

Joint Programming Initiative
“Water Challenges for a Changing World”
Position Document on the
European Innovation Partnership on Water

May 22nd 2012

I. Executive Summary

The “Water Challenges for a Changing World” JPI started interim operation following GPC endorsement in May 2010. A decision for EC adoption was issued on November 27, 2011, and the European Council decision was published on December 6th, 2011. The Candidate EIP on water could be endorsed by the European Council in the coming months. This document describes the development of the JPI and the plans for the EIP. The interaction between both initiatives is analysed in terms of the complementarity in objectives and the similitude in the implementation. Despite this closeness, these are two very different initiatives, showing large differences in approach. These differences guarantee that synergies will not be obscured by interferences. The JPI position on the EIP can be summarized as follows: 1) The JPI welcomes the candidate EIP; 2) The JPI perspective is complemented by the broad conception of the EIP; 3) The EIP will accelerate technology adoption, clearly benefiting the impact of Research, Development and Innovation programmes; and 4) The JPI is ready to contribute to the governance of the EIP: the Governing Board is willing to be represented at the High-Level Group, while the Executive Board is willing to be represented at the Task Force. The Water JPI is also willing to lend support to the development of the EIP Secretariat. Finally, cooperating in the EIP objectives, targets and outputs will facilitate the transfer of knowledge from European research to innovation.

2. Introduction to both initiatives

2.1. The “Water Challenges for a Changing World” Joint Programming Initiative

In 2008 the European Commission published its [Communication](#)¹ “Towards Joint Programming in Research: Working together to tackle common challenges more effectively”. As a consequence, Member States were challenged to identify societal challenges that could be addressed through Joint Programming.

After almost two years of preliminary developments, on May 4th 2010, the High Level Group (GPC) endorsed the Joint Programming Initiative (JPI) on “Water Challenges for a Changing World”. On September 29th, 2010 the kick-off meeting was held. A [Vision Document](#) and the [Terms of Reference](#) of the Management Structure were produced in the following months, and a [maturity template](#) was submitted to the European Commission on April 20th, 2011.

JPI partner countries have identified the challenge as “Achieving Sustainable Water Systems for a Sustainable Economy in Europe and Abroad”. This JPI is composed by sixteen countries, while five additional countries play the role of observers. Partner and Observer countries are distributed across the EU. Two Associated Countries are Partners of this JPI.

On May 4th 2011 Commission Services informed the JPI that the EC had completed the maturity assessment of our JPI. By October 20th, 2011, the full governance scheme of the JPI was set in place. A decision for EC adoption was issued on November 27, 2011, and the European Council decision was published on December 6th, 2011.

- A mapping exercise of European Research, Development and Innovation (RDI), together with a data mining on the impact of RDI activities revealed that Current JPI partners contribute to 80-90 %² of this investment;
- Europe currently leads the production of scientific papers and PCT patents on water, with respective shares of 29 % and 35 %. In both aspects, Europe is currently followed by the USA.

¹ Most hyperlinks in this document use the FTP protocol. This protocol may not be available in some institutional servers, owing to security reasons.

² Mapping needs to be updated following the accession of two additional countries to the category of Water JPI Partners on March 1st, 2012. This is the reason why we can only provide this estimate of Water JPI contribution to Public National and Regional European funding of Water Research, Development and innovation.

2.2. The Innovation Partnership on Water

In its Europe 2020 Strategy, the European Commission announced the launching of European Innovation Partnerships (EIP) as part of the [Innovation Union](#) flagship initiative. Partnerships constitute a new approach to EU research and innovation. EIPs have three distinctive characteristics:

- Challenge-driven;
- Acting across the whole research and innovation chain; and
- Designed to streamline, simplify and better coordinate existing instruments and initiatives.

The EC [Communication](#) on Innovation Union declared the will to develop EIPs in order to “accelerate research, development and market deployment of innovations to tackle major societal challenges, pool expertise and resources and boost the competitiveness of EU industry”. Healthy ageing was declared as the pilot EIP. The Communication included a reference to a possible EIP on Water:

“The aim of the Partnership is to promote actions that can speed-up innovation in the water sector and remove barriers to innovation. The actions are intended to achieve the EU water policy objectives while reducing the EU water footprint, improving water security and promoting the worldwide leadership of the European water industry.”

This Candidate EIP on Water was presented to the Water JPI at the Member State Consultation Event held in Brussels in July 6, 2011. A [Draft Preliminary Proposal](#) and a [Presentation](#) were distributed as meeting documents. The proposal document presents groundbreaking factual information about the water Industry in Europe:

- Annual turnover of about 100 G€, one third of the world market³;
- 9,000 active European SMEs;
- 600,000 jobs, just in water utilities; and
- World leaders in water services; less competitive in water technology.

The EIP on Water held its second Stakeholder Event in Brussels in February 1st, 2012. The EIP could be endorsed by the EC at the end of 2012, and become operational early in 2013.

3. Interacting for Water Innovation: EIP + JPI

The following sections illustrate the need for further integration of efforts between the EIP and the JPI. The analysis is based on complementarities, coincidences, differences and similarities.

³ The European water market share is in agreement with the European contribution to scientific publications and PCT patents, with a common estimate of one-third of the world volume.

3.1. Complementary in objectives; similitude in implementation

Figure 1 confronts the main planning traits of both the JPI and the EIP. In the case of the JPI, the objectives are managerial in nature, while the research questions present an outline for a Joint Research Agenda. Regarding the EIP, Its objectives and workpackages can not be considered final, since the current reference document is a draft preliminary proposal. EIP workpackages will be implemented through a series of innovation sites.

The following aspects can be directly derived from the comparison between both initiatives:

Complementarities in objectives

- While the JPI intends to involve end-users in RDI agenda setting, the EIP is oriented to unlimited innovation flow from RDI actors to end-users.
- While the JPI aims at reaching effective and sustainable RDI coordination, the EIP is interested in making the most of such effort by fostering effective technology adoption.
- While the JPI focuses on coordinating National and Regional water RDI agendas and activities, the EIP will actively seek for the mix of policies and tools (technological, financial and managerial) addressing water challenges.
- Both initiatives pursue European leadership at different points of the complete knowledge-innovation-wellbeing chain as related to water.

Figure 1. Main planning traits of the JPI and the EIP: objectives (above) and implementation path (below).

JPI Objectives ■ Involving water end-users ■ Attaining critical mass ■ Coordinating water RDI ■ Harmonising RDI agendas ■ Harmonising RDI activities ■ Supporting leadership	EIP Objectives ■ Innovative tools for water ■ State of the art Policy ■ Enable innovation dissemination ■ Shorten time to market for innovation ■ Climate neutral waste water systems in cities ■ Improve urban water efficiency ■ Reduce 20% cost of extreme water events ■ Europe leads water market
JPI Research Questions ■ Ecosystem sustainability ■ Safe water for citizens ■ Competitiveness in industry ■ Water-wise bioeconomy ■ Closing water cycle gap	EIP Workpackages ■ Urban areas ■ Rural areas ■ Industrial users

Similarities in research questions and workpackages

- Ecosystem sustainability and the water wise bioeconomy are key ingredients to the Rural Areas EIP workpackage. They also contain the challenge of

reducing the adverse effects of extreme water events of life and assets, and the goal of developing climate-neutral urban water systems.

- Competitiveness in industry is the core business of the EIP workpackage on industrial users.
- The need to close the water cycle gap is included in all EIP workpackages and is deeply related to the efficiency concepts developed at some EIP objectives.

This analysis confirms the alignment in the goals of both initiatives and the complementary approaches. Coordination between initiatives is required to ensure adequate information flow and synchronized progress.

3.2. Working side by side using similar approaches

Despite the complementarity and similitude identified in the previous section, the JPI and the EIP will not step on each other during programme implementation. This is due to the strong differences in approach:

RDI vs. Innovation

The water JPI focuses on all aspects of the knowledge production chain. Following the current trend in National and Regional European RDI Programmes, the JPI maintains a decreasing presence from research to innovation. On the contrary, the EIP will develop its activity at the innovation arena.

Public-Public vs. Public and Private Interaction

European RDI programmes making part of the JPI are characterized by being publicly supported. These programmes mainly fund public institutions, although Industrial partners can be funded by a number of programmes. The JPI explores the coordination and harmonisation of public programmes, thus constituting a case of public-public interaction. The EIP will deal with public and private innovation agents in order to maximize the flow of innovations to the market.

Actions on agendas and calls for proposals vs. mix of implementation mechanisms

Regarding implementation, the JPI will focus on harmonizing research agendas and activities (coordinated calls for proposals), while the EIP will use a mix of different mechanisms, including policy, financial and managerial tools. Overlaps can not be foreseen during the implementation of both initiatives.

3.3. Sharing key stakeholders

The Stakeholder Advisory Group of the JPI was formally established in October 19, 2011. Three of its members are specifically mentioned at the Candidate EIP draft proposal:

- The [WssTP](#) (Water Supply and Sanitation Technology Platform).
- [Acqueau](#), the Eureka Cluster for Water.
- The [CSI-SPI](#) (Water Framework Directive Common Implementation Strategy – Science Policy Interface), participated by [ONEMA](#) (the French National Agency for water and aquatic environments) and the European Commission.

This coincidence in the identification of relevant stakeholders calls for further cooperation between all actors. Cooperation is therefore required among the JPI and its stakeholders and among the JPI and the EIP.

4. EIP governance scheme

According to the Draft Preliminary Proposal, EIP governance will be based on two main bodies: the High-level group and the Task Force.

The High-Level group

The High-Level Steering Group will guide the strategic work plan of the Innovation Partnership and decide on the Innovation Sites to be developed. Members may include:

- European Commissioners
- Environment Ministers
- National water directors
- European Parliament representatives
- Representatives of the Committee of the Regions and Municipalities
- High-level representatives from the various stakeholder groups,
- The research and technology community, such as the **Water JPI**, WssTP, and Acqueau.
- Representation from the European Investment Bank or other financial institutions.

The ad-hoc Task Force

This Task Force will develop a Strategic Implementation Plan. Members may include representatives from the same institutions above. Its functions will also include supporting the High-Level Steering Group in strategic decision making, monitoring developments and interacting with the research community.

The Secretariat

This body will ensure continuity of activities and will be responsible for day-to-day management of the EIP.

5. A JPI Position on the EIP

Consideration of the points above leads to the following resolutions, which define the water JPI position on the candidate EIP:

I. The “Water Challenges for a Changing World” JPI welcomes candidate EIP on Water. The JPI and the EIP will have a synergic effect: the EIP will ensure the market adoption of the innovations resulting from the JPI RDI programmes;

2. The JPI will focus on Agenda harmonization and on the development of coordinated RDI activities. This perspective is complemented by the broad conception of the EIP, leading to the use of varied approaches and instruments;
3. Slow take-up of RDI results by industry agents has been identified as a structural problem affecting the impact of many European RDI programmes. Successful implementation of the EIP will therefore result in a clear benefit to the JPI;
4. The Water JPI sees in the EIP an opportunity to implement the results obtained in European research, development and innovation programmes. In our view, this justifies our involvement at all EIP levels.
5. The JPI is willing to contribute to the governance of the EIP at all foreseen levels. The JPI Governing Board wants to be represented at the High-Level Group, while the Executive Board wants to be represented at the ad-hoc Task Force. The Water JPI is also willing to contribute to setup the EIP Secretariat.
6. The Water JPI is willing to contribute to the objectives, targets and outputs of the EIP on Water. We believe that cooperation on these issues will result in effective transfer of knowledge between European research, development and innovation actors.
7. The Water JPI believes that solid interaction with the EIP on Water will contribute to structure efforts in European research, development and innovation. Our efforts will go in the direction of promoting cooperation and avoiding possible duplications between the JPI and the EIP.