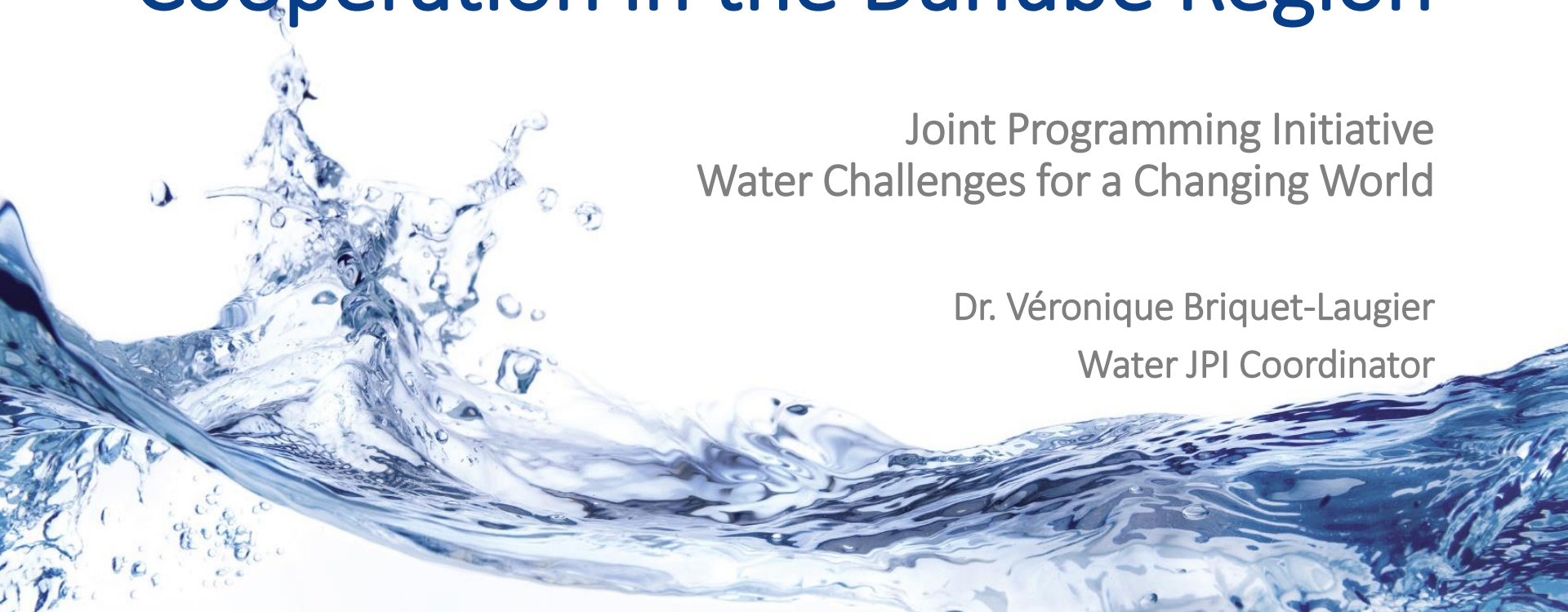




# Workshop on International Cooperation in the Danube Region

Joint Programming Initiative  
Water Challenges for a Changing World

Dr. Véronique Briquet-Laugier  
Water JPI Coordinator

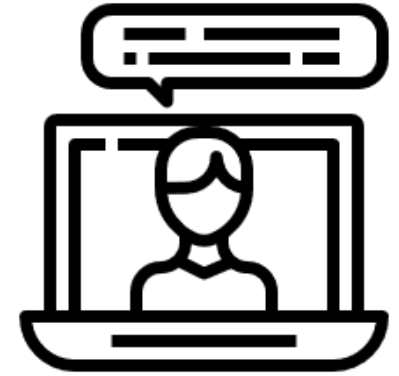




# Welcome address

Veronique Briquet Laugier  
IC4WATER Coordinator

# WEBEX



- ▶ We kindly ask you to follow these rules:
  - ▶ Use the chat to report technical issues
  - ▶ Mute your microphone unless to speak
  - ▶ Use the « Q/A » section to comment and ask questions on the presentation
  - ▶ Raise your hand if you wish to take the floor
  - ▶ Turn off your camera if any bandwidth problem
    - Speakers: Activate your camera only when presenting
- ▶ The WebEx will be recorded to assist the Secretariat in the preparation of the meeting minutes

9:30 - Plenary session. Presentation of the workshop and general context		
5'	Welcome and opening of the meeting	
10'	Tour de table	
15'	Aims of the workshop	Véronique Briquet-Laugier, Water JPI coordinator
15'	European Strategy for the Danube Region	Johan Magnusson, EC
15'	The Water related issues and the RDI landscape in the Danube region	Hélène <del>Masliyah</del> -Gilkarov
10h30-10:45 - Coffee break		
10:45-11:45 – Plenary session. Initiatives in the Danube Region.		
60'	Presentations from relevant initiatives on the Danube (12' per presentation): <ul style="list-style-type: none"> <li>- Danube Strategy Point</li> <li>- Interreg Danube transnational programme</li> <li>- Danube INCO NET</li> <li>- DANUBIUS- Research Infrastructure</li> <li>- Black Sea Commission</li> </ul>	Robert <del>Lichner</del> Marius Valentin Felix Gajdusek Adrian <del>Stanica</del> Irina Makarenko / <del>Halil</del> Ibrahim Sur
11:45-12:05 – Water JPI presentation followed by Q&A		
20'	Water JPI activities on International Cooperation, Water models of cooperation, identified needs for making progress	Water JPI coordinator – Véronique Briquet-Laugier
12:05-13:15 - Lunch Break		



13:15- 14:30 - Breakout sessions 75 minutes		
75'	<b>Breakout group 1 – Interactions between regional activities and research themes of the Water JPI</b> <ul style="list-style-type: none"> <li>- What are the water priorities in the region?</li> <li>- Gaps identification.</li> <li>- Data collection, databases, data treatment.</li> <li>- What is at stake for this region?</li> </ul>	Moderator (tbc) Rapporteurs: Claire Treignier, Olivier Bouc
75'	<b>Breakout group 2 – How to cooperate together?</b> <ul style="list-style-type: none"> <li>- Actors and stakeholders in the region.</li> <li>- Which activities are of common interest (infrastructures, knowledge hubs, lobbying, networking, mobility)?</li> <li>- Best available tools for the cooperation in the region.</li> <li>- How to build the cooperation models?</li> </ul>	Moderator (tbc) Rapporteurs: Véronique Briquet-Laugier, Esther Díez
14:30-14:45 - Coffee Break		
14:45-15:30 - Plenary session		
30'	Rapporteurs feedback of the 2 breakout groups and discussion: <b>How to find synergies between regional activities and the Water JPI?</b>	Rapporteurs
15'	Wrap-up of the workshop	Water JPI coordinator – Véronique Briquet-Laugier

# Tour de Table

## All participants



# Attendees

- ▶ **Black Sea Commission:** Irina Makarenko, Halil Ibrahim Sur
- ▶ **CNR:** Debora Bellafiore, Francesca De Pascalis, Georg Umgieser
- ▶ **Danube Commission:** Hélène Masliah-Gilkarov
- ▶ **Danube Strategy Point:** Robert Lichtner
- ▶ **Danube Transnational Programme:** Marius Niculae
- ▶ **Danubius-RI:** Adrian Stanica
- ▶ **Deltares:** Wilko Verweij
- ▶ **European Commission:** Johan Magnusson
- ▶ **EU Danube Region Steering Group:** Balazs Horvath, Laszlo Balatonyi
- ▶ **INCO-Net Danube:** Felix Gajdusek
- ▶ **Institute of Chemistry of Moldova:** Olga Covaliova (Water JPI AB)
- ▶ **InterSeS Sustainability Services (SME):** Eduard Interwies

## Water JPI members:

- ▶ **ANR:** Olivier Bouc, Véronique Briquet-Laugier, Esther Diez-Cebollero, Claire Treignier
- ▶ **AEI:** Esther Chacon
- ▶ **Environment Agency Austria:** Robert Konecny
- ▶ **FORMAS:** Osman Tikansak
- ▶ **NARD:** Viorica Boaghi
- ▶ **Project Management Jülich:** Sabine Sorge
- ▶ **RCN:** Maryam Shapouri
- ▶ **TUBITAK:** Serhat Yildirim
- ▶ **WRC:** Mamohloding Tlhagale



# Context of the workshop

Veronique Briquet Laugier  
IC4WATER Coordinator



# Why the Danube Region?



## ► Socio-economic interest:

- Its river basin homes more than 80 million people from 19 countries.
- Considerable GDP differences across countries; important agricultural weight in certain countries.

## ► Environmental interest:

- 56% of the river heavily modified.
- 27% of the river in not good chemical status.
- 3 of 11 transboundary groundwater bodies are experiencing significant nitrate pollution.



## ► Research and innovation interest:

- Analysis of the potential implementation of an **Article 185**.
- Specific RDI needs identified in **Water JPI's SRIA 2.0**.
- Several countries are members of the Water JPI (**AT, DE, MO, RO**)
- Results today could help pave the way towards **Water4All**.



# Aims of the workshop

To exchange with initiatives and governmental institutions of the Danube region interested in RDI joint activities to:

- ▶ To **strengthen/ develop** the Water JPI international network in this region.
- ▶ To plan and implement, on a voluntary basis, **joint actions** in the framework of Horizon Europe and other regional funding instruments.
- ▶ To identify **water RDI priorities** for the Danube regional issues.
- ▶ To elaborate on potential **tools for international cooperation** in the region and beyond.

This workshop is organised within the frame of the **IC4WATER Project**.

# IC4WATER Project (2017-2022)

**IC4WATER** plans to elaborate new principles of international transnational research and innovation cooperation through concrete joint programming with a focus on SDGs in order to:

- Scale-up cooperation activities.
- Make of the Water JPI an attractive partner.
- Strengthen the role of the Water JPI in underpinning knowledge and evidence.

**Partners:** Cyprus, Denmark, France (Coordinator), Estonia, Finland, Germany, Ireland, Italy, Israel, Moldova, Netherlands, Norway, Portugal, Romania, Spain, Sweden, United Kingdom + The Water supply & sanitation Technological Platform (WssTP)



# IC4WATER Project (2017-2022)

I.

**A strategy** for developing the Water JPI network at the international level.

II.

**A Public – Private Partnership for research development and implementation**, with key economic sector representatives, such as the WssTP, to increase the development of research and innovation programmes and the take-up of research on water challenges.

III.

**A new Knowledge Hub (network) related to international water challenges** aiming at the integration and sharing of knowledge, infrastructures, data and modelling tools, training and capacity building.

IV

**Joint Actions on UN SDGs** for implementing the Water JPI Strategic Research & Innovation Agenda, including a Joint Transnational Call (more information later on today)

V

**A Global Impact Assessment method of the JPI network.**

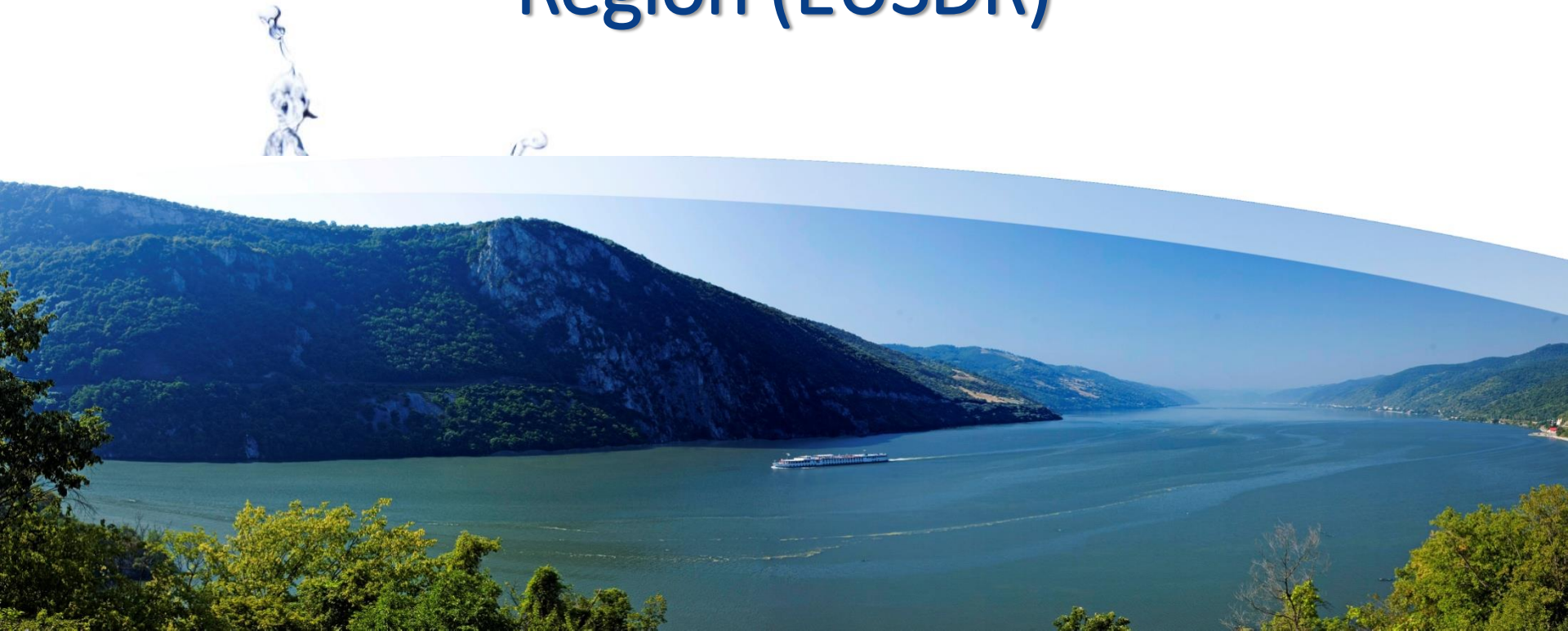
# European Strategy for the Danube Region

Johan Magnusson, EC





# The EU Strategy for the Danube Region (EUSDR)





# The EUSDR Region (not just the river!)

- 14 countries:
- **9 EU Member States:** Austria, Bulgaria, Croatia, Czech Republic, Hungary, Germany (Baden-Württemberg, Bavaria), Romania, Slovenia
- **5 non-MS:** Bosnia-Herzegovina, Moldova, Montenegro, Serbia, Ukraine



© EuroGeographics Association for the administrative boundaries (NUTS regions)

# What is the EUSDR about?

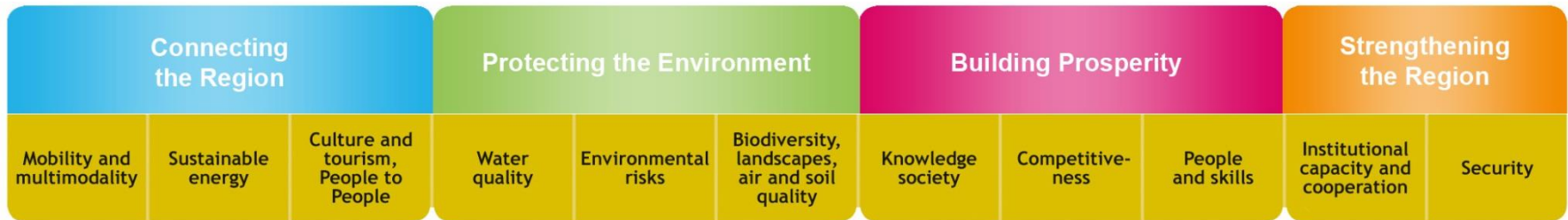
- Some of the key issues identified (I):
- **Mobility:** movement of people and goods, corridors across Europe
- **Energy:** secure sources, diversification, especially renewable, reduction in emissions, efficiency
- **Water:** quality (pollution, ecosystems) and quantity (navigation, risk prevention and management)
- **Biodiversity:** precious natural heritage as a source of well-being and prosperity

# What is the EUSDR about?

- **Some of the key issues identified (2):**
- **Socio-economic development:** jobs, welfare, framework for creativity and investments, IT potential
- **Education and capacity:** schools and universities, training, modern administration, inclusion of all citizens
- **Culture and identity:** rich cultural heritage, tourism potential
- **Security:** personal security and protection, fight against organised crime, corruption

*The strategy addresses these various topics through  
4 pillars  
11 priority areas,  
and of course actions and projects*

## THE FOUR PILLARS



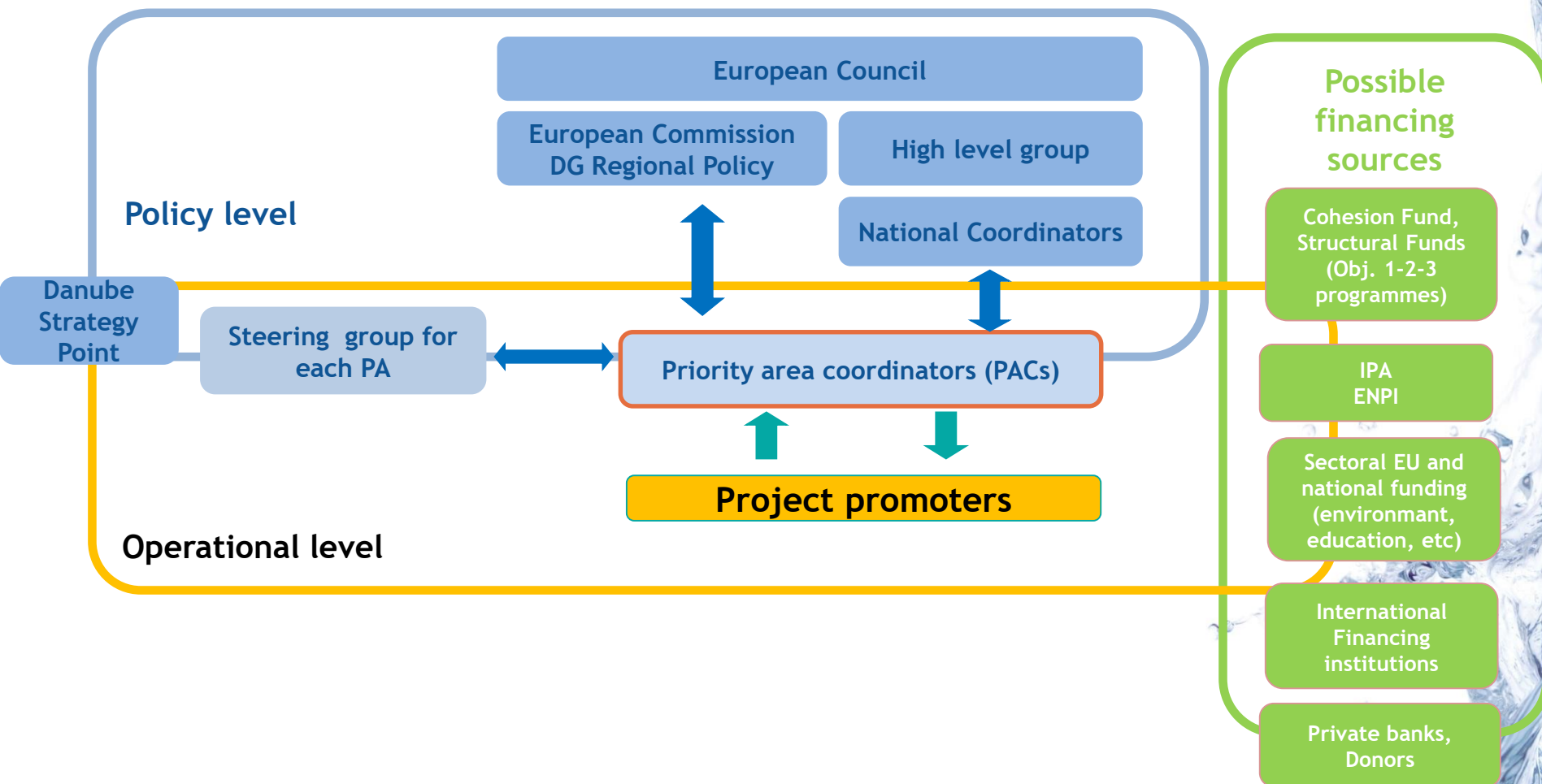
**11 priority areas, coordinated by a priority area coordinator**





<i>Priority Area</i>	<i>Countries in charge of coordination</i>
<i>P1   Mobility and intermodality</i>	<i><u>Inland waterways:</u> Austria, Romania <u>Rail, road and air:</u> Slovenia, Serbia</i>
<i>P2   More sustainable energy</i>	<i>Hungary, Czech Republic</i>
<i>P3   Culture and tourism, people to people</i>	<i>Bulgaria, Romania</i>
<i>P4   Water Quality</i>	<i>Hungary, Slovakia</i>
<i>P5   Environmental risks</i>	<i>Hungary, Romania</i>
<i>P6   Biodiversity, landscapes, quality of air and soils</i>	<i>Germany (Bavaria), Croatia</i>
<i>P7   Knowledge society (research, education and ICT)</i>	<i>Slovakia, Serbia</i>
<i>P8   Competitiveness of enterprises</i>	<i>Germany (Baden-Württemberg), Croatia</i>
<i>P9   People and skills</i>	<i>Austria, Moldova</i>
<i>P10   Institutional capacity and cooperation</i>	<i>Austria (Vienna), Slovenia</i>
<i>P11   Security and organised crime</i>	<i>Germany, Bulgaria</i>

# The governance model of the EUSDR

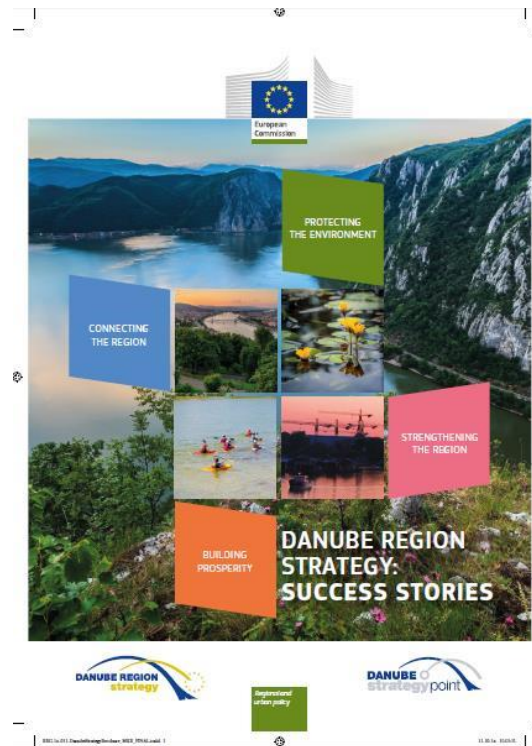


## How is the strategy being implemented?

- **Political support (Ministerial declarations)**
- **Identification of projects and of financing opportunities**
- **Cross-sector and integrated approach**

# Examples of results

[http://ec.europa.eu/regional\\_policy/en/policy/cooperation/macro-regional-strategies/danube/library/#5](http://ec.europa.eu/regional_policy/en/policy/cooperation/macro-regional-strategies/danube/library/#5)



# What about third countries?

- ❑ Possibility for third countries to participate in macroregional strategies
- ❑ Where possible, better alignment with ETC regulation (similar rules)
- ❑ Close and constant cooperation between services



# Current highlights

- Revision of the Action Plan (first time since 2010), process launched in May 2018, to be concluded in October 2019
- 8<sup>th</sup> Annual Forum - Bucharest 27-28 June 2019
- Embedding of EUSDR in the new Operational Programmes (post-2020 Programming period)

# Water related issues and the RDI landscape in the Danube region

Helene Masliah-Gilkarov, ICPDR



# Water-related issues and the RDI landscape in the Danube region

**ICPDR IKSD**

International Commission  
for the Protection  
of the Danube River

Internationale Kommission  
zum Schutz der Donau

*Water JPI Workshop on  
International Cooperation in the Danube Region  
5<sup>th</sup> November 2020*



# Welcome to the most *international* River Basin in the World!



# ICPDR Countries



Germany



Austria



Czech Republic



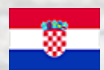
Slovakia



Hungary



Slovenia



Croatia



Bosnia & Herzegovina



Serbia



Montenegro



Romania



Bulgaria



Rep. of Moldova



Ukraine



European Union



EU Member States (9)

Non-EU Member States (5)



# From Black Forest to Black Sea



**Large variety** of micro-climates and ecosystems

# Human activities and their impact on the Danube



Water pollution, hydromorphological alterations and climate change



# The Danube River Protection Convention

- Main objective:

*ensure that surface waters and groundwater within the Danube River Basin are managed and used sustainably and equitably. It involves the following:*

- the conservation, improvement and rational use of surface waters and groundwater
- preventive measures to control hazards originating from accidents involving floods, ice or hazardous substances
- measures to reduce the pollution loads entering the Black Sea from sources in the Danube River Basin

# The DRPC as the legal mandate of the ICPDR



Sustainable & equitable use of water



Protection of water & ecological resources



Reduce nutrients & hazardous substances



Manage floods & ice hazards

**ICPDR**: platform for **transboundary cooperation** on water management:

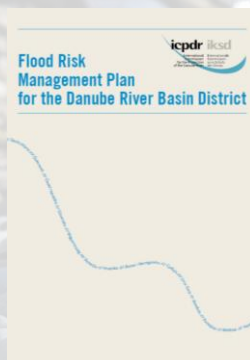
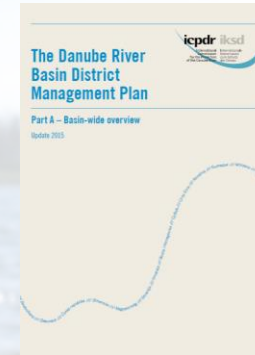
- Implementation of the **DRPC**(1998)
- Coordination of the implementation of EU **Water Framework** Directive (2000) & EU **Floods** Directive (2007)



# Two Management Plans for the Danube River Basin



Danube River Basin  
Management Plan  
Update 2015  
(2021 update pending)



1st Danube Flood Risk  
Management Plan  
(2021 update pending)





# Stakeholder Involvement: 24 Observers



# Public Participation & Transparency



**Art. 14 (WFD)**  
**Art. 9 & 10 (EFD)**



# The ICPDR Public Participation Toolbox

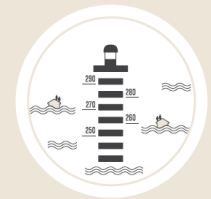
- ❑ 24 Observer Organisations
- ❑ A dedicated Public Participation Expert Group
- ❑ Outreach activities across a broad spectrum
- ❑ Educational tools
- ❑ Public information
- ❑ Stakeholder consultation
- ❑ Social Media
- ❑ Inter-sectorial dialogue
- ❑ Branding campaigns
- ❑ **3 Pillars for our action**



**Cleaner**  
cleaner water



**Healthier**  
a healthier home for aquatic  
animals and plants



**Safer**  
a safer environment for people to  
live without the fear of floods

# Social Media



**Our News  
Ticker**



**Our Image  
Platform**

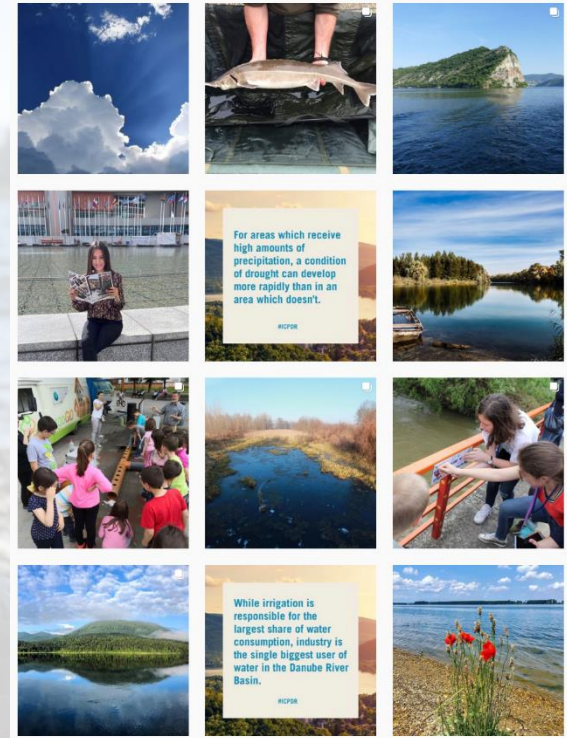


**Our Visual  
storyteller**



**Connecting  
professional  
Platform**

**#ICPDR #KeeperOfTheDanube #ICPDRFamily**





# Communications: What The ICPDR Can Teach Us

**We have experience with:**

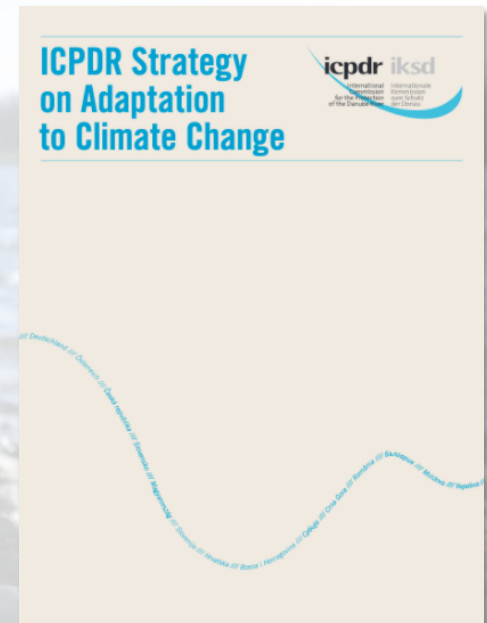
- **Technical information and expertise**
- **Working internationally – both in and out of the EU**
- **Navigating between sectors, establishing a solutions-oriented dialogue with navigation, agriculture, conservation, hydropower and more**
- **Communicating in an understandable international language for the broader public, without losing sight of the scientific facts**
- **Cross-fertilising new innovations and research, and finding synergies towards ground-breaking work (e.g. JDS4 river monitoring)**

# Planning for Tomorrow: Climate Change

In **2012**, the ICPDR was the first River Basin Organisation of its kind to adopt a Climate Change Adaptation Strategy

Based on its strategy, the ICPDR fully integrated climate adaptation issues into its updated Danube River Basin Management Plan 2015, plus the first Danube Flood Risk Management Plan in 2015.

*The ICPDR recognised Effects of climate change (drought, water scarcity, extreme hydrological phenomena and other impacts) as a fifth SWMI*





# Planning for Tomorrow: Update in 2018

The old strategy needed to be updated  
– so in 2018 we did just that!

Three-step approach:

1. Update of the existing knowledge base
2. Adaptation Workshop
3. Update of the existing strategy

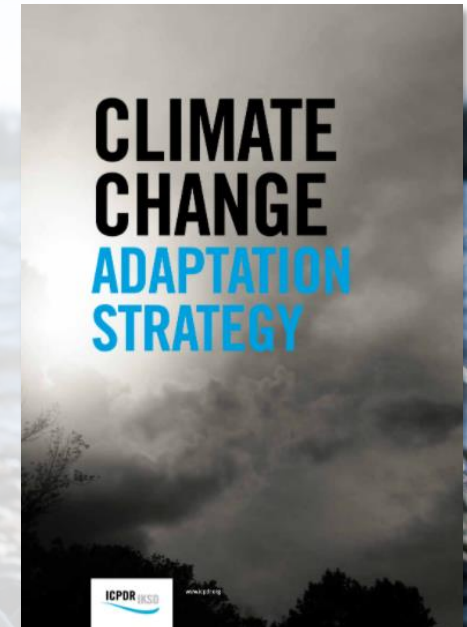
Also added the additional feature of a new  
**Climate Change Adaptation Measures Toolbox:**

**Climate Change Adaptation Measures Toolbox**

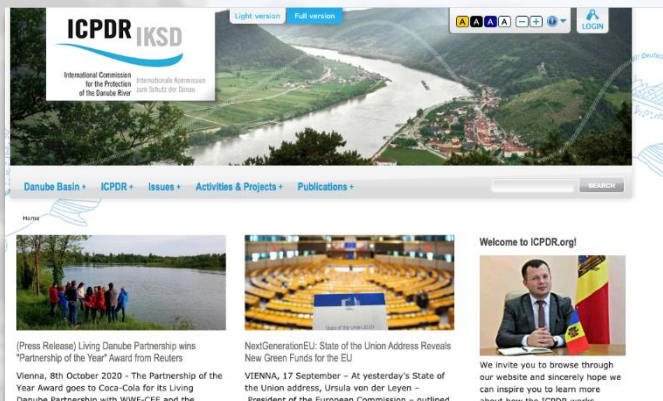
This page provides a comprehensive and easy to use toolbox of possible adaptation measures. Please select one or more of the group filters below to obtain detailed information on the measures of interest. Please find more information in the [ICPDR Strategy on Adaptation to Climate Change](#).

Field of measure	Type of measure	Time horizon	Related to
<input type="text" value="- Any -"/>	<input type="text" value="- Any -"/>	<input type="text" value="long-term"/> <input type="text" value="medium-term"/> <input type="text" value="short-term"/>	<input type="checkbox" value="FD"/> <input type="checkbox" value="WFD"/>

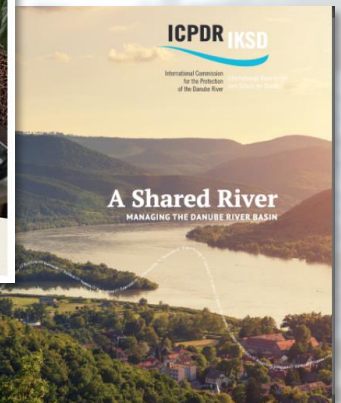
Please select at least one option above to list the related measures.



# Find out more...



Visit [www.icpdr.org](http://www.icpdr.org)



Further reading & ICPDR publications

*Take a Break!*

*It's coffee time...*



# Danube Strategy Point

Robert Lichtner







# Water Related Activities in the EU Strategy for the Danube Region (EUSDR)



*Water JPI Workshop on  
International Cooperation in the Danube  
Region - Online event, November 2020*

***EUSDR is connecting people to improve quality of life through sustainable development in the Danube Region.***





# DANUBE STRATEGY POINT

## The 5 Pillars

**SUPPORT**  
for core  
EUSDR  
stakeholders  
(Presidency,  
NCs, PACs,  
EC)

**COORDINATION**  
between EUSDR  
stakeholders and  
EU financing /  
funding  
instruments  
(Embedding)

Internal and  
external  
**COMMUNI-  
CATION**

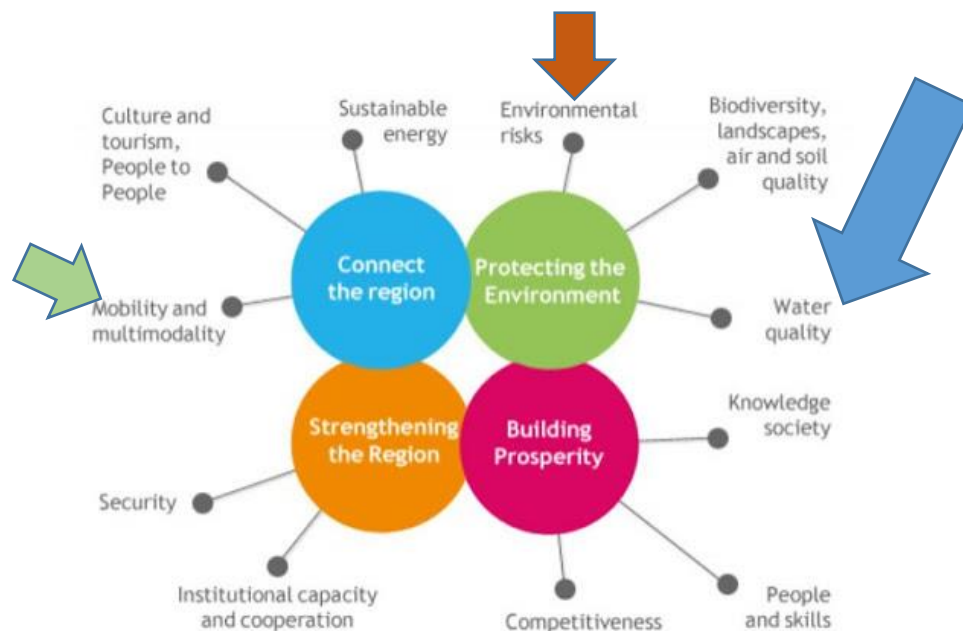
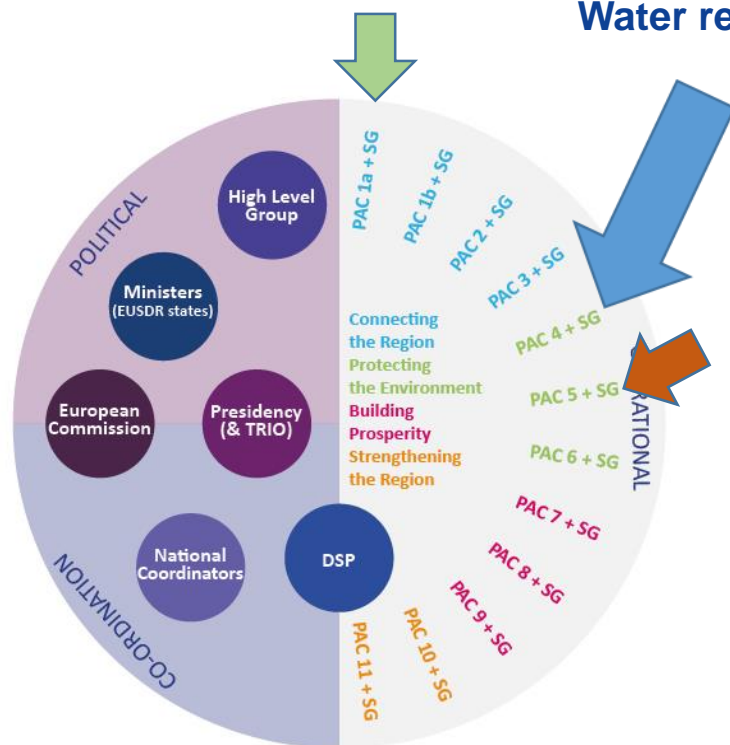
**CAPACITY  
BUILDING**  
towards PACs  
and non-EU  
countries

**MONITORING**  
and  
**EVALUATION**  
of EUSDR

DSP is the supportive body for all stakeholders involved in the EUSDR. It is financed by the DTP.

# EUSDR – STRUCTURE

Water related thematic priorities



# EUSDR – LATEST DEVELOPMENTS



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- 10 Years after EUSDR creation
- SWD(2020) 59 final
- Actions in Strategic context (policy context, geopolitical context)
- Streamlining, focus, new challenges (40% from 137 actions to 85)

Alignment to 5 Policy Objectives:

1. Counteracting Climate Change
2. Stimulating Sustainable Development
3. Establishing and enforcing Knowledge Society, stimulating the Economy and fight Poverty
4. Improving Mobility and Connectivity
5. Enhancing Democracy, sound Administration and strong Involvement of Civil Society and Youth

Horizontal Frames:

1. Digitalisation
2. migration and demographic change
3. climate change and sustainable development

## EMBEDDING



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- Strategic process – Programming 2021-2027
- Definition of Strategic topics
- Embedding into national/regional operational programmes
- Focus: ESIF (ERDF, ESF, CF) / IPA III / NDICI funds

# WATER QUALITY



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# ENVIRONMENTAL RISKS



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# OTHER RELATED PAs



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# EMBEDDING

## List of strategic topics

### EUSDR PA 4 WATER QUALITY

- HAZARDOUS & EMERGING SUBSTANCES and WASTE WATER
- WATER AND AGRICULTURE
- CLIMATE CHANGE

### EUSDR PA 5 ENVIRON- MENTAL RISKS

- DANUBE FLOOD RISK MANAGEMENT PLAN AND SUB-BASIN FLOOD RISK MANAGEMENT PLANS
- DISASTER MANAGEMENT
- CLIMATE CHANGE ADAPTATION

# EMBEDDING

## List of strategic topics

### **EUSDR PA 1A Waterways Mobility**

- CONTRIBUTE TO IMPROVE WATERWAY AND PORT INFRASTRUCTURE & MANAGEMENT

### **EUSDR PA 2 Sustainable Energy**

- ENHANCED USE OF RENEWABLE ENERGY RESOURCES

### **EUSDR PA 7 Knowledge Society**

- TO RESPOND TO EMERGING CHALLENGES IN THE DANUBE REGION (E.G. COVID -19 CRISIS AND ITS NEGATIVE CONSEQUENCES) THROUGH RESEARCH, INNOVATION AND STRENGTHENING KNOWLEDGE SOCIETY



*“We are aware that crises and challenges can offer **new opportunities** for adapting our priorities and for further stepping up the overall coordination effort. Therefore, we are determined to **respond to changes**, promote stronger recovery measures, cohesion and convergence in order to **foster the wellbeing** of our citizens. We are open to follow the trends, to respond to changes and to **strengthen the Danube Region’s resilience**.”*

Joint Statement of the Ministers responsible for the implementation of the EU  
Strategy for the Danube Region Zagreb, 22 October 2020



# THANK YOU FOR YOUR ATTENTION!



**Dr. Robert Lichtner**  
Coordinator, DSP  
[robert.lichtner@eusdr-dsp.eu](mailto:robert.lichtner@eusdr-dsp.eu)

**QUESTIONS?**

*Do not hesitate to contact us:*  
[office@eusdr-dsp.eu](mailto:office@eusdr-dsp.eu)

# Danube Transnational Programme

Niculae Marius-Valentin



05.11.2020

# Water JPI Workshop on cooperation in Danube Region countries



A stream of cooperation



- Part of EU Cohesion Policy
- Based on DTP Cooperation Programme of 14 countries
- Fostering transnational cooperation
- Supporting policy integration
- Supporting achievement of EU Strategy for Danube Region objectives
- *Not supporting*: pure research / infrastructure



■ Danube Transnational Programme area





## Current programming period 2014-2020



### SO 2.1: Strengthen transnational water management and flood risk prevention



strengthen **joint and integrated approaches** to further **develop and implement River Basin Management Plans** in the Partner States in line with the overall Danube River Basin Management Plan in order to **improve transnational water management** and **flood risk prevention** contributing to the sustainable provision of ecosystem services.

## S.O.2.1 Envisaged result

---

Better integrated plans and developed solutions to further protect and enhance the status of all waters and to ensure the sustainable, long-term use of water resources in the Danube region well-coordinated with sound flood risk management

Integrated strategies, plans and solutions:

- focused on river(basin)s, water bodies of transnational relevance
- surface and ground waters, within the context of the relevant River Basin Management Plans and / or Flood Risk Management Plans
- tools (monitoring, forecasting, decision support, operational, ...) connected to (existing) water / flood management policy frameworks, strategies, plans
- taking into consideration existing initiatives, results (e.g. of ICPDR, other projects)



## Not in target of SO 2.1

---

- Missing transnationally relevant water bodi(es)
- Focus only on local / cross-border area needs
- Scientific / technological focus without operational / policy uptake
- Focusing on infrastructure development

## Various approaches and topics

### ➤ **Water quality and pollution reduction on transnational scale**

- Harmonised, joint sediment quality monitoring protocols
- Coordinated measures for hazardous substances pollution through basin-wide emission modelling and recommendations for the DRBMP
- Harmonised solutions for monitoring source and flows plastic pollution on Tisa river; practical tools for communities in fight plastic pollution

### ➤ **Flood prevention**

- Effective solutions for flood plain restoration in DRB
- Harmonised hydrological information sharing for flood & ice forecasting along Danube River

### ➤ **Joint, integrated river basin and flood risk management planning**

- Tisa RBMP (water quality, quantity; draught; flood management)

### ➤ **Sediment management**

- well covered (qualitative & quantitative aspects in Danube RB context)

### **SIMONA**

**Sediment-quality Information,  
Monitoring and Assessment  
System to support transnational  
cooperation for joint Danube  
Basin water management**



- Harmonised monitoring of hazardous substances for quality assessment of sediments in DRB surface waters
- Sediment-quality Information, Monitoring and Assessment System (sampling, laboratory analysis, evaluation protocols and SIMONA-tool (online IT application) applicable at local and strategic levels
- Capacity building

## SO 2.1 projects

### **DAREFORT**

#### **Danube River Basin Enhanced Flood Forecasting Cooperation**



- Policy recommendations for ICPDR in connection to Danube Hydrological Information System (DanubeHIS)
- Enhanced, harmonized distribution of hydrologic and ice data for Danube catchment countries
- Danube Forecasting Forums (DAFF) as international professional discussion forum



### SO 2.4: Improve preparedness for environmental risk management

Establish and develop a **more effective governance system for environmental protection** addressing emergency situations and improve the **preparedness** of public authorities and civil protection organisation contributing to the **reduction of risks and impact on ecosystem services, biodiversity** and human health.



## Envisaged result

---

- improved **strategic** and **operational cooperation** and **interoperability** among the **emergency response authorities** and **stakeholders** ensuring professional emergency response services and capacities to respond to major national and international emergencies

# DriDANUBE

## Drought Risk in the Danube Region



- **Drought User Service** online tool - more accurate and efficient drought monitoring and timely early warning
- Harmonised methodologies for drought risk and impact assessments
- **DriDanube Strategy** to improve drought emergency response (tested on pilot actions) - basis for more efficient drought management cycle (monitoring–impact assessment–response–recovery–preparedness) in DR.

## SO 2.4 projects

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### **WACOM**

**Water Contingency  
Management in the Sava River  
Basin**

- Improved operational response framework and rapid response toolbox to emergencies in case of accidental pollution and floods on transboundary watercourses in Sava River Basin



## POII A Greener, Low Carbon Europe

*SO 2. Promoting climate change adaptation, and disaster risk prevention, resilience, taking into account ecosystem-based approaches*

### **FOCUS (DRAFT): :**

- Harmonised, coordinated, joint prevention and emergency response capacities on transnational river(-basin) scale in case of floods, droughts, or accidental pollution of rivers

### **Type of actions (DRAFT):**

- Developing and testing coordinated, harmonised, integrated strategies and tools on transnational river(basin) scale to prevent flood risks, or drought;
- Elaborating harmonised, joint strategies, action plans, contingency planning, developing and testing monitoring and alert systems, decision support tools, improving operational cooperation, interoperability, institutional and technical capacities of emergency response authorities to combat flood, drought or accidental pollution of transboundary rivers

## ***POII – S03 Promoting access to water and sustainable water management***

### ***FOCUS (DRAFT):***

- Strengthening capacities for prevention and mitigation of water pollution or restoration of good quality of transnational water bodies
- Harmonising management practises between water management, navigation, hydropower and flood protection to improve the quality and quantity of water in transnational river systems
- Transnational coordination of water supply management, especially in relation to basin-wide importance of groundwater bodies ensuring balanced use of water, taking also into account the impacts of climate change for future water demand.

## Next Programming Period

### ***POII – SO3 (v) Promoting access to water and sustainable water management***

#### ***TYPES OF ACTIONS (DRAFT):***

- Developing and testing coordinated, harmonised, joint solutions, and tools for more effective monitoring and modelling to ensure harmonised data availability, as well as for improved management measures to prevent and mitigate water pollution or to restore good quality of water
- Development, testing and / or implementation of harmonised strategies, management solutions and tools of sediment balance, or reconnection of adjacent floodplains / wetlands to improve water quality in transnational water bodies
- Developing harmonised, joint monitoring and modelling system(s) in order to better understand the transboundary groundwater systems of DRB
- Defining joint strategies and harmonised measures, elaborating and adopting innovative solutions in relation to water exploitation and protection ensuring balanced use of water, taking also into account the impacts of climate change for future water demand

**Thank you**

**Marius Valentin Niculae**

**Project Officer**

**Danube Transnational Programme**

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# Danube INCO NET

Felix Gajdusek



# Advancing International Cooperation in Research and Innovation

- ... one of the last CSAs in FP7, 2 Mio EC funding, 3.5years
- ... activities cross-linking main actors in STI policy making and delivery, testing specific thematic focus areas
- ... activities addressing thematically economic actors and multipliers engaged in technology transfer
- ... triggering focused follow up activities
- ... maintaining outreach by funding from AT to 5.5y

<https://danube-inco.net/about/projectresults>

**What can we learn from the cooperation  
approaches that made it a success?**

# 19 partners ...



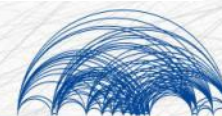
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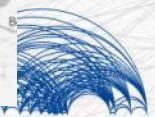
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**Danube-INCO.NET**  
Advancing Research and Innovation  
in the Danube Region



# ... from 14 countries



**Danube-INCO.NET**  
Advancing Research and Innovation  
in the Danube Region



# Structure of the project

- WP1 Project Management
- WP2 Policy Dialogue
- WP3 Tackling Societal Challenges: Energy Efficiency and Renewable Energy in a Bio-based Economy
- WP4 Analytical Evidence on Research and Innovation in the Danube Region
- WP5 Promoting Innovative and Inclusive Danube Societies
- WP6 Scaling up Danube Funding Mechanisms
- WP7 Communication and Dissemination

# Policy dialogue – Results

- Dialogue Topic: ERA and Innovation Union workshops
- Dialogue Topic: Competitive Funding of Research exchange
- Concept towards establishing an Art 185
- Specific dialogue with EUSDR Priority areas and contribution to PA7 Knowledge society
- Outreach to COST, Horizon 2020, DG REGIO, national and regional stakeholders to foster awareness of macro-regional STI cooperation needs
- Stakeholder interaction beyond the “usual” groups
- Awareness of the role of Teaming, Twinning, PSF a.o. for structural change in national R&I systems
- Triggering the H2020 strategic programme committee to discussing follow-on dialogues, possibly to be financed under H2020



# Societal challenges– Results

- First mapping of stakeholders on the multifaceted topic of “Bioeconomy”
- Specific clustering support actions (5 workshops)
- Brokerage events (2 events)
- Energy & Bioeconomy News Alert
- Triple helix conference 2016
- “Towards a bioeconomy strategy – recommendations”
- Bioeconomy research and advocacy network

## Evidence/analysis – Results

- Evidence of Co-publication activity
- Evidence of Barriers of cooperation
- Direct support: Policy Mix Peer Reviews:
  - Bosnia and Herzegovina 2015/2016 (2017)
  - Serbia 2016/2017

# Innovative and Inclusive Societies – Results

- Smart Specialisation Strategies – awareness, knowledge and 3 non EU countries with interest to go for the process
- Danube Transfer Centres (Novi Sad, Ruse, Vukovar)
- Labeling concept available also for other PA's

## Danube Funding Mechanisms – Results

- JPI UE cooperation established (widening agenda of JPI)
- EUREKA calls supported (1, 2, prep 3, still continued)
- DFCN established (still continued)



# Outreach – Results

- Functioning **web-platform** as “the” central information source for RTDI in the macro-region and future maintenance
- Existing **newsletter** and extensive list of 13.600 recipients and further maintenance ensured...
- Activated community actively proposing/adding content!
- This was also continued with the Austrian Federal Ministry of Science, Research and Economy as a follow up funding for +2 years

# Follow up +/- attributable...

- DFCN still active...
- PSF PMPR follow up
- Danube TCP
  - Made in Danube (bioeconomy actions)
  - ResInfra@DR (research infrastructure capacity building)
  - RESTI in Excellence (project management capacities)
- Danube-INCO.NET follow up for info-platform
- S3 activities



# Cooperation tools

- Mapping – Inform – Exchange&share
- Identification of new trends and stakeholder needs to support overarching goals (here SDGs)
- Integrative approach to support participation in dynamic developments like the preparation to Horizon2020, S3, ERA and Innovation Union
- Bottom up thematic support for pilot activities establishing communities
- Preparing for support by PSF; JRC for S3
- Analysis for evidence (and decisions); co-publication; cooperation barriers
- Experiments (1) Peer support to revise STI policy mix; (2) Experimental Labelling in EUSDR PA7; (3) Danube Transfer Centres
- Testing Regional EUREKA calls (1st, 2nd, 3rd preparatory phase)
- Widening perspective i.e. JPI UE, Art 185 Roadmap
- Danube Funding Coordination Network – DFCN (support to PA7 DRRIF WG)

# Challenges

- Complex agglomeration of activities and actors which requested good and permanent interaction (it was highly divers!!!)
- No general follow up but very active single follow up activities (Isn't that ideal?)
- Necessity for “continuous efforts” to maintain the process over time and beyond the project but some activities will not be continued
- Dissemination for feeding national fora is essential for the take up of the findings



# Uncovered topics by Danube-INCO.NET

- EU MS visibility of the macro-region / countries – beyond DR!
- STI capacity building for policy makers and delivery
- STI indicators and monitoring
- Increase ERA COFUND participation
- Mobility of researchers
- IPR support
- Open Science options
- Open innovation
- TT strategic options and instruments
- Performance based funding “practice” and options in national context
- Success/Monitoring of Horizon 2020 and increasing participation...
- S3 topics of relevance for the DR

## Contact

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Désirée Pecarz, [pecarz@zsi.at](mailto:pecarz@zsi.at), [office@danube-inco.net](mailto:office@danube-inco.net)

# Thank you for your attention!

# DANUBIUS RI

Adrian Stanica







DANUBIUS-RI  
*making River-Sea Systems work*

# International Centre for Advanced Studies on River-Sea Systems

Adrian Stanica

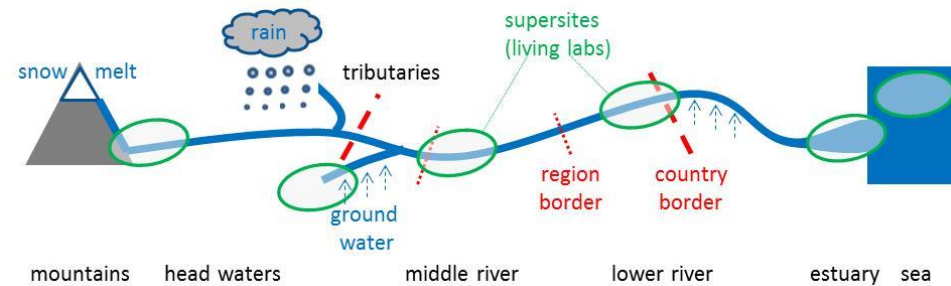
DANUBIUS-RI Coordinating Group

Romanian National Institute of Marine  
Geology and Geoecology - GeoEcoMar

And the DANUBIUS-RI Consortium





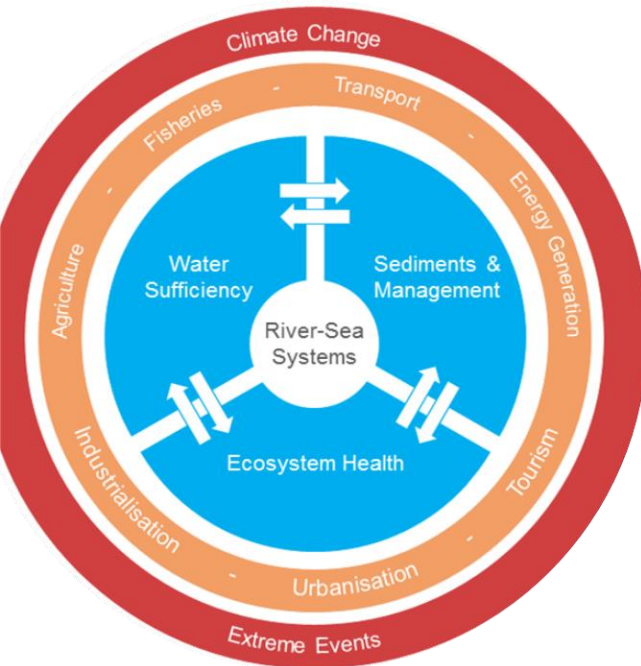


Many societal challenges related to River-Sea Systems are multi-faceted and require new approaches to research, spanning traditional disciplines, with a RI that:

- spans the catchment from source to coastal sea
- provides innovative opportunities for boundary spanning
- facilitates knowledge exchange
- attracts young people to science
- maximises the impact of investments in environmental research, driving innovation



## Global change and global megatrends affect River-Sea Systems at scales ranging from local to global



### Guiding Questions for DANUBIUS-RI

What constitutes a healthy River-Sea System in the Anthropocene?  
How are River-Sea Systems changing due to multiple and interacting pressures?

How do processes and changes in parts of the River-Sea System propagate within the River-Sea continuum, both up and downstream?

How are these changes affecting ecosystem health, its functioning and services?

How can we sustainably balance use, protection and development of River-Sea Systems?

How can we define and implement a management regime that can sustain the ecosystem services of a River-Sea System?



## **Our Motivation and Challenge: Healthy River-Sea Systems**

**DANUBIUS-RI research areas to be addressed for achieving healthy River-Sea Systems:**

### **Global Change and Megatrends**

- Climate Change and Extreme Events

### **Water and Sediment**

- Hydromorphology and Quantity: From Source to Sea
- Quality: Nutrients and Pollutants

### **Biodiversity and Ecosystems**

- Ecosystem Functioning
- Ecosystem Services

Multiple impacts on River- Sea Systems, taking into account the need to respond to complexity



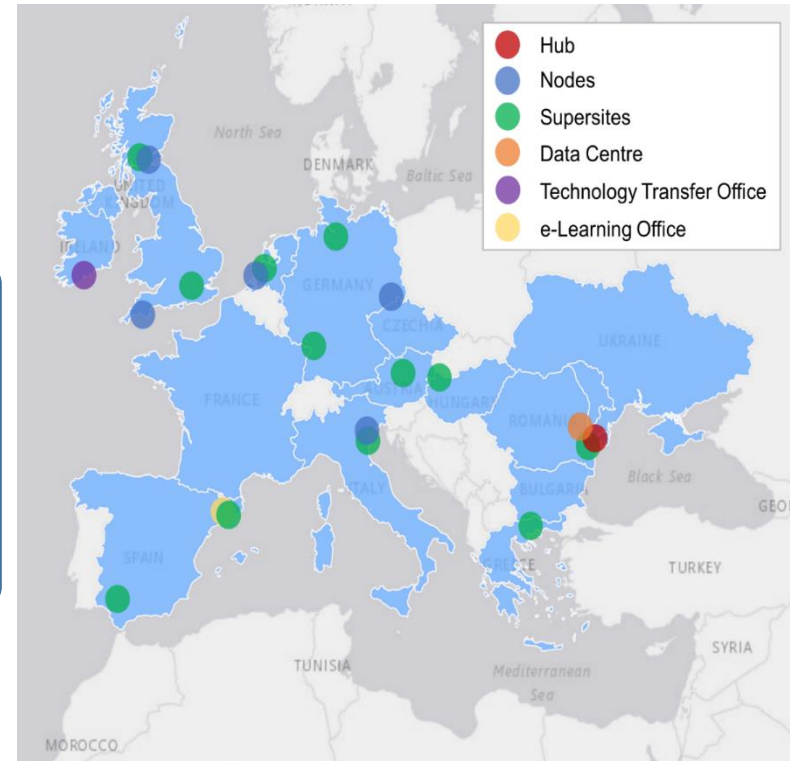
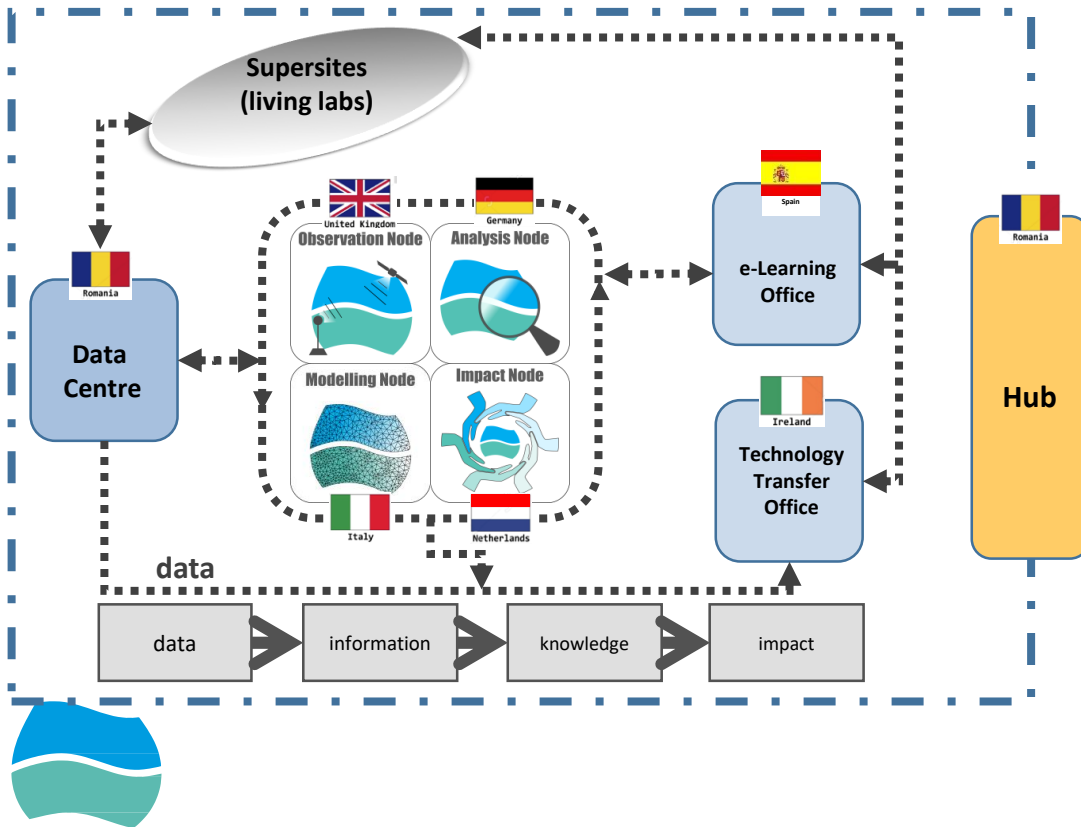


# DANUBIUS-RI will:

- gather scientists from different disciplines instead of focussing on a single discipline
- address cross-disciplinary topics and issues related to sustainability of the River-Sea System, as a single, connected and highly dynamic system of high social and economic importance
- take interdisciplinarity and the socio-economic relevance and impact as important criteria for evaluating applications for access
- be a platform for collecting, analysing, modelling and retrieving River-Sea System data useful to all scientific disciplines
- create new knowledge through consistent state-of-the-art observation, analysis and modelling, across the science, social and economic disciplines
- enable stakeholder access to data, knowledge and concepts for more informed decision-making



# DANUBIUS-RI – a distributed pan-European Research Infrastructure





# Supersites

- Natural laboratories for observation, research, modelling and innovation at locations of high scientific importance and opportunity
- Covering River-Sea Systems from river source to transitional waters and coastal seas
- Ranging from the near pristine (e.g. Danube Delta) to the heavily impacted (e.g. Thames Estuary)
- Identifying, modelling and defining system states and conditions for naturally and anthropogenically triggered transitions in the physical, biogeochemical and biological states
- DANUBIUS-RI will also support research at other locations

# Supersites of DANUBIUS-RI

Elbe Estuary and North

Sea (Germany)

Rhine/Meuse Delta

(Netherlands)

Middle Rhine (Germany)

Nestos (Greece)

**Danube Delta (Romania)**

Ebro-Llobregat Deltaic

System (Spain)

Guadalquivir Estuary

(Spain)

Po Delta-North Adriatic

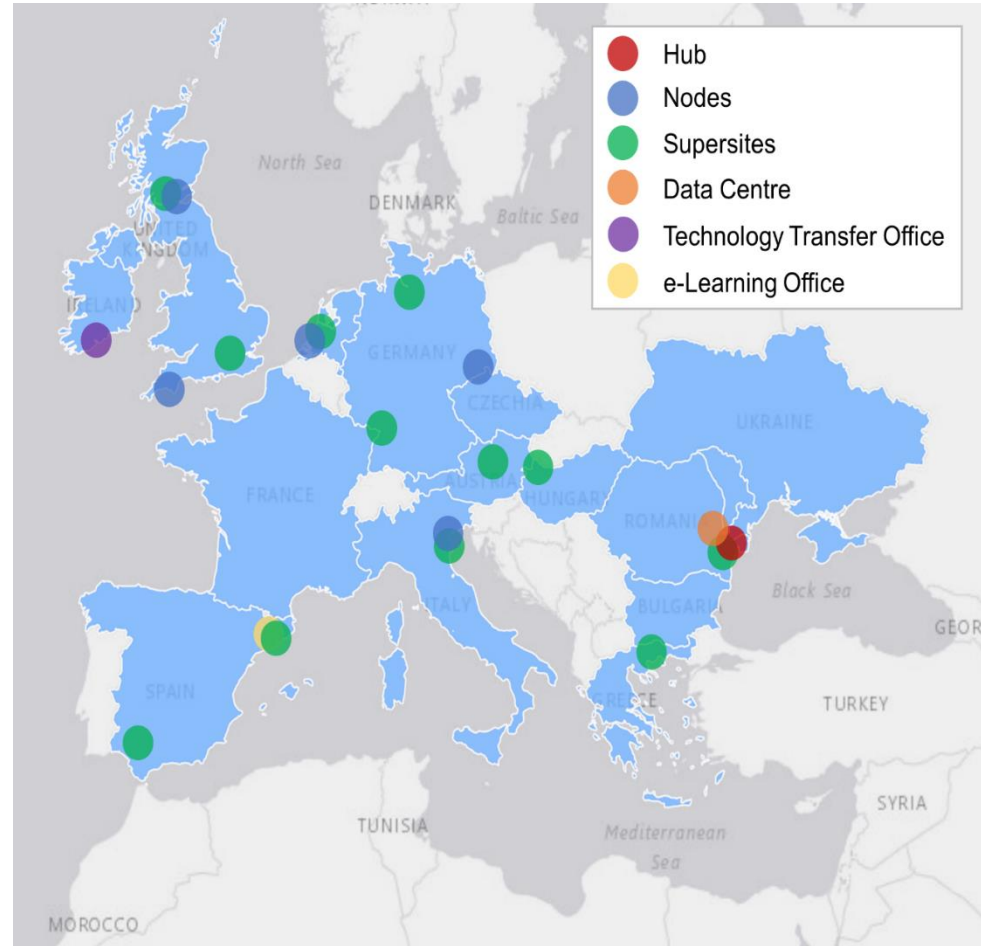
Lagoons (Italy)

**Middle Danube (Hungary)**

Thames Estuary (UK)

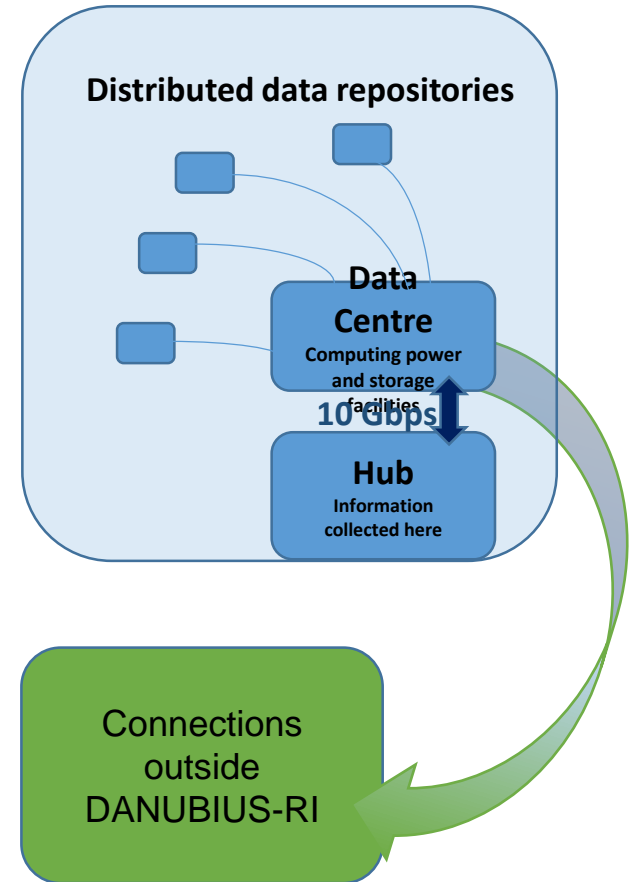
Tay Catchment (UK)

**Upper Danube (Austria)**



# Data sources

- Digital data from:
  - remote sensing
  - automatic stations (real time and periodic downloading)
  - cruises
  - computer models
  - physical, sedimentological, chemical, biological and ecotoxicological analyses
- Non digital data (e.g. biota samples, sediments, DNA)
- Research data stored, processed and made available (open access) to participants and public
- Digital and non-digital data at distributed data repositories but data information collected by Data Centre







## Access and data use

- DANUBIUS-RI will apply an '**open access**' policy based on competition and selection of proposals evaluated on their scientific excellence and social and economic relevance
- Aim to develop *common standards* and *open access* to data and the *harmonisation of data requirements* in particular related to European Strategies
- Data for research purposes will be free, while organisations using data for commercial uses will be charged
- Measures of the success of DANUBIUS-RI will be its impact and the extent to which the data and information developed are both accessible and used by society (at social, economic and policy level)
- Abide by FAIR Principles

# Consortium



- Consortium for Preparatory Phase comprised partners from 17 countries, including three international organisations/programmes
- coordinated by GeoEcoMar (Romanian National Institute of Marine Geology and Geoecology)
- ERIC Step 1 proposal submitted to the EC
- Implementation Phase gathers partners from countries involved in the ERIC creation

# Black Sea Commission

Halil Ibrahim Sur

Irina Makarenko





# Cooperation in the **Danube-Black Sea** basin: example of the **Black Sea Commission**

Iryna Makarenko

LL.M., Pollution Monitoring and Assessment Officer  
Permanent Secretariat of the Commission on the Protection of the Black  
Sea against Pollution



# Bucharest Convention (1)



# Bucharest Convention (2)



## Convention on the Protection of the Black Sea Against Pollution

- Was signed in **Bucharest** in April **1992**;
- Ratified by all six Black Sea Countries in the beginning of **1994**;
- Its basic objective is to substantiate the general obligation of the Contracting Parties **to prevent, reduce and control the pollution in the Black Sea** in order to **protect and preserve the marine environment** and to **provide a legal framework for co-operation and concerted actions** to fulfil this obligation.

# Bucharest Convention (3)



It has 4 thematic Protocols:

1. Protocol on the Protection of the Black Sea Marine Environment Against Pollution from **Land Based Sources (LBS Protocol)**;
2. Protocol on the Protection of the Black Sea Marine Environment Against Pollution by **Dumping**;
3. Protocol on Cooperation in Combating Pollution of the Black Sea Marine Environment by **Oil and Other Harmful Substances in Emergency Situations**;
4. The Black Sea **Biodiversity and Landscape Conservation Protocol (CBD Protocol)**.
  - **Strategic Action Plan (SAP)** on the Protection and Rehabilitation of the Black Sea – adopted in **1996** and amended in **2009**.

# Bucharest Convention (4)



- ▶ **Strategic Action Plan (BS SAP)** on the Protection and Rehabilitation of the Black Sea (2009):

Item 3.1 Key management approaches.

The Black Sea SAP will adhere to 3 key environmental management approaches. These are:

- ▶ Integrated Coastal Zone Management (ICZM);
- ▶ **The Ecosystem Approach; and**
- ▶ **Integrated River Basin Management (IRBM).**

The BS SAP was elaborated from consensus reached at a multinational level in relation to a series of proposals that include: **Ecosystem Quality Objectives (EcoQOs)**; short, medium and long term targets; and legal and institutional reforms and investments necessary to solve main environmental problems identified within the 2007 BS TDA.



# BS SAP 2009

## Four Ecosystem Quality Objectives:

1. **Preserve commercial marine living resources** through:
    - ▶ Sustainable use of commercial fish stocks and other marine living resources
    - ▶ Restore/rehabilitate stocks of commercial marine living resources
  2. **Conservation of Black Sea Biodiversity and Habitats** through:
    - ▶ Reduction of risk of extinction of threatened species
    - ▶ Conservation of coastal and marine habitats and landscapes
    - ▶ Reduction and management of human mediated species introductions
  3. **Reduce eutrophication** through:
    - ▶ Reduction of nutrients originating from land-based sources, including atmospheric emissions
  4. **Ensure Good Water Quality for Human Health, Recreational Use and Aquatic Biota** through:
    - ▶ Reduction of pollutants originating from land-based sources, including atmospheric emissions
    - ▶ Reduction of pollutants originating from shipping activities and offshore installations
- 

# Bucharest Convention (5)



## 6 Advisory Groups

- The Advisory Groups to the Black Sea Commission are the **main source of expertise, information and support** in the implementation of the Black Sea Strategic Action Plan.
- 1. **ESAS** – Advisory Group on the Environmental **Safety Aspects of Shipping**;
- 2. **PMA** – Advisory Group on the **Pollution Monitoring and Assessment**;
- 3. **LBS** – Advisory Group on Control of **Pollution from Land Based Sources**;
- 4. **ICZM** – Advisory group on the Development of Common Methodologies for **Integrated Coastal Zone Management**;
- 5. **CBD** – Advisory Group on the **Conservation of Biological Diversity**;
- 6. **FOMLR** – Advisory Group on the Environmental Aspects of the **Management of Fisheries** and other Marine Living Resources.

# Bucharest Convention (6)



Ongoing collaboration with relevant Multilateral Environmental Agreements (MEAs), UN Agencies and International Financial Institutions (IFIs)

Mutual **Observer Relations** with 9 International and Public Organizations:

- UN Environment;
- EU;
- GEF/UNDP;
- IMO;
- **ICPDR;**
- BSEC;
- ACCOBAMS;
- BSC-Port State Control MoU;
- Black Sea NGO Network.

Currently **deepening cooperation** with the Secretariats of European RSCs and relevant MEAs:

- **UNEP/MAP (MoU signed in 2016);** HELCOM; OSPAR, CBD Convention.
- ▶ MoUs with **IMO, ACCOBAMS** (Conservation Plan for Black Sea Cetaceans), **UN GFCM, IAEA, EMODNet Project** etc.

# Bucharest Convention (7)



- ▶ Bucharest Convention was elaborated 28 years ago, latest version of BS SAP is dated 2009, some new challenges as **climate change, marine litter, marine noise, green economy, MSFD requirements (definition of GES), neither blue growth or circular economy** etc. were not reflected;
- ▶ Work to incorporate these considerations in the documents of the Bucharest Convention (**text of Convention, BS SAP, BSIMAP etc.**);
- ▶ Relevant chapters of **Black Sea SoE** and **SAPIR** include socio-economic aspects and new challenges;
- ▶ 30 datasets contribute to the indicators relevant to MSFD which are hosted by BSC and **Regional Activity Centre for Pollution Monitoring and Assessment (PMA RAC)**, **activities shall be sustained.**



# Bucharest Convention (8)



- ▶ LBS Protocol in force, *inter alia*, sets the **obligations to control, monitor and assess pollution from land-based sources, including the riverine loads;**
- ▶ Very important document is **Strategic Action Plan (SAP)** on the Protection and Rehabilitation of the Black Sea – adopted in 1996 and amended in 2009 in Sofia;
- ▶ 2 out of 6 countries are members to the EU, therefore, **EU environmental legislation is not legally binding.**

# Bucharest Convention (9)



- ▶ **Short format of reporting** elaborated and adopted (based on indicators agreed by consensus (E-TRIX, BEAST, H-Shannon 95 (biomass), Landings per unit of effort etc., compatible with MSFD, GFCM, ACCOBAMS and global approach to indicators (UNEP) and SDGs);
- ▶ text of the Black Sea Integrated **Monitoring and Assessment Program** - BSIMAP for years 2017-2022 (drafted within EU MSFD Project, main approaches are harmonized, **definition of GES and descriptors**, reporting format to **ICPDR**, data-bases for harmonization);
- ▶ First Report on the Implementation of the (amended) BS SAP (2009) – **SAPIR and** “State of the Black Sea Environment” Report – **SoE** (outlines reflect the MSFD requirements and global approach);

## Agreed PMA Regional Reporting Indicators:



Agreed Indicators	Explanation	Comments
<b>Trix</b>	$\text{TRIX} = [\log (\text{Chl} \times \text{D\%O}_2 \times \text{Nmin} \times \text{Ptot.}) + k] / m *$	K=1.5 and m=1.2 are constant use particularly for Northern Adriatic. For Black Sea could be necessarily to calculate another.
<b>Oxygen Saturation level at critical depth</b>	<ol style="list-style-type: none"> <li>1) in bottom layer in coastal waters (up to 50m depth) in late summer times</li> <li>2) for deep water column sigma-T equals to 15,4-15,5 in late summer times</li> </ol>	.
<b>Inorganic N, P, Si in the surface layer</b>	Maximum concentrations in surface layer end of winter-spring	
$N_{\text{inorganic}}/P_{\text{inorganic}}$	<b>Inorganic N per Inorganic P</b> in surface layer	
$N_{\text{inorganic}}/\text{Si}$	<b>Inorganic N per Si</b> in surface layer	
<b>BEAST (Black Sea Euthrofication Assessment Tool)</b>	<b>Core set indicators grouped as causes</b> - inorganic nitrogen, inorganic phosphorus (phosphates), direct effects - chlorophyll a , indirect effects - bottom oxygen (where available), Secchi.	To be defined by each country according to its reference values – within B2B each country had an expert who worked for BSC
<b>Water transparency, where relevant</b>		

## Agreed LBS Regional Reporting Indicators:



- ▶ **Parameters/Status**
- ▶ Annual Flow km<sup>3</sup>/year
- ▶ TP Tonnes/year
- ▶ TN Tonnes/year
- ▶ Inorganic N (will be calculated as sum of N-NO<sub>3</sub>, N-NO<sub>2</sub>, N-NH<sub>4</sub>) T/year
- ▶ Inorganic P-PO<sub>4</sub> discharge T/year
- ▶ Trace Metals (common ones will be selected and recommended to be reported in rivers and industrial sources\*) Cadmium Cd, mercury Hg, copper Cu and lead Pb Tonnes/year
- ▶ TSS Tonnes/year
- ▶ TPH Tonnes/year
- ▶ BOD<sub>5</sub> Tonnes/year
- ▶ \* Indicators to be taken from PMA reporting (for each point): Inorganic N, P, (micromoles/l) at sea



## Agreed indicators to report to ICPDR:



- ▶ **Provisional List of indicators to demonstrate changes over time in Black Sea Ecosystems due to nutrient inputs**
- ▶
- ▶ Nutrient concentrations in the water column - [N, P, Si (total/available)]
- ▶ Secchi depth
- ▶ Total suspended solids
- ▶ Chlorophyll-a
- ▶ Macro-algae (indicative species) presence/absence
- ▶ Oxygen content
- ▶ Phytoplankton (key groups in numbers, biomass, and average volume of cells)
- ▶ Zooplankton -( biomass and percentage of key groups, number of Noctiluca)
- ▶ Macro - zoobenthos (biomass, percentage of key groups)
- ▶ Pollutants - inorganic and organic
- ▶ A short written report assessing the Black Sea ecosystem together with selected data on the above indicators will be presented to the ICPDR by the end of the respective year. This report would be the official Black Sea report that would involve synthesis and interpretation of the data from the Advisory Groups of the Black Sea Commission on the ecosystem status of the Black Sea.

# BSIMAP 2017-2022 (4)



## Annex 9

### **Priority thematic studies to be implemented in 2017-2022.** **Subjects for international and national research projects**

- ▶ **EQS 3 Reduce eutrophication:**
  - ▶ discharges of nutrients to the Black Sea;
  - ▶ BEAST tool application in the Black Sea;
  - ▶ zoning ;
  - ▶ diffuse sources assessment, atmospheric deposition;
  - ▶ remote sensing.
  
- ▶ **EQS 4 Ensure Good Water Quality for Human Health, Recreational Use and Aquatic Biota:**
  - ▶ 5 years socio-economic analysis of drivers-pressures;
  - ▶ Assessment of **Marine Litter from ships**
  - ▶ Comparative analysis and assessment of emissions from ships and LBS of pollutionGuidance/Road Map on application of principles of Ballast Water Convention (IMO) in the Black Sea;
  - ▶ Port reception facilities (PRFs) and management of waste under MARPOL Annex VI.

# BSIMAP 2017-2022 (5)



## BSIMAP 2017-2022

### Annex 2

#### Relevant data-bases for possible future harmonization with BSIS

**GMES** - Global Monitoring for Environment and Security

**GEOSS** - Global Earth Observation System of Systems

**Eionet** - Partnership network of the European Environment Agency (EEA)

**WISE** - Comprehensive and shared European data and information management system which supports MSFD

**GOOS** - Global Ocean Observing System (Black Sea)

**EmodNET** - European Marine Observation and Data Network (Project of EC DG MARE)

**IODE** - International Oceanographic Data and Information Exchange

The other relevant databases should be inventoried and linked to BSIS as appropriate.

# Cooperation with ICPDR

One of our main partners, we also have **mutual observer status** since 2001 and we **implement the MoU** between our Commissions.

The Danube – Black Sea Joint Technical Working Group was established between our Commissions. The main objectives are the following:

- ▶ **Information Exchange** between ICPDR and the Black Sea Commission (including Marine Directive Reporting);
- ▶ Exchange of **data on loads of pollution from the Danube** to the Black Sea as provided by the Transnational Monitoring Network of the ICPDR (set of parameters agreed);
- ▶ Exchange of data on indicators for the **assessment of the ecological status of the Black Sea** (reporting format and method of analysis for the data, because both Romania and Bulgaria have designated coastal water bodies, monitoring and assessment of these water bodies has been carried out in connection with the obligations under the WFD);
- ▶ **Harmonizing of the assessment methodologies** for point and diffuse pollution (based on the ICPDR experience on the Emission inventories, Hot Spots analysis and review of ranking methodologies).



# Bucharest Convention (10)



- ▶ **MoU with ICPDR** – annual reports;
- ▶ The BSC PS negotiated with **Danube Sturgeon Task Force (DSTF)** on cooperation to implement the Program for sturgeon revival in the Danube Region and the Black Sea;
- ▶ Started cooperation with **WWF Turkey on sturgeons conservation.**

# Bucharest Convention (11)



- ▶ Work on incorporation of deliverables of **relevant projects** (EMBLAS+, DEVOTES, PERSEUS, IRIS-SES, EMODNET, Baltic2Black, MSFD, MISIS etc.);
- ▶ Signature of the **MoU between UNEP/MAP** and BSC PS, work on Marine Litter;
- ▶ The Commission **adopted the Guideline on Integrated Coastal Zone Management in the Black Sea**;
- ▶ Signature of **Practical Arrangements with International Atomic Energy Agency** on **QA/QC** (cooperation in the Area of Strengthening Data Quality Assurance in the Analysis of Contaminants in the Black Sea Marine Environment, first results of the PT in 2016);

# Bucharest Convention (12)



- ▶ **Cooperation with UN Environment:**
- ▶ Work in Working Group on global indicators together with RSCs;
- ▶ Membership in Global Partnership on ML and implementation of marine litter related activities under the BSC PS - UNEP and UNEP/MAP Small Scale Funding Agreements;
- ▶ Addressing implementation of Sustainable Development Goals (SDGs) (indirectly, in cooperation with UN Environment);
- ▶ Cooperation between BSC and **FAO GFCM** and **ACCOBAMS Agreement**;
- ▶
- ▶ The Commission joined the Group on Earth Observations (**GEO**) and BSC PS was recognized as **GEO Participating Organization** (November 2015);
- ▶
- ▶ Cooperation with **CBD Convention Secretariat** and on description of Ecologically and Biologically Significant Marine Areas (**EBSA process**) and establishment of EBSA sites for the Black Sea (April 2017 joint workshop with Caspian Sea in Baku), 17 sites were endorsed at CBD Convention COP Meeting in Egypt in November, 2018;
- ▶ Contribution to **UN World Ocean Assessment II** (WOA II) Report
- ▶ Work on the **Post 2020 Biodiversity Outlook** (UNEP+CBD Convention);

# Bucharest Convention (13)



## Cooperation with projects:

- ▶ The BSC PS has become member of the **EMODnet Chemistry 3 consortium** and joined a dedicated '**Board of MSFD experts**' to intensify the direct dialogue and **interaction with Regional Sea Conventions (RSCs)**. The members of the Board of MSFD experts consist of experts in chemistry and in the MSFD implementation process;
- ▶ **EMBLAS+ Project launched;**
- ▶ Implemented joint project with HELCOM on nutrient pollution **Baltic2Black, BEAST** indicator was tested in the Black Sea;
- ▶ Cooperation with EC under **SRIA** and **CMA** for the Black Sea.



# Bucharest Convention (14)



- ▶ Since December, 2016, the **UNEP/MAP Secretariat supports** a number of activities under EU-funded Marine Litter MED project to strengthen bilateral collaboration in the field of Marine litter management;
- ▶ Preparation and finalization of the **draft Regional Action Plan on Marine Litter Management in the Black Sea**, which was **adopted by the Black Sea Commission in October 2018**;
- ▶ Development of the draft **Marine Litter Monitoring Programme for the Black Sea**, which is being discussed now in the region;
- ▶ Mechanism of **regular bilateral cooperation between the Secretariats**, example of successful collaboration between the Regional Seas on the global level;
- ▶ We organized **three annual joint meetings between both Secretariats**, held in 2017, 2018 and 2019, respectively; during these meetings we prepared **a joint work plan** between the UNEP/MAP and the BSC PS;
- ▶ Back-to-back to 3rd bilateral meeting **Regional Verification Workshop on marine litter issues**, UNEP/MAP joined to present best practices and status of implementation of their IMAP and RAP on ML.

# Conclusions:



- ▶ The **BSC PS is taking steps** to promote regional cooperation in the Danube-Black Sea region, *inter alia*, research & innovations activities, contributing to the proper marine assessments and coordination of efforts on data-bases with other RSCs and partners;
- ▶ The document “BSC – ICPDR Reporting format” within the Black Sea Integrated Monitoring and Assessment Program (BSIMAP), provided a legal basis for cooperation on MSFD and other relevant EU directives with ICPDR. Currently **the Commissions exchange the relevant data on the regular basis**, which contributes to the implementation of commitments under MoU and can be considered as step towards elaboration of the **coherent policy between the sea and the fresh water conventions**, it also allows to ensure timely and qualitative assessment of the current status of Danube loads on the Black Sea ecosystems. These efforts contribute to implementation of the requirements of the WFD and MSFD Directives in the Black Sea region, help to harmonize the policies with other relevant regional actors and global approaches, including the implementation of relevant SGD in the Danube-Black Sea region.
- ▶ **The BSC PS welcomes the JPI initiatives** and stands ready to discuss further collaboration and activities with all organizations engaged.



# *Thank you for your kind attention!*

For more information please visit:

[www.blacksea-commission.org](http://www.blacksea-commission.org)

contact:

[irina.makarenko@blacksea-commission.org](mailto:irina.makarenko@blacksea-commission.org)

**or visit our official accounts in FB, twitter, Instagram and LinkedIn!!!**



# Water JPI activities on International Cooperation, Water models of cooperation, identified needs for making progress

Veronique Briquet-Laugier, Water JPI coordinator







# The Water JPI

Joint Programming Initiative  
Water Challenges for a Changing World



# Joint Programming

- ▶ An initiative of European Member States and the European Commission for tackling Current Grand Challenges with European dimension and global outreach
- ▶ in a structured way, through:
  - ▶ coordinating national / regional, public, research, development and innovation programmes in Europe
  - ▶ developing Joint multilateral activities
  - ▶ aligning national research programmes in an effective manner
  - ▶ making better use of Europe's limited public RDI funding
  - ▶ extending links to various international initiatives.

# 10 JPIs since 2008



**Water Challenges for a Changing World**



**Healthy and Productive Seas and Oceans**



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



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



**Connecting Climate Knowledge for Europe**



**Global Urban Challenges, Joint European Solutions**



**Agriculture, Food Security and Climate Change**



**Cultural Heritage and Global Change: A New Challenge for Europe**



**A Healthy Diet for a Healthy Life**



**Alzheimer and other Neurodegenerative Diseases**

# Water Challenges Keywords:

*Scarcity, stress, pollution, management, reuse*

Water, the first mineral  
resource to be exhausted  
on the blue planet



Water JPI - Sustainable water  
systems for a sustainable economy

Watch the [Movie!](#)



# JPI Objectives

Providing and steering research and innovation in the water sector

Attaining critical mass of research programmes

Reaching effective and sustainable coordination of Water Research, Development and Innovation programmes

Harmonising national Water RDI agendas and activities in Partner Countries

Involving water end-users for effective RDI results uptake

Promoting interactions and networking between different communities (researchers, enterprises, policy-makers, civil society, etc.)



Supporting European Leadership in science and technology in this global challenging area

# Implementation principles

- ▶ Shared Strategic Research (and Innovation) agendas agreed by members, long term visions
- ▶ Variable geometry Countries only participate in activities of their specific interest
- ▶ Flexibility Developing activities responding to partners' needs and opportunities through range of tools
- ▶ Everything in Common, except Funding (each JPI partner funds its activities, its communities participation)

# Water JPI Membership

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

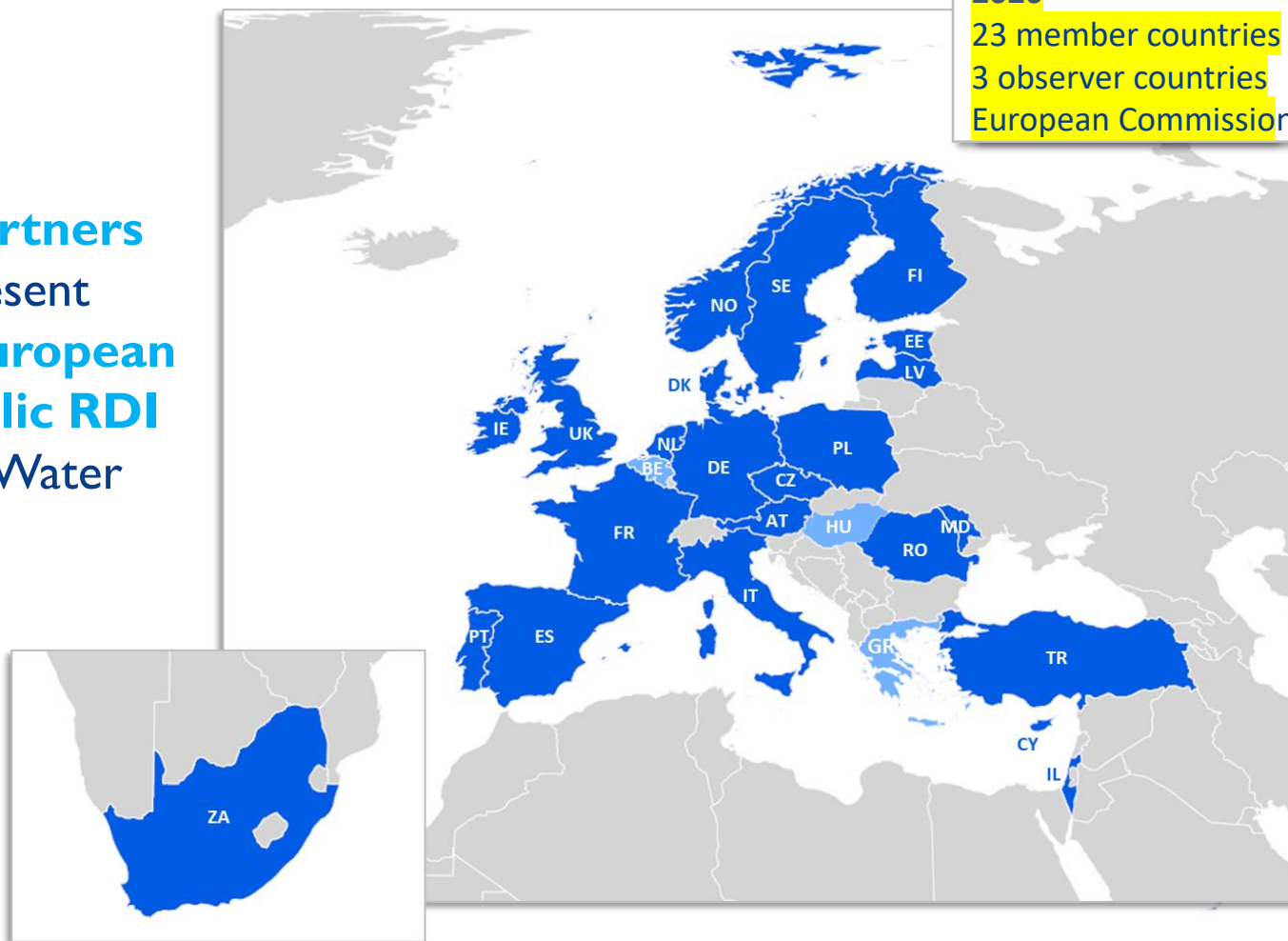
 Water JPI Members  
 Water JPI Observers

**2020**

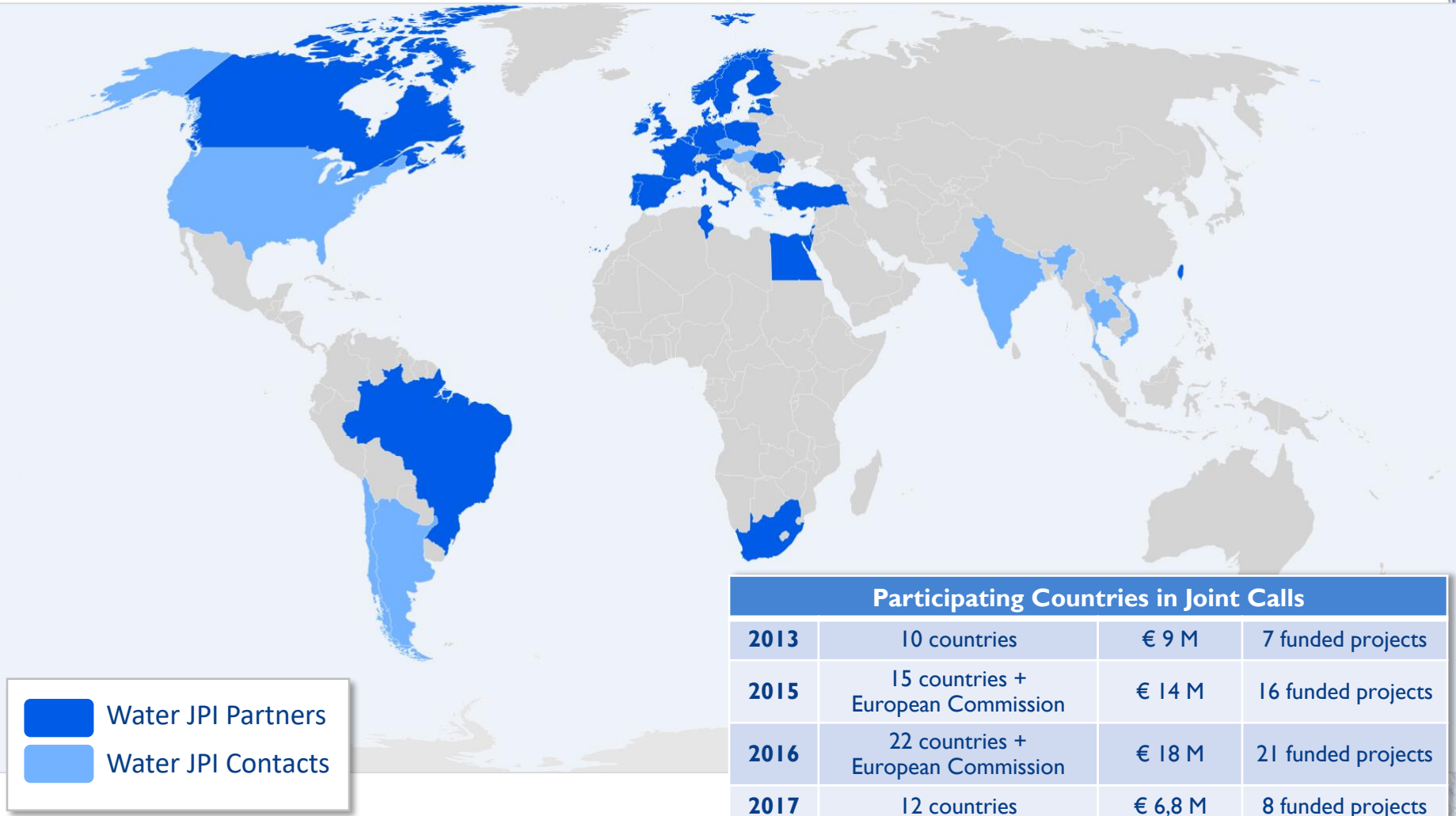
**23 member countries**

**3 observer countries**

**European Commission**

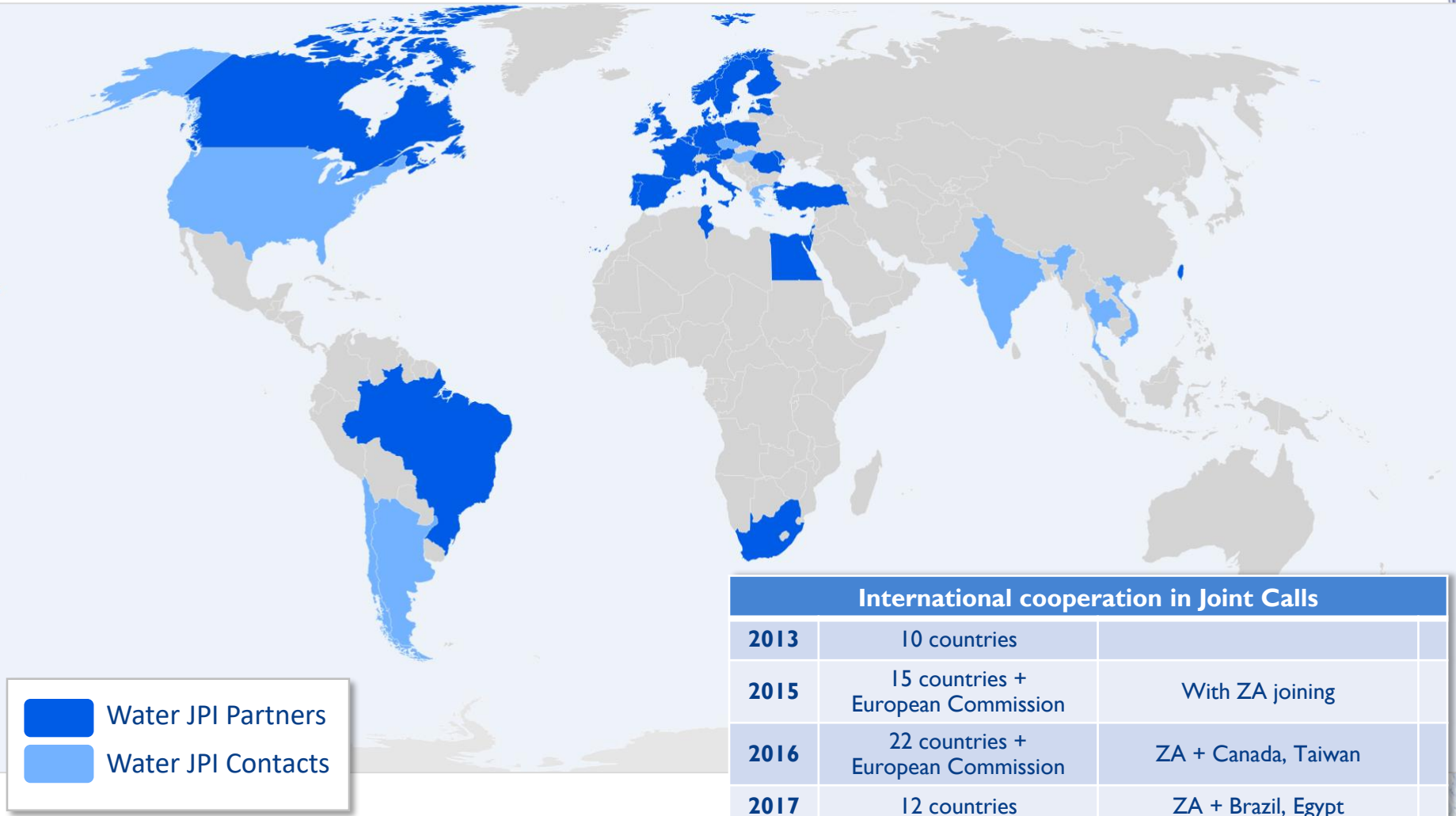


# Global Partnership





# Global Partnership



# Mapping Beyond Europe

- ▶ Mapping of RDI activities in 7 targeted countries and first contacts with research funding organisations to invite them to participate in the ERA-NET

- ✓ Brazil
- ✓ Canada
- ✓ China
- ✓ India
- ✓ South Africa
- ✓ USA
- ✓ Vietnam



**Criteria:** Scientific excellence, development and market



# How to engage with the Water JPI?

As funding partner organisation

As researcher



# Engaging with the Water JPI - Funders

## Gateway

- A unique contact point for engaging with research & innovation funding agencies in Water challenges
- Connecting to collaborative actions on global water challenges

## Being an Observer

- Mutual interest
- Commitment of the external party
- Available national / regional funding (cash and/or in kind) for their participation in meetings

## Becoming an Associated Partners

- Commitment to the Water JPI Vision
- A beginning of successful cooperation with the JPI activities
- Interest and means of getting involved in more than one joint action
- Formal request to join the JPI – *For GB approval / VOTE on the strategy*

## Becoming a Voting Member

- Strong commitment to the Water JPI Vision and Missions (Alignment, European Networking, International Cooperation, ...)
- History of successful cooperation
- Interest and means of getting involved in more than one joint action and to contribute to the JPI strategy and functioning (fees and/or in-kind)
- Formal request to join the Governing Board – *For GB approval / VOTE on the strategy and on financial decisions*



# Engaging with the Water JPI - Researchers

## Gateway

- A unique contact point for engaging with research & innovation funding agencies in Water
- Connecting to collaborative actions on global challenges – See our Strategic Research and Innovation Agenda

## Becoming an JPI research community member

- Subscribe to Water JPI newsletter and follow us on social network
- Join the LinkedIn Water JPI researcher Forum Group
- Register the details of your national/EU/international water research in our Projects Database

## Be informed in joint activities

- Be informed of your national commitments for all activities: Available national / regional funding (cash and/or in kind) to participate
- Participate in JPI mirror group at national level (if any)

## Becoming an active community member

- Suggest updates of the Strategic Research and Innovation Agenda
- Apply to Joint calls, to Knowledge Hubs' to national activities
- Become an Evaluation Panel expert or a Follow-up group member
- Contact your national contact point and declare your interest in becoming an Advisory Board members (selected by the Governing board)

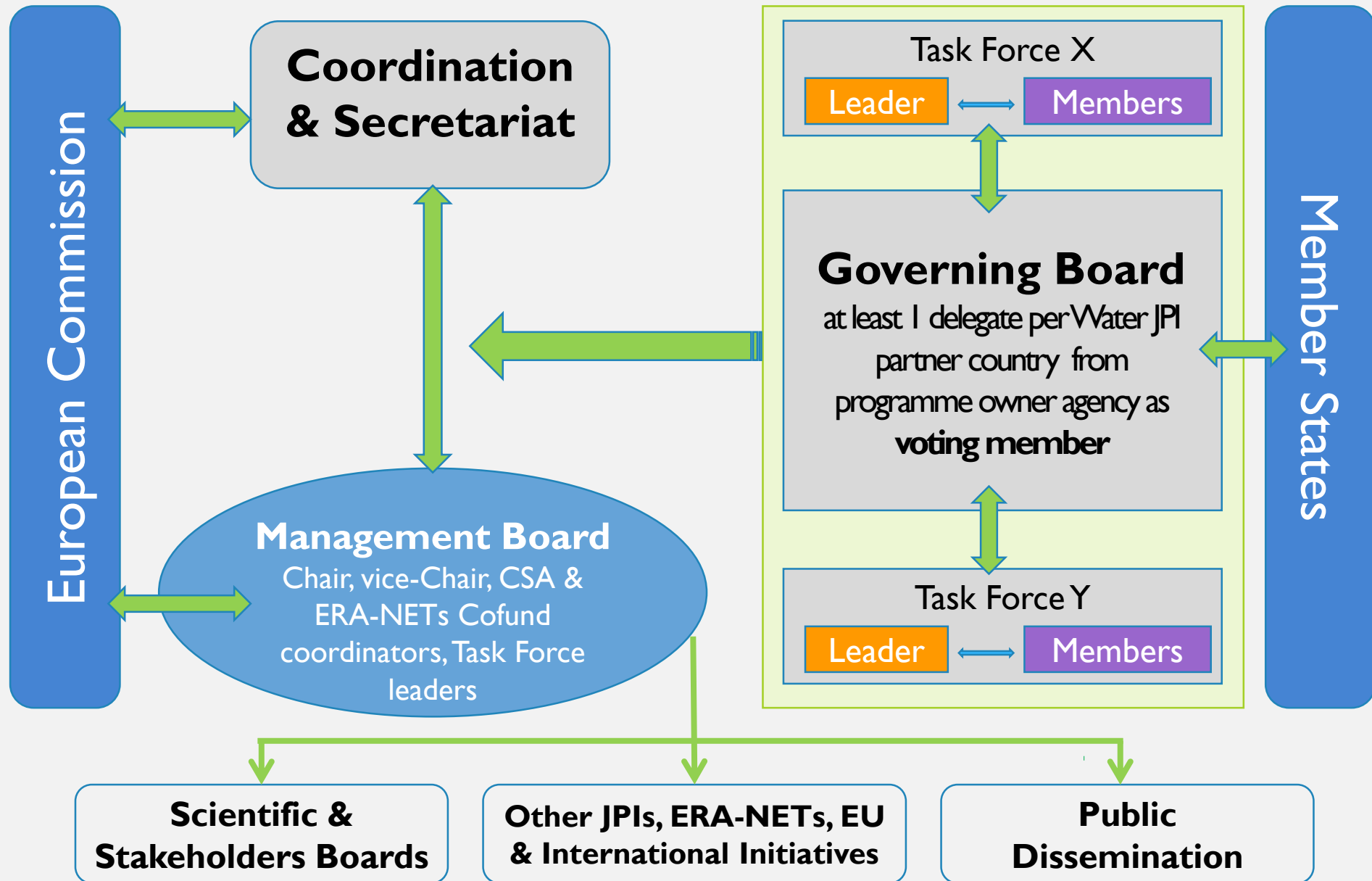
A dynamic splash of clear blue water against a white background, with droplets and ripples visible.

# Governance

Introduction



# Water JPI Governance Structure



# Water 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
  - ✓ Give advice to the GB and MB on specific issues as requested.
  - ✓ Link between the JPI activities and ongoing national, international and EC-funded activities



# Scientific and Technological Board

Name	Surname	Organisation
Suzanne	BIEKER	University of Technologies Darmstadt and GIZ
Olga	COVALIOVA	Institute of Chemistry of Moldova
Hege	HISDAL	Norwegian Water Resources and Energy Directorate
Alan	JENKINS	(UK CEH)
Jaime	MELO BAPTISTA	Laboratório Nacional de Engenharia Civil (LNEC)
Sylvester	MPANDELI	Water Research Commission (WRC)
Yolanda	PICÓ	University of Valencia (UV)
Fiona	REGAN	Dublin City University (DCU)
Jean-Daniel	RINAUDO	BRGM
Marko	VIRTA	University of Helsinki
Ülkü	YETİŞ	Middle East Technical University (METU)

# Stakeholders Advisory Group

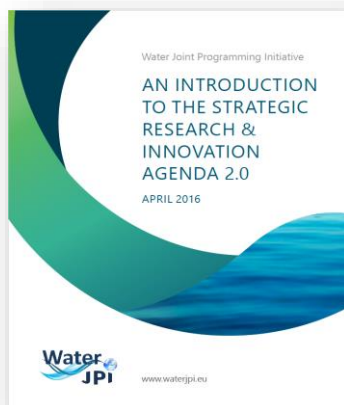
## ORGANISATIONS

ARC	Aqua Research Collaboration
CIS & EIP on Water	Common Implementation Strategy and European Innovation Partnership on Water
EIFAAC-FAO	European Inland Fishery and Aquaculture Advisory Commission
EU-INBO	EU Network of River Basins Organisations
EurAqua	European Network of Freshwater Research Organisations
EurEau	European Federation of National Associations of Water and Wastewater Services
EWA	European Water Association
FAO	Food and Agriculture Organisation of the United Nations
GWRC	Global Water Research Coalition
WssTP / Water Europe	Water Supply and Sanitation Technology Platform

A dynamic splash of water in shades of blue and white, with many small bubbles and droplets, set against a plain white background.

# Key Achievements and Activities



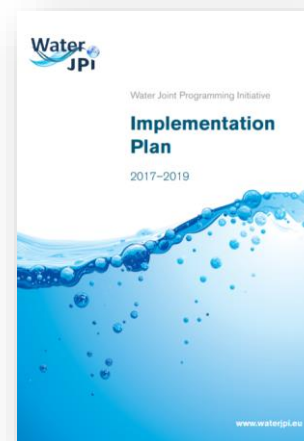


**Vision:** Global Challenge &  
Strategic Research Areas  
10-Year Forward Looking

**Strategic Research &  
Innovation Agenda**  
5-year Roadmap

**Implementation Plan**  
3-year Work Plan

**Joint Actions**





# What is the Vision?

- ▶ **Context (trends, drivers and challenges)** - Outlines the **JPI objectives and research questions** responding to the issues and challenges facing the European water sector.
- ▶ **Overarching roadmap** that outlines what needs to be achieved and sets the context for all other Water JPI activities.



# Water JPI SRIA 2025

## SRIA 2025 Research Themes and Sub-themes

### ***Theme A: Ecosystems***

- |                      |  |
|----------------------|--|
| <b>Sub-theme A.1</b> | Developing approaches for assessing and optimising the structure and function of ecosystem services. |
| <b>Sub-theme A.2</b> | Developing and applying an approach to ecological engineering and ecohydrology.                      |
| <b>Sub-theme A.3</b> | Managing and adapting ecosystem services to the effects of hydro-climatic extreme events.            |

### ***Theme B: Health and Wellbeing***

- |                      |   |
|----------------------|---|
| <b>Sub-theme B.1</b> | Emerging contaminants and associated risks: monitoring, remediation and assessing their effects and behaviour on nature and humans. |
| <b>Sub-theme B.2</b> | Water dimension of anti-microbial resistance; 'one health approach.'  |
| <b>Sub-theme B.3</b> | Understanding and minimising the risks associated with water infrastructures and climate change effects.                            |
| <b>Sub-theme B.4</b> | Human interaction with water.   |

### ***Theme C: Water Value and Usage***

- |                      |  |
|----------------------|--|
| <b>Sub-theme C.1</b> | Future-proofed water technologies, infrastructures and systems for developing climate change resilience. |
| <b>Sub-theme C.2</b> | Water smart-circular economy and societies.  |
| <b>Sub-theme C.3</b> | Empowering the public, water users and stakeholders in valuing water.                                    |

### ***Theme D: Sustainable Water Management***

- |                      |   |
|----------------------|---|
| <b>Sub-theme D.1</b> | Optimising the Nexus approach.  |
| <b>Sub-theme D.2</b> | Adapting water resources management to deal with increased uncertainty. |
| <b>Sub-theme D.3</b> | Enabling sustainable management of water resources.                     |

# Implementing the Water JPI SRIA: actions & activities



Improving ecosystem  
sustainability and human  
well-being



A water-wise bio-  
based economy



Safe water systems  
for citizens



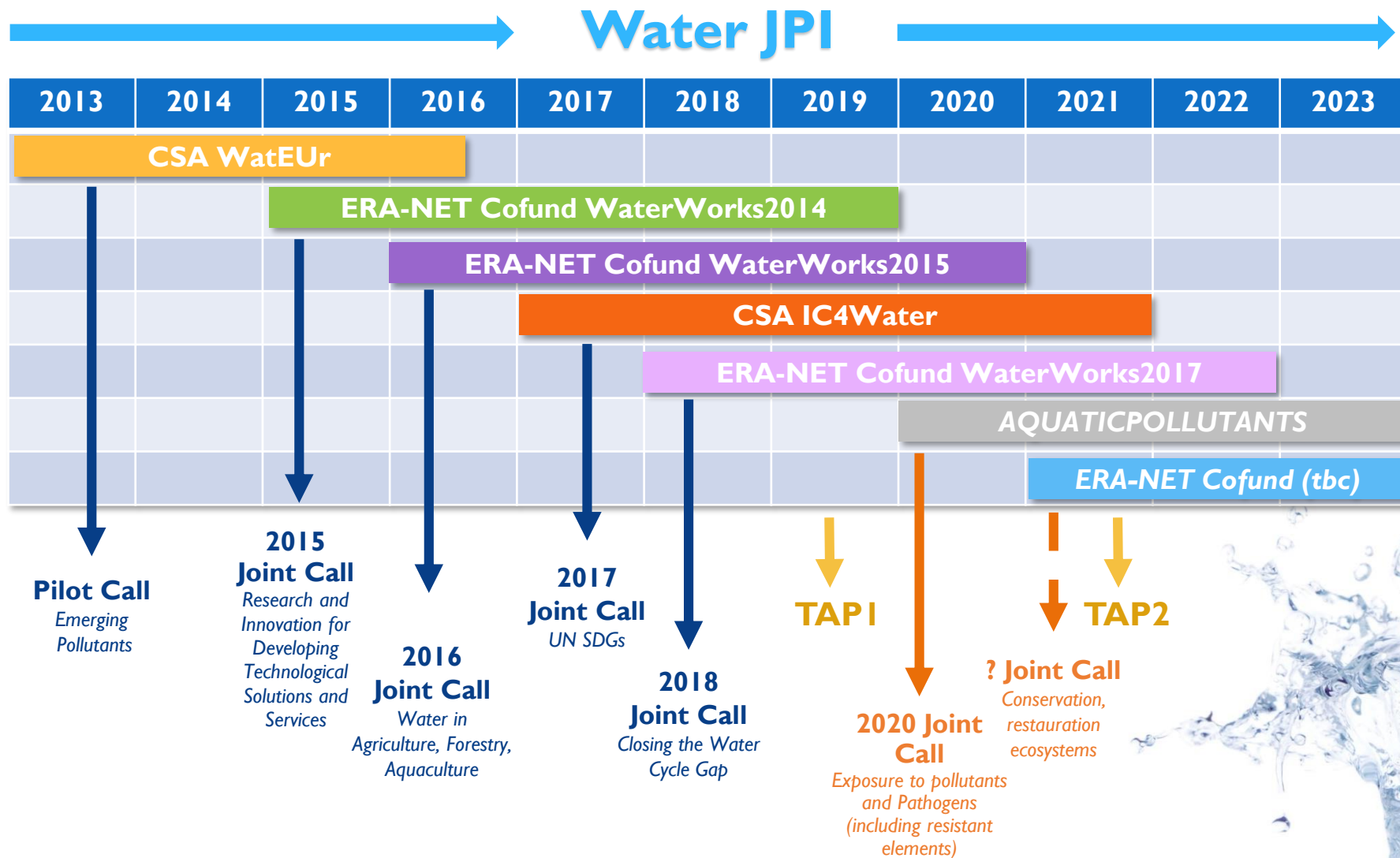
Competitiveness in  
the water industry



Closing the  
water cycle gap



# Calls for Research & Innovation proposals





# Implementing the Water JPI SRIA: 7 Joint Calls launched



Improving ecosystem  
sustainability and human  
well-being



A water-wise bio-  
based economy



Safe water systems  
for citizens



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water cycle gap



# Joint Transnational Calls

## 2013 Pilot Call

Identification and prevention of emerging freshwater contaminants

Control, mitigation and methods for treatment and removal

Impact on ecosystems services and human health

**€ 9 million**

## 2015 Joint Call

Water Treatment, Reuse, Recycling and Desalination

Water Resources Management

Mitigate Impacts of Extreme Events (Floods and Droughts) at Catchment Scale

**€ 14 million**

## 2016 Joint Call

Increasing the efficiency and resilience of water uses

Monitoring and reducing soil and water pollution

Integrating social and economic dimensions into the sustainable management and governance of water resources

**€ 18 million**

# Joint Transnational Calls

## 2017 JOINT CALL

Multiple pressure effects on ecosystems and ecosystem services as well as effective mitigation

*adaptation tools and assessments for implementing the water related targets of the UN SDGs*

Developing accessible solutions for clean water management to address UN SDG6 targets and associated SDGs

**€ 6,8 million**

## 2018 JOINT CALL

Enabling sustainable management of water resources

Strengthening socio-economic approaches to water management

Supporting tools for sustainable integrative management of water sources

**€ 15,2 million**

## 2020 Joint Call

Measuring - Environmental behaviour of CECs, pathogens and antimicrobial resistant bacteria in aquatic ecosystems

Evaluating - Risk Assessment and Management from aquatic ecosystems to human health and environment

Taking Actions - Strategies to reduce CECs, pathogens and antimicrobial resistant bacteria in aquatic ecosystems

**€ 27,2 million**

# 2013 Pilot Joint Call

## ***Emerging water contaminants – anthropogenic pollutants and pathogens***

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)?

- ▶ 10 countries: CY, DE, DK, ES, FI, FR, IE, IT, NO, PT
- ▶ 1 Step procedure - 105 Proposals submitted
- ▶ 7 Projects funded
- ▶ €9 million



# 2015 Joint Call



## *Research and Innovation for Developing Technological Solutions and Services*

Waste water treatment and reuse

- ▶ 15 countries: BE, CY, DK, EE, ES, IE, IL, IT, MD, NL, NO, PT, RO, SE and ZA (+EC)
- ▶ Two-step procedure
- ▶ 118 pre-proposals
- ▶ 16 funded projects
- ▶ €14 million (including EC contribution)

# 2016 Joint call



## ***Sustainable management of water resources in agriculture, forestry and freshwater aquaculture sectors***

Increasing the efficiency and resilience of water uses

Monitoring and reducing soil and water pollution

Integrating social and economic dimensions into the sustainable management and governance of water resources

# 2017 JOINT CALL



## ***Water resource management in support of the United Nations Sustainable Development Goals***

Multiple pressure effects on ecosystems and ecosystems services

Developing accessible solutions for clean water management

- ▶ 12 countries: BE, BR, CY, DE, EG, FR, IE, LV, MD, NO, SE and ZA
- ▶ Two-step procedure
- ▶ 67 pre-proposals
- ▶ 8 funded projects
- ▶ €6,8 million

**Kick-off meeting of the  
8 funded projects on  
6 February 2019 in Paris**

# 2018 JOINT CALL



## *Closing the Water Cycle Gap – Sustainable Management of Water Resources*

Enabling sustainable management of water resources

Strengthening socio-economic approaches to water management

Supporting tools for sustainable integrative management of water sources

- ▶ 18 countries: BE, BR, CY, EE, EG, ES, FI, FR, IE, IL, IT, NL, NO, PL, RO, SE, TN and ZA (+EC)
- ▶ Two-step procedure
- ▶ 105 pre-proposals
- ▶ 18 funded projects
- ▶ €15,2 million (including EC contribution)

**Kick-off meeting of the  
18 funded projects on  
10 April 2019 in Stockholm**



# 2020 Joint Call w/ JPI AMR & JPI Oceans



## Risks posed to human health and the environment by pollutants and pathogens present in water resources

- ▶ Measuring - Environmental behaviour of contaminants of emerging concern (CECs), pathogens and antimicrobial resistant bacteria in aquatic ecosystems
- ▶ Evaluating - Risk Assessment and Management of CECs, pathogens and antimicrobial resistant bacteria from aquatic ecosystems to human health and environment
- ▶ Taking Actions - Strategies to reduce CECs, pathogens and antimicrobial resistant bacteria in aquatic ecosystems (inland, coastal and marine)
  - ▶ 27 countries: BE, BR, CY, CZ, DE, DK, EE, EG, ES, FI, FR, GR, IE, IL, IT, LT, MD, NO, PL, PT, RO, SE, TN, TR, TW, UK (Scotland) and ZA (+EC)
  - ▶ Two-step procedure: 184 submitted preproposals and 53 are invited to submit a full proposal.
  - ▶ €27,2 M€

# Upcoming call : opportunity

- ▶ ERA-NET Cofund 2020:
  - ▶ Conservation and restoration of degraded ecosystems and their biodiversity, including a focus on aquatic systems
  - ▶ In collaboration with **BiodivERsA**
  - ▶ **Biodivrestore** was launched on the 5th of October
- ▶ Horizon Europe – Partnership Water4All
  - ▶ Drafting group for partnership and SRIA

# Implementing the Water JPI SRIA: two Knowledge Hubs



Improving ecosystem  
sustainability and human  
well-being



A water-wise bio-  
based economy



Safe water systems  
for citizens



Competitiveness in  
the water industry



Closing the  
water cycle gap



# Knowledge hub – What for?

- ▶ Knowledge management (collecting – sharing)
- ▶ Knowledge usability
- ▶ Knowledge synthesis
- ▶ Knowledge sharing to extended domain(s)
- ▶ Knowledge transfer (to end-users)
- ▶ Knowledge communication & dissemination

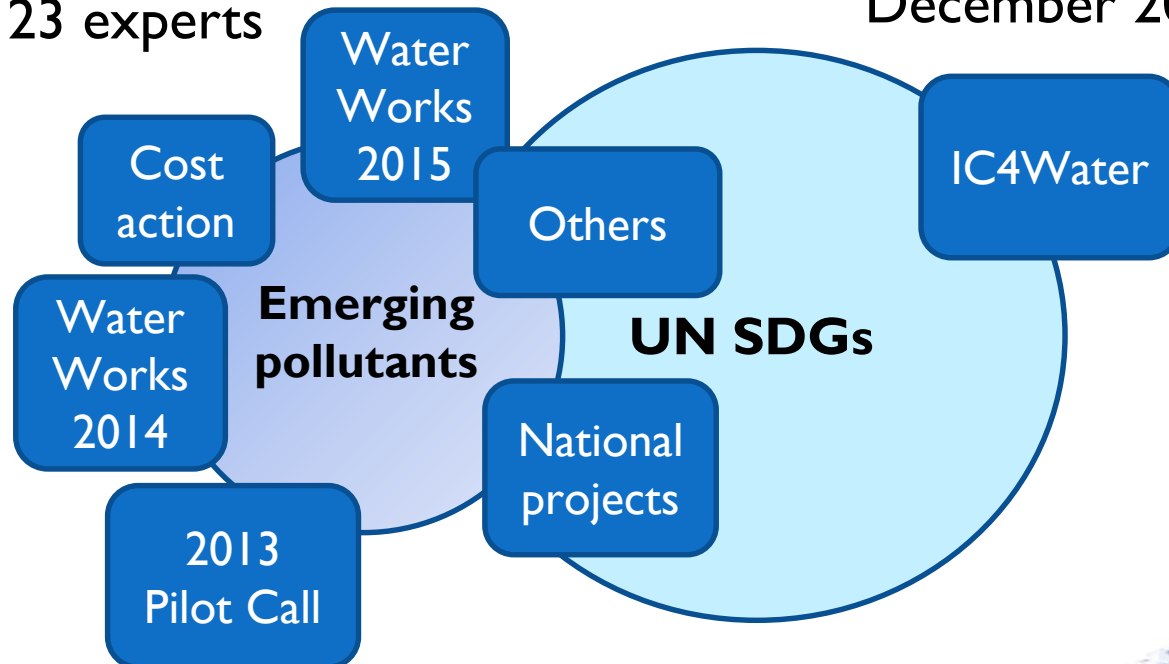




# Water JPI Knowledge Hubs

First **Knowledge Hub on emerging pollutants** started in March 2018

With 23 experts



Second **Knowledge Hub on UN SDGs** to be started in December 2019

First **Knowledge Hub on emerging pollutants** ended in 2020???

# Implementing the Water JPI SRIA: Thematic annual programming action = TAP in 2018



Improving ecosystem  
sustainability and human  
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Safe water systems  
for citizens



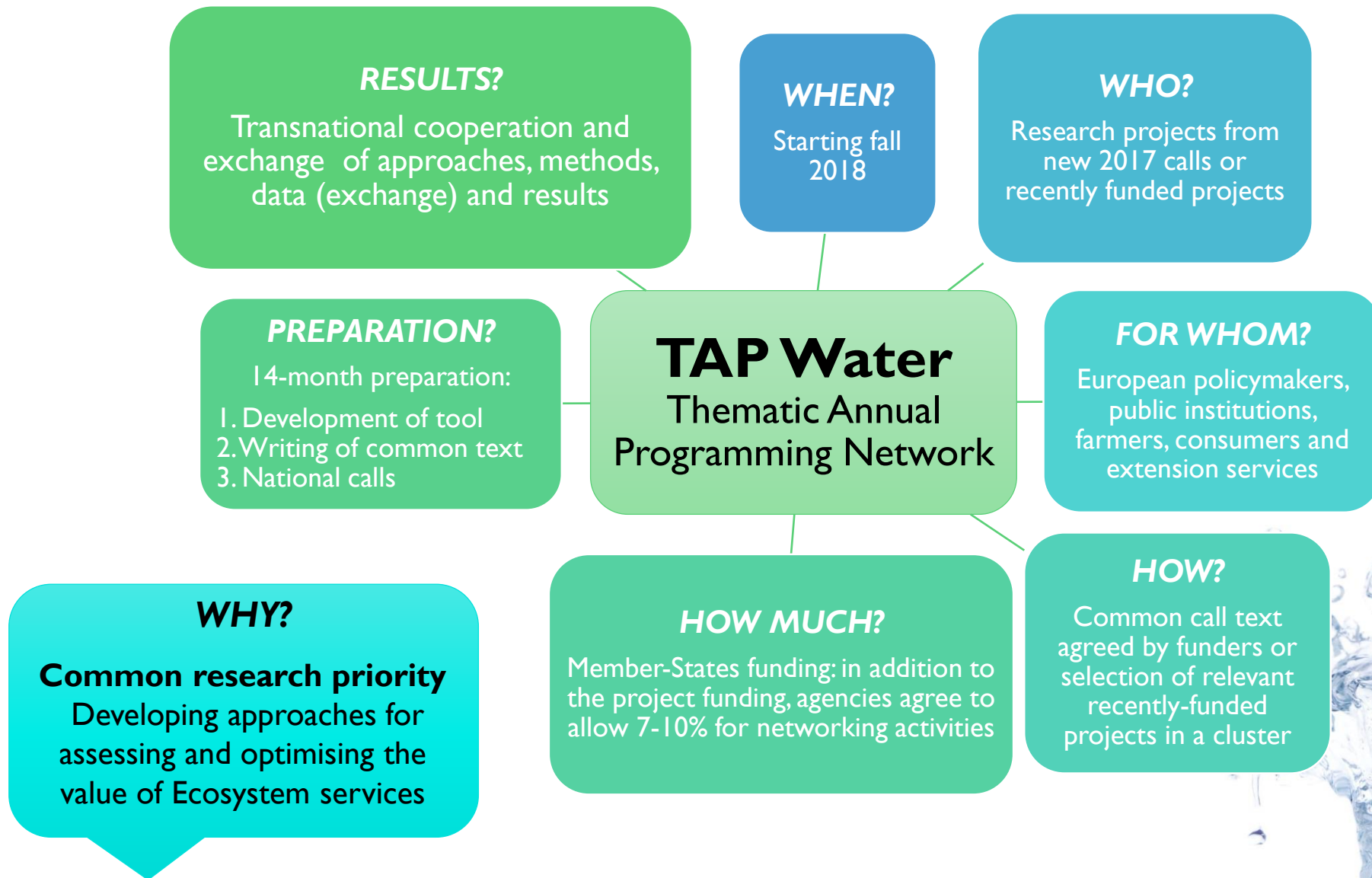
Competitiveness in  
the water industry



Closing the  
water cycle gap



# Thematic Annual Programming Action



# TAP Water Implementation

Interested countries: ES, IE, UK, NL and ZA

TBC: FI, FR and PT

## Step 1

- National research funding agencies publish in their national research calls the same call text on the Topic OR
- National research funding agencies, which do not have a dedicated water research calls, identify projects awarded from their most recent national calls, which are relevant to the selected Topic

## Step 2

- National funded projects will be invited to join an international cluster (Water TAP Cluster) organised by the Water JPI
- Coordinators of these national funded projects will have to participate in annual working meetings to exchange on approaches, methods, data (exchange) and results



# Thematic Action Programming Action

## AQUATAP-ES

- ▶ TAP launched on the 12/06/2019 in Dublin
- ▶ Topic: « **Developing approaches for assessing and optimising the value of Ecosystem services** »
  - 6 projects from 4 countries clustered
  - 21 attendees including representatives from 16 different organisations from 8 countries
  - Coordinator: Yearly Rotation basis (Mary Kelly-Quinn for Year 1)
- ▶ Outputs to-date:
  - ▶ Workshop proceedings and Implementation Plan (Internal Working document)
  - ▶ Feedback provided to the Sutherlands Exercise carried out by BiodivERsA
  - ▶ Nomination of TAP members to the Scoping Workshop on Degraded Ecosystems (towards 2020 COFUND) organized by BiodivERsA on 02/10/2019 in Paris
  - ▶ Water JPI TAP should inform policy and practice
- ▶ Next Workshop due on: 19th November in Brussels (NL representation)



# Implementing the Water JPI SRIA: Exploratory Workshops



Improving ecosystem  
sustainability and human  
well-being



A water-wise bio-  
based economy



Safe water systems  
for citizens



Competitiveness in  
the water industry



Closing the  
water cycle gap



# Exploratory Workshop, such as the one of today 😊

## AIMS

- ▶ Identification of the Key Knowledge Gaps in the area of interest
  - ▶ In a collaborative and participatory approach
- ▶ The **TOP 3 gaps** to be considered in priority actions
- ▶ Complete the template for updating the Water JPI SRIA  
(online form available on the Water JPI website)

## EXAMPLES - [HTTP://WWW.WATERJPI.EU/RESOURCES/EXPLORATORY-WORKSHOPS/](http://www.waterjpi.eu/resources/exploratory-workshops/)

- 2016 – Closing the Water Cycle Gap
- 2017 – Improving Ecosystem Sustainability and Human Well-being



# Implementing the Water JPI SRIA: Opening to global partners



Improving ecosystem  
sustainability and human  
well-being



A water-wise bio-  
based economy



Safe water systems  
for citizens



Competitiveness in  
the water industry



Closing the  
water cycle gap





# International Partners

The Water JPI already has already

- ▶ Members in several EFTA countries, enlargement countries and countries covered by the European Neighbourhood Policy



- ▶ Contacts and joint activities beyond these countries
  - ▶ Other EFTA / Neighbourhood Policy countries
  - ▶ Industrialised countries and emerging economies
  - ▶ Developing countries

# Mapping Beyond Europe

- ▶ Mapping of RDI activities in 7 targeted countries and first contacts with research funding organisations to invite them to participate in the ERA-NET

- ✓ Brazil
- ✓ Canada
- ✓ China
- ✓ India
- ✓ South Africa
- ✓ USA
- ✓ Vietnam



**Criteria:** Scientific excellence, development and market

# International Partners in Joint Activities

## ▶ Brazil

- ▶ CONFAP and States Agencies (Call 2017, 2018),
- ▶ Sectoral Dialogue on Water (EC, JPI members, BR Ministries)

## ▶ Canada

- ▶ Natural Sciences and Engineering Research Council - NSERC (Call 2016)

## ▶ Egypt

- ▶ Academy of Scientific Research & Technology - ASRT (Call 2016, 2017, 2018)

## ▶ Taiwan

- ▶ Taiwanese Ministry of Science and Technology - MOST (Call 2016)

## ▶ Tunisia

- ▶ Institution for Agricultural Research and Higher Education – IRESA (Call 2016, 2018)
- ▶ Ministry of Higher Education and Scientific Research – MHESR (Call 2018)

# Timeline of participation of non EU members



## Discussion with

Chile

China

India

USA

Mediterranean countries (PRIMA)

Israel

Moldova

Norway

Turkey

South Africa

Canada

Taiwan

Egypt

Tunisia

Brazil

Argentina

Thailand

Vietnam

2014

Non EU Water JPI Members

H2020 Associated Countries or Eligible for funding

Third countries

2018



A dynamic splash of water in shades of blue and white, creating a sense of movement and freshness. The water droplets and ripples are captured in mid-air, adding a high-energy feel to the presentation.

## The next chapter of Water JPI under HORIZON EUROPE:

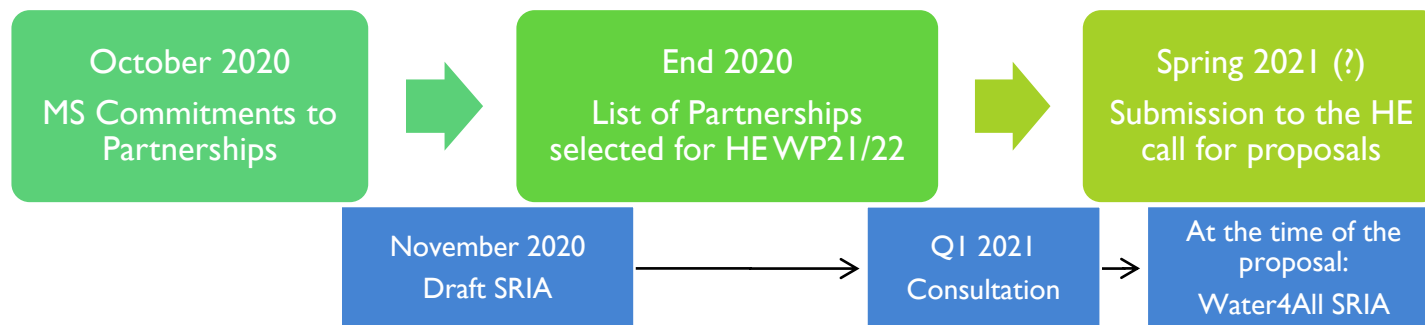
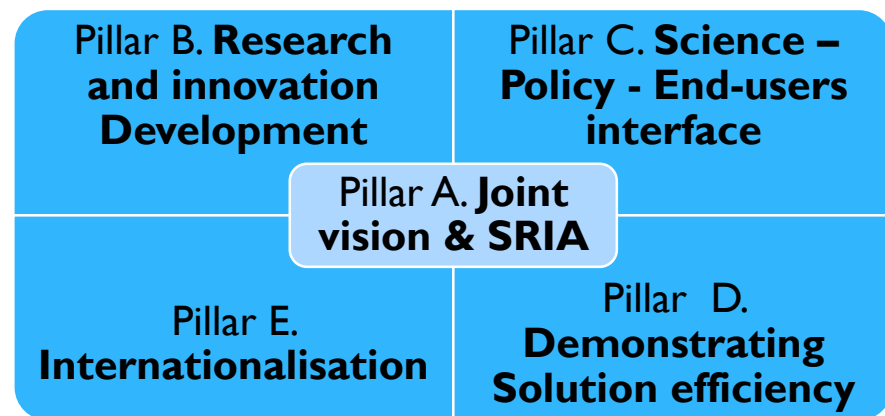
- The Partnership Water4ALL
- Part of the first launched partnerships
- With a tight schedule in 2020/2021



# The Water4All Partnership

- ▶ Concentrating R&I and the funding landscape of water in Europe and beyond

- ▶ **Enabling Water security for all on the long term**



# For more information...



- Website : [www.waterjpi.eu](http://www.waterjpi.eu)
- A Newsletter – [Subscribe on line!](#)
- [@WaterJPI](#)
- LinkedIn - Water JPI researcher forum group (ca. 2000 members)  
<https://www.linkedin.com/groups/8455262>
  - Joint Calls announcements & Networking
  - Announcement of events and activities
- A unique contact point
  - [waterjpisecretariat@agencerecherche.fr](mailto:waterjpisecretariat@agencerecherche.fr)
  - Phone + 33 | 78098120



*Take a Break!*





# Breakout groups session

*Looking into water RDI priorities and  
cooperation modalities*

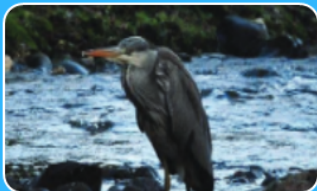


## Group I. Interactions between regional activities and research themes of the Water JPI

Debora Bellafiore  
Francesca De Pascalis  
Georg Umgiesser  
Adrian Stanica (*moderator tbc*)  
Wilko Verweij - *tbc*  
Balazs Horvath  
Olga Covaliova  
Hélène Masliah-Gilkarov  
Laszlo Balatonyi  
Tiyani Chauke  
Olivier Bouc (*rapporteur*)  
Claire Treignier (*rapporteur*)  
Antonio Lo Porto - *excused*

## Group II. How to cooperate together?

Marius Niculae  
Felix Gajdusek (*moderator*)  
Sabine Sorge  
Eduard Interwies  
Esther Chacón - *tbc*  
Olga Davidenco  
Irina Makarenko  
Mamohloding Tlhagale  
Veronique Briquet-Laugier (*rapporteur*)  
Esther Diez-Cebollero (*rapporteur*)  
Prisca Haemers - *excused*

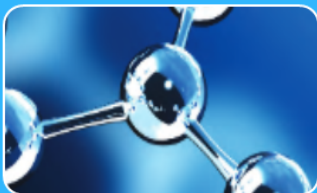


## Theme A. Ecosystem

Assessment and optimisation of the structure and functioning of ecosystems

Ecological engineering and ecohydrology

Management and adaptation of ecosystem services to extreme events



## Theme B. Health and wellbeing

Emerging contaminants: monitoring, remediation and assessment

Anti-microbial resistance – « one-health » approach

Risks associated with water infrastructure and climate change effects

Coordinated resource management strategy



## Theme C. Water value and usage

Water technologies, infrastructures and systems for climate change resilience

Water-smart circular economy and societies

Empowering the public, water users and stakeholders in valuing water



## Theme D. Sustainable water management

Optimising the Nexus approach

Adapting water resources management

Enabling sustainable management of water resources

### Cross-cutting Issues

UN Sustainable  
Development Goals



Climate-neutral circular  
economy and bio-economy



WEFE Nexus



# Priority RDI needs at the EU level identified by the AB

## Ecosystems



Net carbon zero – better understanding of what control C emissions in terrestrial freshwater services and their impact on other systems (long-range integrated action)

Better understanding of NBS, and the combination of NBS with other tools (« grey » solutions, digitalisation, artificial intelligence) as climate change adaptation tools

Assesment of the value of ecosystems, their resilience and sustainability.

## Health and wellbeing



Impacts of « Mixed » pollution (cocktail effects of pollutants) and micropollutants

Synergistic effects of pollution and water scarcity.

Pollution prevention at source.

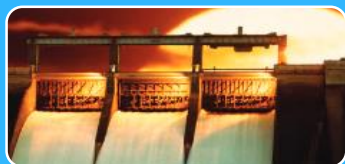
## Water value and usage



Wastewater reuse for agricultural purposes.

Further integration of the WEFE concept in policy making.

## Sustainable water management



Better understanding of climate change effects on the hydrological cycle (both water quality and water quantity) and feedback mechanisms.

Assessment of impacts of disruptive shocks (climate change, pandemics)



# Priority « RDI needs in Europe» identified by the AB

- Scientific evidence-based legislation.
- Big data as an enabler for better governance models.
- Education and training.
- Knowledge accumulated in water research projects.
- Focus on urban areas (water use, NBS, resilience of infrastructures to climate change, etc.) and living labs.

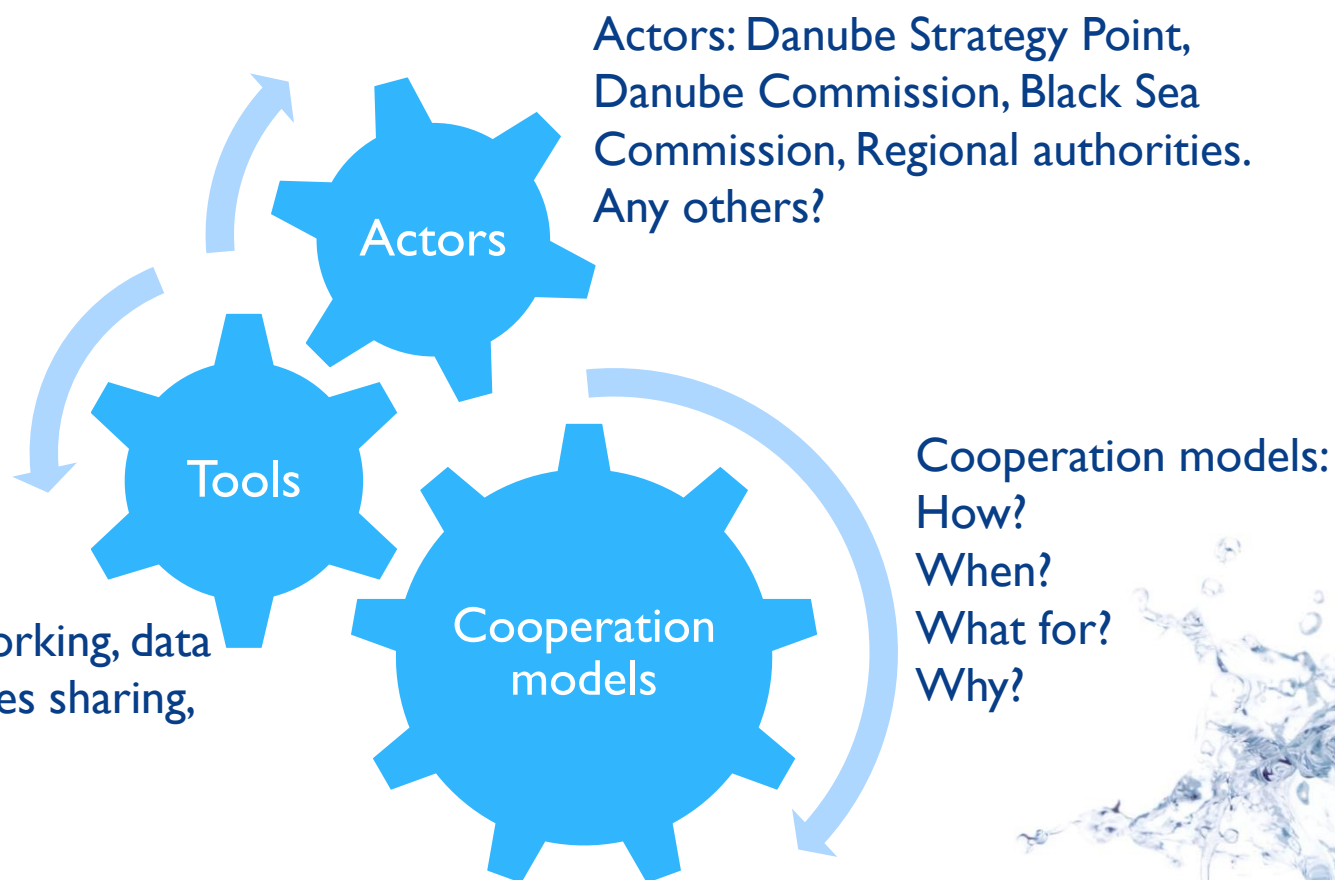


# Breakout group I. Key questions to be addressed

- ▶ Do you think that the RDI needs identified by the Water JPI's Advisory Board are relevant to the Danube Region? What are the water priorities in the region?
- ▶ Gaps identification.
- ▶ Data collection, databases, data treatment: what needs?
- ▶ What is at stake for this region? (e.g. what challenges for RDI activities?)



# Breakout group II. Key questions to be addressed



# Breakout group II. Key questions to be addressed

- ▶ Water mapping in the region: Key actors and stakeholders in the region for water management and policy.
- ▶ Which activities are of common interest (infrastructures, knowledge hubs, lobbying, networking, mobility)?
- ▶ Best available tools for cooperation in the region.
- ▶ How to build cooperation models taking into account existing barriers for cooperation?



# Discussion



*Take a Break!*





# Rapporteurs feedbacks

1-Priority areas: Claire Treignier, Olivier Bouc

2-Cooperation: Esther Diez-Cebollero, Veronique Briquet-Laugier



A dynamic splash of clear blue water against a white background, with droplets and ripples visible.

# Wrap-up of the workshop

Veronique Briquet-Laugier, Water JPI coordinator





# For more information...



- Website : [www.waterjpi.eu](http://www.waterjpi.eu)
- A Newsletter – [Subscribe on line!](#)
- [@WaterJPI](#)
- LinkedIn - Water JPI researcher forum group (more than 1720 members) <https://www.linkedin.com/groups/8455262>
  - Joint Calls announcements & Networking
  - Announcement of events and activities
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***Thanks to all!***

