



WATER CHALLENGES FOR A CHANGING WORLD

What is Water JPI?

In 2008, the EU communication 'Towards Joint Programming in Research' laid the foundations for developing ten Joint Programming Initiatives (JPIs). The JPIs were designed to address the main societal challenges that Europe had to face, such as health, environment, and culture. In this framework, the Joint Programming Initiative "Water Challenges for a Changing World" (Water JPI) was established (2011) as a European platform to address the major global societal challenges related to water resources.

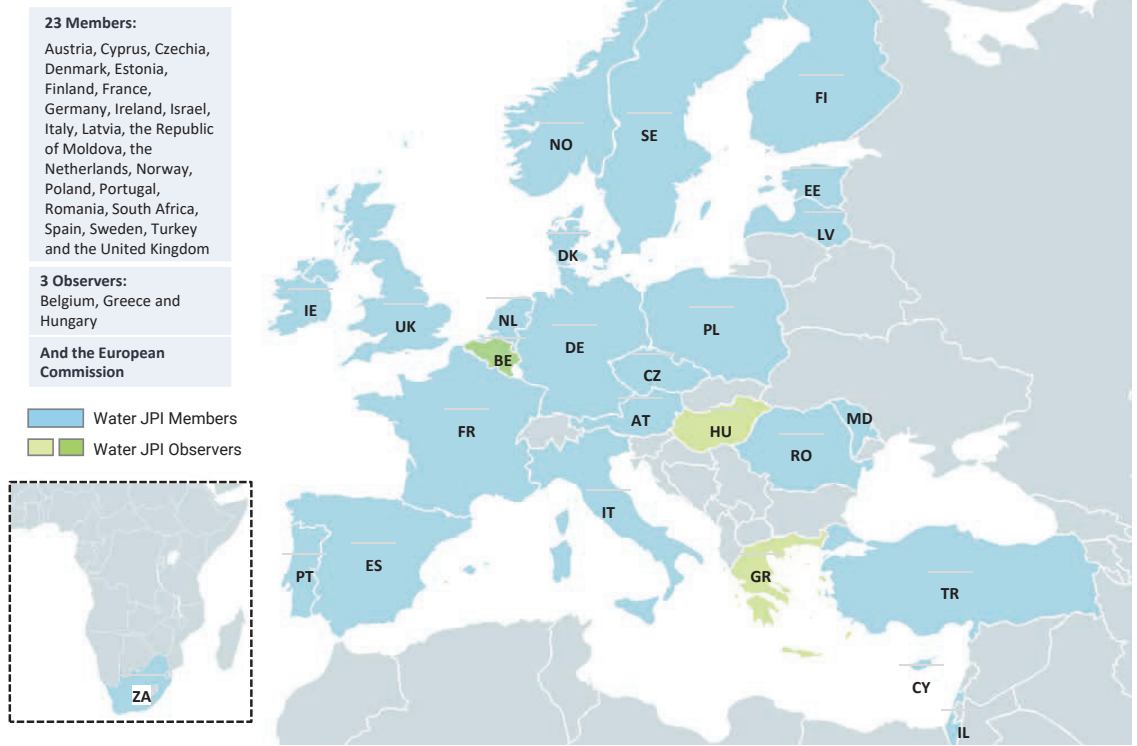
The Water JPI was strategically designed to be responsive to national, regional, and local water challenges, thereby addressing the diverse array of water issues across Europe. Among the research, development, and innovation (RDI) benefits associated with the Water JPI, five distinct advantages demonstrate a clear European dimension:

1. **Alignment of National RDI Agendas:** By harmonizing national research agendas, the Water JPI optimizes their focus and enhances funding efficiency, ensuring comprehensive coverage of the wide spectrum of water environments found across Europe.
2. **Enhanced Cooperation Among European Professionals:** The initiative fosters increased collaboration among professionals working in the field of water research and development across European countries, facilitating knowledge exchange and joint problem-solving efforts.
3. **Development and Sharing of Large-scale Facilities:** The Water JPI facilitates the design, construction, and sharing of significant research and development facilities, such as experimental treatment plants, which contribute to advancing water management technologies and practices.
4. **Establishment and Maintenance of Scientific Networks:** Through the creation and maintenance of networks comprising open-field experiments and scientific observatory systems (e.g., experimental watersheds), the Water JPI promotes collaborative research efforts and data-sharing initiatives aimed at addressing complex water challenges.
5. **Enhancement of Scientific Impact and Leadership:** By promoting collaboration and knowledge exchange, the Water JPI amplifies the scientific impact of European research in the field of water, increasing its relevance and fostering scientific leadership in addressing global water-related issues.

The objectives of the Water JPI have evolved over time in response to advancing knowledge and addressing environmental challenges, global agendas, and emerging policies. While these objectives retain their relevance, international collaboration and alignment with the United Nations Sustainable Development Goals (UN SDGs) have gained significant importance. The Water JPI focuses on promoting the well-being of citizens both within Europe and globally. The knowledge generated through this initiative is intended to strengthen Europe's position in the international arena, with membership and activities extending beyond Europe.

Comprising 18 full member countries, 6 associated partners, and 4 observers, the Initiative accounts for 88% of all European public RDI annual expenditure allocated to water-related issues.

Water JPI Membership



Vision 2030 and SRIA

The Water JPI Vision 2030, “Together for a Water-secure World”, outlines the objectives the Initiative seeks to accomplish until 2030. It sets out the roadmap for all Water JPI activities taking into account the main trends, the key drivers and challenges in relation to our water resources.

At the forefront of the Water JPI's activities, this initiative holds the highest priority in setting the framework and providing the overarching context for subsequent activities. Vision 2030 serves as the foundation for addressing the evolving trends, drivers and challenges in Europe and on a global scale.

In addition to the Vision document, Water JPI also develops the **Strategic Research and Innovation Agendas (SRIAs)** which is updated in 5-year cycles.

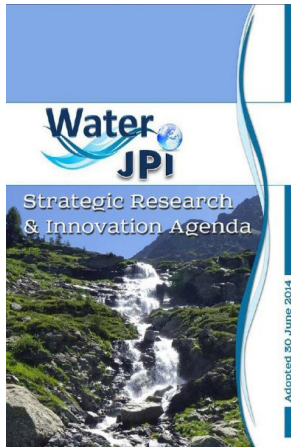
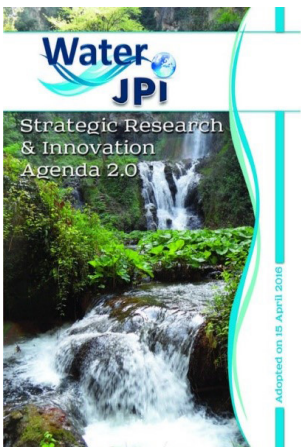
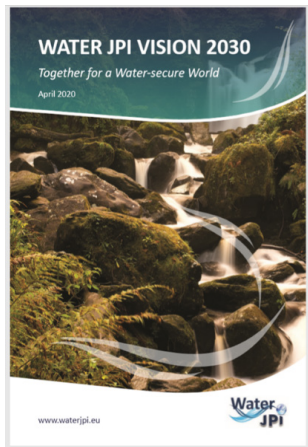
The SRIA sets out specific RDI research themes, sub-themes and priorities and identifies areas where RDI actions are required. The identified research priorities are openly accessible to various stakeholders, such as researchers, regulatory agencies, policymakers, industry and the public.

The core research themes being addressed by the Water JPI in the SRIA 2025 are **Ecosystems, Health and Wellbeing, Water Value and Usage and Sustainable Water Management**. Each of the core themes will in turn form part of an **Implementation Plan** with descriptions of tasks and indicators.

The Implementation Plan delivers Water JPI SRIA while maximizing its societal impact through different instruments which include strategic workshops, exploratory seminars, calls for proposals, and the alignment of national water RDI programmes.



Implementation of Water JPI activities via Vision 2030 and SRIAs

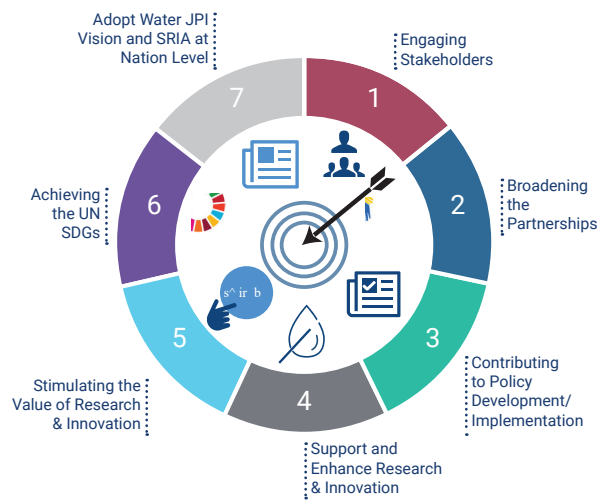


Added Value of the SRIA

The Water JPI SRIA ...

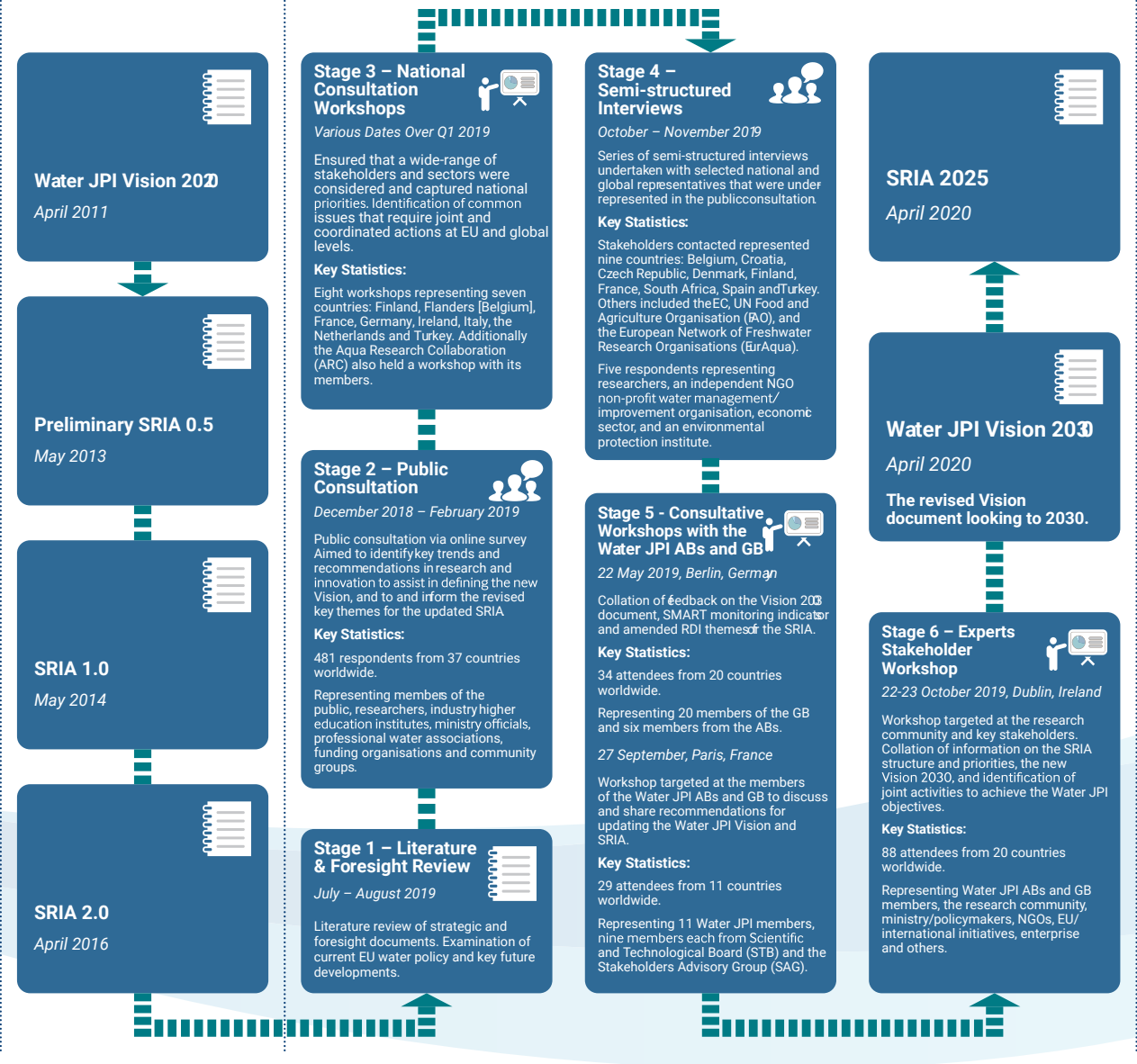


Water JPI OBJECTIVES



Previous Water JPI Vision and SRIAs

New Water JPI 2030 and SRIA 2025 Development Timeline



LEGEND



Key Documents



Consultation



Workshop

The revision and consultation steps leading to the development of the SRIA

Supporting Projects

The Water JPI has been implemented through the Coordination and Support Action (CSA) project **WatEUr**, funded by the 7th Framework Programme for Research and Innovation, and the ERA-NET Cofund project **WaterWorks2014 and WaterWorks2015**, carried out within the frame of the European Programme Horizon 2020. WaterWorks2014 aimed at stepping up EU research and innovation cooperation in the water area, in particular for developing technological solutions and services for water systems. WaterWorks2015 was launched in collaboration with the FACCE-JPI to support research on the sustainable management of water resources in agriculture, forestry and freshwater aquaculture sectors.

The CSA funded **IC4WATER** on “Supporting international cooperation activities on water” addressed water challenges and EU policy priorities in the water sector within a global perspective.

The ERA-NET Cofund **WaterWorks2017** aimed to address research and innovation to support the implementation of freshwater water policy on the thematic area “Closing the Water Cycle Gap – Sustainable Management of Water Resources”.

The **ERA-NET Cofund Aquatic Pollutants** is a joint action between the Water JPI and two other JPis, JPI Oceans on “Healthy and Productive Seas and Oceans” and JPI AMR on “Antimicrobial Resistance”.

The **ERA-NET Cofund BiodivRestore** is a collaboration between the Water JPI and the BiodivERsA network, to support research for the conservation and restoration of degraded ecosystems and their biodiversity.

In 2022, a new initiative to tackle global water challenges has taken shape, entitled **Water4All** - Water security for the planet, which is funded under Horizon Europe and is built on the experience and expertise of the Water JPI.

Since receiving approval from the European Member States in December 2011, one of the primary accomplishments of the Water JPI has been the significant engagement of partners in executing joint transnational calls.

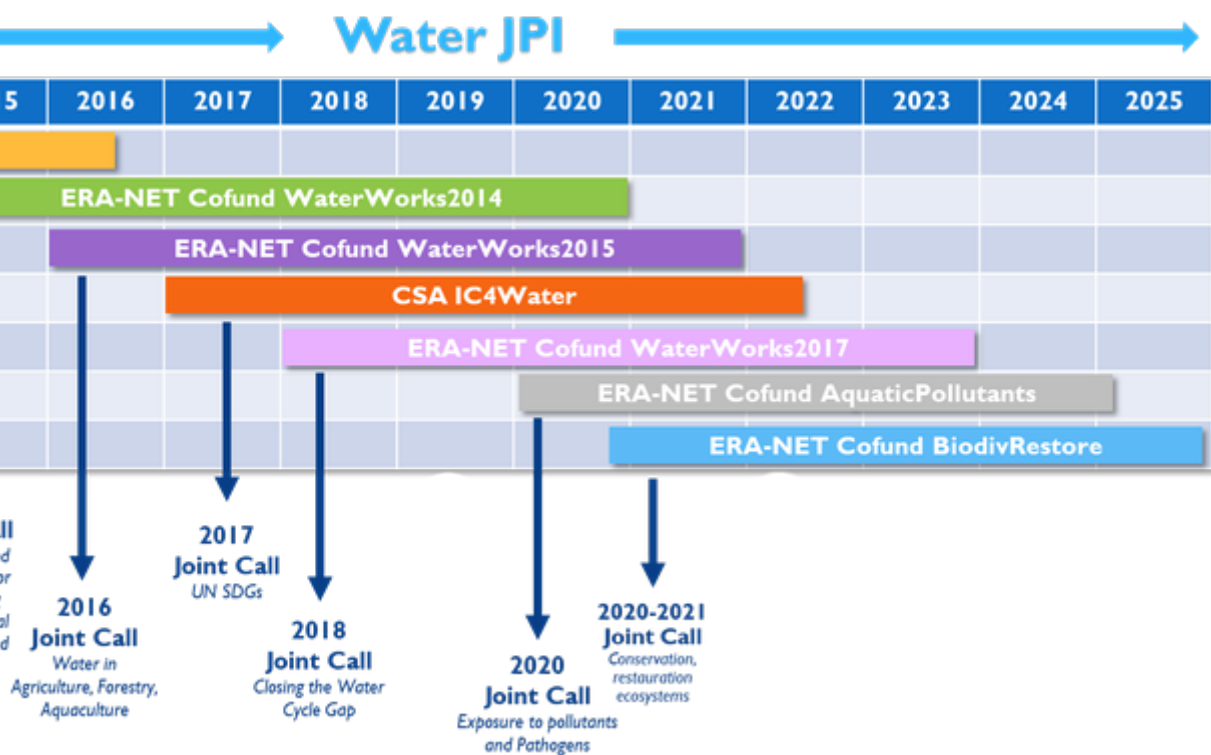


Water JPI Joint Calls

The Water JPI provides funding via competitive Joint Calls for transnational collaborative water RDI projects.

To date, seven Joint Calls have been launched since 2013 including five calls with support of the European Commission as part of the Horizon 2020 ERA-NET Cofund WaterWorks2014, WaterWorks2015, WaterWorks2017, Aquatic Pollutants & BiodivRestore, and two calls implemented within the Coordination and Support Actions WatEUr and IC4WATER.

- 2013 Pilot Call:** Emerging Water Contaminants (budget: €9.7 million; 7 projects funded)
- 2015 Joint Call:** Developing technological solutions for services for water distribution and measurement, wastewater treatment and reuse, desalination, floods and droughts (budget: €15.2 million; 16 projects funded)
- 2016 Joint Call** with FACCE-JPI: Improving water use efficiency and reducing soil and water pollution for a sustainable agriculture (budget €18 million; 21 projects funded)
- 2017 Joint Call:** Water resource management in support of the United Nations Sustainable Development Goals (UN SDGs) (budget: €6.8 million; 8 projects funded)
- 2018 Joint Call:** Closing the water cycle gap - improving sustainable water resources management (budget: €15.2 Million; 18 projects funded)
- 2020 Joint Call** with JPI Oceans and JPI AMR: Risks posed to human health and the environment by pollutants and pathogens present in the water resources (budget: €20 Million; 18 projects funded)
- 2020-2021 Joint Call** with BiodivERsA: Conservation and restoration of degraded ecosystems and their biodiversity, including a focus on aquatic systems (budget: €21.4 Million; 22 projects funded)



With the launch of Water4All two joint transnational calls have been put into action:

2022 Joint Call on “Management of water resources: resilience, adaptation and mitigation to hydro-climatic extreme events and management tools”: Deliver knowledge, models, approaches, tools and methodologies to better understand hydrological processes at different scales, in order to respond more efficiently to emerging water issues related to extreme events (budget: over 30 M€; 27 projects funded)

2023 Joint Call on “Aquatic Ecosystem Services”: Implementation of evidence-based, global, EU and national water management policies and strategies, including the Green Deal, the Water Framework Directive (WFD), Just Transition and the Water Action Agenda for UN SDGs. (budget: ~36 M€; projects funded tbc)

Funded projects are expected to have the following impacts:

- Enable multi-national, collaborative RDI projects addressing questions relating to the water challenges faced by European society
- Promote multi-disciplinary work and encourage proposals with fundamental and/or applied approaches
- Stimulate mobility of researchers within the consortia and enhance collaborative research and innovation during the projects’ life and beyond
- Support the development of innovative technological solutions and services for the implementation of EU water policy



Both the Water JPI and Horizon Europe use public funds to achieve their goals, and enjoy a significant area of synergy in their respective research priorities. These synergies pave way to enhance knowledge and capacities in order to support national alignment of RDI activities. The JPI also provides a channel for dialogue with the EC on future Horizon Europe calls. Since its launch, the EC has been very supportive of the Water JPI and a non-voting member of its Governing Board. In its 2013 Position Document on Horizon 2020, the Water JPI committed to sustain a permanent dialogue, focusing on the following issues:

- The implementation of synergy areas in water RDI
- Agenda setting within Horizon Europe





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