CONCLUSIONS

From February to July 2026, the UNITA project "Social, Economic and Legal Challenges in Water Governance for a Climate-Resilient and Sustainable Future" promoted the creation of an interdisciplinary group among European universities and a cycle of seminars held in Beira (Portugal), Timișoara (Romania), and Fribourg (Switzerland), fostering interdisciplinary dialogue on sustainable and climate-resilient water governance. The seminar series highlighted the growing complexity of water management challenges in Europe and demonstrated that addressing them requires moving beyond traditional technical approaches toward more integrated models of water governance. Climate change, environmental pressures, demographic and economic developments, and changing societal expectations are transforming water into a multidimensional governance challenge involving technical, legal, economic, environmental, and social dimensions.

A key insight was that climate change acts as a systemic stressor. More frequent droughts and floods, uncertainty over water availability, and increasing competition among users require institutions that can adapt to changing conditions. Resilient water systems require stronger infrastructure and greater institutional capacity, improved stakeholder coordination, effective regulation, and adaptive decision-making capable of responding to uncertain future scenarios. Importantly, they call for an in-depth rethinking of how we perceive, manage, and use water.

A recurring theme was the need to integrate environmental sustainability, economic viability, and social equity. Effective water governance must address issues of justice, affordability, and participation, since access to safe water, exposure to climate risks, and the costs of adaptation are unevenly distributed across social groups and territories. Future policies must aim to deliver equitable, socially legitimate, and politically sustainable solutions by promoting stakeholder participation, transparent decision-making, and increased public trust.

The circular economy plays a strategic role in creating more sustainable water systems. Water reuse, resource recovery, and valorisation can reduce pressure on freshwater resources while supporting climate adaptation. At the same time, technological innovation, i.e., digital monitoring, artificial intelligence, data-driven decision-support tools, and advanced treatment technologies, offers important opportunities to improve water management. However, its effectiveness depends on robust governance, appropriate regulatory frameworks, and meaningful stakeholder engagement.

The legal and economic discussions reinforced the importance of preventive and long-term approaches. Instead of reacting to crises, contemporary water governance increasingly focuses on risk reduction, climate adaptation, strategic investment, and anticipatory planning. This requires reliable data, innovative financing mechanisms, and regulatory systems that balance environmental protection, economic efficiency, and social welfare.

A broader lesson from the seminar series was the importance of interdisciplinary collaboration. Water governance challenges require a combination of technical, legal, economic, and social knowledge to be effectively addressed. Interdisciplinarity is therefore key to effective water management in times of crisis.

Further work should examine: governance models that strengthen resilience under climate uncertainty, including the development of an articulated framework that harmonizes different levels (local, national, and regional) and their interconnections; the possible integration of specific regulations (e.g., those addressing consumer protection) within the existing general EU framework; the role of pan-European structures (e.g., the Covenant of Mayors) in enhancing peer-to-peer collaboration within governance models; and the role of local communities in contributing to resource protection and climate resilience. The interconnection with economic aspects should also be explored through strategies addressing equitable, affordable, and sustainable water governance costs, including how to finance infrastructure and management systems and how to distribute costs. Research is also needed on the opportunities and risks of digitalisation and artificial intelligence, public acceptance of innovative water solutions, and how European water policies are implemented at national and local levels in different countries.

This project laid the foundation for the creation of a European multidisciplinary group that will continue to work together, developing research on resilient water governance and management.