

Transition pathways to sustainable and equitable water governance in Europe

Workshop

EURO-INBO Conference, 2025 May 20, Parma

Jani Lukkarinen and Cesar Casiano Flores







Workshop context

 Part of event series organised jointly with GOVAQUA and EUROPE-INBO, with contributions from InnWater and RETOUCH NEXUS Horizon Europe projects

 Active engagement with the INBO river basin management community to advance sustainable and equitable water governance in Europe

2023: Workshop in Valencia identifying innovative water governace practice

2025: Workshop on transition pathways to sustainable and equitable water governace in Europe, final good practices presentations







2024: Seminar in Bordeaux on first findings of innnovative water governance practices and assessing water governance 2026: Seminar on lessons learned from Living Labs of water governance innovations, final recommendations



Latest developments

- Self-assessment tool
- Living Labs and Case studies
- Good practices
- Online Academy

Good practice case	Status of work
User based reallocation in agriculture (France)	Ongoing;
Quantitative water resource management plans (France)	Ongoing;
Planned conjunctive management of surface and groundwater (subnational level)	Not started;
Priorisation procedure for implementation of ecological minimum flows in a river network highly regulated for hydropower (Austria)	Ongoing;
Hands-off flows to support river flows in dry conditions (England)	Ongoing;
Public-access monitoring and controlling system of defined ecological flows (Spain)	Not started;
Governance and regulation of international value chains of companies through legislation that adopts due diligence and liability-based approach (France)	Ongoing;
Governance and regulation of international value chains of companies through legislation that adopts due diligence and liability-based approach (Germany)	Ongoing;
The role of soft law in governing water stewardship (EU)	Ongoing







Govaqua Transition Pathways

Jani Lukkarinen



Transition pathways

- Transition pathways have become a popular way of trying to explain how a system moves towards a more sustainable state - from "A to B".
- Not a single action will work, but a mix of different solutions is needed.
- We build on four types of governance innovations from case studies and living labs:
 - i) Legal and regulatory instruments;
 - ii) Economic and financial instruments;
 - iii) Participatory and collaborative approaches;
 - iv) Digital solutions and information sharing



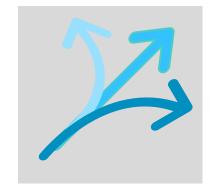


Three uses of transition pathways

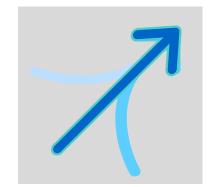
• Evaluation Pathways: Quantifiable pathways to measure progress on a predefined scale.



 Alternative Pathways: Show the variety of actions and a range of responses to the identified challenges.



 Desirable Pathways: Normative pathways showing a range of interventions needed to achieve the specific goal.





Different approaches to transition pathways

- Modelling the impact of innovations to provide estimations of future developments.
- Co-creating from different stakeholder perspectives and knowledge types to develop innovations in unsustainable contexts.
- **Experimenting** with different innovations to evaluate opportunities and constraints for future pathways.
- Conceptualising pathways to develop a deeper understanding on societal change dynamics.



In GOVAQUA...

- We focus on "desirable water governance transition pathways" based on experimentation.
- We aim to develop ideal pathways based on insights from case studies, good practices and Living-Labs.
- We are working on three types of transition pathways.

OUR GOAL: Not to come up with simplistic lessons, but to study how innovations might work or not.

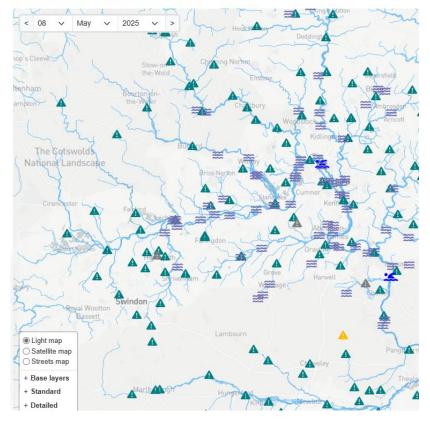




Innovation-driven pathways

- Innovations developed and tested at catchment/basin level.
- **Examples**: Digital tools and collaborative approaches.
 - ✓ Testing novel approaches in local, practical settings
 - ✓ **Learning and replicating** experiences from other settings
- Lessons on: How to make innovations stick and travel to new contexts
 - ✓ All insights on what kind of information and insight you find relevant are very welcome.

Oxford Rivers Data Portal



© UK Centre for Ecology & Hydrology. All rights reserved.



Policy-driven pathways

- Innovative approaches through legal and economic incentives.
- **Examples**: Ecological flows and efficient water allocation.
 - ✓ Enhancing the conditions for sustainable water use
 - ✓ Phasing out the harmful practices and technologies
 - ✓ Considering vulnerability and adverse impacts
- **Lessons on**: How to design policy frameworks that enable sustainable and equitable water use at the basin level?
 - ✓ All insights on the national/regional policy contexts are valuable.









Pressure-driven pathways

- Systemic reactions to broader concerns of justice and equity in relation to water quantity and quality.
 - ✓ Providing directionality and continuation
- Lessons on: How to work towards equitable water use also in times when sustainability is not high on policy agendas?
 - ✓ Reflections on the recent ecological challenges are valuable.





What is the role of pathways in Govaqua

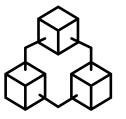


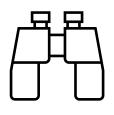
Summary:

- ✓ Transition pathways are desirable pathways to support governance experimentation.
- ✓ We look into three types of pathways innovation, policy and pressure driven changes.
- ✓ To work contextually, we need look into the conditions for pathways.

In Govaqua, transition pathways...

- i. Bring together lessons from cases and living labs.
- ii. Help understanding the policy conditions for sustainability transitions.
- iii. Communicate messages to a broader policy audience.
- iv. Conceptualise the research outputs in publications.









Governance innovations: water transition cases in Europe from a comparative lens

Cesar Casiano Flores



What is a governance innovation?

Innovation is the use of new ideas, products or methods where they have not been used before (Eurostat, N/D)



Legal

Financial

Stakeholder engagement Digital (information and knowledge sharing)



Our approach to innovations

- Three levels under which innovations can transition: niche (radical novelties), regime (business as usual), and landscape (exogenous impacts) (Kanger, 2021).
- Subdivided into six policy intervention points. These points include:
 - 1. Promote various alternatives to change the system (different small innovation projects)
 - 2. Scale up single niches and/or align them with each other (align the different innovations)
 - 3. Weaken the structures that obstruct the transition (taxes, subsidies)
 - 4. Promote different changes at different scale levels (campaigns, open data)
 - 5. Alignment of different changes in the system (nexus and basin approach)
 - 6. Change the broader framework to facilitate transformation (WFD, SDG)

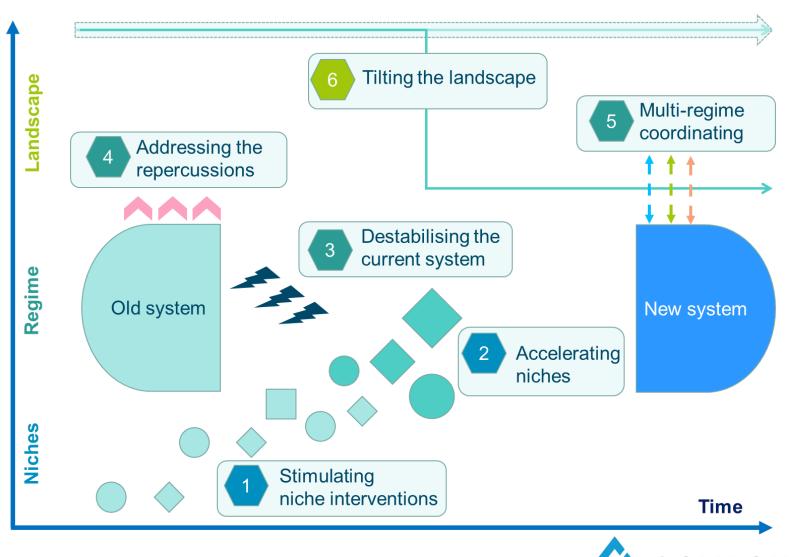


Transition to an equitable & sustainable water use in Europe

Pressure-driven pathways

Policy-driven pathways

Innovation-driven pathway





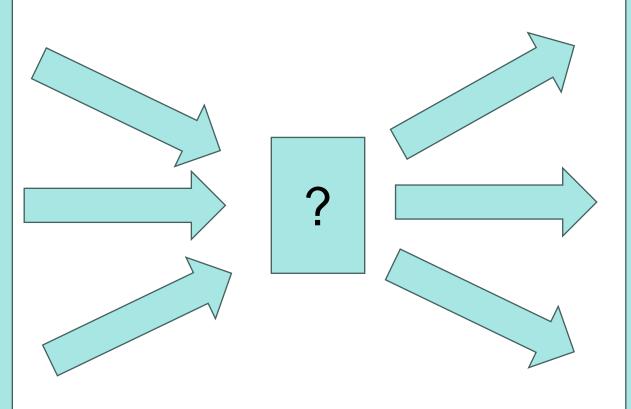
Intervention points supporting innovations for a sustainable and equitable water use in Europe

Intervention points:

Niches (R&D funding, decentralised innovations)

Regime (creation of taxes, external consultants)

Landscape (Water Framework Directive, Sustainable Development Goals)



Innovations:

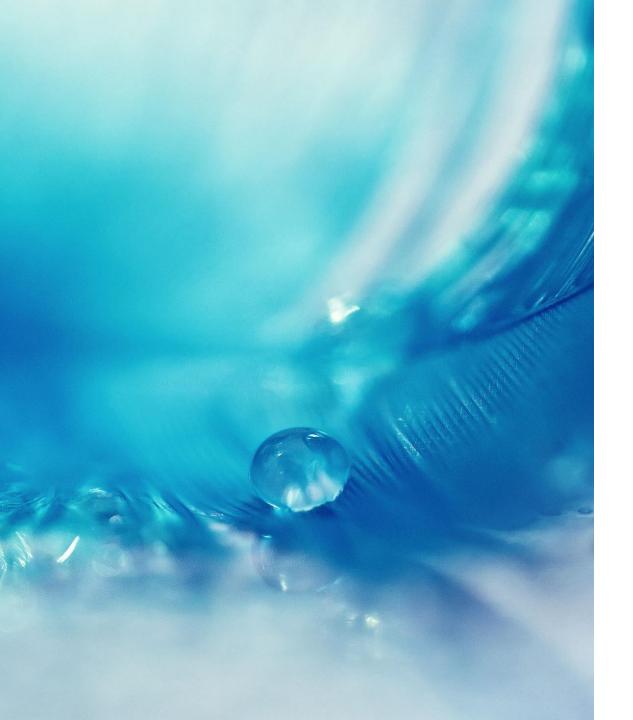
Legal (ecological minimum flows)

Financial (Water Banks)

Stakeholder engagement (watershed vision project)

Digital (Information and knowledge sharing)





What have we learned from the cases so far

- Transitioning to more equitable and sustainable water management requires support at different levels
- Innovations also require support at different levels
- The Water Framework Directive is present in the four types of innovations.
- Stakeholder participation is relevant for the innovations.
- The innovations are also interconnected. Support each other.
- What are the necessary conditions?



GOVAQUA Assessment Tool for water governance innovations now online



https://www.syke.fi/en/projects/govaqua/results



GOVAQUA Assessment Tool for Water Governance Innovations (syke.fi)



Thank you for the interest!





