



**A vision for the  
Water Joint Programming Initiative**

**What is it about?**

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# A vision for the Water Joint Programming Initiative: What is it about?

## Introduction

Every living organism needs water to survive. Plants need water to make food. All animals depend on plants for food either directly or indirectly. Water sustains all life forms and is the foundation of modern economies. The fast-growing world population is putting a lot of pressure on our water resources by extracting too much water and polluting our rivers, lakes and groundwater with municipal, agricultural and industrial wastes. Global climate change is adding to the pressure by causing more frequent extreme events, such as droughts and floods. Much of the water that is treated to drinking water standards is lost through leaky pipes in towns and cities, while many people in Europe continue to drink water from wells that is completely untreated. A 2008 report from the World Health Organisation and UNICEF estimated that over 13,500 children between 0 and 14 years old die every year in Europe from poor water quality or bad sanitation and hygiene. Globally, over 2 million people die every year from diarrhea caused by unsafe water and sanitation while many regions suffer from severe water shortages. It is clear that much work remains to be done to provide everyone with safe water and to achieve sustainable water systems for a sustainable economy in Europe and abroad.

## Developing Solutions

To meet these challenges we need to carry out research in a number of different disciplines in integrated and multidisciplinary projects. In addition, the entire European water sector is very important from an economic perspective since it supports

hundreds of thousands of jobs, generating a turnover of some €80 billion a year and making Europe a world leader in water technology development. Developing and using the best technologies to treat drinking water and wastewater and to reduce the energy that is used in these treatment processes requires increasing research efforts. A growing urban population and global climate change are expected to increase pressure on water resources in many areas in Europe. New water management approaches and technology development should help ensure water supply for different uses in these areas. Similarly, we need to be aware of new threats to water quality and develop means to restore water quality so that all life forms depending on clean water can survive. Most important of all, we need to provide every citizen with access to an adequate supply of safe water for basic human needs. So there are research challenges to be faced on several fronts.





## Working together - Joint Programming

The European Commission is encouraging Member States to work together on research into a range of topics that pose a challenge to European citizens now and in the years ahead. The idea is that European investigations can achieve more and make better use of public funds through research cooperation and RDI programming coordination than by working separately. At present, ten areas have been chosen for such cooperation. These include research into Alzheimer and other Neurodegenerative Diseases, Agriculture & Food security, Climate Change, Antimicrobial Resistance, Cultural Heritage, Urbanisation and Water, among others. These initiatives are called Joint Programming Initiatives (JPI) and the one on water is known as the Water JPI. This JPI aims at tackling the ambitious challenge of achieving sustainable water resources for a sustainable economy in Europe and abroad. Following a decision of the European Council, the Water JPI was launched in 2010. In 2011 a Vision Document was produced listing the challenges facing European waters and broadly outlining the research that must be done to meet such challenges. The science-knowledge produced by the Water JPI will support the implementation of European water-related policies and increase cooperation between European countries and partners outside the European Research Area, leading to reinforce Europe in the international context.

## What are the immediate issues to be addressed?

Five broad issues have been selected for immediate attention.

- The first is entitled **‘maintaining ecosystem sustainability and Human well-being’** and looks at such things as the overuse of water resources, all forms of water pollution, the effects of climate change on water and the man-made changes to rivers and lakes.
- The second **‘developing safe water systems’** is primarily focused on public health issues.
- **‘Promoting competitiveness in the water industry’**, the third issue, examines opportunities to use research and innovation results to develop business opportunities for the European water industry.
- The fourth **‘implementing a water-wise bio-based economy’** is mainly concerned with the role of agriculture in water pollution and water use.
- The fifth and final issue, **‘closing the water cycle gap – Improving the sustainable water resources management’**, attempts to reconcile the demand for water through abstraction and use and the overall amount of water available.





## How will these issues be addressed?

These broad issues will be addressed by creating opportunities for investigators and innovators of different countries (from Europe and third countries looking for collaboration) to work together in a spirit of cooperation so that the problems that are common to all can be addressed more effectively and more efficiently. Water knows no borders, with some European rivers flowing through many different countries. Countries must cooperate if such rivers, aquifers, estuaries and other related ecosystems are to be protected for the future.

The Water JPI will also work to get participating countries to coordinate their national research agendas or specific water-related priorities with a European-wide strategic research agenda on common research questions to be solved and will increase cooperation between European water professionals through sharing resources and building networks. The Water JPI will seek to involve stakeholders in the development of activities and to attain a critical mass of at least two thirds<sup>1</sup> of the public National investment in research development and Innovation in Europe in the water domain.

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<sup>1</sup> At the time of preparation of this summary document the Water JPI partnership actually accounted for 88% of the public RDI annual expenditure on water.

## What does this mean for you?

The challenges facing water in Europe cannot be fully addressed by any individual country working alone. The Water JPI will facilitate and foster cooperation between countries on water research so that big challenges can be addressed and resolved. This will reinforce the current European leadership in water research and allow European countries to help address even bigger issues across the world so that everyone has access to an adequate supply of safe water to drink, there will be sufficient water to grow crops and good sanitation and wastewater treatment will be available to all.



More details on [www.waterjpi.eu](http://www.waterjpi.eu)  
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