





# Water4All

Water security for the planet

La Partnership europea per promuovere ricerca e  
innovazione nell'ambito del programma Horizon Europe

27 marzo 2025,

Maria Chiara Sole e Vittoria Laterza

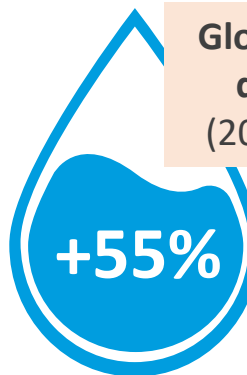
ISPRA, Istituto Superiore per la protezione e la Ricerca Ambientale



# Why Water4All ?

Water, a major issue for

Life on Earth  
Ecosystems  
Human activities



Global water demand (2015-2050)

Freshwater/EU inhab. (over 20 years)



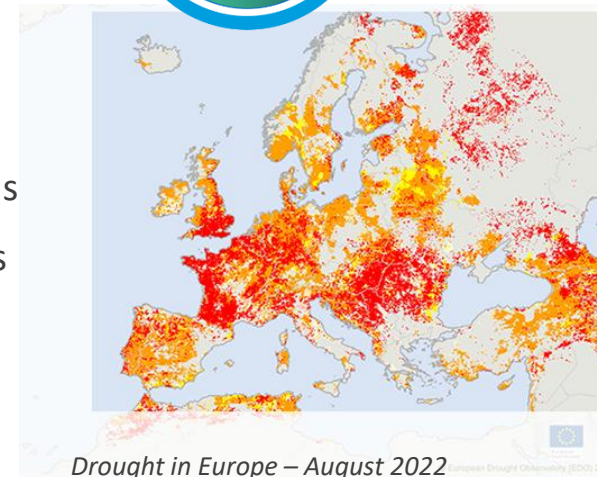
Spain: - 65%  
Malta: - 54%

Droughts  
Floods  
Pollution

Water Framework Directive 2000/60/EC

60% EU surface water bodies in poor status

30% EU groundwater bodies in poor status



Drought in Europe – August 2022

JRC Global Drought Observatory (GDO) of the Copernicus Emergency Management Service (CEMS) – 22/08/2022

Climate change effects

Increase damage on water resource

- 90% disasters worldwide are water-related (IPCC)
- Drought in Europe 2022: 19% of normal annual rainfall on 50% of the territory (Europe) (impact on soil, ecosystems, biodiversity...)



# Why Water4All ?

- A lot has already been done (decades of EU, national, local water research)
  - *With Horizon Europe: to give a fresh boost to the European Research, Development and innovation for water*
  - *CO FUNDED PARTNERSHIP*
- New « Horizon Europe » framework programme → **49 thematic priorities** for European Research (**co-funded partnerships**)



Partnerships  
Pillar II, Cluster 6

## HORIZON EUROPE PILLAR II - Global challenges & European industrial competitiveness

CLUSTER 1: Health	CLUSTER 4: Digital, Industry & Space	CLUSTER 5: Climate, Energy & Mobility	CLUSTER 6: Food, Bioeconomy, Agriculture, ...
Innovative Health Initiative	Key Digital Technologies	Clean Hydrogen	Circular Bio-based Europe
Global Health Partnership	Smart Networks & Services	Clean Aviation	Rescuing Biodiversity to Safeguard Life on Earth
Transformation of health systems	High Performance Computing	Single European Sky ATM Research 3	Climate Neutral, Sustainable & Productive Blue Economy
Chemicals risk assessment	European Metrology (Art. 185)	Europe's Rail	Water4All
ERA for Health	AI-Data-Robotics	Connected and Automated Mobility (CCAM)	Animal Health & Welfare*
Rare diseases*	Photonics	Batteries	Accelerating Farming Systems Transitions*
One-Health Anti Microbial Resistance*	Made in Europe	Zero-emission waterborne transport	Agriculture of Data*
Personalised Medicine*	Clean steel – low-carbon steelmaking	Zero-emission road transport	Safe & Sustainable Food System*
Pandemic Preparedness* <i>Co-funded or co-programmed</i>	Processes4Planet	Built4People	
	Global competitive space systems**	Clean Energy Transition	
		Driving Urban Transitions	

## PILLAR III - Innovative Europe

EIT (KNOWLEDGE & INNOVATION COMMUNITIES)	SUPPORT TO INNOVATION ECOSYSTEMS
InnoEnergy	Innovative SMEs
Climate	
Digital	
Food	
Health	
Raw Materials	
Manufacturing	
Urban Mobility	
Cultural and Creative Industries	



## CROSS-PILLARS II & III

European Open Science Cloud



## A “new” way of supporting Research

- Gathering our funds
- Cross-sectoral approaches (researchers, policy makers, citizens, economic actors)
- Continuum development to the transfer and practice to the actors from knowledge
- Accelerating the impact of Research on water management (EU, SDGs objectives. WFD and others EU regulations and laws ...)



- Institutionalised Partnerships (Art 185/7)
- Institutionalised Partnerships / EIT KICs
- Co-Programmed
- Co-Funded

\* Calls with opening dates in 2023-24  
\*\* Calls with opening dates not before 2022

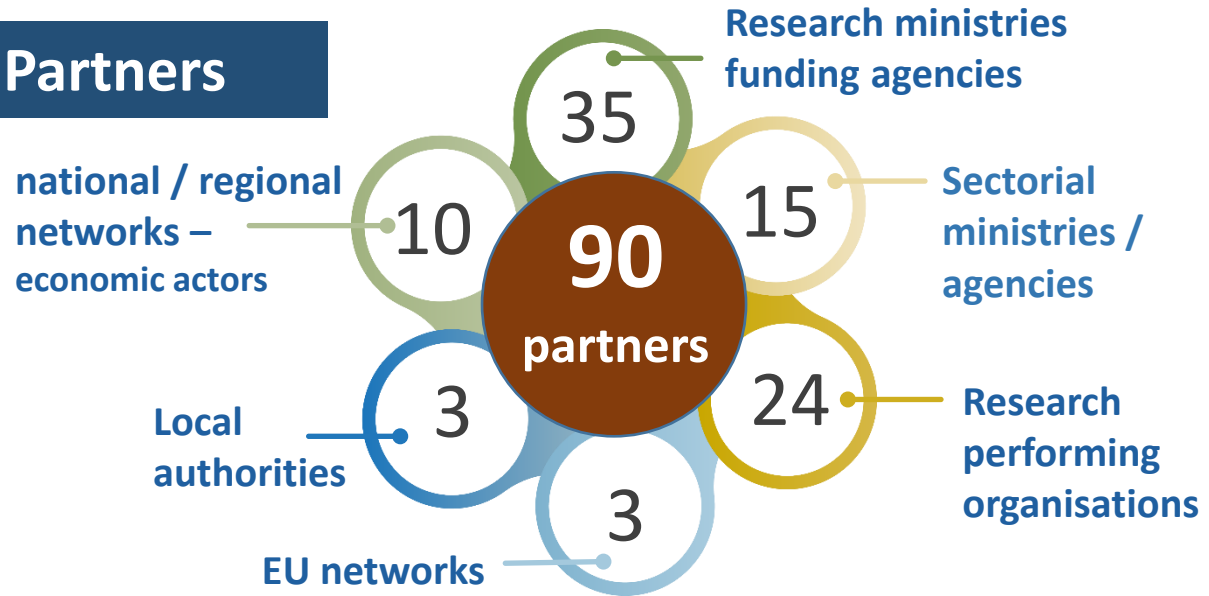


# Water4All consortium

Start: June 2022

33 countries

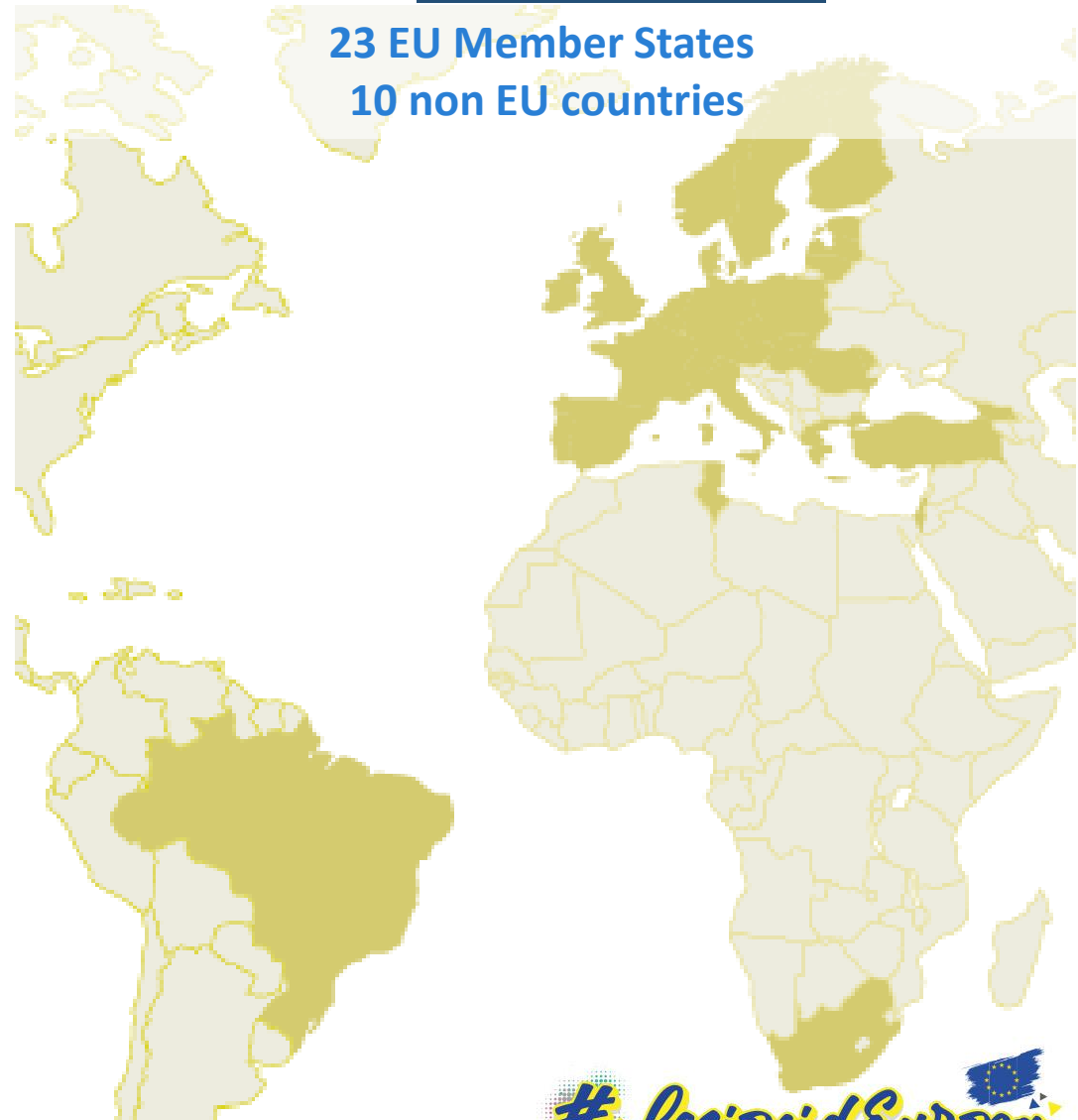
## Partners



## Budget

Phase 1: 86M€, 26M€ from the EC  
Phase 2 : from June 2024: 103 M€, 31M€ from the EC

For the decade : 420 M€ expected (126 M€ from EU)

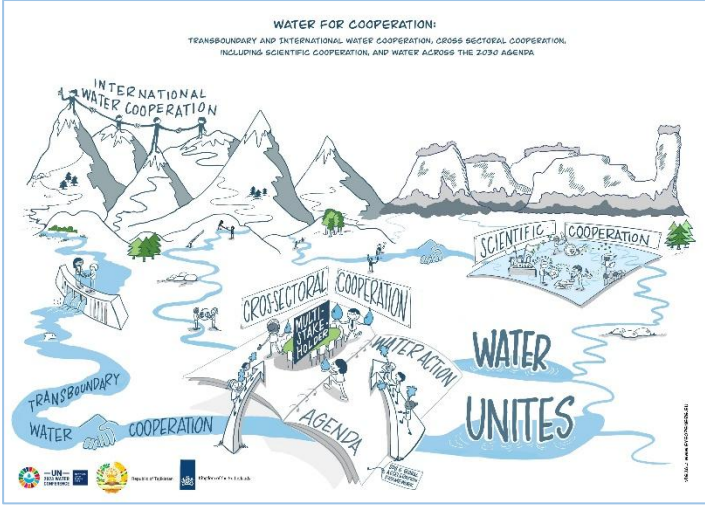


# Water4All and the SDGs

After UN Water Conference 2023

## Key Messages

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Science and knowledge to support SDGs and water management	International cooperation as a key component, including joint efforts from funding schemes	Partnerships (scientists, funders, policy makers, economic actors, citizens...)	Nature Restoration and Nature Based Solutions	Open Science, Open Data as a drive of innovative solutions	Better involve Young Generation (scientists, citizens, entrepreneurs)



# Water4All holistic approach & objectives

*Four Specific Objectives*

Water4All Pillars and actions

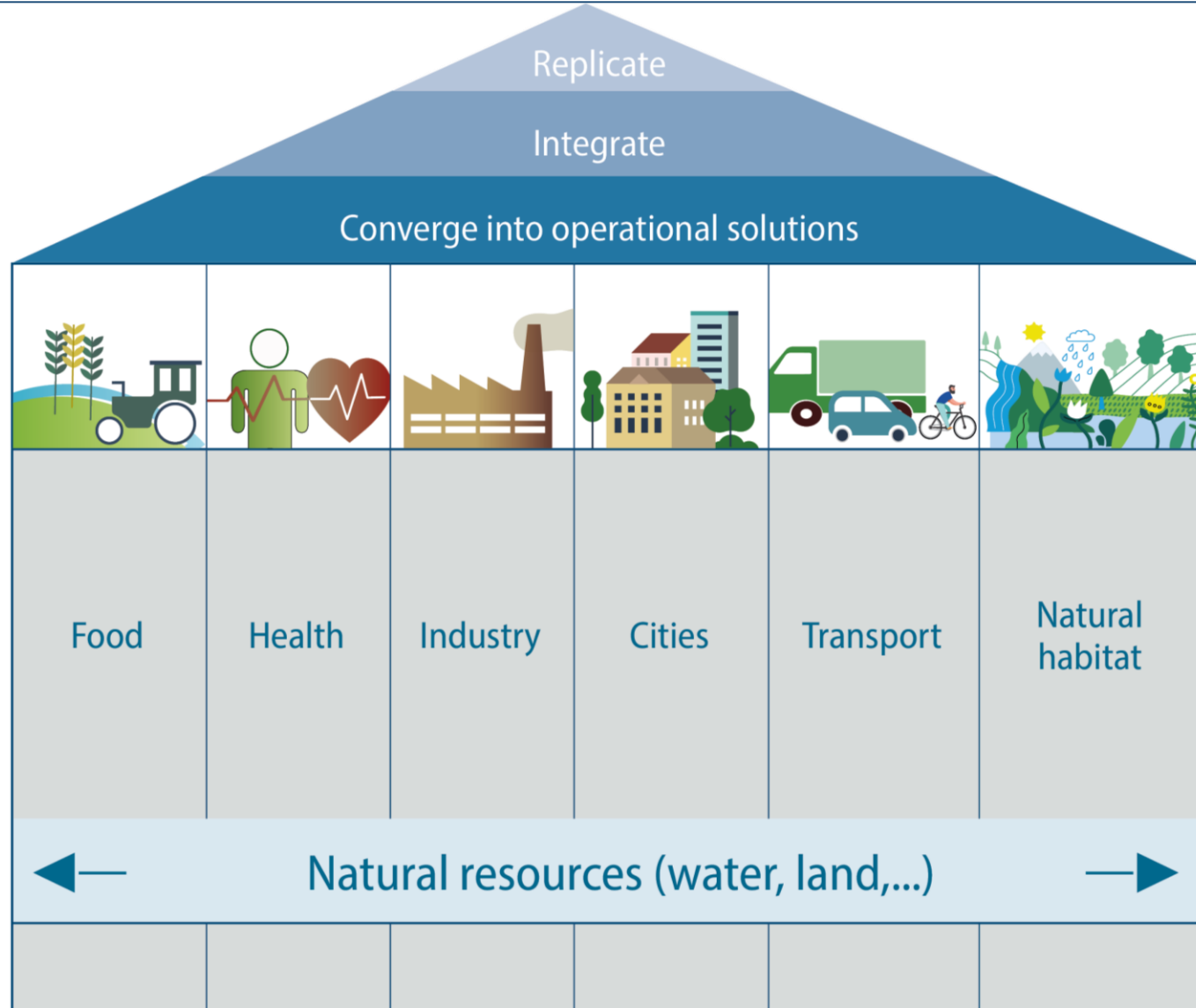
Joint vision and SRIA

Research and innovation development

Science policy end-users interface

Demonstrating solution efficiency

Internationalisation



Water4All Outcomes

deliver sound knowledge, tools and evidence basis on water for policy and decision making

improve consideration of water impacts in all relevant policies

Enhance the field / market use of innovative solutions to water challenges

Increase citizens awareness and engagement for an inclusive water management



← Co-development - Co-production - Co-implementation →



# Water4All activities

CNR - Italy  
VITO - Belgium

## E. Internationalisation

- Developing international cooperation agreements
- Engaging with other international stakeholders
- Developing innovative tools for cooperation

## B. Research & Innovation Development

- Joint transnational calls
- Thematic annual programming
- Young researchers calls
- Demo /Transfer calls

AEI- Spain

## A. Joint Vision & SRIA

- SRIA Development
- Mapping of programmes and impacts
- Development of synergies / Dissemination
- Communication and dissemination

ANR - France

WATER EUROPE -  
Belgium

## D. Demonstrating Solution Efficiency

- Water Living Labs (WoLLs) & demos atlas
- Network of WoLLs/demos and roadmap for demonstration implementation
- Support to development of new WoLLs
- Market uptake support
- Liaising with investors

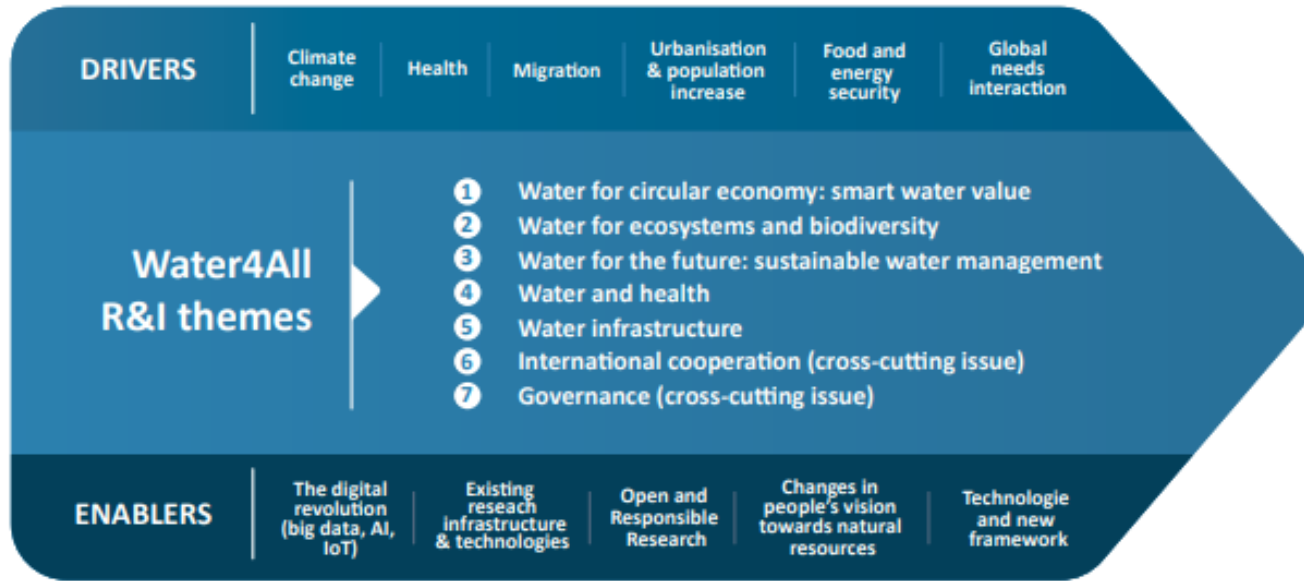
## C. Science - Policy - End-users Interface

- Knowledge hubs, policy working groups
- Support to start-ups creation
- Vocational training
- Capacity building on systemic thinking
- Link to research infrastructures
- Toolbox for managing water data

FORMAS - Sweden  
ISPRA - Italy



# Strategic Research Innovation Agenda & RDI themes



**Revision: 2025**

2<sup>nd</sup> consultative workshop,  
Digital tools and AI  
Lisbon, 3-4 June 2024



After a large consultation process



<https://shorturl.at/qCLn7>

Upcoming working groups  
(experts, stakeholders...)



# Aligning water research, funding & application of innovative solutions



Participants of the workshop: Alignment with national and local water-related programs

Water4All – Pillar A partners

Funding Agency

Portugal

Academia

**15 selected experts**

Spain

Basin Authority

Italy

Utilities

France

European Commission



# Aligning water research, funding & application of innovative solutions

## Echo on social media



Si è svolto ieri a Roma il workshop organizzato da ISPR, in collaborazione con l'Università Politecnica delle Marche, nell'ambito di **Water4All - Partnership**, la partnership internazionale sulle gestione delle risorse idriche.

Il confronto tra gli esperti e le esperte ha evidenziato l'importanza di promuovere l'allineamento tra programmi di finanziamento, strategie di ricerca e applicazioni innovative dei diversi Paesi, per affrontare le sfide idriche in modo efficace e sostenibile.



Aligning National and European Priorities for a Sustainable Water Future  
Rome, January 23, 2025 | Horizon Europe Water4All Partnership Workshop ... altro  
Mostra traduzione



Si è riunito a Roma il tavolo di coordinamento di **Water4All - Partnership**, il progetto nato nel 2022 per mettere assieme risorse e competenze nei vari Stati membri dell'Ue e lavorare a soluzioni comuni per "raggiungere l'obiettivo di sicurezza idrica per i diversi usi e per tutti i cittadini.", spiega la coordinatrice **Esther Diez Cebollero**.

Leggi l'articolo <https://lnkd.in/dxPR7ANX>

#acqua #ricerca #innovazione #europa #sicurezzaidrica #risorse #riciclatv



con Maria Chiara Sole e 7 altri



**Alfonso E.** · 2°  
Profesor Titular de Universidad. Experto en Economía del Agua y Medioambiente...  
5 giorni · Modificato

Happy to have participated as expert in the workshop "Aligning National and European Priorities for a Sustainable Water Future" within the **Water4All - Partnership**, organized by **ISPR** and celebrated in Rome, Italy on January 23, 2025. We have discussed how national priorities, both in terms of research projects and regional/local funding programs, align with European programs in the water sector and the strategic agenda of Water4All. Internationally selected experts, together with the Water4All Partners and the European Commission, have reflected on the following topics:

- Strategic Harmonization of Water Research and Innovation
- Integrating Water4All Research Priorities into National Agendas
- Monitoring and Evaluation Mechanisms for Alignment

Objective: Enhance the efficiency of research investments by fostering alignment between Member States' initiatives and the European Research Area.

Focus Countries: Italy, France, Spain and Portugal.

Collaboration is essential to achieving sustainable water management and maximizing the impact of research funding across all levels.

Thanks to **Esther Diez Cebollero**, **Francesco Fatone**, **Maria Chiara Sole** and all **Water4All - Partnership** partners and participants for such enriching and inspiring workshop.

#WaterResearch #Sustainability #ISPR #UMA

Mostra traduzione



Rome Workshop  
January 23, 2025



Il Direttore del settore **acqua Tania Tellini** ha partecipato oggi a Roma al tavolo di coordinamento di **Water4All**, il progetto presieduto da Esther Diez, con la partecipazione di **ISPR** e **Università Politecnica delle Marche**, nato nel 2022 per mettere assieme risorse e competenze nei vari Stati membri dell'Ue e lavorare a soluzioni comuni per "raggiungere l'obiettivo di sicurezza idrica per i diversi usi e per tutti i cittadini".

Il workshop **#Water4All** coordinato da **#ISPR**, insieme agli esponenti del mondo accademico e scientifico quali: **Francesco Fatone**, professore dell'Università Politecnica delle Marche, **Francesco Tornatore**, dell'Autorità di bacino del fiume Po, si pone l'obiettivo di "raggiungere la completa sicurezza idrica per i diversi usi e per tutti i cittadini dell'Unione".

Al momento – aggiunge infatti Tania Tellini, coordinatrice del settore acqua di **#Utilitalia** – i gestori idrici investono molte risorse nella ricerca ma non esiste un vero programma strutturato a livello nazionale né tanto meno a livello europeo. Un vuoto che **Water4All** vuole contribuire a riempire anche mettendo a sistema le best practice espresse dai vari Stati membri in termini di approccio sistemico tra enti di ricerca e operatori della gestione idrica.

Gli esempi non mancano, neppure a casa nostra. "Durante la pandemia – ricorda Tellini – il progetto **#SARI** coordinato dall'**Istituto Superiore di Sanità** ha coinvolto la maggior parte delle utility italiane in un'attività di sorveglianza sanitaria attraverso le acque reflue che ha dato risultati importanti. L'approccio è stato incluso a pieno titolo anche nella nuova direttiva europea sulle acque reflue". Questo esempio, con gli adeguati finanziamenti, può essere considerato un modello da seguire."

Qui l'articolo di **Ricicla.tv** <https://lnkd.in/dxPR7ANX>



# Water4All activities - 6 annual Joint Transnational Calls (2022-2028)

Min. of 3 countries, max 7 partners, public-private

## “Additional Activities”

1

2022

27 projects  
27 M€

“Management of water resources: resilience, adaptation and mitigation to hydroclimatic extreme events and management tools”



2

2023

23 projects  
34 M€  
(6 M€ EC)

“Aquatic Ecosystem Services”  
(59 pre-proposals in step 2)  
*Knowledge Hub, early carrier researcher*



3

2024

32 M€

“Water for Circular Economy”  
(pre-announcement: July. Open: Sept.)



4

2025

32 M€

“Water and Health”  
(pre-announcement: July. Open: Sept.)



Identification of Research gaps, needs

International Cooperation

Training and capacity buildings, PhD Schemes

Observatories and R&I infrastructures

Support to SMEs (EU incubator, transfer...)

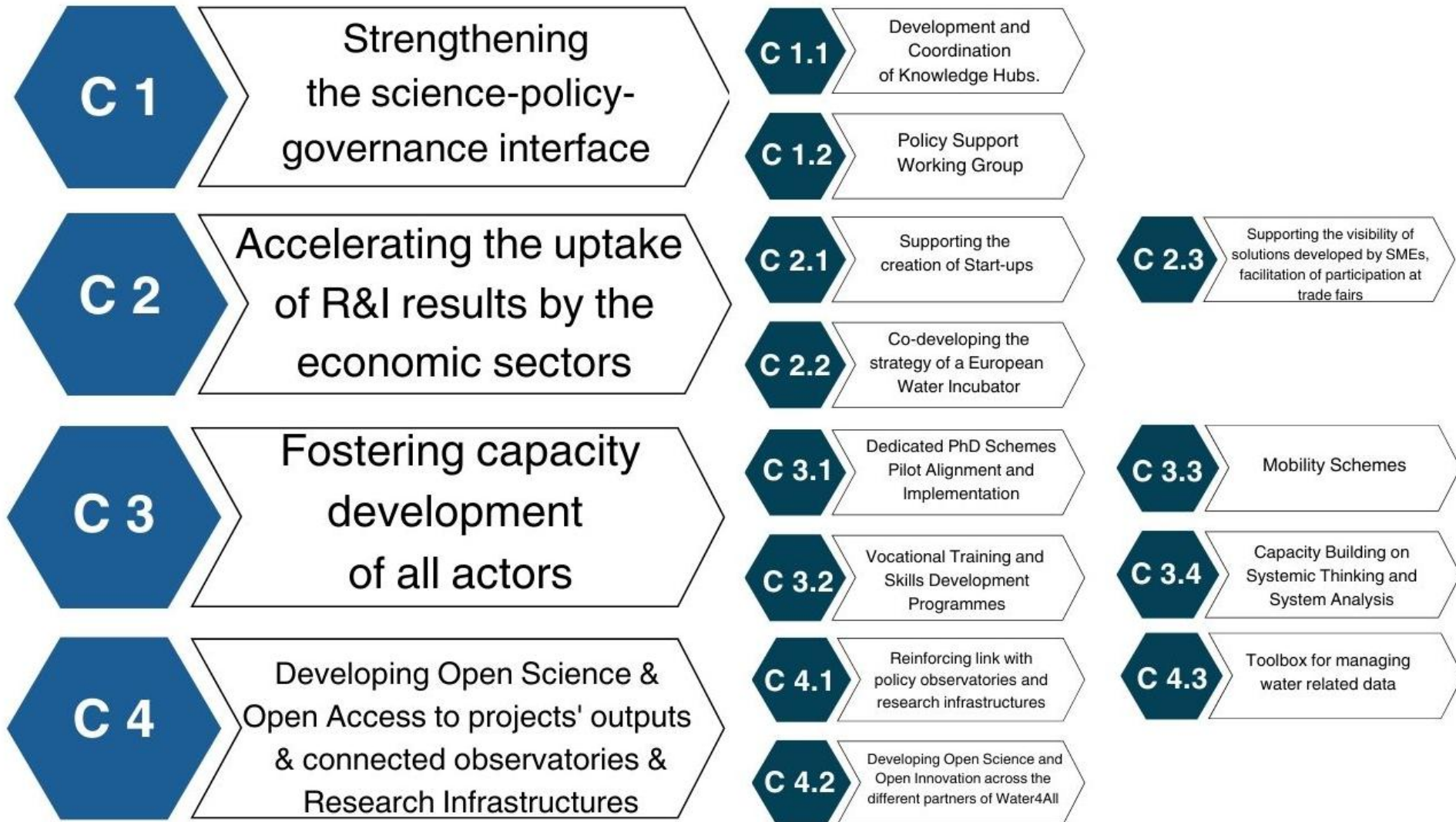
Water Oriented Living Labs

Platform of solutions for water management  
(including ecosystem restoration)

Open data, open science (knowledge hub,  
open database) with a transdisciplinary approach



# About the Science -Policy -End-users Interface (Pillar C)

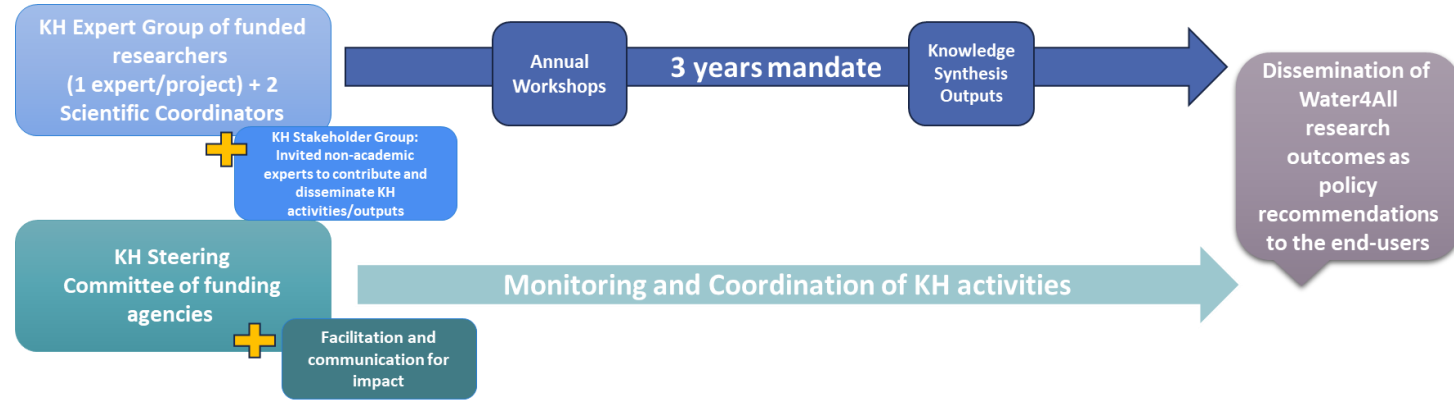


# About the Science Policy End-users Interface (Pillar C)

## C 1 - Strengthening the science-policy-governance interface

C 1.1

Development and Coordination of Knowledge Hubs.



C 1.2

Policy Support Working Group

- 1** Step 1 was to select relevant thematic policies to focus on:
  - Water Framework Directive - **WFD**
  - Urban Wastewater Treatment Directive - **UWWT**
  - Drinking Water Directive - **DWD**.
- 2** Identifying Gaps  
Step 2 was to look at what is preventing the objectives of the current legislations to be achieved. Two main types of gaps were identified : **governance** and **technical**

Method for step 2 - Identifying gaps

**Desk study**

More than 20 articles and reports have been reviewed, leading to more than 40 gaps highlighted.

**Webinar**

IA webinar was held on 14 December 2023, gathering 53 participants from science/research and policy sides.

**Interviews**

10 people interviewed from the policy making and science sides, working on different water policies, with different EU coverages.

**3**

Step 3 is now to find **available solutions and implementation strategies**.



# About the Science Policy End-users Interface (Pillar C)

## C 4 - Developing Open Science & Open Access to projects' outputs and connected observatories and Research Infrastructures



European Partnership

C 4.2

Developing Open Science and Open Innovation across the different partners of Water4All

C 4.1

Reinforcing link with policy observatories and research infrastructures

OPEN SCIENCE /  
OPEN DATA / OPEN  
SOURCE POLICY  
FOR WATER4ALL

Data sharing strategy

January 2024



Water4All  
Water security for the planet

HOME

### Research Infrastructures

Displaying 1 – 10 of 95 results.

FULL TEXT SEARCH

COUNTRY  
- None -

WATER4ALL KEYWORDS  
Selected 0 of 15

DOMAINS AND THEMATIC AREA  
Selected 0 of 5

SERVICES PROVIDED  
Selected 0 of 13

EQUIPMENT  
Selected 0 of 9

APPLY RESET

RIS LIST RIS MAP

**Pürgschachen Moor (University of Vienna)**  
\*The Pürgschachen Moor is located on the bottom of the Styrian Enns valley, about 1.5 km southwest of the village Ardning in the district of Liezen at an altitude of 632 m a.s.l. It is a pine peat bog with a present extent of about 62 ha. Thus, it is... [MORE](#)

**RI Type:** Distributed RI (Central Hub and interlinked National Nodes RI)  
**Water4All Keywords:** Ecosystem services  
**Domains and thematic area:** Ecosystems  
**Services provided:** Access data and metadata - Multi-scale analysis  
**Equipment:** Observation networks and tools - Environmental analysis infrastructures

**Lake Neusiedl - Seewinkel National Park**  
The Neusiedler See - Seewinkel National Park is the first cross-border National Park in Austria and the first Austrian National Park recognised by the IUCN. It covers in total about 90km<sup>2</sup> on Austrian territory. About 50% of the area (about 4500 ha)... [MORE](#)

**RI Type:** Distributed RI (Central Hub and interlinked National Nodes RI)  
**Water4All Keywords:** Ecosystem services  
**Domains and thematic area:** Ecosystems  
**Services provided:** Access data and metadata - Multi-scale analysis - Other  
**Equipment:** Observation networks and tools - Environmental analysis infrastructures

**Hydrological Open Air Laboratory HOAL Petzenkirchen (BAW, TU Wien)**  
The Petzenkirchen HOAL (Hydrology Open Air Laboratory) catchment is situated in the western part of Lower Austria (48°9' N, 15°9' E). The catchment area at the outlet (termed MW) is 66 ha. The elevation of the catchment ranges from 268 to 323m a.s.l... [MORE](#)

**RI Type:** Distributed RI (Central Hub and interlinked National Nodes RI)  
**Water4All Keywords:** Ecosystem services  
**Domains and thematic area:** Ecosystems  
**Services provided:** Access monitoring sites - Access data and metadata - Multi-scale analysis - Other



# Demonstrating solution efficiency (Pillar D)

To drive the transition to a Water-Smart Society, Water Europe has developed the Water-Oriented Living Lab (WOLL) concept

founded upon the **Quadruple Helix** principle: a collaborative framework involving government, industry, academia, and civil society

**Real-life**, water oriented and demo-type environments, with a cross-sector nexus approach



Innovative ecosystems that provide a **'field lab'** to develop, test, and validate a combination of solutions which include technologies, their integration as well as combination with new business models and innovative policies based on the value of water.

The **holistic approach** of WOLL initiatives, aiming to address complex water challenges through multi-stakeholder engagement, innovation, and co-creation.





European Partnership



# Demonstrating solution efficiency (Pillar D) Woll's Atlas

<https://watereurope.eu/wateroriented-living-labs>

## ATLAS OF WATER-ORIENTED LIVING LABS 2024



Co-funded by the European Union



### Tagliamento Living Lab



Year of establishment: 2024  
Location: Italy, North-eastern  
Geographical scale: River Basin  
WOLL type: Flood

The Tagliamento Living Lab (TL) is a citizen-driven initiative that integrates academic research, grassroots action, and citizen science, engaging local communities as both co-creators and users of innovations. Its goals are to foster collaboration, identify, and facilitate integrated actions for river management while addressing ecosystem and water use challenges.

TL brings together universities, research institutes, municipalities, agricultural actors, environmental organizations, NGOs, and local citizens to build a shared understanding of the river's multiple values – environmental, socio-cultural, and economic. Key challenges include gaps in communication and information regarding these values and flood risk management.

A key tool in this effort is Tagliamento.org, a knowledge hub that facilitates networking, collects both formal and informal knowledge, and enables structured co-design and content co-creation among stakeholders. Future plans focus on increasing long-term resilience through economic sustainability and working with local communities to develop a shared vision that leverages the river's value as a foundation for sustainable management.



WOLL Representative



Anna Scalin  
Researcher at the Department of Physical Geography, Stockholm University

"There is a unique bond between the King of Alpine rivers and the local communities. Let's build a vision to keep the Tagliamento as pristine as it gets!"

### AG-WaMED Val d'Orcia Living Lab



Year of establishment: 2022  
Location: Italy, Val d'Orcia  
Geographical scale: Regional  
WOLL type: Rural

Val d'Orcia, a UNESCO World Heritage cultural landscape, has a strong agricultural and tourist vocation. Traditionally marked by its predominant tree crops – vineyards and olive groves – the area has experienced irrigation due to climate change. The region has several small agricultural reservoirs, which remain largely undervalued. Their rehabilitation is essential for increasing irrigation water supply, yet economic, technical, and legislative barriers hinder their adoption.

The AG-WaMED project proposes an integrated and innovative water management framework that incorporates non-conventional water sources into allocation strategies. Through a participatory approach, it engages key stakeholders to explore solutions such as water reuse and optimising rainwater storage in currently unmanaged reservoirs.

The Living Lab focuses on overcoming challenges related to the use and governance of rainwater resources, serving as a model for co-produced water management plans. The approach developed in AG-WaMED can be replicated in similar contexts across Europe and beyond, demonstrating how adaptive strategies can enhance water resilience in climate-vulnerable agricultural landscapes.



WOLL Representative



Elisa Bricoli  
Professor at the University of Florence and AG-WaMED project Coordinator

"Managing water resources in a changing climate requires adaptive strategies also in Italy. Water Harvesting and Small Agricultural Reservoirs represent a sustainable solution, but coordination and enabling policies are necessary."

### Water-Oriented Living Labs

Water-Oriented Living Labs (WOLLs) are innovation ecosystems that co-create sustainable water solutions through stakeholder collaboration in real-life settings. Supported by the Water4All Partnership's Pillar D, WOLLs drive the development and demonstration of water-smart solutions to enhance water security across Europe. This page is continuously updated in real time with the latest WOLLs, while the official document can be accessed here: Atlas of WOLLs 2024.



Filter by: Location: [dropdown] WOLL type: [dropdown]




# About international activities (Pillar E)

- International strategy published
- Strengthening the collaboration with UNESCO (Inter-governmental Hydrologic Programme – IHP)

- International conferences

- UN Water Conference 2023  
→ Next one in 2026



- World Water Forum Bali, 24-28 May 2024

Water4All has contributed to (Topic 6) : “Knowledge and innovation”

- TCG 6A. Smart Water Management and technological innovation
- TCG 6D. Upscaling of water information systems

- High Level Panel Session on “Water Information System”

Support to SMEs to showcase their solutions and to learn from others...  
To build new international partnerships



UN 2023 Water Conference  
22 – 24 Mar 2023, New York



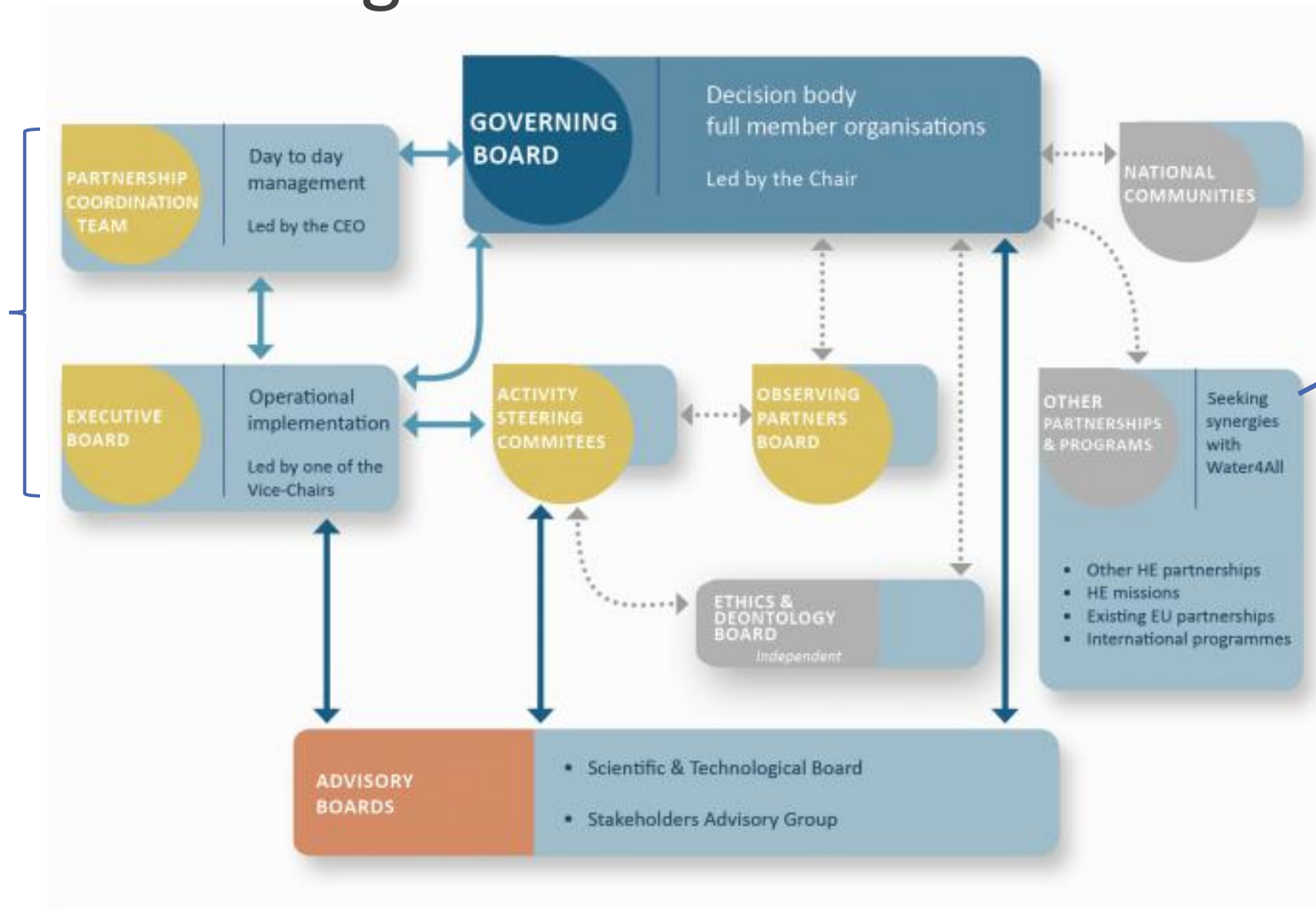
# Position Paper

## Water Resilience Strategy



# Water4All governance

DG RTD  
REA



**EU MISSIONS**  
RESTORE OUR OCEAN AND WATERS

**biodiversa+**  
European Biodiversity Partnership

**Sustainable Blue Economy Partnership**

**Future Partnerships**  
Agro-Ecology  
Food Systems  
OneHealth AMR  
.....



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<https://www.water4all-partnership.eu/>

**NEWS** SEE ALL NEWS

**2nd Stakeholders Workshop - Lisbon**  
MAY 2  
**IAHR conference - Lisbon**  
As part of the review process of its strategic agenda, Water4All holds a stakeholder consultative workshop on...

**The Joint Transnational Call 2022 Booklet is ONLINE**  
APRIL 23  
**Joint Transnational Call 2022 Booklet**  
Today, the kick-off of the 27 projects of the Joint Transnational Call 2022 has started in Madrid, Spain...

**Water4All boosting EU Water Resilience**  
APRIL 19  
**Water4All boosting EU Water Resilience - May 30**  
Session: Water4All Green Week Partner Event 2024 A session in the frame of the Green Water Week Partner Event...



**Water4All - Partnership**  
Water Security for the Planet  
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# #Lezioni d'Europa 2025



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