to enhance knowledge and good practices. They are a very important part of the Era-Net and a useful tool to share information and knowledge.

This was the last article dedicated to WaterWorks2017 EraNet Co-fund. The next series of articles will focus on the EraNet Co-Fund AquaticPollutants, an unprecedent collaboration between three joint programming initiatives (JPIs) on Water, Oceans and Antimicrobial Resistance (AMR), on risks posed to human health and the environment by pollutants and pathogens present in the water resources.

Exploring AquaticPollutants:
A Dive Into Global Efforts to Tackle Aquatic Contamination

This September marks the start of a series of articles on the groundbreaking AquaticPollutants project, a collaborative effort backed by the Joint Programming Initiatives (JPIs) on Water, Oceans, and Antimicrobial Resistance (AMR) with support from the European Commission. The project addresses critical challenges related to pollutants and pathogens in aquatic ecosystems, which pose risks to both human health and the environment.

Supported by 32 ministries and funding bodies from 26 countries, along with 9 organizations from associated and third countries, AquaticPollutants seeks to strengthen global cooperation. Activities within AquaticPollutants will enable the creation of a multidisciplinary approach that integrates research from the freshwater, marine, and health sectors to better understand the environmental behavior of contaminants of emerging concern (CECs), antimicrobial-resistant bacteria, and pathogens throughout the water cycle.

Following a 2020 call for proposals, the project now funds 18 research and innovation initiatives with a budget exceeding €20 million. These projects, involving 103 partners, address themes that include: measuring the environmental behavior of contaminants; evaluating risks to human health and ecosystems; and developing strategies to mitigate the presence of CECs and pathogens in aquatic environments.

Additionally, the project features the AquaticPollutantsTransNet Transfer Project, designed to amplify the impact of research findings. It also offers a PhD Forum for young researchers to build a supportive community (more events here) and the TAP (Thematic Annual Programming) Action, which fosters international coordination and collaboration in addressing contaminants in aquatic ecosystems.

In future articles we'll address more in-depth on the activities, innovations and outcomes of the AquaticPollutants project.

From Research to Action: How the AquaticPollutants Era-Net is Shaping the Future of Water Quality

This month the AquaticPollutants Era-Net is holding its final conference and the final review of funded projects. Coinciding with this important occasion, Water JPI members wish to remind the water community of the objectives of the AquaticPollutants joint call and additional activities.

Aquatic pollutants, such as chemicals, pathogens, and other hazardous substances, pose significant threats to freshwater and marine environments, as well as the communities that depend on them. The AquaticPollutants Era-Net is a collaborative research program aimed at addressing the pressing issue of aquatic pollution, focusing on water quality and its impact on human health and ecosystems. It emphasises the need for an interdisciplinary approach, combining expertise from water sciences, environmental health, and socio-economic fields to tackle the complex and interconnected nature of water pollution. It also promotes transnational cooperation, enabling countries to share knowledge, resources, and best practices in order to develop more efficient and scalable solutions.

The AquaticPollutants Joint call is at the heart of this effort, funding interdisciplinary research projects across borders to investigate aquatic pollutants, with a particular focus on understanding their sources, pathways, and effects. The ultimate goal is to generate robust data and innovative technologies that can inform policy and improve water quality management strategies, leading to healthier aquatic environments and safer water resources for communities. Jointly launched by the Water JPI, the JPI Oceans and the JPI AMR, the call was divided into three themes:

Measuring – Environmental behaviour of contaminants of emerging concern (CECs), pathogens and antimicrobial resistant bacteria in aquatic ecosystems.

Evaluating – Risk assessment and management of CECs, pathogens and antimicrobial resistant bacteria from aquatic ecosystems (inland, coastal and marine) to human health and environment.

Taking Actions – Strategies to reduce CECs, pathogens and antimicrobial resistant bacteria in aquatic ecosystems (inland, coastal and marine)

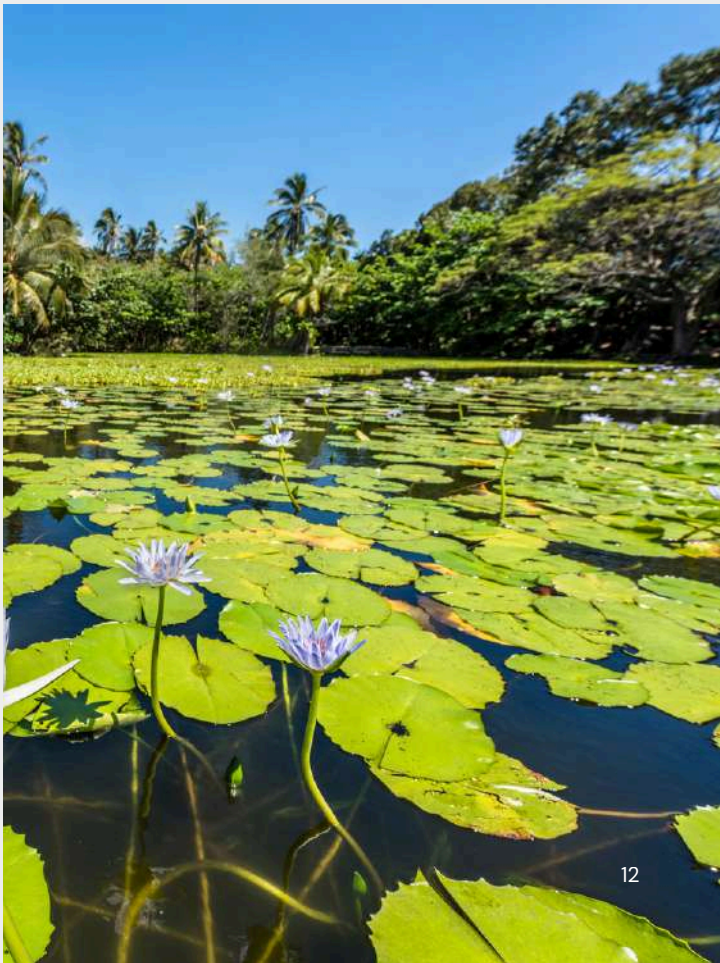
The joint call allowed the funding of 18 projects.

Additionally, to the joint call, two flagship initiatives have been implemented by the AquaticPollutants Era-Net: The Transfer Project and the AquaticPollutants TAP.

The Transfer Project focuses on ensuring that research results from AquaticPollutants Era-Net projects are effectively transferred to end-users, including policymakers, water managers, industries, and the public. By fostering direct communication and cooperation between researchers and stakeholders, the Transfer Project plays a key role in ensuring that scientific findings have a practical, real-world impact. It supports the dissemination of innovations, helping to create actionable solutions that can be implemented at local, national, and international levels.

Complementing this, the AquaticPollutants Thematic Annual Programming (TAP) action adds an important dimension to the joint call by promoting structured coordination between national research programs. TAP focuses on the thematic alignment of research priorities across different countries, enhancing collaboration between existing programs and maximizing the efficiency of research investments. It provides a platform for the continuous exchange of knowledge and best practices, ensuring that the latest scientific insights on aquatic pollutants are shared across borders and that efforts to combat water pollution are harmonized.

Together, these three initiatives—AquaticPollutants joint call, the Transfer Project, and TAP—form a comprehensive framework for tackling the complex issue of aquatic pollution. Their joint call encourages interdisciplinary, cross-border collaboration, combining the strengths of scientific research with the practical needs of policymakers and water managers. By integrating research, knowledge transfer, and coordinated programming, this partnership aims to create more effective and sustainable solutions to safeguard aquatic ecosystems and protect human health from the harmful effects of water pollution.



AquaticPollutants Final Conference: Celebrating Progress and Shaping Future Waters

AS YOU MAY KNOW, A NEW INITIATIVE TO TACKLE GLOBAL WATER CHALLENGES HAS TAKEN SHAPE IN 2022, THE EUROPEAN PARTNERSHIP WATER4ALL – WATER SECURITY FOR THE PLANET (WWW.WATER4ALL-PARTNERSHIP.EU). THIS PARTNERSHIP IS CO-FUNDED BY THE EUROPEAN UNION IN THE FRAMEWORK OF HORIZON EUROPE AND BUILT ON THE EXPERIENCE AND EXPERTISE OF THE WATER JPI.

he AquaticPollutants Final Conference, held on October 22-23, 2024, in Frankfurt, Germany, was an engaging gathering of researchers, policymakers, and water management experts, all united in their commitment to addressing aquatic pollution. Hosted by DECHEMA, the event highlighted a series of interesting research results, lively discussions, and interactive exhibits designed to showcase the program's achievements and foster dialogue around the future of aquatic ecosystem protection.

The conference opened with a warm welcome and set the stage for a packed agenda. Throughout both days, participants explored the latest findings from Aquatic Pollutants projects. In the common area, the Knowledge Transfer Booth offered an interactive space that brought science to life with engaging tools like the TransNet Viewer and games that shared "creepy facts" about pollutants. Attendees could also enjoy hands-on activities, from playing educational games to discovering podcasts and character cards—all aimed at enhancing knowledge transfer and public engagement in water research.

A key highlight of the conference was Naomi Timmer's presentation of H2O People's winning project in the AquaticPollutants Innovation Challenge. Her insights into the role of science communication in bridging knowledge gaps sparked valuable discussions. The event also celebrated outstanding research, with the ARENA project receiving the Best Poster Award for its work on rapid bacteria detection in aquaculture—a promising innovation with significant environmental implications.

The momentum continued into the second day, which focused on actionable solutions for water management and featured a panel discussion that brought together diverse perspectives on emerging challenges and future needs. From networking opportunities to the interactive Knowledge Transfer Booth, the conference offered an inspiring forum for exploring new ways to translate research into impact. As the event closed, the European Commission, JPI Oceans, and Water4All presented future research opportunities, setting the stage for continued collaboration and innovation.

As the AquaticPollutants ERA-NET draws to a close, the insights and connections made at this final event signal a strong foundation for future work. Together, we are shaping a healthier aquatic environment and advancing solutions that bridge research with real-world actions.

Download the brochure of projects for the conference.

Shaping the Future of Water Research: AquaticPollutants ERA-NET and the TransNet Project

In a collaborative effort to tackle water pollution, the Joint Programming Initiatives (JPIs) on Water, Oceans, and Antimicrobial Resistance (AMR) launched two strategic calls in 2020:

1. **Joint Transnational Call (JTC)** – focusing on measuring, evaluating, and addressing the risks posed by pollutants and pathogens in water resources.
2. **Transfer Project Call** – aimed at maximizing the impact and knowledge transfer of research results generated under the JTC, ensuring their integration into public policy, industry, and administrative sectors.

AquaticPollutantsTransNet: A Strategic Initiative

Selected for funding under the Transfer Project Call, AquaticPollutantsTransNet was launched in 2021. The project unites partners from France (BRGM and ACTeon), Germany (DECHEMA), and Sweden (IVL Swedish Environmental Research Institute) to enhance the knowledge transfer capacity of JTC-funded projects by:

- Identifying key stakeholders and addressing their knowledge gaps.
- Developing innovative approaches for effective knowledge exchange.
- Strengthening collaboration and creating synergies among AquaticPollutants JTC projects.
- Improving the dissemination of research results to relevant stakeholders.
- Implementing diverse and strategic dissemination and exploitation channels.

A Collaborative Funding Model

The Transfer Project Call, launched in February 2020 with a €1 million budget, was funded by the Swedish Research Council (SRC), the German Federal Ministry of Education and Research (BMBF), and the French National Research Agency (ANR). This initiative represents a significant step toward enhancing European research collaboration and ensuring that scientific advancements reach policymakers, industries, and communities.

Key Objectives and Two-Phase Approach

Phase One

- Stakeholder Identification: Pinpoint key stakeholders and their knowledge needs concerning aquatic pollutants.
- Knowledge Transfer Tools: Develop innovative tools to transfer scientific findings to policymakers, the public, and sectors such as health, agriculture, and industry.

Phase Two

- Collaboration and Synergies: Foster partnerships among AquaticPollutants projects and strengthen stakeholder engagement.
- Targeted Dissemination: Deploy tailored communication strategies and innovative dissemination channels, including expert groups, political forums, and industry networks, to ensure the adoption of research findings by relevant sectors.

Driving Societal Impact in the future

AquaticPollutantsTransNet aims to elevate public awareness of aquatic pollution, enhance societal understanding of its impacts, and promote the adoption of sustainable water management practices. By connecting science with policy and practice, this project is poised to create lasting change in how Europe manages its water resources and addresses pollution challenges.

The results from the AquaticPollutants project will play a pivotal role in shaping the next call for proposals of the Water4All programme. AquaticPollutants has generated critical insights into the impacts of emerging contaminants, microbial pollution, and waterborne pathogens on aquatic ecosystems and public health. These findings provide a robust scientific foundation for addressing knowledge gaps and setting priorities in the upcoming Water4All call. By integrating lessons learned from AquaticPollutants, Water4All will ensure that its focus aligns with the most pressing challenges in water management, particularly those affecting ecosystem resilience and health. Moreover, the multidisciplinary approach and stakeholder engagement strategies pioneered by AquaticPollutants will inform the design of the Water4All call, fostering innovative, actionable solutions that address both water quality and broader ecosystem health challenges. More detailed information on the next Water4All's call will become available in July 2025.

Protecting Cultural Heritage Against Hydroclimatic Extremes: **The SD-WISHEES** Project

CULTURAL HERITAGE, AS DEFINED BY UNESCO, ENCOMPASSES THE LEGACY WE RECEIVE FROM THE PAST, LIVE WITH IN THE PRESENT, AND PASS ON TO FUTURE GENERATIONS. THIS INCLUDES NOT ONLY MONUMENTS AND COLLECTIONS OF OBJECTS BUT ALSO INTANGIBLE CULTURE AND NATURAL SITES. IT IS AN INVALUABLE RESOURCE THAT CONNECTS HUMANITY TO ITS HISTORY, IDENTITY, AND TRADITIONS. HOWEVER, THIS LEGACY FACES GROWING THREATS FROM HYDROCLIMATIC EXTREME EVENTS, SUCH AS FLOODS, DROUGHTS, AND STORMS, EXACERBATED BY CLIMATE CHANGE.
RECOGNIZING THE URGENCY TO SAFEGUARD CULTURAL HERITAGE, THE EUROPEAN COMMISSION HAS FUNDED THE SD-WISHEES (SUPPORTING AND DEVELOPING WIDENING STRATEGIES TO TACKLE HYDROCLIMATIC EXTREME EVENTS: IMPACTS AND SUSTAINABLE SOLUTIONS FOR CULTURAL HERITAGE).

Objectives of SD-WISHEES

Launched in January 2023, and running till the end of 2026, the project brings together 16 partners from 11 countries, including six widening countries, to address the pressing issue of protecting cultural heritage from the increasing frequency and severity of hydroclimatic extreme events, such as droughts and floods. Some of the SD-WISHEES partners are also members of the Water JPI i.e. ANR (France), MUR (Italy) and UEFISCDI (Romania).
The overarching aim of SD-WISHEES is to strengthen collaboration among Research Funding Organizations (RFOs) in Europe and beyond. By enabling strategic coordination and cross-sector collaboration between national research and innovation funding members, the project seeks to support the development of innovative tools and strategies for the sustainable management and protection of cultural heritage. This collaborative approach ensures that solutions are tailored to the specific needs of different regions and communities, fostering inclusivity and effectiveness.

A key component of the project is the Thematic Annual Programming (TAP) action, which aims to create an international network of projects on the water-climate change-cultural heritage nexus. The SD-WISHEES TAP action will bring together projects funded by the RFOs from France, Greece, Malta and Romania.

Moreover, SD-WISHEES adopts a Human Rights-Based Approach (HRBA), an internationally recognized methodology that ensures inclusivity and sustainability. This approach is anchored in a system of rights and corresponding obligations established by international law, emphasizing the importance of protecting cultural heritage as a fundamental human right. By integrating HRBA, the project aims to empower communities, promote participation, and ensure that interventions are equitable and just.

SD-WISHEES emphasises the importance of exploring innovative pathways to address the challenges posed by hydroclimatic extremes. This involves organising workshops and collaborative sessions with experts from diverse fields to develop and implement effective strategies for cultural heritage preservation. For instance, during the AFRICA24 Conference in Mombasa, Kenya, SD-WISHEES hosted a workshop titled "Exploring Innovative Pathways: Safeguarding Cultural Heritage," bringing together professionals to discuss and devise solutions tailored to the unique challenges faced in different regions.

The SD-WISHEES project will deliver wide-ranging impacts. At the national level, SD-WISHEES will strengthen research programmes by pooling resources and aligning priorities, empowering widening countries and fostering transnational cooperation. This approach will build capacity for less experienced RFOs while sharing expertise from more advanced partners. For research communities, the project will facilitate global networks and collaborative efforts, enhancing scientific excellence, visibility, and access to international funding opportunities. Researchers will also benefit from opportunities to co-create innovative solutions and gain valuable insights from interdisciplinary teams.

The project will promote trust-building and integration across regions, reducing disparities and fostering cohesion. By encouraging international cooperation, SD-WISHEES tackles transboundary challenges such as climate change and water pollution. It also highlights the role of cultural heritage in societal transformation and sustainable development.
In summary, the SD-WISHEES project represents a significant step forward in the protection and sustainable management of cultural heritage in the face of hydroclimatic extreme events. Through strategic collaboration, innovative research, and a commitment to human rights, the project aims to safeguard our shared cultural legacy for present and future generations.

SD-WISHEES TAP Action: Scientific collaboration for heritage at risk

The acronym SD-WISHEES stands for "Supporting and Developing WIdening Strategies to tackle Hydroclimatic Extreme Events: impacts and Sustainable solutions for cultural heritage". Officially launched in January 2023, SD-WISHEES aims to develop innovative tools and strategies to enable collaboration between diverse stakeholders in Europe and beyond to inclusively address the increasing threats posed to cultural heritage by hydroclimatic extreme events, such as droughts and floods. Cultural heritage encompasses not only historical and natural sites but also intangible assets like knowledge and traditions. Additionally, SD-WISHEES also contributes to EU and international policy frameworks related to the Sustainable Development Goals (SDGs) and widening strategies, ensuring that cultural heritage preservation remains a priority in the face of climate change challenges.

Amongst other results, SD-WISHEES aims to implement a Thematic Annual Programming (TAP) action. However, additional projects/ countries may join the TAP up to six months after the Kick-off meeting.
The TAP is a networking and collaborating instrument between research nationally-funded projects on a common topic. The objectives of this instrument are to:

- Enhance the overall impact of cross-sector collaboration to address the protection and sustainable management of cultural heritage in Europe. The aim is also to have a better understanding of the impacts on cultural heritage, identify the best available adaptation solutions in response to hydroclimatic extreme events.
- Enable the exchange of knowledge, data, and research methodologies, giving research teams the possibility to expand their expertise in the domain and identify possible areas for cooperation.
- Harmonize national funding programs. Prior to launching the TAP, participating countries had to reach a consensus on the research themes of interest for the SD-WISHEES TAP. This represented an important effort that resulted in a Terms of References (ToR) document that thoroughly describes the themes of the TAP. This alignment effort also ensures that resources are effectively mobilized and that collaborative efforts are directed towards shared priorities.

The SD-WISHEES TAP Action on the "protection of cultural heritage in response to hydroclimatic extreme events" currently brings projects from France, Greece, Malta, Moldova and Romania.

The launch event held on the 20th and 21st February, at the ANR, France, introduced the TAP governance structure and objectives to the selected projects while also providing clarifications on the associated processes. But the core of the TAP Kick-Off was the presentation of each national project participating in the TAP Action. 10 research projects from 5 different countries highlighted their research topics and expectations of the SD-WISHEES TAP on Cultural Heritage and Climate Change.

At the time of writing this article, members of selected projects are working on an implementation plan in order to delineate actions for the next two years. Amongst other actions, TAP members will work on a paper setting out key knowledge gaps in the field of climate, water and cultural heritage, as well as on the development of a policy brief highlighting the importance of cultural heritage protection for the well-being of ecosystems and society in general.

Inside the SD-WISHEES TAP Projects

The Thematic Annual Programming (TAP) action under the SD-WISHEES initiative supports research and innovation projects that explore sustainable, interdisciplinary approaches to protecting cultural heritage from hydroclimatic extreme events. Launched through a coordinated call involving multiple funding organisations, the TAP action brings together projects that reflect a shared commitment to understanding and mitigating the impacts of climate change on heritage sites, water systems, and vulnerable communities

This overview presents the projects selected under SD-Wishees Tap Action, each contributing through local solutions, digital innovation, or nature-based practices to the global effort of preserving cultural and natural assets. From the restoration of historic water infrastructure in Malta to the use of 3D technologies for medieval site documentation in Romania, these projects demonstrate how targeted research can bridge tradition and innovation.

Together, they exemplify the ambition of SD-WISHEES: to enable collaboration across borders and disciplines in order to safeguard heritage in a changing climate.

Museion

Cristina Dobre – BEIA , George Sciu - BEIA

The preservation of cultural heritage is challenged by environmental degradation caused by climate change. Existing climate control measures are often inefficient, costly, or not tailored to the specific needs of different heritage materials. The project tackles these issues by implementing an IoT-based system that integrates real-time monitoring, data analysis, and mitigation strategies for optimal environmental condition.

Scan4Art

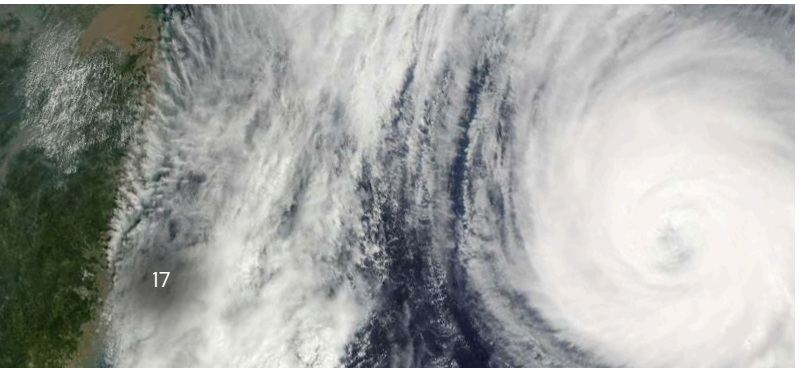
Rodica Ion – ICECHIM

This project led to the development of 3D technologies for storing information in digital format and the integral 3D reconstruction of the medieval heritage of Dobrogea built of stone (Sacidava Fortress), a monument that has not been investigated so far.

Alteraqua

Nikos Skondras – GWP Med

The Alter Aqua Project was born out of the urgent need to address Malta's severe water scarcity while preserving its rich water-related cultural heritage. Malta is one of the most water-stressed countries in the world, with limited naturally occurring freshwater resources. The increasing demand for water, especially from the agricultural and tourism sectors, exacerbates the situation. One of the core aspects of the Alter Aqua Project is the preservation and revitalization of Malta's historical underground rainwater harvesting reservoirs. These structures, dating back to ancient times, played a crucial role in securing water for communities. Over the years, however, many of these reservoirs fell into disrepair and were neglected. By restoring and reintegrating these reservoirs into modern water management systems, the project not only ensures water security but also safeguards a critical element of Malta's cultural identity.



Chadwick Trail & Cohesion Fund

Alexander Borg representing project coordinators – EWA

Chadwick Trail project has for objectives to restore the site and develop the trail. To do so, the restoration work consists of:

(1) Water course, embankment and rubble wall restoration works: Branch-packing and removal of excess material from water storage areas.

(2) Placing markers on protected plants and trees during the clearing of invasive and overgrown vegetation.

(3) Restoring pathways to improve access to the Valley for visitors along with information points.

Cohesion fund is about rehabilitating local freshwater springs for groundwater monitoring. The tunnels connecting the springs were hand-dug and some date back to when Malta was ruled by the Order of St. John (1535-1798) – the earliest reference to freshwater scarcity in Malta was made by the Knight Quintinus Haedus in 1536. In 1596, the Order's Council issued an instruction for groundwater to be drawn from springs in the western region of Malta, eastwards to the capital of Valletta – by 1615, an aqueduct was built for this very purpose. The flow of groundwater in these springs is being monitored with the aim of gauging, among other things, the impact of climate change on both the availability of water resources and the springs themselves.

DIBIM

Aurélie Talon – Université Clermont Auvergne

Climate change is altering waterways, rivers and streams, causing flooding. Interconnected urban infrastructures are essential for maintaining the vital functions of a society. The contraction of local authority budgets, the issues of risk management and aging are all major challenges. Each infrastructure is currently managed independently with little consideration of physical or functional interactions. The implementation of collaborative management strategies largely depends on the ability to deal with these interconnections, in physical and informational terms. In this context, the DIBIM project proposes a collaborative approach for the management of dykes interconnected with urban infrastructures (roads, water and sewer network) and vegetation with respect to technical and economic risks via the structuring, the centralization and the sharing of data in BIM (Building Information Modelling) between managers.

Inside the SD-WISHEES TAP Projects - part 2

Extension of the Irrigation System by Constructing the Main Pipeline and 4 Lateral Branch Networks, Including the Installation of Hydrants, in the Outskirts of Telița Village, Anenii Noi District

Lucia Usuleru – ProEntranse

This project aims to expand the existing irrigation framework, thereby increasing agricultural productivity in a sustainable manner. To do so, the project will cover a minimum of 45 hectares of agricultural land, significantly boosting the irrigation capacity of the area. Then, by mitigating drought losses and ensuring a steady water supply, the project aims to enhance crop yields and farmer incomes.

The immediate goal is the successful completion of infrastructure, ensuring enhanced irrigation capacity for the designated land. Then, as part of long-term benefits, it is planned to anticipate increased agricultural productivity and income stability, with implications for sustainable economic growth.

AGAPE

Valérie Grouet-Brunet – Insitut de Géographie Nationale (IGN)

With the acceleration of open data policies in France aimed at promoting the circulation and valorisation of public data, and the proliferation of information on the Internet, it is now possible to access multiple multimedia contents related to cultural and natural heritage, that describe or illustrate a place. AGAPE has the ambition of aggregating and processing such data, with a focus on visual-based documents (from iconography, videos to 3D point clouds, including textual descriptions). The tools developed with AGAPE will promote and facilitate the exploitation of geographic multimedia heritage in all domains where the territory and its evolution deserve to be documented and highlighted to various audience, for a better understanding of climate change for example.

Life-IP AdaptinGR

Vasiliki Pougkakioti – ELLINIKI ETAIRIA

Eleni Maistrou – NTUA School of Architecture

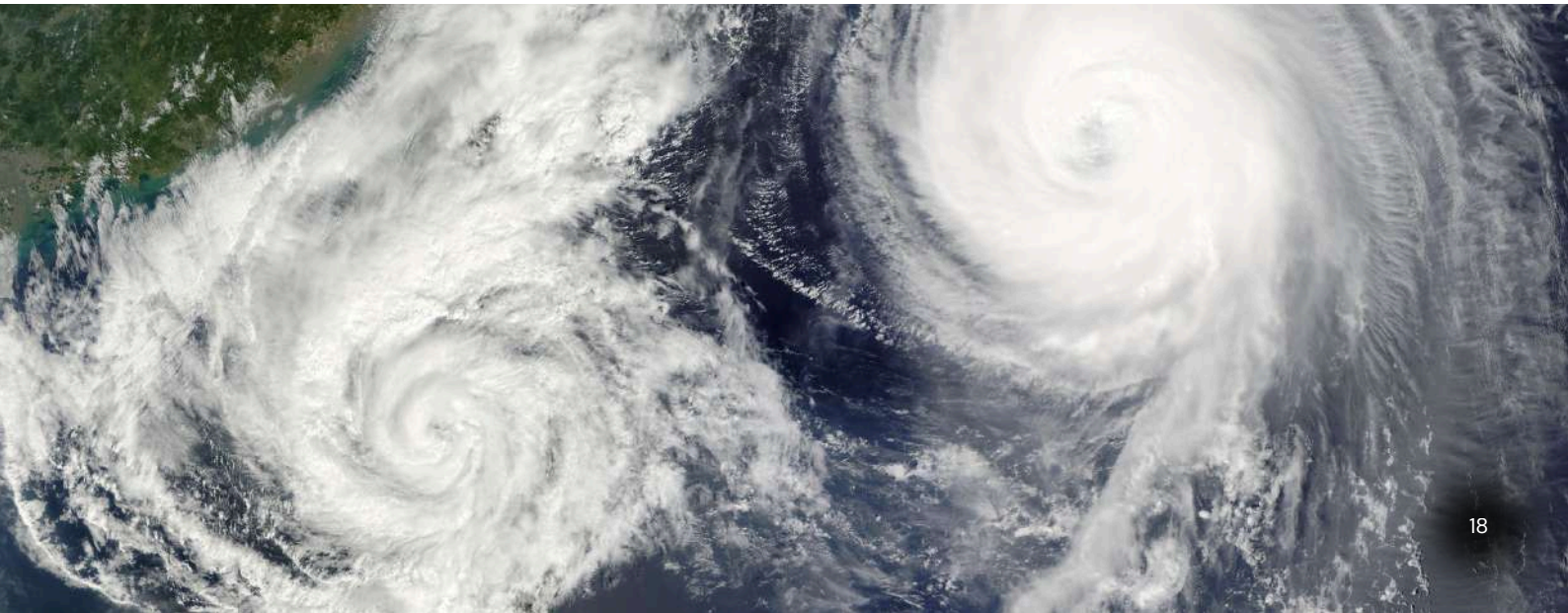
Climate change poses an increasing threat to cultural heritage worldwide, with Greece's historic sites facing growing risks from extreme temperatures, humidity fluctuations, coastal erosion and hydroclimatic extremes. Recognising the urgency of adaptation, ELLINIKI ETAIRIA Society for the Environment and Cultural Heritage (ELLET) is actively involved in the LIFE-IP AdaptInGR project (2019-2025), Greece's main climate adaptation initiative, coordinated by the Ministry of Environment and Energy. A key objective of the project is to assess climate vulnerability and improve the adaptation of cultural heritage to climate change. ELLET plays a key role in this effort by developing methodologies to protect monuments, archaeological sites and historic settlements from climate-related threats. By bridging the gap between scientific research, policy recommendations and conservation strategies, ELLET ensures that heritage sites can withstand environmental change. For each one of the sites studied, ELLET developed a comprehensive climate risk assessment methodology, incorporating future climate projections under different emission scenarios, mapping vulnerabilities related to environmental stressors, and classifying risks based on exposure, sensitivity and adaptive capacity.

PENATE

Pierre-Antoine Versini – Ecole Nationale des Ponts et Chaussées (ENPC)

The PENATE project aims at assessing the performance and effectiveness of Nature-Based Solutions (NbS) as a tool for adapting urban environments to climate change. To achieve this, it proposes to develop multi-scale, multi-criteria, context-specific, and evolving evaluation tools and methods for local authorities.

Different productions have been considered, and the work has already begun! You can also found information about the TAP's projects on the SD WISHEES website, at this address : SD-WISHEES Thematic Annual Programming action – TAP – SD WISHEES



Assessing the Impact of Water JPI Projects:

The Italian Institute for Environmental Protection and Research (ISPRA) and the Università Politecnica delle Marche (UNIVPM) are undertaking an in-depth assessment of 100 EU-funded projects within the Water JPI portfolio. The goal: to evaluate how these projects translate research into tangible applications, using the methodology outlined in the European Commission's report Research and Innovation for a Water-Resilient Europe: A Contribution from EU R&I Framework Programmes.

To structure the analysis, projects will be grouped according to the main challenges and key issues they address. In the initial phase, each cluster will be thematically summarised, highlighting the scientific advances they bring, their market potential, and the main barriers they face. This will offer stakeholders a clear thematic overview. Each project will also be mapped and assessed for its technical, social, organisational, and legal maturity levels, providing a multidimensional perspective on scalability and impact potential.

The second phase will take a closer look at two groups:

- High-maturity projects – These will be analysed in detail to identify innovative, scalable solutions, their real-world applications, and the barriers—technical, regulatory, social, and economic—that may hinder adoption. The assessment will also explore how their results contribute to the objectives of the European Water Resilience Strategy.
- Lower-maturity projects – These will be evaluated for their development potential, identifying pathways for further progress.

Finally, all projects will be positioned within the Cyclic Innovation Model (A.C. Berkhout, 2007), enabling a strategic view of their innovation journey and potential to deliver lasting impact.

The SD-WISHEES Project

RUNNING FROM JANUARY 2023 TO DECEMBER 2026, THE SD-WISHEES PROJECT AIMS TO STRENGTHEN THE INTEGRATION OF WIDENING COUNTRIES INTO EUROPEAN RESEARCH ON CLIMATE ADAPTATION, WITH A PARTICULAR FOCUS ON THE PROTECTION OF CULTURAL HERITAGE FROM HYDROCLIMATIC EXTREME EVENTS SUCH AS FLOODS, DROUGHTS, AND STORMS. BY IDENTIFYING RESEARCH AND INNOVATION GAPS AND FOSTERING COLLABORATION ACROSS DISCIPLINES AND COUNTRIES, THE PROJECT SEEKS TO ENHANCE THE RESILIENCE OF EUROPE'S CULTURAL HERITAGE WHILE PROMOTING INCLUSIVE PARTICIPATION IN EU-FUNDED RESEARCH. THE CONSORTIUM BRINGS TOGETHER PARTNERS FROM THE WATER JPI, THE JPI CLIMATE, AND THE PRIMA FOUNDATION, ENSURING A DIVERSE NETWORK OF EXPERTISE SPANNING WATER RESEARCH, CLIMATE SCIENCE, AND MEDITERRANEAN-FOCUSED INNOVATION.
THIS ARTICLE PROVIDES AN OVERVIEW OF THE ONGOING AND CURRENT ACTIVITIES OF THE SD-WISHEES PROJECT, HIGHLIGHTING RECENT PROGRESS AND UPCOMING OUTPUTS.

Developing the Roadmap for Research and Innovation

One of the current priorities of the consortium is the preparation of a roadmapping document. This roadmap will identify research and innovation gaps at the intersection of hydroclimatic extreme events and cultural heritage, highlighting where scientific, technical, and policy action is most urgently needed. It will serve as a key reference point for researchers, policymakers, and funding agencies seeking to advance knowledge and develop practical solutions for safeguarding cultural heritage in a changing climate.

Towards a Joint Vision

In parallel, partners are elaborating the joint vision document. This document provides the strategic orientation of the project, including:

- Key R&I gaps;
- Recommendations on how to better address the impacts of hydroclimatic extreme events on cultural heritage;
- Specific means needed to achieve these objectives;
- Potential avenues for collaboration with other European programmes and initiatives.

Together, the roadmap and joint vision will provide a forward-looking agenda that ensures cultural heritage protection is firmly embedded in Europe's climate resilience strategies.

Engaging Stakeholders in Évora

A stakeholder workshop was organized in Évora (Portugal) on 3 September 2025, bringing together experts, practitioners, and policymakers. The event was an important milestone in the project, as it provided an open forum for dialogue and exchange. Stakeholders contributed valuable insights that are now being integrated into the ongoing roadmapping process. Their perspectives ensure that the project outcomes are not only scientifically sound but also grounded in real-world needs and experiences.

Policy Brief on Widening Countries: Coming Soon

Another important output is the upcoming policy brief on how to enhance the participation of widening countries in the EU Framework Programme. Partners are currently finalising the layout, and the document will be published very soon. This policy brief aims to provide actionable recommendations to strengthen the role of widening countries in European research and innovation, ensuring a more inclusive and balanced European Research Area.

Strengthening Links with the Cultural Heritage Partnership

Finally, the project has entered into discussions with the Cultural Heritage Partnership to ensure that SD-WISHEES outcomes are taken up and mainstreamed. The aim is to include specific activities and recommendations from the project into the forthcoming European Partnership on Cultural Heritage, thus maximising impact and ensuring continuity beyond the project lifetime.

The SD-WISHEES project continues to consolidate knowledge, build synergies, and develop strategic tools that will support Europe in facing the growing challenges posed by hydroclimatic extreme events. By bridging the worlds of science, policy, and practice, the project is laying the groundwork for a resilient future where cultural heritage is safeguarded for generations to come.