



JOINT STATEMENT

Upcoming EU Action Plan on Digitalisation in the Water Sector Should Prioritise Adoption of Digital Technologies Throughout the Entire Water Cycle

The landmark European Water Resilience Strategy published by the European Commission in June 2025 lays out a comprehensive vision for water in the European Union by 2050 – with ambitious objectives to restore and protect the water cycle, build a water-smart economy, and secure clean and affordable water for all.

Importantly, the strategy recognises the critical role of digitalisation to achieve these goals, including the aspirational 10% water efficiency target by 2030, and announces a forthcoming EU Action Plan for Digitalisation in the Water Sector. This initiative is welcome and much needed, as the EU lags in digital technology adoption, with a shortage of reliable data (as well as the skills and tools to interpret it) on issues ranging from leakages to the resilience of stormwater infrastructure.¹

One of the main barriers to the uptake of digital solutions in the water sector is the initial investment costs needed. Acquiring and deploying digital equipment and solutions such as smart meters, sensors, software and cloud-based algorithms require considerable amounts of capital and operational expenditure, in a context where investments in the water sector are already critically low. For the Action Plan to tackle this fundamental challenge and achieve its ambitious goals, it cannot be conceived as a standalone EU initiative. Alignment with broader EU policies—including funding mechanisms, modernised public procurement frameworks, and parallel initiatives in sectors such as energy and digital—is critical. A comprehensive strategy is needed to unlock innovation throughout the water value chain, championing a holistic “One Water” approach that enhances industrial competitiveness, accelerates nature restoration and biodiversity, and fortifies system-wide resilience.

¹ According to the European Commission, the announced Action Plan will focus on (i) “deployment of digital solutions through funding and knowledge-sharing to build up digital skills and encourage technology transfer in the water sector”; and (ii) “support to water data sharing by fostering the development of national data portals to overcome fragmentation and make data easily findable, accessible free of charge, interoperable, and reusable, in line with the Open Data Directive”.

In particular, the increasing frequency and intensity of extreme weather events driven by climate change, such as floods and prolonged droughts, as well as water scarcity situations putting at risk drinking water supply, highlight the urgent need for advanced digital tools and technologies in water management. Stronger emphasis must be placed on the direct link between these extreme events and climate change, as understanding this relationship is key to designing effective mitigation strategies. Digitalisation and robust data collection are essential to anticipate risks, model scenarios, and implement adaptive measures that reduce vulnerability. Solutions like real-time monitoring systems, predictive analytics, and digital twins enable authorities to optimise resource allocation and respond swiftly to emergencies.

Taking these objectives into account, the undersigned organisations – representing leading innovators from across the water management ecosystem – lay out below their joint recommendations for the Action Plan and the broader EU policies underpinning it.

1 The Action Plan should promote innovative financing models for technology deployment, as well as pave the way for new funding mechanisms and advantageous financing conditions for EU-funded water resilience projects that demonstrate effective use of smart technologies.

The next Multiannual Financial Framework 2028-34 is a once-in-a-decade opportunity to maximise the value of public investments in water, foster resilience across sectors, and accelerate the twin green and digital transition – all while respecting technology neutrality and avoiding vendor lock-in.

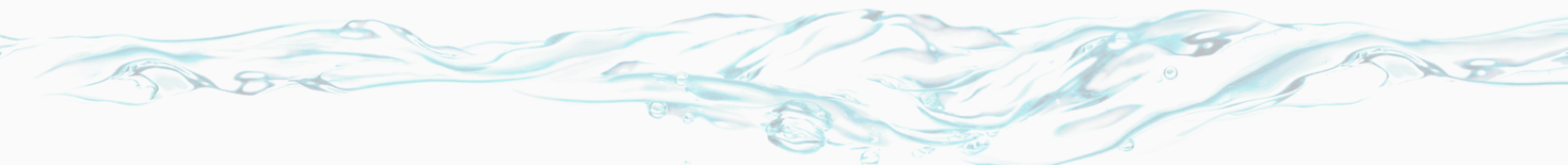
EU funding frameworks relevant for water resilience—like the forthcoming European Competitiveness Fund (including the next Horizon Europe program) and the National and Regional Partnership Plans—should incentivise smart and interoperable approaches to both modernise ageing infrastructure and build out new infrastructure. In particular, these should foster the use of sensors, smart meters (including through the newly announced Smart Meters for All Initiative), digital technologies (including software as a service, cloud) and digital twins to collect, organise, and share data at scale (including through improved data governance at the level of utilities).

To achieve this, EU funding should become more strategic and outcome-oriented, building on the recent midterm review of the EU Cohesion Policy – for example, by granting beneficial co-financing rates and prefinancing terms to projects that demonstrate effective use of smart technologies to achieve water resilience goals. Such an approach can better support policy objectives on e.g. water and energy efficiency, water re-use, leakages, climate resilience, groundwater quality, and help de-risk investments in water infrastructure, as well as support deployment of innovative pilots.

In addition to public funding, it is also essential to encourage innovative financing approaches, such as co-financing mechanisms with the involvement of third-party financiers, dedicated funds (pooled, public-private) or public-private partnerships. A proven solution is the Metering as a Service (MaaS) model where initial financing is provided by a third party rather than local authorities. Similarly, software, as a service (SaaS) solutions can help utilities access cutting-edge digital tools without heavy upfront investments, enabling them to improve efficiency, monitor performance, and scale innovations flexibly.

2 The European Commission should incentivise digital in water procurement, as well as develop EU guidelines on public procurement of digital technologies to support national and local authorities

The ongoing revision of EU public procurement rules is an opportunity to bring qualitative criteria (beyond price) to the forefront of public decision-making, adequately valuing projects that demonstrate how smart technologies (and a data-centric approach) can help deliver EU objectives on water resilience.



Moreover, tenders across Europe are often fragmented/heterogeneous in approach, and not suitable to procure digital solutions relevant to water resilience – for instance, because they do not pursue the right objectives, focus areas, or data deliverables. Also, local authorities usually lack skills and know-how to navigate the technical, administrative and financial procedures associated with digital deployment.

As a positive example, such guidelines already exist in countries like Spain, where the national government understood the need to support central and regional authorities when procuring digital solutions. Given the fragmentation of the water ecosystem across 27 Member States, non-binding² EU guidance can help accelerate procurement of digital solutions in Europe – leading to better insights, more informed decisions, and improved management of water resources.

Finally, the European Commission should also encourage the creation of platforms at European or national level to pool support and best practices, enabling economies of scale and simplifying procedures.

3 The EU should leverage horizontal policy frameworks relevant for water to foster adoption of digital tools for the planning, design, construction, operation, and maintenance of water-related infrastructure and services (incl. industrial facilities, buildings, nature-based solutions)

Digitalisation is, above all, an approach – a more effective way of collaborating to solve complex problems, leading to operational improvements and cost efficiencies over the long term. That is why upcoming policy initiatives such as the Circular Economy Action Plan and the EU Climate Adaptation Plan should explicitly recognise the value of digital technologies, data, digital twins and AI to improve climate resilience and circularity across sectors.

By leveraging these innovations—together with improved interoperability and capacity building—authorities can strengthen resilience, better protect communities, and reduce the socio-economic impacts of climate-related disasters. The announced initiatives in the AI Continent Action Plan—such as the AI Strategy Action Plan for vertical sectors or the AI Gigafactories— should also be implemented in a way that helps unlock the deployment of these AI technologies in the water sector.

In parallel, research and innovation frameworks—notably Horizon Europe, the Water4All Partnership, and the EU Missions on Climate Adaptation and Smart Cities³— should prioritise digital solutions for water management.

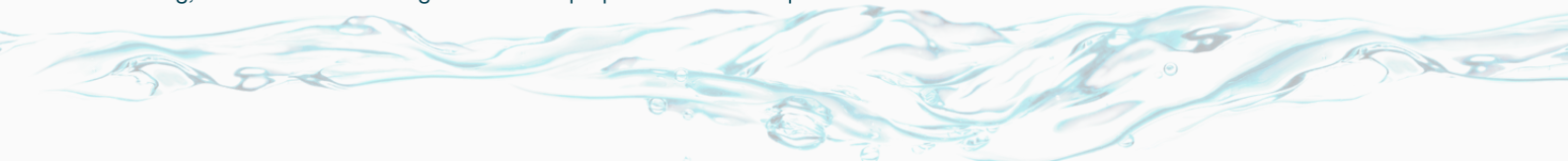
4 The European Commission should create an EU-wide Water Resilience Dashboard, which continuously pools data from National Data Portals on key Water Resilience indicators and includes a Digital Maturity Mapping of water utilities

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²The Spanish digital in water programme PERTE and the Guidelines to municipalities are available here: <https://www.prtr.miteco.gob.es/es/perte/perte-digitalizacion-ciclo-agua.html>; FIRST CALL (2022); Third Call – PERTE for Water (2024); Guía de Procedimiento.

³Recent events, such as the DANA storm on Spain's Mediterranean coast last year, underscore how advances in forecasting, early warning, and scenario modelling can enhance preparedness and response.



While there are already significant data collection efforts at national level, this is often done using antiquated and/or inefficient methods (e.g. manual data entry, scanned PDFs), and in a way that limits comparability – for instance, water losses are measured differently in many Member States. To compile this information and extract better insights at EU level, this data should be open, standardised, and interoperable. In turn, this will enable continuous pooling into a centralised EU-wide Water Resilience Dashboard, compounding the value of national data. This dashboard should also integrate a Digital Maturity Mapping of utilities, assessing their level of digitalisation (e.g. SCADA, telemetry, GIS, smart metering, data governance).

Together, these measures would create a robust baseline, help guide investment decisions, and generate EU-wide insights that directly inform the implementation of water policy. Adding emergency response, hazard databases, and vulnerability assessment would make the Dashboard more comprehensive, strengthening both daily management and crisis preparedness.

5 The EU should promote capacity building, exchange of best practices, stronger governance, and inter-agency cooperation across Member States – including the wider water ecosystem and technology providers in particular.

There is a wealth of “hidden knowledge” among water professionals across Europe, as countries often deal with water-related challenges that are specific to their climate, topography, geographic location, and infrastructure condition (e.g. floods, droughts, water security, water quality). In addition, water-related challenges typical in Southern Europe (e.g. salinity) are now growing in Northern Europe and vice versa – yet this expertise often remains siloed within national or regional boundaries.

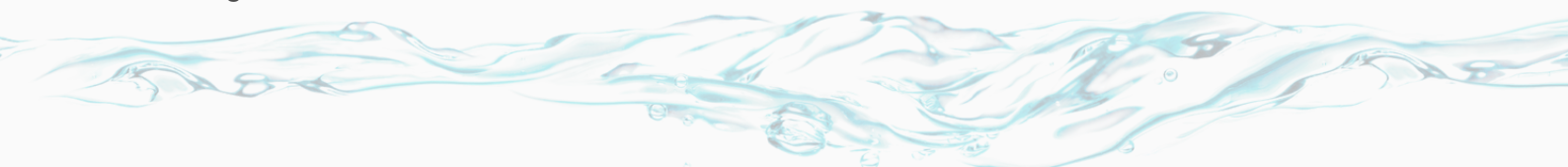
When it comes to the use of digital technologies and data, a more structured (and cloud-friendly) approach to knowledge sharing and capacity building between water authorities is needed to leverage a truly EU-wide approach to water resilience. This could be achieved through EU-coordinated platforms for peer-to-peer exchange, dedicated centres of excellence for digital water, thematic working groups under existing networks, and joint training programmes developed with industry and research bodies.

Such initiatives could cover best practices and learnings using standardised toolkits and guidelines on any relevant topic, e.g. how to implement KPIs on water efficiency (including through the Recommendation on Water Efficiency First Principle), how to promote data exchange at national/regional/local level, how to improve coordination between the water and energy sectors, etc.

To complement these measures, the Action Plan should also strengthen governance structures and inter-agency cooperation, through coordination platforms linking regulators, utilities, environmental and energy agencies, and civil protection authorities. Embedding governance and cooperation in EU initiatives would ensure that knowledge sharing is not only technical but also institutional, supporting effective decision-making, crisis response, and long-term resilience. By connecting practitioners, policymakers, and technology/solution providers, the EU can accelerate deployment, reduce duplication of effort, and build a more resilient and adaptive water sector.

6 Implement existing EU cybersecurity rules at Member State level, while ensuring that technology adoption continues at pace

The EU has a solid legal framework to ensure the security of its critical infrastructure, through recently adopted legislation such as the NIS2 Directive, the Resilience of Critical Entities Directive, the Cyber Resilience Act, the AI Act, and others. These should now be applied consistently across Member States and implemented by the concerned entities in the water sector, while at the same time ensuring the right level of nuance is in place for technology adoption to continue at pace. Cybersecurity requirements should be included in public tenders, ensuring that cybersecurity is built in from the onset and not considered as an afterthought.



7 The EU should promote digital skills and attract young “digital native” professionals to the water sector while fostering lifelong learning

The water sector urgently needs to attract young “digital native” talent – as it is experiencing a shortage of tech- and cyber-savvy graduates and other qualified professionals. At the same time, targeted lifelong learning programmes should help experienced professionals update their digital skills, ensuring their expertise continues to support the transition.

To support these efforts, initiatives such as the newly announced EU Water Academy should receive dedicated funding and include a digitalisation program, which integrates “digital-by-design” thinking across all aspects of water management. This academy should develop training programmes to enhance the skills of current technicians (predictive maintenance, drone piloting, etc.) as well as hybrid courses combining traditional know-how with data and digital skills. At the same time, it should develop a collaborative online platform to facilitate the sharing of knowledge, feedback, and best practices between operators and technology providers, to accelerate collective learning and reduce project risks.

As experienced professionals retire, there is also a growing risk of losing critical institutional knowledge. Digital tools and AI-powered systems can help bridge this gap by capturing and codifying expert insights, enabling new and younger employees to access decision-support systems that replicate seasoned judgment. These technologies can serve as knowledge amplifiers, helping less experienced staff make informed decisions and easing their learning curve. Local governments should provide adequate technology training, where possible.

Finally, the European Commission should further develop its successful #WaterWiseEU campaign, expanding its communication efforts on water by targeting EU schools and universities. Together, these measures would contribute to a resilient, digitally skilled workforce for the future of water.

