

Our position

Water Resilience



AmCham EU speaks for American companies committed to Europe on trade, investment and competitiveness issues. It aims to ensure a growth-orientated business and investment climate in Europe. AmCham EU facilitates the resolution of transatlantic issues that impact business and plays a role in creating better understanding of EU and US positions on business matters. Aggregate US investment in Europe totalled more than €3.7 trillion in 2022, directly supports more than 4.9 million jobs in Europe, and generates billions of euros annually in income, trade and research and development.

Executive summary

Water insecurity in Europe is a growing crisis, marked by severe droughts, floods and increasing scarcity affecting 20% of Europe's territory and 30% of the population every year.¹ Alongside the private sector's efforts to preserve the quality and quantity of water across Europe, the EU must take urgent action to combat water insecurity and create a water-resilient society in Europe. These steps should include:

- Support responsible water use, investment in innovation and nature-based solutions to improve watershed health.
- Implement the Water Framework Directive and the Drinking Water Directive, which are designed to preserve the quality and quantity of water across the EU, and encourage Member States to enforce them.
- Integrate water into EU industrial strategies for all sectors.
- Enhance infrastructure resilience and reduce leakages by, for instance, exploring fit-for-use approaches and adopting holistic frameworks.
- Support legislative frameworks for water reuse technologies and explore industrial use of wastewater and harmonised certification schemes.
- Invest in optimising freshwater use and availability.
- Support legislation that preserves the availability of high-quality water for all by promoting implementation of third-party standards for water stewardship.
- Implement artificial intelligence (AI) and Internet of Things (IoT) for an EU-wide water monitoring system and standardise digital monitoring and real-time tracking of water leakage.
- Encourage public-private partnerships for ecosystem restoration.
- Scale up nature-based solutions by developing a robust methodology to build the business case for the benefits of investing in nature to help unlock a financing mechanism.
- Increase funding for water-resilient projects and explore innovative funding options based on lessons from renewable energy sectors.
- Engage in global initiatives addressing water stress and collaborate with business-led initiatives and global standards.

Introduction

Water insecurity is a growing concern in Europe. In 2023, rising temperatures and lack of rain in the southern countries resulted in the most severe droughts since 2018. Today, water scarcity affects 40%

¹ European Environmental Agency, 'Europe's state of water 2024: the need for improved water resilience', 15 October 2024, <https://www.eea.europa.eu/en/analysis/publications/europes-state-of-water-2024>

of the European population.² Additionally, harsher weather conditions have already significantly impacted food quality, production and other Green Deal objectives. With 46% of EU territory exposed to worrying drought levels,³ water availability in soil is decreasing, further exacerbating the effects of droughts and floods. The human and economic costs of the 2024 floods in Spain and central Europe have been devastating. Over 14,000 areas in the EU are at significant risk of flooding.⁴ Such extreme weather events are becoming more frequent in the EU and around the world. The situation requires urgent action at the EU and local levels.

The Water Resilience Initiative announced by President Ursula von der Leyen in the [political guidelines of 2024](#) must be a coordinated policy framework to reverse the water crisis and make water abundant, affordable and accessible to everyone no matter where they live. Water is crucial to achieving sustainability and enhancing the EU's economic resilience and [strategic autonomy](#).⁵ To strengthen its competitiveness and secure long-term investments, the EU must address water access, improve water management practices, increase water efficiency and promote water reuse.

The upcoming EU Water Resilience Strategy should foster public and private sector cooperation to address global water challenges and safeguard this precious resource for current and future generations. This paper provides recommendations to address water scarcity through eight key areas: water access and competitiveness, infrastructure, circularity, water-energy-food nexus, digitalisation, ecosystems, creation of an investment-friendly environment and global partnerships.

Water access, competitiveness and sustainability

Water is a business imperative and a critical strategic resource that enables prosperity and competitiveness. Many emerging opportunities for future growth are in water-intensive industries, making it vital to meet growing demand. Securing safe and reliable water access for people, businesses and food production is the hidden glue that keeps the economy running and enhances the EU's attractiveness for investment. For these reasons, policymakers must address the growing disparity between water supply and demand.

Recommendations

- Ensure that individuals, industry and the environment have access to water and avoid conflicts over water use.
- Integrate water into the EU's competitiveness strategy and industrial transition pathways. Secure the existing industrial base's water supply without detracting from residential populations to meet growing demand from green and digital technologies such as AI, hydrogen, semiconductors, renewables, food and beverages, and sustainable farming.
- Recognise and promote the importance of healthy soils in water security and circularity.
- Address water-related risks, such as water quantity and the disruption of the freshwater systems. As noted by a recent Organisation for Economic Co-operation and Development [working paper](#), central banks still have a limited understanding of water-related risks and

² [Water scarcity conditions in Europe \(Water exploitation index plus\) - 8th EAP \(europa.eu\)](#)

³ [Severe drought could cancel out gains in EU food production](#)

⁴ https://environment.ec.europa.eu/news/commission-publishes-new-flood-risk-areas-viewer-raise-awareness-about-significant-flood-risks-2023-10-13_en

⁵ Competitiveness Compass, page 16.

approaches for assessing the implications on financial stability and price stability. When planning for water resilience, the EU should prepare for the real financial and economic consequences linked to water risks.

Water-resilient infrastructure

Climate change and extreme weather are impacting the existing water infrastructure in Europe. Policymakers must increase EU infrastructure's resilience to droughts and flooding through strategies like water reuse and diversification as well as leveraging technology.

Recommendations

- Reduce water leakages in drinking water pipes.
- Explore a fit-for-use approach to a multiple waters concept (ie the right quality and quantity of water, for the right purpose and the right user) and adopt a holistic framework, including gradual scoring of conservation of water resources in soil needs.

Water circularity

Tackling water scarcity and climate change requires significant improvement in responsibly managing water resources. The private and public sectors can collectively implement water-efficient technologies and products to minimise water consumption and optimise water efficiency.

Corporate water stewardship

Many American Chamber of Commerce to the EU (AmCham EU) member companies have water stewardship programmes and use water models and data at their manufacturing sites to streamline the management of actual water balances and analyse current and future water management strategies. These models allow companies to better understand their water footprint, recognise risks and identify water conservation opportunities, enabling effective water management decisions on a site level. Furthermore, some companies calculate employee compensation based on achieving corporate sustainability targets, including water stewardship.

Beyond operations, companies are also developing products that have lower water footprints and help customers use less water and adapt when less water is available. For instance, sustainable farming is shifting to precision irrigation, less water-intensive crops and drought-

resilient practices. Furthermore, companies also promote educational opportunities for employees and best practice sharing between their facilities to enhance water management and efficiency.

The European Commission's vision to create a water resilient society in Europe by preserving the quality and quantity of water across the EU is positive. Like member companies, it aims to drive collective action in water stewardship to improve watershed health via responsible water use, investment in innovation and nature-based solutions.

Recommendations

- Facilitate a learning platform for the public and private sectors to exchange water management best practices.
- Balance investment for both on-site water-reduction activities and meaningful local, multi-stakeholder engagement.
- Incentivise corporate water stewardship with water loans, and innovative and direct funding options.

Water reuse and recycling

Through its natural cycle, Earth has recycled and reused water for millions of years. By copying this natural cycle, water reuse technologies can greatly enhance water circularity and recover valuable resources from wastewater, including nutrients, minerals, chemicals, metals and critical raw materials. An appropriate legislative framework can address water scarcity through water reuse and contribute to Europe's circularity goals and strategic autonomy.

Recommendations

- Explore a horizontal set of Best Available Techniques Reference Documents for sustainable water use.
- Promote and incentivise the use of alternative sources of water such as municipal wastewater, industrial wastewater and where appropriate, seawater.
- Propose a harmonised EU certification scheme for treatment technologies and materials, including a standardisation of drinking water certification.
- Revise the industrial transition pathways to incorporate water stewardship as an integral aspect of the transition.
- Set minimum quality standards for the resources recovered from wastewater and develop recommendations for using raw materials in different, non-highly regulated industries.
- Encourage a network of public and private entities interested in benefitting from such recovered resources.

Water-energy-food nexus

Water and energy systems are interdependent; water is used in all phases of energy production and electricity generation, and energy is required to extract, convey and deliver water appropriate for human use and then again to treat wastewater prior to its return to the environment. Water scarcity is already impacting energy production and reliability; further constraints may impede the physical, economic and environmental viability of future energy projects.

Consequently, water is central to industrial decarbonisation. The most energy-intensive industrial operations are also very water intensive, especially in the use of water as an energy transfer medium.

To enable water to perform this vital role, it must be carefully managed to maximise productivity and efficient energy transfer without compromising reliability. Ultimately, a water-centric approach provides a clear pathway to emissions reduction while also strengthening energy security and enhancing competitiveness.

Changes in precipitation and temperature patterns will likely lead to more regional variation in water availability for hydropower, bioenergy feedstock production and other energy needs. Rising temperatures could both increase the demand for electricity for cooling and decrease the efficiency and capacity of thermoelectric generation. These changes and variations pose challenges for energy infrastructure resilience.

The EU needs an integrated approach to energy and water, as the fuels and technologies used to achieve the clean energy transition could, if not properly managed, increase water stress or be limited by it. The EU should determine the integrated approach on a case-by-case approach.

When issuing policies, the EU and Member State governments should consider how a wide range of technologies can optimise freshwater use for manufacturing and individual consumption through waste heat recovery, thermal management, immersion and dry cooling, water conservation, plumbing pipe technology, recycling of waste streams, alternate fluids and process water efficiency. In addition, policymakers should regularly review how water treatment technologies can enhance the energy efficiency of water systems and enable the productive and safe use of non-traditional water resources for energy and non-energy applications.

Additionally, energy and water utilities have long investment cycles, are subject to a panoply of regulations and operate under stringent performance expectations. This combination often constrains operators' willingness to risk investing in new technologies. Instead, companies need incentives and an enabling regulatory framework. In some cases, loan guarantees and/or public/private demonstration projects may make such investments more attractive.

Lastly, the EU should support water-resilient agriculture, including precision irrigation, less water-intensive crops and drought-resilient farming. Transitioning towards water-resilient models would enable Europe to adapt to climate change and improve the water cycle.

Water digitalisation

The EU needs digital solutions to ensure sustainable and cost-efficient water management. With equitable access to water quality and quantity data, Member States, science and industry can better prepare for unforeseen water imbalances.

Recommendations

- Use AI, big data and IoT to set up a single EU-wide water quality and quantity monitoring system that collects all kinds of data to alert, mitigate any potential water crisis and avoid conflicts over water use. It should utilise existing topographical data and water maps to delineate catchments and sub-catchments and layer such maps with existing data from Member States. This system could, for example, illustrate key abstraction points and total annual precipitation within the catchments and sub-catchments and create a holistic overview that would help the EU understand the dynamics between supply and demand in addition to distilling local water targets that reflect on-the-ground data. Such insights would provide the private sector with much-needed confidence in investment decision-making as well as generate common targets that could provide the foundation for collective action.

- Harmonise the measurement of water consumption, withdrawals and discharges for private and public use.
- Track real-time water leakage data.

Restoring water ecosystems

Wetlands are where water, climate and biodiversity most strongly converge; however, one-third of global wetlands have been lost over the past 50 years.⁶ Wetlands are highly efficient at capturing carbon and may be even more important than planting trees for offsetting carbon emissions. Furthermore, in many catchments across Europe, the benefits of reducing water consumption on environmental carbon capture are likely greater than the emissions saved via the direct applications of energy-saving technologies.

In addition to being a vital natural carbon sink, wetlands act as a natural buffer against the most extreme water events, soaking up heavy rainfall and ameliorating water flows. Moreover, 'as well as being threatened by pollution, wetlands also have an important role in addressing it. They can act as natural filters, helping to remove pollutants from the water (they have the potential to remove up to 60% of metals, trap and retain up to 90% of sediment runoff and eliminate up to 90% of nitrogen).'⁷ Sustainable water use cannot be achieved at a particular location unless wetlands have the environmental flows they need to support biodiversity and carbon sequestration.

Initiatives to restore rivers, lakes and wetlands are essential to climate change mitigation and adaptation. Companies are already engaging with local community groups, non-profits and conservation organisations to support wetland restoration projects (eg refilling water into the basins that are mostly affected). AmCham EU member companies' water replenishment projects (eg to restore wetlands, floodplains, rivers etc) show that nature-based solutions are a powerful tool to improve watershed health, water quality, water retention, biodiversity and ecosystem health as well as local economic activity.

To achieve long-term resilience, the EU needs an integrated legislative approach across climate, water and nature, which underpins the implementation of nature-based solutions.

Recommendation

- Facilitate greater public and private investment in nature-based solutions.
- Scale nature-based solutions by all water users as part of the EU's Water Resilience Strategy by developing a robust methodology that builds the business case for investing in nature to help unlock a financing mechanism.
- Encourage Member States to prioritise the implementation and enforcement of existing legislation to support the protection and restoration of the EU's watersheds in line with the Commission's goal of repairing the water cycle.

⁶ <https://www.global-wetland-outlook.ramsar.org/report-1>

⁷ WWT, [Home page](#), [Threats to our Wetlands](#).

Creating an investment-friendly environment

The EU is financing water-related research and innovation projects through programmes like Horizon Europe and investing in water infrastructure through the Cohesion Fund and the Recovery and Resilience Facility, which devotes up to 5% for projects in sustainable use and protection of water and marine resources.⁸

However, more funding is needed to mitigate water scarcity and flooding and support national and local projects on water resilience infrastructure, water reuse technologies, digitalisation and ecosystem restoration.

Recommendations

- Increase water resilience funding opportunities for local and national governments in addition to industry.
- Offer tax credits, low-interest loans and other innovative funding options for water-resilient infrastructure projects.
- Learn from other sectors such as renewable energy, where platforms like T-Rex and SolRiver Capital help standardise investment and facilitate closer and more transparent collaboration between stakeholders.

Conclusion

As Europe faces the impacts of climate change on water, it needs more collaboration, increased funding and innovative, nature-based solutions across the board. With a new EU mandate in place, policymakers should prioritise water-related issues and adopt a water resilience initiative. It is a collective responsibility to address global water challenges and ensure the sustainable and equitable management of this precious resource for current and future generations.

⁸ https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/green.html