

References

[1] Porkka, M. et al. (2023). Global water cycle shifts far beyond pre-industrial conditions—planetary boundary for freshwater change transgressed. EarthArXiv eprints, X5BP8F.

[2] Elsner, G. (2023). Will Europe’s next crisis be a water crisis? European View, 22(2), 255-262.

[3] OECD (2015). OECD Principles on Water Governance. OECD Publishing: Paris, France.

[4] Thungren, G. (2024): Europe at a fork in the river – a changing water context, Deliverable D6.9, Public, EU Horizon InnWater Project, Grant agreement No. 101086512 : <https://bit.ly/442Vma5>

[5] OECD. Social Innovation. <https://www.oecd.org/regional/leed/social-innovation.htm>

[6] United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). (2009). What Is Good Governance? Bangkok, Thailand.

[7] Elelman, R. (2023): Citizen Engagement in the 21st Century, Deliverable D3.1, Public, EU Horizon InnWater Project, Grant agreement No. 101086512 <https://bit.ly/4bBp6v1>

[8] Carayannis, E. G., & Rakhmatullin, R. (2014). The quadruple/quintuple innovation helixes and smart specialisation strategies for sustainable and inclusive growth in Europe and beyond. Journal of the Knowledge Economy, 5, 212-239.

[9] Bryson, J. M., Crosby, B. C., & Stone, M. M. (2015). Designing and implementing cross-sector collaborations: Needed and challenging. Public administration review, 75(5), 647-663.

International strategies

- [OECD Water Governance Principlessus](#)
- [Sustainable Development Goals](#)
- [Sustainable Development Goals n°6 on Water and Sanitation](#)

European strategies

- [Green Deal](#), including the [EU Strategy on Adaptation to Climate Change](#), [Biodiversity Strategy for 2030](#)
- [Blue Deal](#)

European directives

- [Water Framework Directive](#)
- [Urban Waste Water Treatment Directive](#)
- [Drinking Water Directive](#)

List of acronyms

- OECD: Organisation for Economic Co-operation and Development
- PB: Policy Brief
- SDG: Sustainable Development Goal
- WEF: Water Energy Food Ecosystem + nexus
- WFD: Water Framework Directive

About InnWater

InnWater is funded by the European Commission. It aims at promoting social innovation to renew multi-level and cross sector water governance.



InnWater is coordinated by the International Office for Water and runs from 2023 to 2026.

InnWater activities

- InnWater's 13 partners have divided the work into 5 key areas to improve water governance: (i) Water governance for sustainability and resilience, (ii) Quintuple Helix Trust & Engagement, (iii) Digital tools for water governance, (iv) Experiencing innovative governance in Pilot Sites and (v) Impact maximisation.
- The WaterGovernance2027 cluster brings together three projects funded by the same European initiative. [RETOUCHNEXUS](#), [GOVAQUA](#), and [InnWater](#) each have their own plans but aim for the same goal in water governance. Task forces organize the cluster, creating connections and support in development, research, and sharing information about water governance solutions.

Realisation

- Authors: Gustav Thungren (SIWI), Natacha Amorsi (OiEau), Julie Magnier (OiEau)
- Contributors: Joana Diaz (EURECAT), Ramon Domenech (WAREG), Juan Restrepo (ETIFOR)
- Graphic design: Ananda Rohn (OiEau)
- Date: May 2024

Follow us

- [@InnWater](#)
- [@InnWater_EU](#)
- <https://www.innwater.eu/>
- contact.innwater@oieau.fr



WATER CHALLENGES IN EUROPE

In an increasingly interconnected world, water remains the lifeblood of our socio-ecological systems, transcending national and regional boundaries.

Yet, **global and European water systems are under unparalleled pressure from human activity and climate change**, causing water cycle changes and increases in the severity, frequency, and duration of floods and drought conditions[1]. Likewise, the long-term supply of water and groundwater abstraction may further challenge the supply of public water, agricultural and energy sectors [2].

A patchwork architecture of regulation and policy goals address these issues. This entails global multilateral agreements, EU regulation and strategies, national environmental laws and policies, river basin management plans, and lastly, regional and local management.

INSTITUTIONAL CONTEXT FOR ACTIONS

Addressing societal and environmental challenges requires coordinating stakeholders actions. Two complementary strategies are under consideration, each targeting a shift in stakeholder practices:

- a top-down approach, enforcing compliance through regulatory measures and potential sanctions;
- a bottom-up approach, relying on stakeholders' self-organization to proactively address environmental concerns through voluntary actions.

REGULATORY APPROACH

aims to implement laws, regulations, and standards established by government authorities. The European Union establishes directives that members states adapt into their national laws.

VOLUNTARY APPROACH

is based on the participation and commitment of stakeholders without legal constraints (ex: partnership agreements among different stakeholders, groundwater contract, memorandum of understanding).

INN WATER FIELD OF ANALYSIS

In the three policy briefs InnWater will deliver, partners are focusing on the strategies and European directives listed below with the aim to update water governance across different levels and sectors, and give stakeholders concrete solutions.

EUROPEAN DIRECTIVES	STRATEGIES
<ul style="list-style-type: none"> • Water Framework Directive • Related directives: Urban Waste Water Treatment Directive, Drinking Water Directive 	<p><i>International level</i></p> <ul style="list-style-type: none"> • OECD Water Governance Principles • Sustainable Development Goals, with SGD6 on Water & Sanitation <p><i>European level</i></p> <ul style="list-style-type: none"> • Green Deal, especially the Biodiversity strategy for 2030, the strategy for adaptation to Climate Change

DIVERSITY OF GOVERNANCE CHALLENGES ASSOCIATED TO WATER

Governance is often posited as crucial to tackling water challenges. Yet, the reverse is also true: **“water crises are often primarily governance crises”** [3]. In water governance, this is commonly manifested by fragmented institutional arrangements, overlapping roles and responsibilities, poor regulations, weak accountability mechanisms, and low capacity, among others.

In Europe, water governance varies by country due to historical differences, EU subsidiarity, and national competencies, leading to **diverse water governance implementation across the continent.**

Local governance actors face the need to coordinate efforts within their field and beyond their administrative and sectoral boundaries, in terms of water services and management.

Added to this is a proliferation of actors influencing and partaking in water governance processes, such as civil society, the private sector and citizens themselves.

#1.

► Policy Brief

The overall objective of InnWater Policy Brief is to highlight how InnWater solutions can support water related policies implementation and formulate recommendations for their update. This document presents the highlights of the full version of the Policy Brief #1 [4].

Three Policy Briefs will be delivered over the course of the project with different focuses:

#1: Water governance challenges overview, Europe at a fork in the River A changing water context, with a general approach to set the water governance scene (this one).

#2: Will foster social innovation and effective citizen engagement strategies, addressing international policies.

#3: Will synthesize policy relevant learnings from the all the project's results, focussing on European water related policies.

Box #1

Water governance

Water governance, defined as "the range of political, institutional and administrative rules, practices and processes (formal and informal) through which decisions are taken and implemented, stakeholders can articulate their interests and have their concerns considered, and decision makers are held accountable for water management", is ultimately a means to an end [3].

KEY MESSAGES

- Water challenges in Europe are multifaceted, complex and pressing.
- Fragmented water governance approaches have hindered effective management, emphasizing the need for coordinated action at all levels.
- Local governance is key for stakeholder.
- Innovative, multi-level, and cross-sector water management is essential to tackle society's complex challenges and reach international and EU water policy goals.
- Social innovation can help to embrace multifaceted water challenges in Europe. It is a powerful method for stakeholders to collaborate, develop and test governance solutions.
- InnWater tools and services aim to make water management inclusive, resilient and more sustainable to support policy implementation.



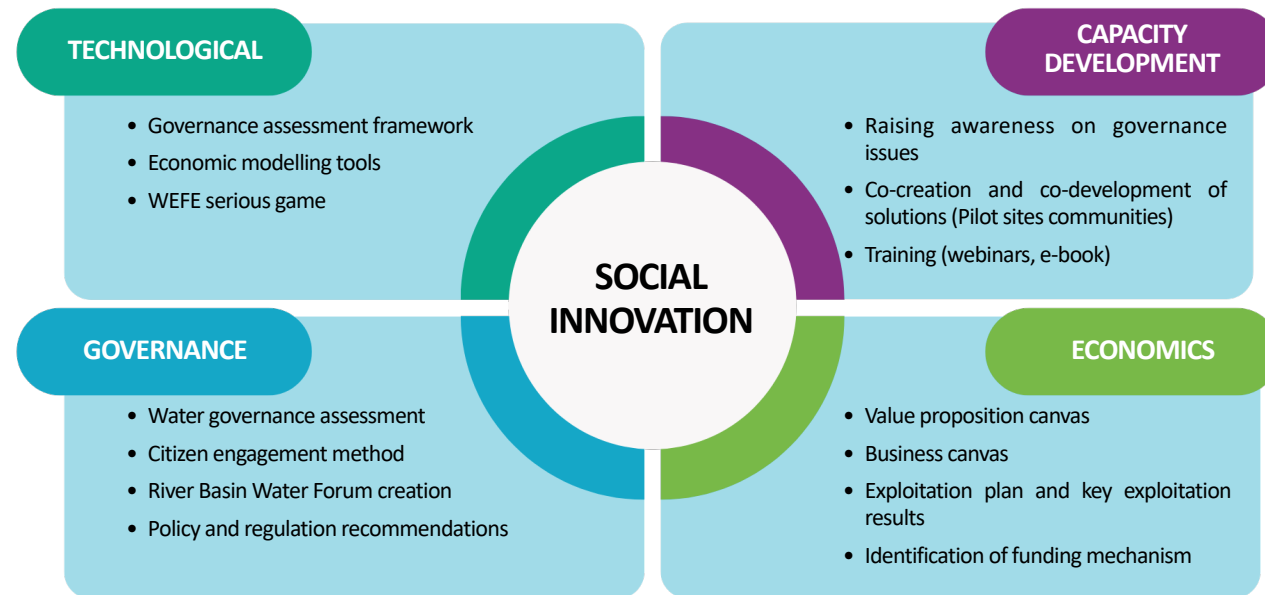
INN WATER APPROACH

Novel approaches, based on good governance qualities and involving a multitude of actors, are necessary to achieve coordinated and coherent responses.

The InnWater project aims to tackle multi-dimensional societal challenges to renew multi-level and cross-sector water governance, associated with economic and financial mechanisms to support the EU Green Deal transition. It seeks to provide a set of tools and services, co-developed and tested in 5 pilot sites, supporting

evidence-based decision for an innovative and inclusive water governance.

InnWater's approach is embedded in social innovation, involving four technological and non-technological dimensions that imply new patterns of stakeholders' involvement and participation. Social innovation ultimately aims to improve the welfare and wellbeing of individuals and communities [5].



INN WATER SOLUTIONS FOR INNOVATIVE GOVERNANCE

• A water governance assessment tool

The UN "good" governance principles identify key governance qualities to improve water services and water resources management: promoting legitimacy and voice through participation, consensus, and informed decisions; effectiveness, and efficiency; promoting accountability and transparency; ensuring fairness by implementing equity, rule of law, and conflict management [6]. The InnWater Project sets out to provide an enhanced methodology for a contextual water governance assessment, based on the OECD Principles on Water Governance [3].

• A framework for citizen engagement

Contemporary views on governance emphasize the importance of engaging multiple actors and organisations in this problem-solution formulation and participatory process. Through Agenda 21, and later the SDGs, a move toward open government and participatory approaches has become part of supranational and EU strategies, for example, through the WFD. Yet, simultaneously, an increased disgruntlement and distrust towards the established forms of representative government prevail in the EU member states [7]. Involvement and engagement of citizens is paramount, as it can increase fairness, relevance, acceptance, and sustainability of strategic policy goals.

InnWater uses the socio-political consensus helix to define its stakeholder and citizen engagement building on collaboration among research, innovation, and development between major sectors of society that include science, industry, government, citizens, and the environment [8]. This approach starts at the local community, but pre-existing institutional structures determine how stakeholders' interests or goals are brought into the stakeholder engagement process [9].

• Economic modelling tools

Drinking water and wastewater services within the EU are complex. EU legislation provides general principles on water pricing but does not introduce a legal basis for measuring service providers' performance and standardized performance indicators. This leaves member states to determine oversight responsibilities like pricing oversight. The national governance frameworks contribute to the complexity of water services regulation and pricing.

The characteristics of a region, such as water availability and pollution levels, directly affect service costs and subsequently, citizens' bills. Through economic information and modelling tools, InnWater will support a better understanding of the interactions between water management and economic and social activities (uses). This will produce relevant information for both decision makers and citizens.



Natacha AMORSI,
Project coordinator

To renew water governance and address the impact of climate change on water resource availability, InnWater is developing innovative tools and services for stakeholders involved in various institutional levels, from local to national, from citizens to governments across Europe.

FOCUS ON INN WATER PILOT SITES

- 1 France, Reunion Island
Economic focus
- 2 Italy, Middle Brenta Basin
Ecosystem services & Drinking water sector
- 3 Spain, Figueres
Water scarcity
- 4 United Kingdom, West Country
Water quality
- 5 Hungary, Middle Tisza
Water allocation



Main WEFE+H challenges across Pilot Sites

- Climate change impact (i.e. extreme events, scarcity, floods)
- Water availability & quality
- Water allocation among sectorial uses (including ecosystems)
- Water related policies implementation
- Coordination between stakeholders on water management and with other sectors
- Stakeholders' engagement and accountability
- Citizen engagement
- Water pricing

Box #2

The Water Energy Food Ecosystem +Health (WEFE+H) Nexus

The concept of Nexus aims to holistically tackle challenges and recognizes the intricate interdependencies among human uses, natural resources and environmental systems, seeking to ensure their protection for future generations [7].