

The Water JPI

Joint Programming Initiative
Water Challenges for a Changing World



Short Presentation

November 2015



Beginners Guide To Joint Programming



What a JPI
is and is not

Joint Programming Initiative

- Is
 - Coordination of the national / regional, public, research, development and innovation programmes in Europe
 - A process based on variable geometry
 - A new way to address RDI problems with European dimension
- Is not
 - An ERA-NET, although it relates to ERA-NETs
 - An EU driven process, although the EU is following and feeding the process

- 10 JPIs since 2008



Alzheimer and other Neurodegenerative Diseases (JPND)



Agriculture, Food Security and Climate Change (FACCE)



A Healthy Diet for a Healthy Life



Cultural Heritage and Global Change: A New Challenge for Europe



Urban Europe - Global Urban Challenges, Joint European Solutions



Connecting Climate Knowledge for Europe (CliK'EU)



More Years, Better Lives - The Potential and Challenges of Demographic Change



Antimicrobial Resistance- The Microbial Challenge - An Emerging Threat to Human Health



Water Challenges for a Changing World



Healthy and Productive Seas and Oceans

Water Joint Programming Initiative

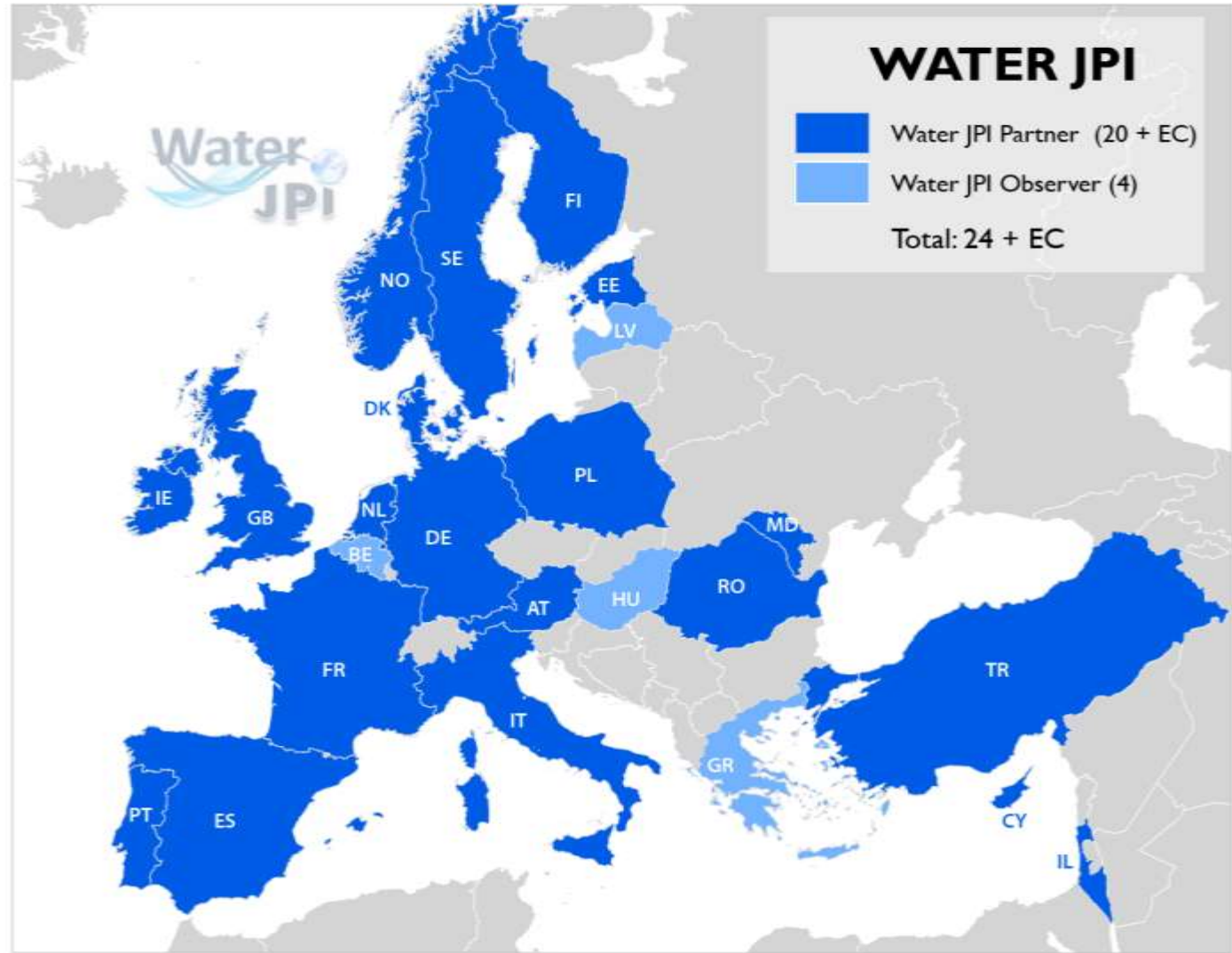
- 2010 – Start of the discussion around [Water JPI](#)
- December 2011 – [Water JPI](#) officially adopted by European Competitiveness Council
 - 2011–2014 – Chaired by Spain, co-chaired by the Netherlands
 - Since November 2014 – Chaired by France, co-chaired by Ireland, with the support of Spain and Italy
- February 2013 – [Water JPI](#) and [CSA WatEUr](#) (Coordination and Support Action of the Water JPI) official launch meetings
- February 2015 – first ERA-NET Cofund [WaterWorks2014](#)
- Integration of two new partners – Moldavia in 2014 and Sweden in 2015



Current Water JPI Partners and Observers

A group of committed
and motivated research
managers

Water JPI partners currently represent 88 % of the European National Public RDI investment on water



Governing Board

- Decision making body
- 20 countries
 - 1 country = 1 vote
 - 29 institutions represented
- European Commission
 - non-voting member
- 4 observer countries
 - non-voting members



Governing Board

Country	Institution
Austria	Environment Agency Austria
Cyprus	Research Promotion Foundation
Denmark	Innovation Fund Denmark Danish Hydraulic Institute
Estonia	Ministry of the Environment Tallinn University
Finland	Academy of Finland
France	French National Research Agency French Geological Survey National Research Institute of Science and Technology for Environment and Agriculture
Germany	Federal Ministry of Education and Research Jülich Research Centre

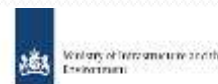


Governing Board

Country	Institution
Ireland	Environmental Protection Agency
Israel	Ministry of Energy and Water
Italy	Institute for Environmental Protection and Research Ministry of Education, Universities and Research
Moldova	Academy of Sciences of Moldova
The Netherlands	Ministry of Infrastructure and the Environment
Norway	Norwegian Environment Agency Research Council of Norway
Poland	European Regional Centre for Ecohydrology
Portugal	Foundation for Science and Technology
Romania	National Authority for Scientific Research



MINISTERO DELL'ISTRUZIONE,
DELL'UNIVERSITÀ E DELLA RICERCA



Governing Board

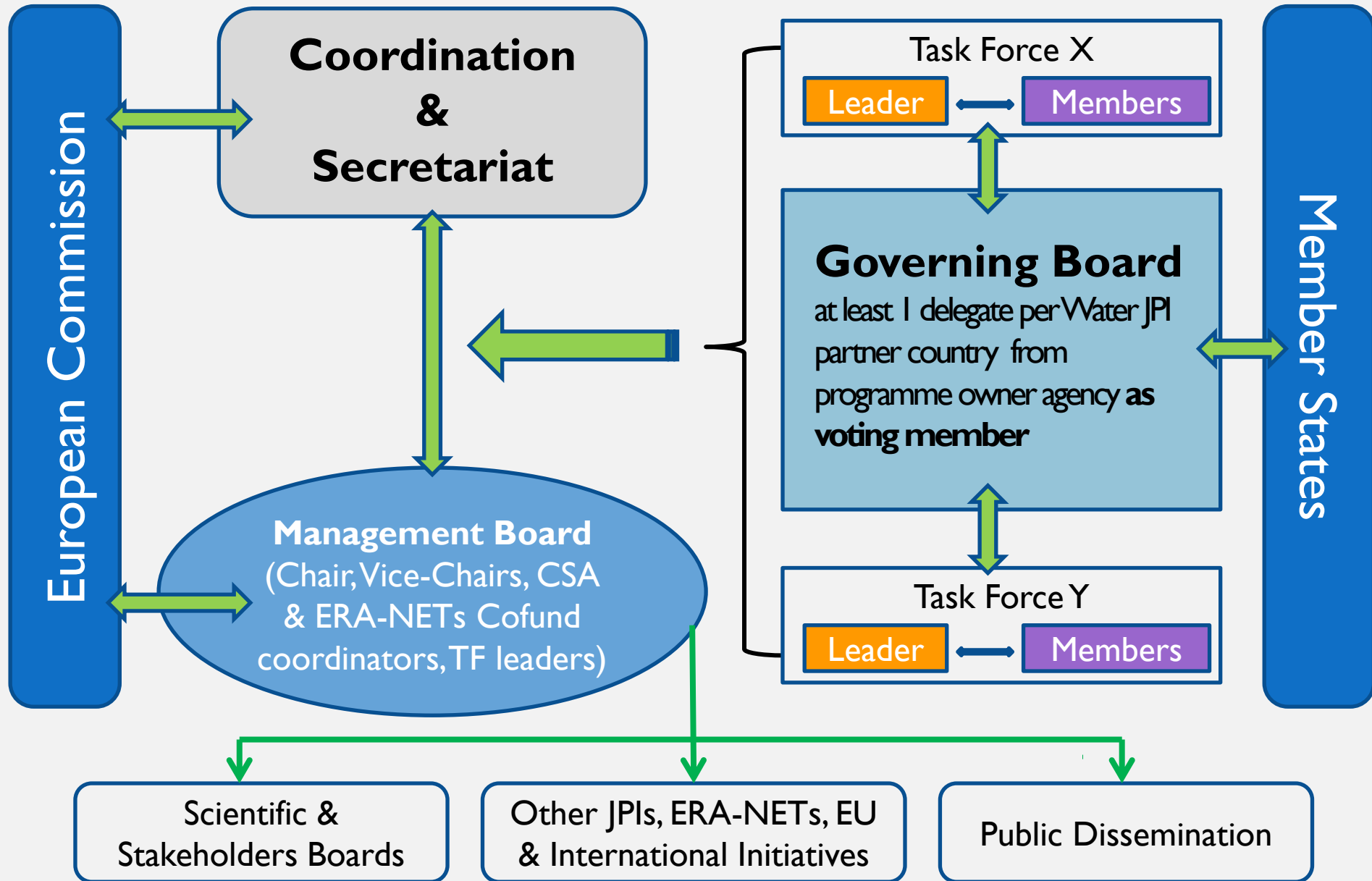
Country	Institution
Spain	Ministry of Economy and Competitiveness
Sweden	Swedish Agency for Marine and Water Management Swedish Research Council Formas
Turkey	Scientific and Technological Research Council
United Kingdom	Natural Environment Research Council
EU Commission	D.G. Research and Innovation
Belgium	Flemish Environment Agency
Greece	National Technical University of Athens
Hungary	National Research, Development and Innovation Office
Latvia	University of Latvia



Swedish Agency
for Marine and
Water Management



Water JPI Governance



JPI Governance

- **Governing Board**
- **Management Board**
 - Chaired by France (ANR)
 - Co-Chaired by Ireland (EPA), with the support of Spain (MINECO) and Italy (ISPRA)
- **3 Task Forces**
 - Alignment
 - Interactions with Horizon 2020
 - International Cooperation

JPI Governance

- **Advisory Boards**

- Scientific and Technological Board (STB)
- Stakeholders Advisory Group (SAG)

✓ Ensure that the work of the Water JPI is relevant to **water research needs**, relevant to the **needs of water industry stakeholders**, and of **high scientific quality**

JPI Governance

- **Scientific and Technological Board**

- 10 prominent scientists – renewed in March 2015

Dermot DIAMOND	Dublin City University
Agathe EUZEN	CNRS - Laboratoire Techniques Territoires et Sociétés
Despo FATTA-KASSINOS	Nireas - International Water Research Center (Chair)
Ing-Marie GREN	Swedish University of Agricultural Sciences
Jaap KWADIJK	Deltares / University Twente
Inmaculada ORTIZ	Universidad de Cantabria
Jens Christian REFSGAARD	Geological Survey of Denmark and Greenland
Seppo REKOLAINEN	Finnish Environmental Institute (Co-Chair)
Karl-Ulrich RUDOLPH	Institute of Environmental Engineering and Management University of Witten
Adrian STANICA	National Institute of Marine Geology and GeoEcology

JPI Governance

- **Stakeholders Advisory Group**
 - 10 prominent European stakeholders

ACQUEAU	the EUREKA Cluster for water
ARC	Aqua Research Collaboration
CIS	Common Implementation Strategy
EIFAAC-FAO	European Inland Fishery And Aquaculture Advisory Commission
EIP Water	European Innovation Partnership on Water
EUROPE INBO	European Network of River Basins Organisations
EurAqua	European Network of Freshwater Research Organisations (Chair)
EurEau	European Federation of National Associations of Water and Wastewater Services
EWA	European Water Association
WssTP	Water Supply and Sanitation Technology Platform (Co-Chair)



Highlights from the Vision Document



Distilled information
obtained through
consensus

The vision document

The grand challenge

“Achieving Sustainable Water Systems for a Sustainable Economy in Europe and Abroad”



JPI Objectives

- Providing and steering **research and innovation** in the water sector
- Reaching effective, sustainable **coordination** of European water research, development and innovation
- Harmonising national water **research agendas** and activities in partner countries
- Promoting **interactions and networking** between different communities (researchers, enterprises, policy-makers, civil society, etc.)
- Supporting **European leadership** in science and technology

Background

- Over the last few decades a number of policies and research, innovation and development (RDI) activities have been put in place **in order to protect water resources**
- Despite these efforts, many regions in Europe still face **water scarcity and/or water-quality problems**. Climate change, groundwater over-abstraction and diffuse pollution are, among others, the main factors influencing water availability

If no action is taken, their impact will be even greater in the years to come





Water JPI Activities



Since 2013

Main Objectives of Water JPI and Activities to Realise

OBJECTIVES

Reaching effective, sustainable coordination of European water RDI

Involving water end-users for effective RDI results uptake

Harmonising National water RDI agendas in Partner Countries

Supporting European leadership in science and technology



TOOLS

Joint Call Management for providing and steering **research and innovation** in the water sector

Alignment of Research Agendas (SRIA Document and Implementation Plan) and RDI activities (including mapping activities and infrastructures)

International Cooperation (MoUs, Call Partnerships...)

Water JPI on-going and possible EC-funded projects

- In support of the Water JPI Implementation

2013	2014	2015	2016	2017	2018	2019	2020	2021
CSA WatEUr								
	ERA-NET Cofund WaterWorks2014							
		ERA-NET Cofund WaterWorks2015						
			CSA International Cooperation					
				ERA-NET Cofund WaterWorks2017 ?				

Water JPI Joint Calls

- **Pilot Call** – Emerging Contaminants
 - 9 Millions € - 7 projects / Kick-off meeting 11 March 2015
- **WaterWorks2014** – Waste Water Treatment and Water Reuse
 - Joint Call: 14,9 M€ (including South Africa) / other activities: 3,4 M€
 - Under finalisation of the selected projects list
- **WaterWorks2015** – Water and Agriculture (in coop. with JPI FACCE)
 - Budget: 26 M€
 - 6 outside partners: Canada, Egypt, South Africa, Taiwan, Tunisia, and USA
 - Launch of the call: February 2016
- **WaterWorks2017** – Closing the Water Cycle Gap

Pilot Call for proposals 2013

- 10 countries: CY, DE, DK, ES, FI, FR, IE, IT, NO and PT
- Publication October 2013
- Budget of 9 M€ (“fresh money”)
- 7 projects funded – Kick-off meeting in March 2015
- Topic related to **emerging contaminants**

Future research on emerging pollutants in water for urban or agricultural purposes should deepen our understanding on the issues such as:

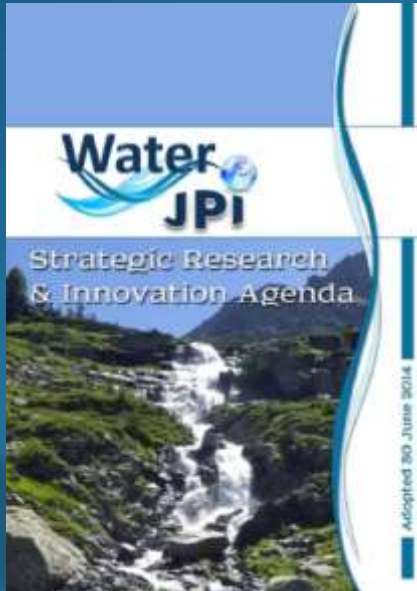
- What are the new contaminants?
- How can we predict their environmental behaviour in surface water, sediments, soil and groundwater?
- Which innovative rapid analysis and detection systems could be developed?
- What impact do they have on human health (toxicology) and on ecosystems (ecotoxicology)?

Call for proposals 2014

- Topic related to developing technological solutions and services for water distribution and measurement, waste water treatment and reuse, desalination, floods and droughts, etc.
- Fulfils SRIA pillar 3 - promoting competitiveness in the water industry
- 17 partners from 15 countries: BE, CY, DK, EE, ES, IE, IL, IT, MD, NL, NO, PT, RO, SE and ZA
- Budget of 14,95 M€
- Publication February 2015 – Final Evaluation October 2015

Call for proposals 2015

- Topic related to improving water use efficiency and reducing soil and water pollution for a sustainable agriculture
- Fulfils SRIA pillar 4 - implementing a water-wise bio-based economy
- Beginning 1st January 2016
 - Budget of 26 M€
 - 32 partners involved in the Joint Call from EU countries, associated countries (MD, NO, and TR) and non associated countries:
 - Low and medium incomes countries (EG, TN and ZA)
 - Industrialised and emerging economies (CA, TW and US)



Strategic Research and Innovation Agenda



Elaboration process and outcomes

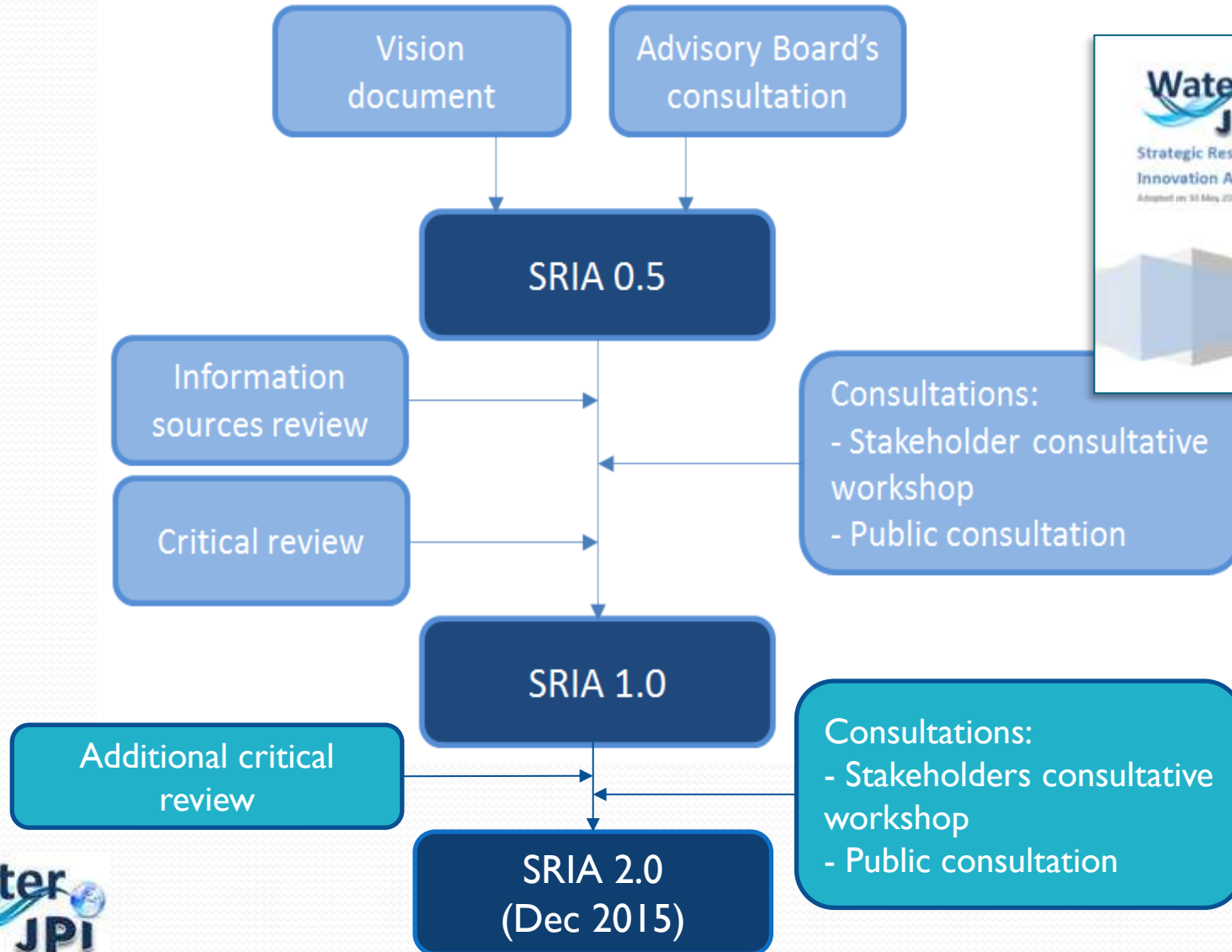
What is a SRIA?

- The strategic research and innovation agenda (SRIA) is a document that **lays out and prioritises Research, Development and Innovation (RDI) needs**
- The SRIA is meant to guide future European RDI policy directions (e.g. Horizon 2020's work programmes)

Developing a SRIA

- The SRIA has been conceived as a “**collective and shared strategy**, fed by national strategies and fitting the objectives of RDI Programme owners (...).The SRIA is based on **shared prioritisation**.The SRIA is neither the intersection of national SRIAs, nor a brand new document resulting from a bottom-up approach. (...)”

SRIA elaboration process



SRIA Outcomes

- Framework and context analysis
- Water Research, Development and Innovation (RDI) needs in the short, medium and long term
 - 5 themes
 - 11 sub-themes and related key water RDI needs

Maintaining ecosystem sustainability

- Assessing and optimising ecosystems services
- Ecological engineering and ecohydrology
- Hydro-climatic extreme events and multiple pressures



Safe water systems for citizens

- Emerging pollutants: assessment, behaviour and treatment opportunities
- Minimising risks associated with infrastructure and natural hazards



Competitiveness in water industry

- Developing market oriented solutions
- Enhancing the regulatory framework



A water-wise bioeconomy

- Assessing and optimising ecosystems services
- Ecological engineering and ecohydrology
- Hydro-climatic extreme events and multiple pressures

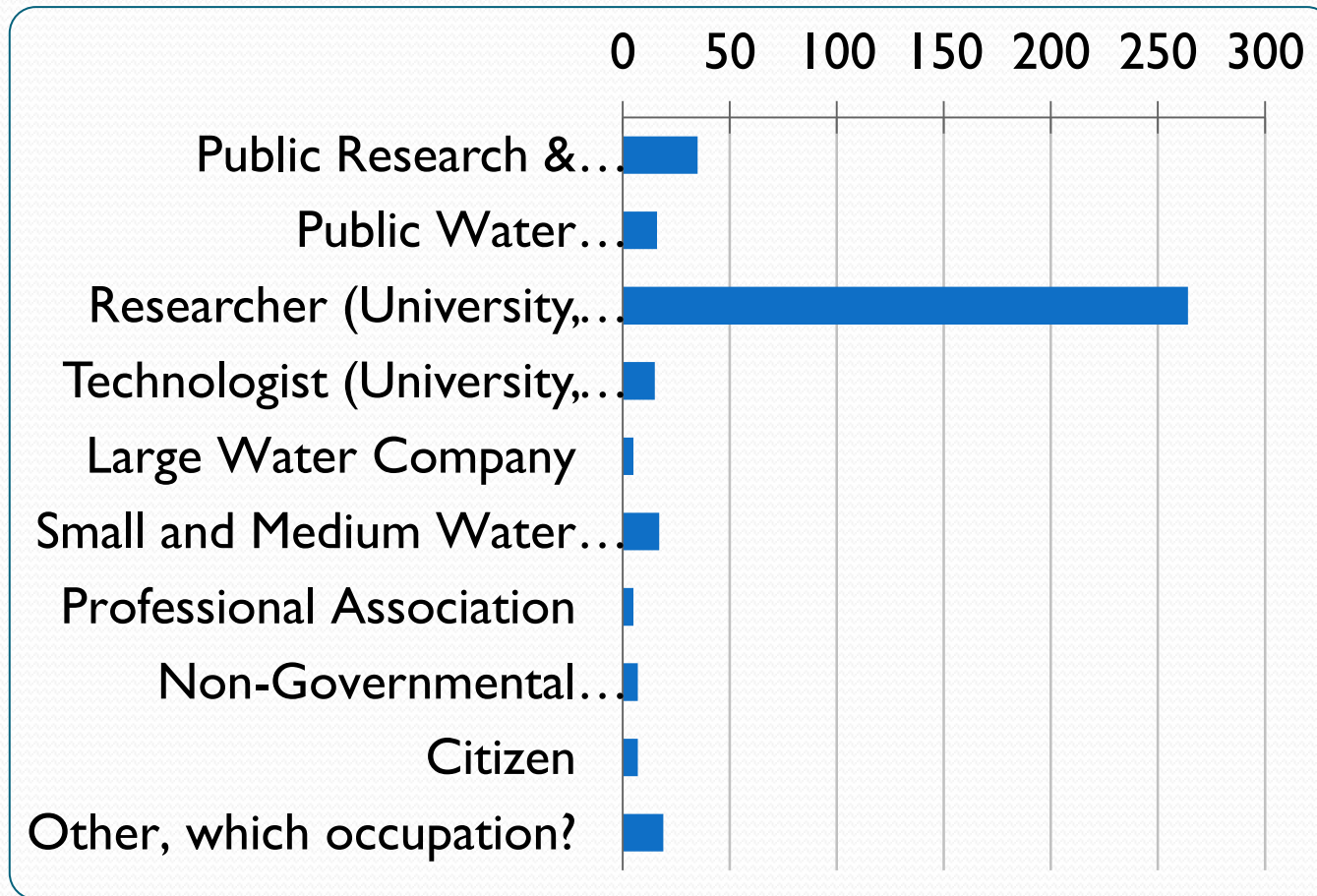


Closing the water cycle gap

- Enabling sustainable management of water resources
- Strengthening socio-economic approaches to water management

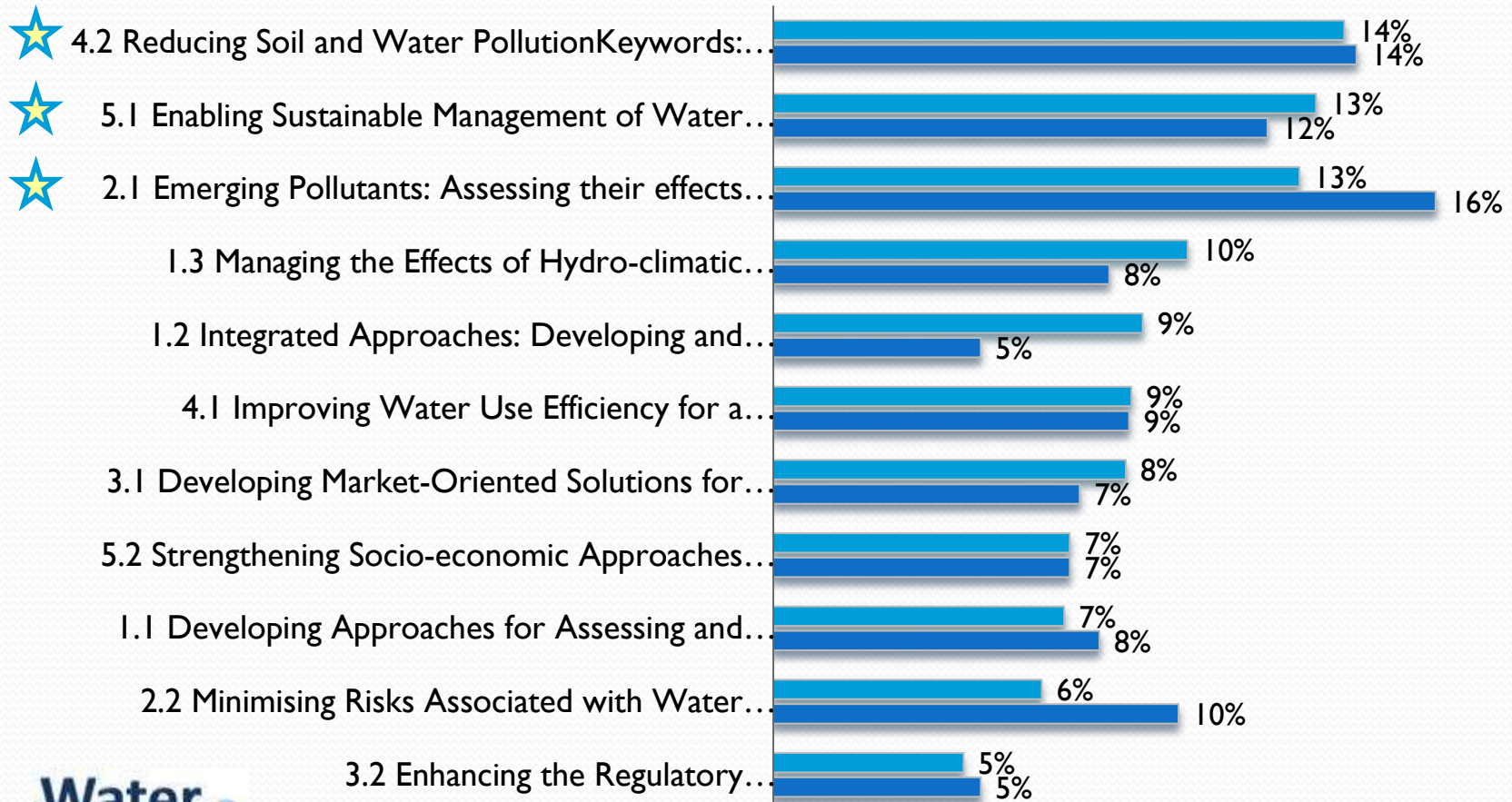


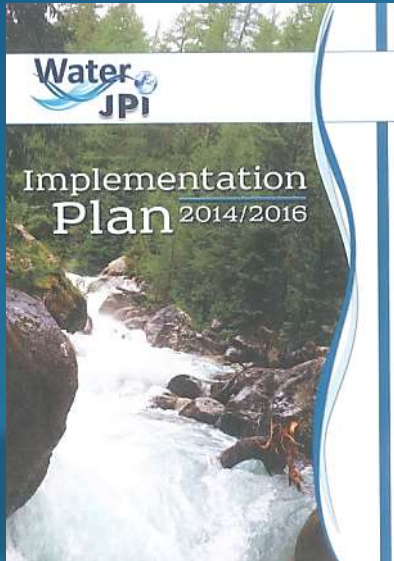
Public consultation on SRIA 1.0



Three most important sub-themes

■ Male % (N=249) ■ Female % (N=141)





Water JPI Implementation Plan

2014 – 2016



Water JPI IP principles

- **Variable geometry**

Water JPI partners only participate in activities of their specific interest

- **Flexibility**

This supports the development of activities responding to partners' needs and opportunities

- **Responsiveness**

The Water JPI provides an enabling environment: the water challenge is tackled through specific and tailored activities

Implementation Plan activities

Three types of activities

- Interfacing with society
- Empowering RDI actors
- Improving the efficiency of RDI programmes

Updating the Implementation Plan

- To cover a new planning period: **2016 – 2018**
- Identify the SRIA elements that will be prioritized in the next Implementation Plan as:
 - activities of the Water JPI
 - possible items for Horizon 2020

Major actors

- Water JPI (own activities)
- DG Research and Innovation
- DG Environment



Mapping RDI Funding in Europe



Identifying agents,
procedures, funding and
mechanisms

Why a mapping exercise?

- ✓ Better understanding of the European water-related RDI activities
- ✓ Inventory of national & regional research strategies, policies and programs
- ✓ Funding of research projects, infrastructures & mobility schemes in Water RDI
- ✓ Multi-national coordination activities taking place in Europe
- ✓ Preliminary strategic analysis of the current water research strengths, weaknesses, gaps and barriers to cooperation



Outcomes

- Country summary reports were produced for all countries (30 = JPI + rest of Member States + some Associated Countries)
- Surveyed / Estimated mobilisation of resources through the JPI

Study Target	Countries	National Public RDI Funding (M€)	Funding respect to MS+AC (%)
Europe	MS	351	94
	AC	22	6
	MS + AC	372	100
Water JPI	Partners	328	88
	Observers	30	8
	Part. + Obs.	358	96

- The EC invests **130 M€/yr** through the FP (average of FP6 and FP7 so far)
- Total investment in public RDI: about **500 M€/yr** in MS+AC+EC



Task Forces

Alignment

Interactions with H2020

International Cooperation

Alignment

4 types of alignment

- Joint calls
- Sharing of work
- Sharing of resources
- Areas where no one country can do the work alone



Alignment



- Joint calls have been a major activity for most of the ten JPIs, but activities should go far beyond joint calls
- Commissioner MGQ at the Dublin Conference (February 2013): “By aligning and coordinating the institutional and competitive funding committed under national research programmes, which accounts for 88% of the public research in Europe, we can better exploit our resources for maximal societal impact”
- Report of the GPC Working Group Alignment (September 2014)
- The [WatEUr CSA](#) organised a Brussels workshop in October 2014 to identify priority activities for Water JPI alignment, based on experience in national and international programmes, including Belmont and other JPIs
- From June 2015 alignment is being taken forward by a newly formed cross [Water JPI Task Force on Alignment](#) (currently composed of ES DE, FR, **IE**, NL and **UK**)

Interactions with H2020



Objectives

- Interactions with the EC - Overall JPI Water Strategy
- Provide a Platform to react and gather GB's feedback
- Collate information on and Link with water-related RDI European funded projects
- Linkages with other Initiatives
- Integrating all the Water JPI relevant activities
- Communicating to the wider Water JPI community

Interactions with H2020

Outputs

- Position papers on the Horizon 2020 SC5 draft WPs
- Submission to the Call for Ideas Large-Scale Demonstration projects
- Position Paper on the EIP Water



International Cooperation



Activities since the beginning

- [WatEUr](#) – Mapping RDI activities in 7 targeted countries
- [WaterWorks2014](#)
1 outside Europe country integrated in the Joint Call
- [WaterWorks2015](#)
6 outside countries integrated in the Joint call and dedicated Additional Activities
- Future [CSA 2016](#) on Support International Cooperation Activities on Water

In WatEUr

- Mapping of RDI activities and first contacts with research funding organisations to invite them to participate in the ERA-NET
 - ✓ Brazil
 - ✓ Canada
 - ✓ China
 - ✓ India
 - ✓ South Africa
 - ✓ USA
 - ✓ Vietnam



Countries Contacts

- WaterWorks2014 – Water Treatment, Reuse, Recycling and Desalination
Water JPI members (Israel, Moldova, Norway, Turkey) and South Africa
- WaterWorks2015 – Water and Agriculture Challenges
Water JPI members (Moldova, Norway, Turkey) and Canada, Egypt, South Africa, Taiwan, Tunisia, and USA

Interests from India, Qatar, New Zealand, Vietnam

Our Wishes, long-term cooperation partnership agreements

Actions such as

- Shared strategic research agenda
- Joint calls
- Infrastructure
- Knowledge hub
- Training and capacity building
- Mobility schemes
- Others: demonstration platforms?





Communication



Website and Intranet

From internal to external communication

- Internal
 - Efforts to communicate and organize activities at our home institutions
- External
 - Website
 - Monthly newsletters
 - Water JPI events (Milano 2015)
 - Projects database
 - Participation to international events



You are here: Home

Water JPI event at EXPO2015



A round table on drinkable water and water-food Nexus organized by our team, will be held in the pavilion Europe of the European Commission at EXPO 2015 in Milan next 12th June from 11.15h. The international collaborative activities performed by the Water JPI in developing safe water systems for the citizens and implementing a water bio-based economy will be presented. [Website](#) - [Event programme](#) - [Registration form](#)

The Water JPI event will be followed by a [workshop](#) on climate change and water security.

Second Call for Proposals within Waterworks 2014



The aim of the WaterWorks 2014 Continued Call is to enable transnational, collaborative research, development and innovation projects addressing questions related to the water challenges faced by European society. The Water JPI

PUBLIC CONSULTATION ON THE WATER JPI STRATEGIC RESEARCH AND INNOVATION AGENDA IS OPEN!

The Water JPI launched the new version of the Water JPI Strategic Research and Innovation Agenda (SRIA 2.0) in June 2014. In line with the participatory approach the Water JPI is based upon, this consultation aims to gather the opinions of the society at large on the SRIA. As a

www.waterjpi.eu

Webpage contacts
185,000 from 1st January 2015

Webpage statistics on homepage
Hits show that there is a growing interest on the Water JPI also outside Europe



- 39% USA
- 8.5% China
- 8.2% Australia
- 4.2% Japan
- 4.2% Indonesia

11
2015



EDITORIAL

"Water is taught by thirst" said the American poet Emily Dickinson meaning that we learn to appreciate things only when we are without them. Many people in the world suffer for water scarcity and drought. They are calculated 1.8 billion. Luckily research and innovation are focused to find solutions to make potable sea water and waste water. According to a study presented during the Stockholm World Water Week research and innovation investments in the water sector rise 9% each year, more than other sectors estimated at the lower rate of 4%. Filters for water depuration and desalination are the most studied subjects by applied research and innovation. Thanks to the inverse osmosis process which reduces costs plants of desalination have been duplicated all over the world and investments in this field will increase up to 17 billion USD in 2016.



PROGRESS ON WATER JPI ACTIVITIES

The 7th Governing Board

The meeting among the Water JPI partners will take place in Paris on 19-20 November 2015 and is organised around the three pillars of the activities within this initiative tackling present and future water challenges: the strategy, the implementation and the international cooperation. The outcomes of the second stakeholders workshop held in Orleans last October and the new version of the Strategic Research and Innovation Agenda will be presented. Implementation issues in the meeting agenda are related to the activities of the ERANET-Cofund Water Works 2014, in particular the results of the call on research and innovation for developing technological solutions and services and progress in the alignment of national agendas. Discussion on international cooperation will focus on the outcomes of the ad hoc task force and the development of the future coordination and support action whose call is open till 8 March 2016.

A second alignment workshop is scheduled for 19th November 2015 before the Governing Board and is meant to explore the ways in which water research and innovation is dealt with in the Water JPI countries in order to develop a realistic definitive plan of actions within the initiative.

Water JPI presented at the conference "Water for Health: EU-India STI Cooperation Days 2015"

The sixth edition of this annual event supported by the European Commission and jointly organized by the EU funded projects [INDIGO POLICY](#) and [INNO INDIGO](#) and the European Technology Platform for water (WssTP) was held in Rome on 15-16 October with the aim of creating new research and business networks on issues of priority interest for Europe and India.

The Rome EU-India event was focused on water for health and some new technological solutions for water treatment and wastewater management were shown as results of research projects promoted by the [Water Platform](#) established within the INNO INDIGO initiative. The networking café has been the occasion to meet with Indian researchers and enterprises interesting in research and innovation development.

As international cooperation to tackle the common challenge of improving water quality and water resources management was at the core of this conference, the Water JPI coordinator, Dominique Darmendrail, was invited to present the activities of this relevant initiative which aims to integrate cooperation in water research and innovation in Europe and outside Europe. The following debate focused on the research needs of the Gange rejuvenate plan and the possibilities of integrating Indian funding agencies in the Water JPI activities.

Water JPI presented at ECOMONDO 2015 conference

- Newsletter recipients **4,700**
- Free subscribers **1,157**
- Mailing list composed of names of stakeholders provided by partners
- ✓ researchers
- ✓ representatives of governmental agencies funding or performing **water RDI** and environmental activities.

NEWSLETTER