WP5 - EVENT NUMBER [7]

EVENT DESCRIPTION SHEET - FONS MALLORQUÍ / ALARÓ MUNICIPALITY

(To be filled in and uploaded as deliverable in the Portal Grant Management System, at the due date foreseen in the system.

⚠ *Please provide one sheet per event (one event = one workpackage = one lump sum).)*

PROJECT	
Participant:	[6] - [FONS MALLORQUÍ DE SOLIDARITAT I COOPERACIÓ] ([Fons Mallorqui]) [7] Municipality of Alaró
PIC number:	[894163170]
Project name and acronym:	Aquatik-EU: valorisation of Aquatic heritages in Europe— [Aquatik-EU]

EVENT DESCRIPTION	
Event number:	7
Event name:	ON LINE GLOBAL WATER COMMUNITY OF PRACTICES
Type:	ON LINE WORKSHOP
In situ/online:	*ONLINE*
Location:	Online
Date(s):	07/05/2026 AND 21/05/2026
Website(s) (if any):	https://www.alda-europe.eu/aquatik/ https://fonsmallorqui.org/ca/noticies/el-fons-mallorqui-impulsa-una-comunitat-daprenentatge-internacional-sobre-la-governanca-local-de-laigua/
Participants	
Female:	68
Male:	33
Non-binary:	/
From country 1 Bosnia Herzegovina:	24

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

From country 2 Belgium:	3		
From country 3 Spain:	23		
From country 4 France	2		
From country 5 Greece	1		
From country 6: Italy	24		
From Country 7: Moldavia	1		
From Country 8: Montenegro	1		
From country 9: Macedonia	3		
From country 10: Netherlands	1		
From country 11: Malta	1		
From country 12: Germany	2		
From Country 13: Portugal	13		
From Country 14: Albania	2		
From non-EU countries (Bolivia, Perù, United States) 15:	12		
Total number of participants:	101 (+ 12 from non-EU countries)	From total number of countries:	14 (+ 3 from non-EU countries)

Description

Provide a short description of the event and its activities.

Brief Description

The first session of the Global Water Learning Community focused on water governance innovation and climate adaptation across diverse territorial contexts. The 2 sessions brought together 101 participants from 14 EU countries, including practitioners, researchers, local authorities, and civil society representatives.

EVENT 1 (May 7, 2026) - Water Governance Cases and Innovation

The opening framed water governance not as a technical problem alone, but as a systemic challenge requiring multi-actor cooperation, institutional integration, and genuine commitment to shared responsibility. Facilitators emphasized that no single model works across all contexts; instead, successful governance emerges from deep understanding of local conditions, stakeholder relationships, and available institutional capacity.

A central theme running through all discussions was the tension between top-down policy frameworks and bottom-up community-driven solutions. The session demonstrated that the most effective approaches combine both: policy frameworks provide structure and resources, while community engagement ensures legitimacy and sustained implementation.

The session design invited participants to engage critically with each case study through structured discussion questions:
- What governance structures enabled or hindered progress?
- How were conflicts between competing water users addressed?

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

May 7, 2026

PANEL PRESENTATIONS (13:20-14:20 CET)

Four initiatives were presented through a 5-minute presentation and discussion:

PROJECT 1: UNITED FOR RIVERS - BALKANS

Presenter: Edo Balic (Association Dinarica)

Geographic Context

The Neretva and Buna rivers flow through southeast Europe, including Bosnia and Herzegovina. These rivers represent some of the last wild river systems on the continent. They support vast biodiversity, including endangered fish species and critical habitats for amphibians and waterbirds. The rivers also carry cultural and economic significance for riparian communities, supporting traditional fishing, agriculture, and small-scale tourism.

The Challenge

- Unsustainable hydropower development
- Industrial and agricultural pollution
- Habitat degradation and damming
- Climate change impacts including altered flow patterns
- Competing uses (energy production, agriculture, tourism, conservation)
- Limited cross-border coordination by national governments
- Environmental concerns marginalized in favor of economic development objectives

The Governance Dilemma

How can a regional river-protection initiative support very different local struggles without applying a one-size-fits-all model? The core tension: Association Dinarica operates across borders in a region where national governments maintain strong territorial control. How can a civil society network amplify local voices, create solidarity, and influence policy without overriding local contexts and priorities?

The Response: Flexibility as Core Strategy

Association Dinarica operates not as a top-down imposer of "best practices," but as a network that:

a) Creates Solidarity Without Homogenization

- Brings communities facing similar river threats into dialogue
- Documents local knowledge and community perspectives
- Amplifies voices that might be marginalized in national policy processes
- Resists applying uniform solutions to diverse contexts

b) Regional Cooperation as Support System

- The network creates visibility for local struggles
- Provides peer learning opportunities across borders
- Facilitates shared learning and knowledge exchange
- Acts as a transnational advocacy platform

c) Context-Specific Approaches

- Recognizes that a river protection strategy in Bosnia must differ from one in Herzegovina
- Acknowledges different relationships between local communities and state authorities
- Adapts communication strategies based on local politics and institutional landscapes
- Supports communities in defining their own priorities

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Key Learnings from Participant Discussion: Participants in breakout discussions identified several critical insights:

a) **Principle of Subsidiarity in Transnational Networks :** Effective regional cooperation works when local communities retain decision-making authority. The network provides tools, visibility, and peer support, but communities determine strategies.

b) **The Limits of "Best Practices":** What worked in one river valley may not transfer directly to another. Instead of promoting "best practices," the network facilitates "shared learning" where communities understand principles and contexts behind successful approaches, then adapt them.

c) **Balancing Local and Regional Scales:** Communities benefit from knowing they are not alone; transnational networks create pressure on national governments through cumulative evidence and coordinated advocacy. But this pressure must remain responsive to local needs.

d) **Power Dynamics and Genuine Partnership:** Association Dinarica's approach requires genuine partnership with communities, which means power-sharing, supporting community-defined priorities, and accepting when communities choose strategies that differ from those the network might recommend.

PROJECT 2: ALIANÇA PER L'ÁGUA - IBIZA

Presenter: Juan Calvo (Aliança per l'Água)

Geographic Context: Ibiza is a small Mediterranean island (571 km²) with a population of approximately 150,000 residents, plus seasonal tourism that can increase the population by 50-100% during summer months. The island's economy depends heavily on tourism, but its water resources are severely limited.

The Challenge

- Structural water scarcity with limited rainfall and groundwater reserves
- Aquifer recharge rates cannot match extraction rates
- Periodic droughts lasting multiple years
- Growing demand from population growth and tourism
- Aquifer salinization from over-extraction allowing seawater intrusion
- Tourism pressure: seasonal population swells with high water demand
- Infrastructure losses with significant water distribution network leakage
- Fragmented governance across multiple authorities with competing priorities

The Governance Dilemma: How can conflict be reduced in a small **island facing water scarcity, tourism pressure, aquifer salinization, and major supply-network losses?**

In a context where basic physics (water availability) cannot meet demand, how do institutions create fair allocation, ensure equity, and prevent conflict between competing interests?

The Response: Multi-Dimensional Strategy

a) Technical Solutions

- Desalination plants to augment supply during peak summer
- Aquifer recharge initiatives using treated wastewater and stormwater
- Water recycling and reuse programs
- Infrastructure modernization to reduce leakage
- Efficient irrigation technologies for agriculture and tourism

b) Demand Management

- Public awareness campaigns about water scarcity
- Water conservation incentives (pricing, rebates for efficiency)
- Restrictions during drought periods
- Limits on new development dependent on water availability

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

c) Institutional Coordination

- Platforms bringing together water authority, municipalities, tourism sector, residents
- Transparent data-sharing about water status and projections
- Joint planning for seasonal demand variations
- Conflict resolution mechanisms

d) Equity and Justice Dimensions

- Ensuring that tourism sector contributes proportionally to costs
- Protecting vulnerable populations from water price increases
- Recognizing that agricultural livelihoods depend on water
- Balancing economic development with environmental sustainability

Key Learnings from Participant Discussion:

- **Water as Public Good, Not Just Resource:** Even though water is used for private purposes (agriculture, tourism, household consumption), it must be governed as a public good. Allocation decisions require collective deliberation, not just market mechanisms.

- **Territorial Interdependence**

Water governance cannot be isolated to any single sector. Tourism depends on the landscape, which farmers maintain; agriculture depends on water and fair pricing; residents depend on reliable supply; the environment depends on water availability in rivers and aquifers. All these interdependencies must be visible and negotiable.

Limits as Governance Tool

In contexts of genuine scarcity, governance must set limits—on population growth, development, tourism expansion, agricultural expansion. Limits are not constraints on development; they are the foundation of sustainable development.

Transparency and Participation

Citizens can accept difficult decisions (water restrictions, price increases) if they understand the situation is genuine scarcity, not mismanagement. This requires accessible data, honest communication, and participatory processes for setting limits.

Emerging Principle

In contexts of genuine scarcity, governance must combine technical innovation with honest acknowledgment of limits. Institutions must create forums where different sectors recognize their interdependence and negotiate fair allocation.

PROJECT 3: WATERVILLE SMART WATER GOVERNANCE

Presenter: Nina Tsiklaouri (Waterville Project, Interreg Project, Italy)

Geographic Context: Waterville operates across multiple small municipalities in Italy facing water governance challenges. The project focuses on how communities can adopt smart water technologies (including digital monitoring, real-time data systems, and nature-based solutions)in ways that strengthen rather than undermine local governance capacity.

The Challenge

- Water infrastructure is aging and requires modernization
- Smart technologies promise improved efficiency and better data
- Small municipalities lack internal capacity for technological innovation
- Technical expertise is concentrated in larger cities
- External consultants are expensive and create dependency
- Technology suppliers impose systems that lock municipalities into external support
- If municipalities cannot operate systems independently, adoption becomes unsustainable
- Citizens may not understand or trust decisions made by opaque technical systems

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

The Governance Dilemma

How can pilot municipalities ensure long-term adoption of water solutions in fragmented governance systems?

More specifically: How can smart technologies strengthen rather than undermine local governance? How can municipalities adopt innovation without becoming dependent on external expertise or unsustainable systems?

The Response: Community of Practice for Institutional Development

Waterville reverses traditional technology adoption models by creating:

a) Community of Practice

- Regular meetings bringing together water managers from participating municipalities
- Shared learning about technology implementation challenges
- Collaborative problem-solving when municipalities encounter obstacles
- Peer mentoring rather than external expert dependence

b) Tailored Technology Implementation

- Technology is adapted to each municipality's capacity and context
- Systems are designed for local operation and maintenance from the start
- Phased implementation allows time for staff to develop skills
- Technology choices emphasize open standards and local understanding

c) Capacity Building as Central Objective

- Training for municipal staff is embedded in implementation
- Knowledge transfer focuses on understanding systems, not just operating them
- Local people develop expertise in troubleshooting and maintenance
- Municipalities gain independence from external support over time

d) Citizen Engagement and Monitoring

- Citizens participate in monitoring water quality and system performance
- Data becomes transparent and accessible, not locked in expert reports
- Participatory processes determine how municipalities respond to data
- Citizens help identify problems that data might miss

Key Learnings from Participant Discussion

Technology, Institutions, and Capacity Must Evolve Together

Introducing smart systems into institutions with weak capacity creates problems. Instead, institutional development must precede or accompany technological adoption.

Sustainability Requires Autonomy

Long-term sustainability depends on municipalities understanding and controlling their systems. External dependence is inherently unstable.

Community of Practice as Governance Infrastructure

Peer learning networks are not luxuries; they are essential governance infrastructure, especially for small municipalities that cannot maintain specialized expertise alone.

PROJECT 4: SMART WATER GOVERNANCE IN SOULI

Presenter: Antonia Pappa (Greece)

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Geographic Context: Souli is a municipal region in Greece facing water governance challenges typical of Mediterranean small towns: limited financial resources, aging infrastructure, climate change impacts, and the challenge of providing reliable water services to dispersed populations.

The Challenge

- Water supply systems are aging and require upgrades
- Distribution networks have significant losses
- Treatment capacity may be inadequate for water quality challenges
- Repair and maintenance are expensive and technically complex
- Municipalities have limited budgets for upgrades
- Municipalities may lack staff with expertise in water system management
- Technical knowledge is concentrated in larger cities
- Climate change causes uncertain water availability and extreme weather impacts
- Population changes (seasonal migration, climate migration) affect demand patterns

The Governance Dilemma

How can small municipalities adopt smart water technologies without becoming dependent on external expertise or unsustainable systems?

How can communities upgrade their water services in ways that strengthen local capacity and economic sustainability, not create new vulnerabilities?

The Response: Adapted Smart Technology Implementation

a) Technology Adapted to Local Capacity

- Systems are designed for local operation and maintenance
- Monitoring equipment is integrated gradually with existing infrastructure
- Technology choices emphasize simplicity and local understanding
- Investment in training precedes equipment deployment

b) Temporary Bypass Configuration for Transition

- During infrastructure upgrades, a temporary bypass allows the old system to continue operating
- Monitoring equipment in temporary system allows staff to learn how systems work
- Bypass configuration reduces risk during transition period
- Staff can troubleshoot and understand systems without threatening water supply

c) Institutional Development Alongside Technology

- Municipal water departments receive training and support
- Staff develop expertise in system operation, maintenance, and data interpretation
- Decision-making processes are strengthened to use monitoring data effectively
- Municipalities develop capacity to plan investments based on system performance

d) Collaborative Governance and Transparency

- Monitoring data is shared with citizens and civil society
- Regular meetings bring together municipality, civil society, water users, and environmental groups
- Data informs public dialogue about water challenges and solutions
- Citizens participate in decisions about priorities and investments

Key Learnings from Participant Discussion

Transition Management is Critical

The most difficult period is when old systems are being replaced. Temporary configurations that maintain service while allowing learning prevent crises and enable genuine capacity-building.

Local Ownership Determines Success

Technology is adopted sustainably when municipalities feel ownership, understand systems, and see improvements in service delivery. Imposed solutions fail.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Data Requires Interpretation

Smart systems generate data, but data becomes useful only when interpreted in institutional and democratic contexts. Citizens need to understand what data means and participate in decisions it informs.

SESSION 2: WATER HERITAGE, TERRITORIAL INTEGRATION, AND LOCAL STEWARDSHIP

May 21, 2026

PROJECT 5: VALLE OF MILLS - CASTELNUOVO MAGRA

Presenter: Giulia Sergiampietri (Municipality of Castelnuovo Magra, Italy)

Geographic and Historical Context: The Valle of Mills (Valle dei Mulini) is a medieval landscape in Liguria, northern Italy, centered on the Bettina Stream. The valley contains extraordinary heritage: eight historic mills and presses, five artificial waterfalls probably constructed between the 13th and 15th centuries, a medieval bridge, ancient mule tracks connected to the Via Francigena pilgrimage route, and landscapes shaped by centuries of water-powered production and human settlement.

This is not merely a historical artifact; it is living heritage. Some mills are still partially operational. The landscape continues to shape agricultural production, small-scale tourism, and community identity. The infrastructure (waterfalls, channels, mills) represents sophisticated hydraulic engineering developed centuries before modern water systems.

The Challenge

- Multiple mills are in private ownership with limited preservation resources
- Owners may lack resources or motivation for preservation
- Private ownership limits public access and complicates restoration efforts
- Restoration costs are enormous; individual owners cannot bear them alone
- Mills and infrastructure are fragile and deteriorating
- Maintenance is constant and expensive
- Risk of collapse threatens the entire heritage system
- Water-powered mills are no longer economically viable as production
- Rural depopulation reduces local stewardship capacity
- Younger generations may not value heritage preservation

The Governance Dilemma

How can historic water heritage be preserved and shared when key sites are fragile, privately owned, or not yet accessible?

Preservation requires both financial resources and social engagement. How can communities mobilize resources for heritage preservation when owners cannot bear costs alone? How can heritage become meaningful to communities if access is limited?

The Response: Gradual Activation and Eco-Museum Model

Rather than waiting for complete restoration (which may take decades and require enormous resources), the project pursues "gradual activation": making the heritage increasingly visible, valuable, and accessed while preservation and restoration work continues.

a) Community Mobilization

- Volunteers maintain trails and do conservation work
- Local residents develop stewardship consciousness through participation
- School involvement brings younger generations into heritage engagement
- Citizens experience themselves as custodians, not passive consumers of heritage

b) Interpretation and Information Infrastructure

- Information totems at key sites explain history and significance
- Maps and images make the landscape's heritage visible
- Digital resources (online archives, virtual tours) extend access

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

- Multilingual information accommodates diverse visitors

c) Environmental Education Integration

- Schools bring students to the valley for environmental education
- Students learn about hydraulic systems, ecology, history, and sustainability
- Direct engagement with heritage creates emotional connection
- Young people develop sense of responsibility for preservation

d) Eco-Museum as Governance Model

The project aims toward an "eco-museum" or "extended museum" model where:

- The entire territory is understood as an open-air museum
- The landscape itself is the exhibition
- Local residents and communities are the curators
- Heritage interpretation happens in situ, not in separate museum buildings
- The boundary between "museum" and "everyday life" becomes porous

Key Learnings from Participant Discussion

Preservation Requires Both Public and Private Engagement

Government funding and support are necessary, but preservation also requires property owners to participate in stewardship. This requires incentives, recognition, and relationship-building with owners.

Heritage as Living Practice, Not Just Objects

The heritage is not only the physical mills but the practices they embody - water management, hydraulic engineering, community organization. Preservation includes reviving these practices, not only conserving buildings.

Access as Political Issue

Public access to privately-owned heritage is not only a technical or legal question; it reflects deeper questions about who owns the past and who has the right to learn from it. Access must be negotiated as part of community relationships, not imposed through regulation.

Timeline Realism

Heritage preservation at landscape scale takes decades. The project pursues "gradual activation" because waiting for complete restoration is impractical. Activation demonstrates value, mobilizes resources, and creates community support that makes restoration possible over time.

PROJECT 6: LOWER TER WATER USERS COMMUNITY

Presenter: Francesc Camps (JCUABT - Junta Central de Usuaris d'Aigua del Baix Ter, Spain)

Geographic and Institutional Context

The Lower Ter (Baix Ter) is a Mediterranean river basin in northeastern Catalonia, approximately 160 km². The region includes municipalities, agricultural areas, emerging urban development, and natural areas. The Ter River is a critical water source for 1,300+ registered water users representing multiple sectors: agriculture (irrigation communities), municipalities (public water supply), industry, and tourism.

The JCUABT (Junta Central de Usuaris d'Aigua del Baix Ter) was created in 2015 as a formal structure bringing together diverse water users. It represents a shift from isolated, competing use sectors to a coordinated community of users.

The Challenge

- River flows have decreased significantly over recent decades
- Climate change is increasing rainfall irregularity
- Groundwater recharge is declining
- Future projections suggest further water scarcity
- Agriculture requires water for irrigation; crop water needs are increasing
- Municipalities need water for drinking, sanitation, and public services

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

- Tourism infrastructure (hotels, pools, golf courses) consumes substantial water
- Industrial uses require reliable water supply
- Environmental flows require water retention for river health and biodiversity
- Over-extraction of groundwater has caused saltwater intrusion in coastal aquifers
- Reduced river flows threaten fish populations and aquatic biodiversity

The Governance Dilemma

How can a territory move from competition for water to cooperation among users so that everyone has water?

This is not merely a technical question about how to distribute fixed water supplies. It is fundamentally a political economy question: In a context of structural scarcity, how do different sectors recognize their interdependence, negotiate fair allocation, and commit to sustainable use?

The Response: Territorial Governance and Cross-Sector Solidarity

a) Multi-Actor Community Organization

The JCUABT structure brings together:

- Irrigation communities (farmers)
- Municipal authorities (public water supply)
- Industrial water users
- Environmental organizations
- Academic institutions
- Regional water administration

This structure creates a forum where different sectors can understand each other's needs, constraints, and priorities.

b) Shared Knowledge and Transparency

The JCUABT has supported studies on:

- Hydrological modeling of the basin
- Aquifer dynamics and saltwater intrusion
- Climate change projections for the basin
- Water reuse and recycling potential
- Flood and drought risk assessment
- Irrigation efficiency improvements

This shared knowledge base means all sectors work from the same understanding of the situation. Decisions are based on evidence, not competing claims about water availability.

c) Recognizing Interdependence

A critical insight is making visible the deep interdependencies between sectors:

• Agricultural-Landscape Interdependence: Farmers manage much of the landscape. Their irrigation practices shape drainage, groundwater recharge, and ecological health. But agriculture requires water investment that farmers often cannot afford alone.

• Tourism-Agriculture Interdependence: Tourism depends on attractive landscapes, which farmers largely maintain through agricultural work. But tourism and agriculture compete for water. Tourism revenue could support agricultural modernization.

• Ecological-Economic Interdependence: River health supports biodiversity, recreation, and cultural values. But environmental flows compete with other uses for water. Ecological health is a public good that all sectors benefit from but no single sector bears costs for alone.

d) Economic Cross-Support Between Sectors

A revolutionary element is that wealthier sectors (tourism, urban areas) can directly support less profitable sectors (agriculture) in achieving more sustainable water use:

- Tourism operators can pay for irrigation modernization

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

- Urban water users can subsidize agricultural efficiency improvements
- Industries can contribute to environmental flow maintenance
- Revenue-sharing mechanisms can distribute benefits and costs fairly

Key Learnings from Participant Discussion

Water as Public Good, Not Private Resource

Even when water is used for private purposes (agriculture, industrial production), allocation decisions must treat water as a public good. Market mechanisms alone are inadequate; governance requires collective deliberation about what uses matter most.

Territorial Vision vs. Sectoral Vision

Water management that optimizes individual sectors often fails at territorial level. Sustained management requires understanding the territory as an integrated system where sectors are interdependent.

Awareness-Raising Has Limits Without Resources

Understanding water scarcity is necessary but insufficient. Citizens and sectors need institutional mechanisms for participating in decisions, technical support to implement efficient practices, and financial resources to invest in modernization.

PROJECT 7: LOCAL WATER GOVERNANCE IN CHIARA, PERÚ

Presenter: Roger Agüero Pittman (SER - Servicios Educativos Rurales, Peru)

Geographic and Socioeconomic Context: Chiara is a rural district in the Andes, in the Huamanga province, Ayacucho region of Peru. It is a typical highland agricultural community: dispersed population (36 localities, ~5,700 inhabitants), subsistence farming economy, limited infrastructure, and severe poverty indicators.

The district faces multiple interconnected challenges: high incidence of anemia and water-borne diseases, lack of safe drinking water in most areas, inadequate sanitation facilities, and vulnerability to climate variability.

The Challenge

- Water supply is managed through small, community-based sanitation boards (juntas)
- Boards are extremely small (serving 50-300 households each)
- Management capacity is very limited (most board members have minimal formal education)
- Boards lack technical expertise to manage water systems properly
- They cannot afford professional staff or regular maintenance
- They cannot purchase water treatment chemicals (chlorine) at scale
- Boards are isolated; they do not communicate or coordinate with each other
- Municipal support is often inadequate (municipalities may lack dedicated water departments)
- National support systems are weak or absent
- Many boards provide unreliable water service and inadequate water quality

The Governance Dilemma

How can multi-actor coordination be improved in rural areas with many small, fragile water boards and limited municipal capacity?

How can tiny, under-resourced organizations provide essential services? What kind of institutional arrangements can support local management without undermining local control?

The Response: Associativity and Multi-Level Support

The SER approach recognizes that individual small boards cannot solve systemic problems. The response focuses on creating associativity—grouping boards together—while building support from municipal and regional levels.

a) Associativity Among Boards

Small boards can group together at multiple scales:

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Geographic Association: Boards in neighboring communities form associations to purchase inputs at bulk rates, hire shared technical staff, collectively seek funding, and create learning forums.

Sectoral Association: Boards may associate around shared water sources to ensure coordinated management and reduce conflicts.

Municipal Association: All boards in a municipality create associations where the municipality provides coordinating role and technical support.

b) Strengthening Municipal Capacity

The SER approach works to strengthen municipal capacity through:

- Supporting municipalities to hire or designate water coordinators
- Providing technical training to municipal staff
- Helping municipalities develop annual water plans
- Supporting municipalities to access regional and national funding
- Creating coordination forums between municipalities and water boards

c) Recognizing Ancestral Knowledge

The Andes have a deep tradition of water management, community irrigation systems, and watershed stewardship dating back centuries. The SER approach emphasizes respecting ancestral knowledge:

- Board members' traditional understanding of water systems is valued
- Infrastructure designs incorporate traditional water management principles
- Community labor systems (still active in many communities) are used for maintenance
- Cultural practices regulating water use are preserved alongside modern management

d) Education and Capacity Building

SER works extensively on education: training for water board members, education in schools about water and sanitation, health worker training, and awareness campaigns.

But education is recognized as necessary, not sufficient. Awareness must be paired with technical support to improve systems, financial resources for infrastructure improvements, and institutional pathways for communities to access support and funding.

Key Learnings from Participant Discussion

Local Management Is Essential, But Not Sufficient

Communities need to manage their own water systems for accountability and appropriateness. But local management depends on support from municipal and regional levels. Neither local nor centralized management alone works; coordination across scales is required.

Poverty and Water Governance Are Inseparable

Water governance is not primarily technical; it is economic. Communities lack resources to build and maintain infrastructure. Water governance requires addressing poverty through investment and economic opportunity.

Ancestral Knowledge and Modern Technology

The most resilient approaches combine ancestral knowledge (about water in mountain environments, community-based management, cultural regulation of use) with modern technology (water testing, treatment, monitoring). Neither alone is sufficient.

Associativity Solves Scale Problems

Individual boards are too small. But associativity can create scale advantages without centralizing control. Associations can achieve what individual boards cannot while preserving local management.

PROJECT 8: BLUE PEARLS OF BERLIN

Presenter: Pamela Rall (Foundation for Environmental Protection Berlin, Germany)

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Geographic and Ecological Context: Berlin is a city of approximately 3.6 million people with an extraordinary water landscape. Despite being a major metropolis, Berlin contains hundreds of small water bodies: ponds, ditches, wetlands, rainwater trenches, and channels interwoven with the city fabric.

These "blue pearls" are ecologically significant: amphibian habitats (frogs, newts, toads), waterbird nesting and migration sites, fish and aquatic invertebrate communities, wetland vegetation, groundwater recharge areas, and stormwater retention. They are also socially important: recreation, aesthetic value, and connection to nature within an urban environment.

The Challenge

- Berlin extracts drinking water from its own aquifers
- Extraction rates exceed natural recharge
- Groundwater levels have been declining for decades
- Climate change exacerbates decline through reduced precipitation recharge
- Many ponds were historically connected to groundwater
- As groundwater levels decline, ponds are no longer recharged
- Ponds are now dependent on rainfall and surface runoff
- Seasonal ponds are increasingly disappearing in dry seasons
- Permanent ponds are shrinking
- Berlin's conventional stormwater infrastructure pipes rainwater rapidly away
- Stormwater is not retained or filtered locally
- Urban expansion reduces permeable surfaces
- More pavement and building means less rainfall infiltration
- Habitat for amphibians and waterbirds is lost

The Governance Dilemma

How can rainwater be redirected into small urban water bodies when responsibilities are fragmented across many public and private actors?

The apparently simple solution—capture rainwater and direct it into ponds—requires coordinating private property owners, district governments, public green space managers, Berlin Water Works, nature conservation authorities, and species protection offices. No single actor controls the decision.

The Response: Building Coalitions and Institutional Adaptation

a) Identifying Shared Interests

The project seeks common ground among fragmented actors:

• Private Owners: May reduce water bills if they can harvest rainwater; may value amenity of water features on their property.

• District Government: Concerned with flood risk management; interested in blue-green infrastructure for climate adaptation.

• Green Space Managers: Responsible for park maintenance; interested in cost reduction (fewer irrigation needs).

• Water Works: Concerned about groundwater sustainability; interested in reducing demand for extracted water.

• Conservation Authorities: Interested in habitat creation and protection; concerned about pollution and invasive species.

• Citizens: Value recreation and nature access; interested in urban cooling and quality of life.

b) Sponge City Initiative

The Blue Pearls project proposes adapting the "sponge city" concept to Berlin. Rather than rapidly channeling rainwater away, the city would:

- Capture and retain rainwater at source
- Allow water to infiltrate into soil for groundwater recharge
- Redirect water (where infiltration is not possible) into nearby surface water bodies
- Retain excess water temporarily before gradual release

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

c) Long-Term Coalition-Building

Rather than waiting for perfect agreement, the project pursues incremental coalition-building:

- Regular meetings bringing together all stakeholders
- Site visits where actors see the problem and potential solutions
- Small pilot projects that demonstrate feasibility
- Monitoring and evaluation of pilot outcomes
- Gradual expansion as stakeholders gain confidence
- Political support cultivation at Senate and city government level

d) Navigating Regulations and Authority

German governance is highly regulated. Changing practice requires navigating permits, utility agreements, species protection legal analysis, building code compliance, and environmental impact assessments while maintaining momentum.

Key Learnings from Participant Discussion

Fragmented Responsibility Is a Major Governance Barrier

The governance problem is not technical but institutional. Multiple actors with authority but no unified decision-making creates gridlock. Solutions require either creating a new coordinating authority, building voluntary coalitions, or external pressure (citizen demand, climate crisis) that forces institutional change.

Asymmetrical Power and Motivation

Not all actors have equal interest in solving the problem. The coalition must address asymmetries—finding incentives or applying pressure to bring reluctant actors into agreement.

Pilot Projects as Learning Tools

Many actors are hesitant to commit to unknown innovations. Small pilot projects that demonstrate feasibility, monitor outcomes, and allow learning to reduce risk and build confidence.

Politics and Power, Not Just Technique

Installing pipes and directing water is technically straightforward. The challenge is political—building coalitions among actors with different interests and authority. Technical solutions fail when they ignore politics.

Additional Note

During the second session, held on 21 May 2026, 12 participants joined using a shared Zoom link. As a result, several names appeared multiple times in the attendance report downloaded from Zoom, creating a technical issue in identifying individual participants. To ensure accurate reporting, we manually recorded the correct names of all participants who joined through the shared account. This list is available on the consortium's Shared Drive.

HISTORY OF CHANGES		
VERSION	PUBLICATION DATE	CHANGE
1.0	30.06.2026	Initial version (new MFF).

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.