The Water JPI

Joint Programming Initiative
Water Challenges for a Changing World

D. DARMENDRAIL,

PARIS

29 Janvier 2016

- 10 JPIs since 2008

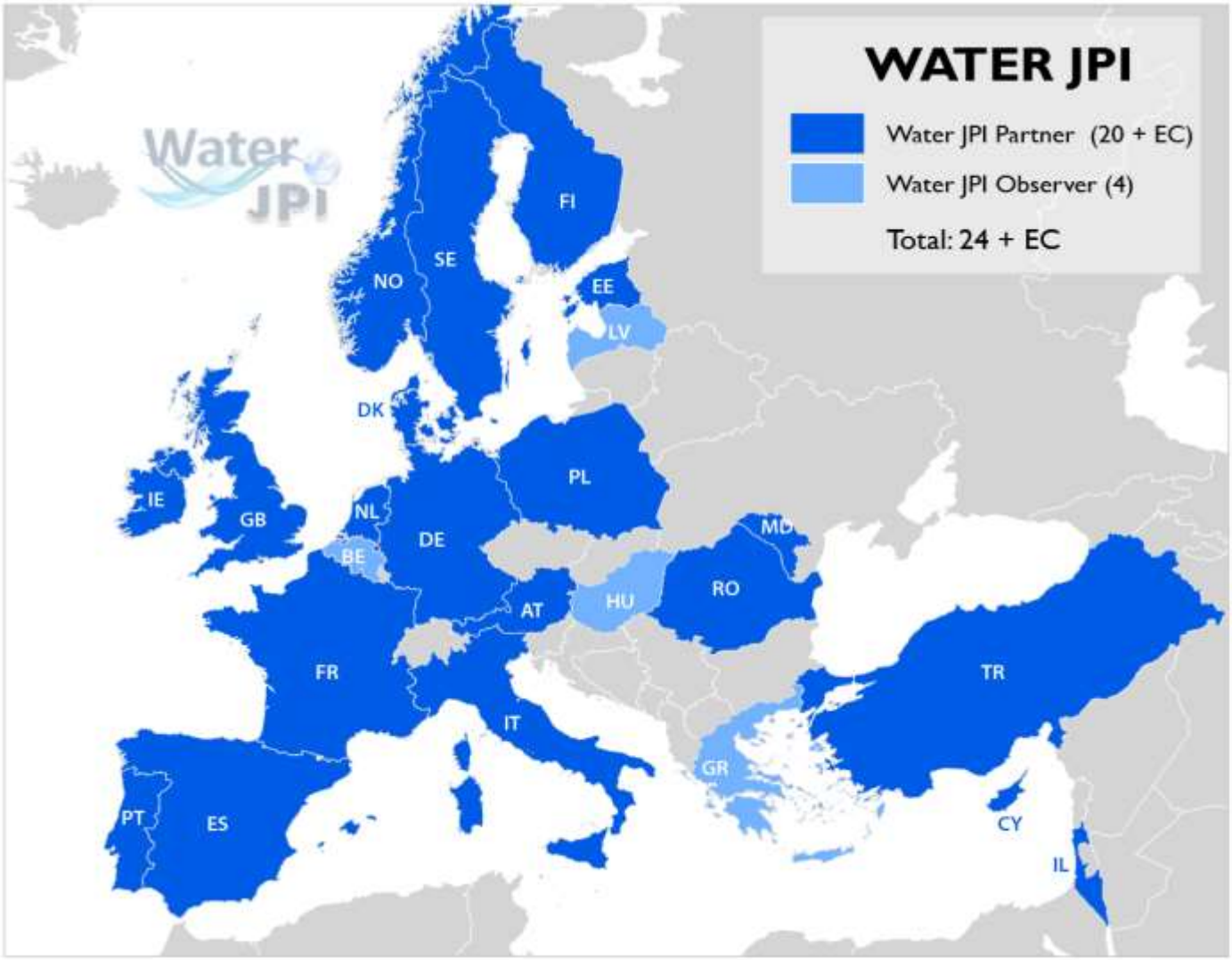
- Alzheimer and other Neurodegenerative Diseases (JPND)
- Agriculture, Food Security and Climate Change (FACCE)
- A Healthy Diet for a Healthy Life
- Cultural Heritage and Global Change: A New Challenge for Europe
- Urban Europe - Global Urban Challenges, Joint European Solutions
- Connecting Climate 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

What is the Water Joint Programming Initiative?

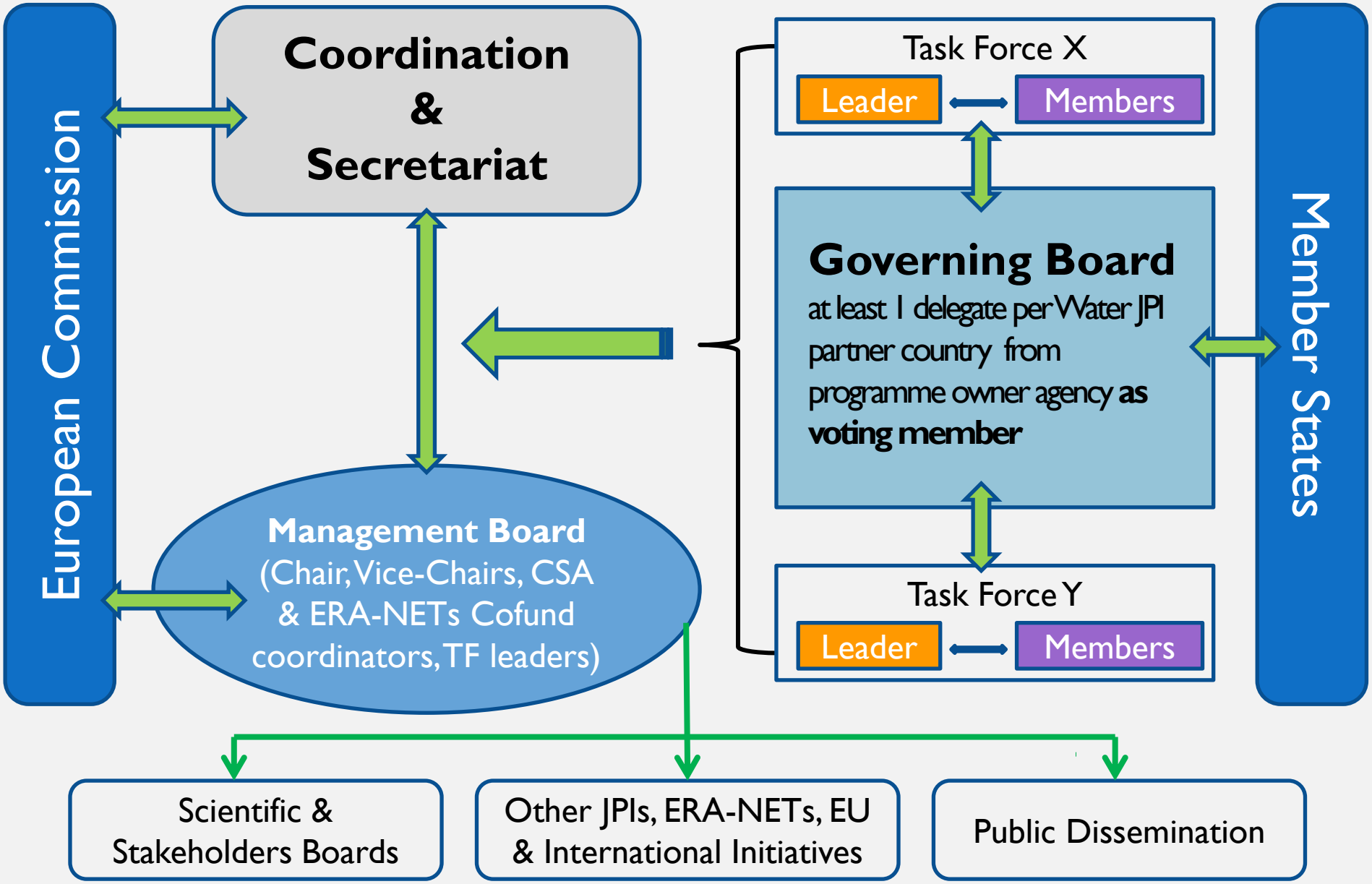
- Coordination of the national / regional public research, development and innovation programmes in Europe
- A process based on variable geometry
- A new way to address RDI problems with European dimension

Officialy adopted by the European Competitiveness Council in December 2011

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



Water JPI Governance



Main Objectives of the Water JPI and Activites 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

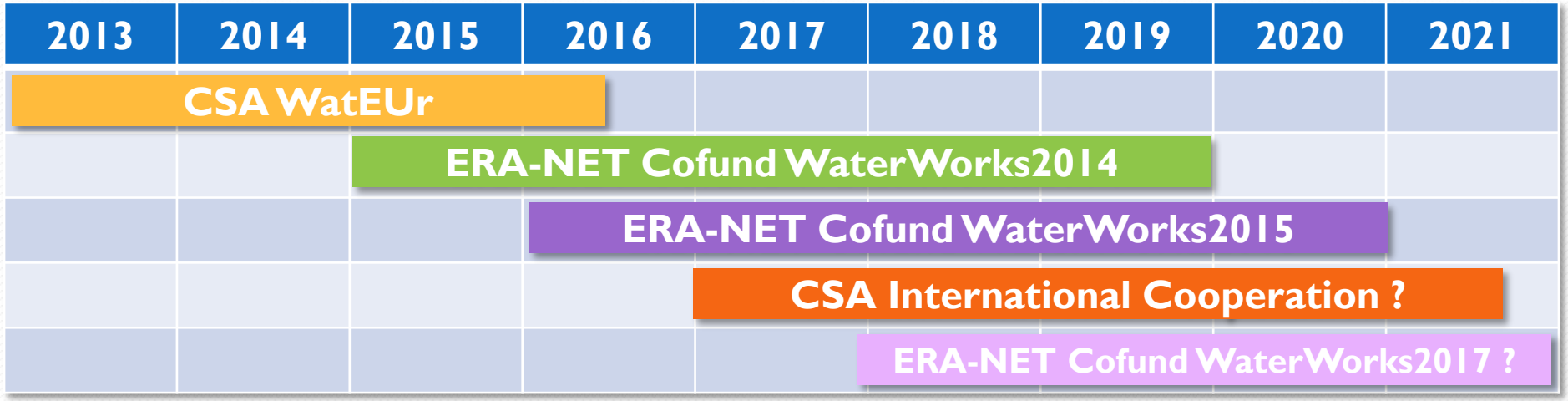
Joint Call Management for providing and steering **research and innovation** in the water sector

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



JPI Governance

- **Advisory Board**
  - 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

Water JPI Activities

Since 2013

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 proposal financial decision (16 projects recommended for funding)
- WaterWorks2015 – Water and Agriculture (in coop. with FACCE)
  - Budget: 26 M€
  - 6 outside partners: Canada, Egypt, South Africa, Taiwan, Tunisia, and USA
  - Launch of the call: beginning of 2016
- WaterWorks2017 – Closing the Water Cycle Gap

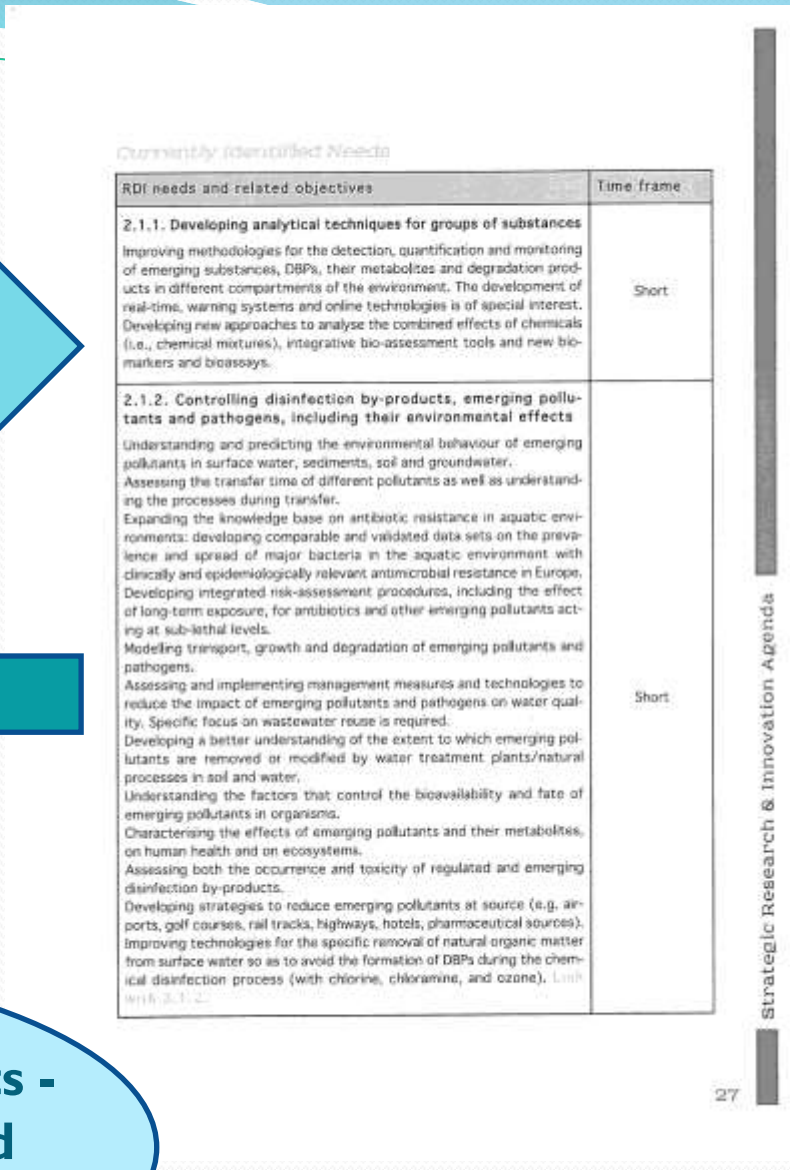
Pilot Call for proposals 2013

- 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)?

Emerging Pollutans: Assessing their effects on nature and humans and their behaviour and treatment opportunities



Currently Identified Needs

RDI needs and related objectives	Time frame
2.1.1. Developing analytical techniques for groups of substances Improving methodologies for the detection, quantification and monitoring of emerging substances, DBPs, their metabolites and degradation products in different compartments of the environment. The development of real-time, warning systems and online technologies is of special interest. Developing new approaches to analyse the combined effects of chemicals (i.e., chemical mixtures), integrative bio-assessment tools and new biomarkers and bioassays.	Short
2.1.2. Controlling disinfection by-products, emerging pollutants and pathogens, including their environmental effects Understanding and predicting the environmental behaviour of emerging pollutants in surface water, sediments, soil and groundwater. Assessing the transfer time of different pollutants as well as understanding the processes during transfer. Expanding the knowledge base on antibiotic resistance in aquatic environments: developing comparable and validated data sets on the prevalence and spread of major bacteria in the aquatic environment with clinically and epidemiologically relevant antimicrobial resistance in Europe. Developing integrated risk-assessment procedures, including the effect of long-term exposure, for antibiotics and other emerging pollutants acting at sub-lethal levels. Modelling transport, growth and degradation of emerging pollutants and pathogens. Assessing and implementing management measures and technologies to reduce the impact of emerging pollutants and pathogens on water quality. Specific focus on wastewater reuse is required. Developing a better understanding of the extent to which emerging pollutants are removed or modified by water treatment plants/natural processes in soil and water. Understanding the factors that control the bioavailability and fate of emerging pollutants in organisms. Characterising the effects of emerging pollutants and their metabolites, on human health and on ecosystems. Assessing both the occurrence and toxicity of regulated and emerging disinfection by-products. Developing strategies to reduce emerging pollutants at source (e.g. airports, golf courses, rail tracks, highways, hotels, pharmaceutical sources). Improving technologies for the specific removal of natural organic matter from surface water so as to avoid the formation of DBPs during the chemical disinfection process (with chlorine, chloramine, and ozone). Link with 2.1.1.	Short

Strategic Research & Innovation Agenda

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"Emerging water contaminants - anthropogenic pollutants and pathogens“

Water JPI Pilot Call

11 funding organisations from **10 countries**:

- RPF (Cyprus);
- DSF (Denmark);
- AKA (Finland);
- ONEMA (France);
- BMBF (Germany);
- EPA (Ireland);
- MIUR (Italy);
- RCN (Norway);
- FCT (Portugal);
- MINECO and CDTI (Spain)

Public funding for transnational collaborative research projects: 9 M €

Call Themes

Theme 1: **Identification and prevention of emerging freshwater contaminants**

Theme 2: **Control, mitigation and methods for treatment and removal**

Theme 3: **Impact on ecosystems services and human health**

Call Consortiums - FRAME

A novel Framework to Assess and manage contaminants of Emerging concern in indirect potable reuse

Coordinator: Thomas Ternes (Germany)

Participating countries: France, Italy, Norway

Call Consortiums - MOTREM

Integrated processes for MOnitoring and Treatment of Emerging contaminants for water reuse

motrem

Universidad Rey Juan Carlos

University of Stuttgart Germany

UNIVERSITY OF HELSINKI

UNIVERSITA DEGLI STUDI DI TORINO

FCC Aqualia

BRUKER

Coordinator: Javier Marugan (Spain)

Participating countries: Finland, France, Germany, Italy

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Call Consortiums - PERSIST

Persistence and fate of emerging contaminants and multi-resistant bacteria in a continuum of surface water groundwater from the laboratory scale to the regional scale

Coordinator: Corinne Le Gal La Salle (France)

Participating countries: Germany, Spain

Call Consortiums - PROMOTE

PROtecting water resources from MObile TracE chemicals

HELMHOLTZ CENTRE FOR ENVIRONMENTAL RESEARCH – UFZ

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE

USC

NGI

Umwelt Bundes Amt
Für Mensch und Umwelt

UNIVERSITEIT VAN AMSTERDAM

Coordinator: Thorsten Reemtsma (Germany)

Participating countries: France, Norway, Spain

Water JPI

Water JPI 2016 Call

The call: content, time lines

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
- Submitted to EC in April 2015 – Beginning January 2016
  - Budget of 24 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)

Water JPI

FACCEJPI

2016 Joint Call

- "Sustainable management of water resources in agriculture, forestry and freshwater aquaculture sectors"
- Three topics:
  - Increasing the efficiency and resilience of water uses
  - Monitoring and reducing soil and water pollution
  - Integrating social and economic dimension into the sustainable management and governance of water resources

2016 Joint Call

Anticipated Time Schedule		
Stage	Description	Date
Step 1 Pre-Proposals	Pre-Announcement	15 January 2016
	Call Opening	16 February 2016
	Submission Deadline	19 April 2016
	Notification of Outcomes	XX July 2016
Step 2 Full Proposals	Submission Deadline	XX September 2016
	Notifications of Outcomes and Funding Decisions	November 2016
Kick-off	Expected start of funded projects	March-April 2017

Thank you for your attention!

Any questions?

Contact

WW2015secretariat@agencerecherche.fr
ANR

Thanks to all!

See you…