

Building Together the Digital Twins of Europe's Inland Waters

Multi-Stakeholder Forum

12 December 2025, 10:00–12:00

Online – Save the date and time!

Teams link for the meeting:

[Meeting Teams Link](#)

What and when

The digital transition in the water sector is a reality in which Europe is investing through ambitious projects, including the **creation of digital twins of inland waters in Europe**. Contributing to the definition of their architecture means ensuring their practical and effective use.

We are therefore pleased to invite you to the event of the **European project IDEATION**, which will take place **online on 12 December 2025, from 10:00 to 12:00** - supported by the Norwegian activities - *Vannforsk and the Oslo region and related Norwegian organisations and projects*.

IDEATION supports the **European Commission** in developing **digital twins of inland waters**, interoperable with the **European Digital Twin Ocean**. The event will present the **IDEATION project and its first results**, while gathering experiences, needs, and priorities from potential users and developers in Norway. Similar events are taking place in other 16 European countries. These contributions will help define a roadmap and recommendations for the future development of a digital infrastructure aligned with the real needs of the diverse European territories.

Who is the event for

The initiative is aimed at a diverse audience, including:

- **Policy-makers and public administration representatives**, interested in using digital tools for planning and managing water resources.
- **Operators and technical experts** from the integrated water service sector.
- **Developers, managers and experts** in digital twin technologies.
- **Current or potential users** of digital twin technologies for water including researchers, governmental agencies, policy-makers, industries across sectors (water, agriculture, energy, tourism), NGOs.

The diversity of participants offers a valuable opportunity for dialogue and networking, fostering new synergies between research, governance, technology, and operational management.

Topics covered

The architecture of future digital twins of inland waters and a case study on ice and snow

IDEATION develops a reference architecture for future digital twins of inland waters. This architecture provides the methodological and technological foundation for building an interoperable, scalable, and adaptable system to meet the diverse needs of European territories. A first version of the architecture will be presented and discussed in relation of specific needs of Norway.

The OpenKIWAS knowledge base: what it contains and how it can be used

The OpenKIWAS knowledge base is a tool designed to facilitate access to a wide catalog of information related to inland waters and digital twin technologies. A short demonstration of the tool will be provided, followed by a discussion.

Socio-economic implications of implementing the IDEATION approach

IDEATION will conduct an assessment of the socio-economic impacts of implementing its approach in the development of digital twins for inland waters. Participants will be invited to share their views and insights on these impacts.

Agenda

10:00 - Welcome and introductions by SINTEF - [VAnnforsk – Skaper møteplasser for forskning og innovasjon i vannbransjen](#) + [Oslofjorden, vann og vassdrag - Osloregionen](#) + [Strengthening Collaboration in the Oslofjord – SEADITO](#) + GEO4WATER: [European Data Space for Smart Communities](#) + [AquaINFRA Home](#)

10:05 - Introduction to the IDEATION project and Q&A

10:20 - First project results and Q&A:

Reference Architecture

Reference Use Cases - Urban Water, River and estuary and Coastal water - with initial requirements for Digital Twins (See below).

Knowledge catalogues OpenKIWAS

10:45 - Your feedback on the Digital Twins Inland Waters - Discussion

11:20 - Perceptions towards IDEATION Digital Twins Inland Waters - Discussion

11:55 - Closure

URBAN WATER

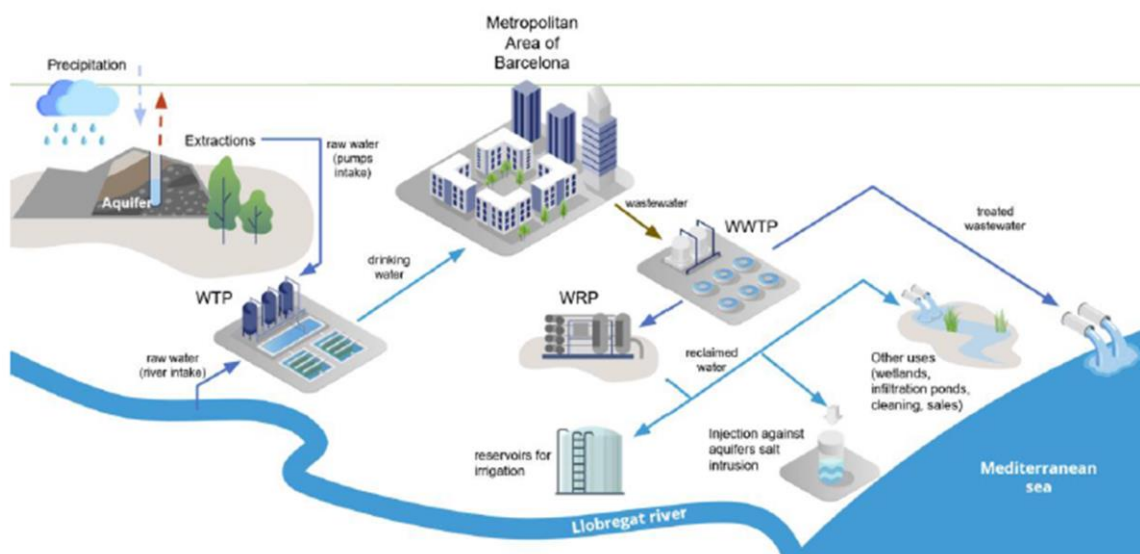


Figure 7 - Visual Scheme of the urban water RUC (Spain). Water Reclamation Plant (WRP); Water Treatment Plant (WTP); Wastewater Treatment Plant (WWTP).

RIVERS AND ESTUARIES

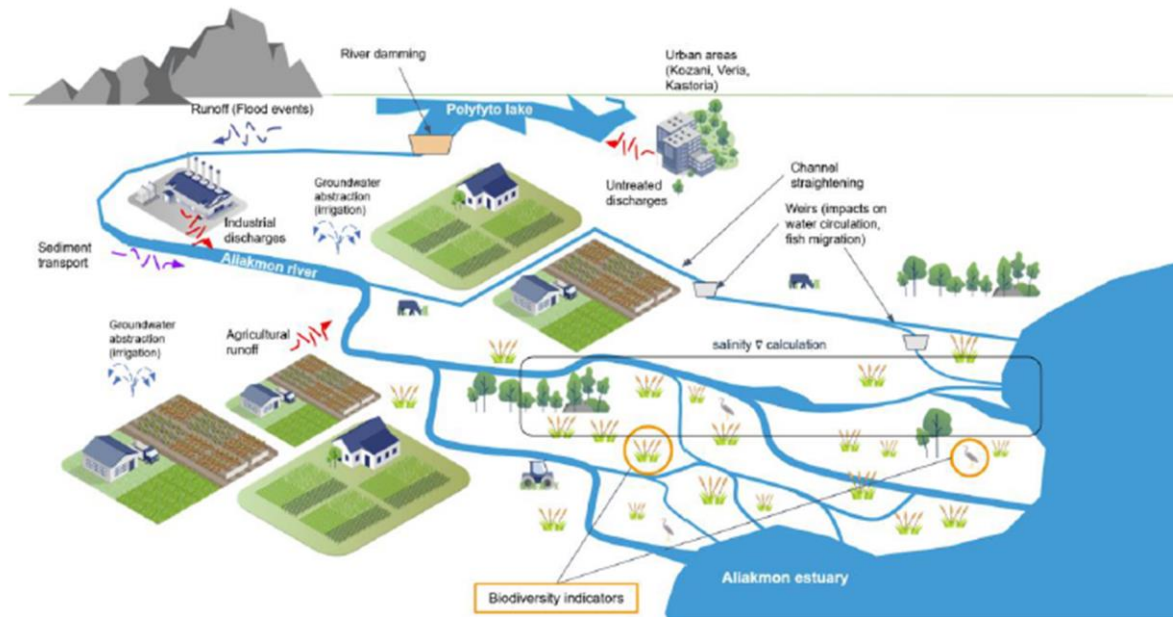


Figure 2 - Visual Scheme of the rivers and estuaries RUC (Greece).

COASTAL WATER

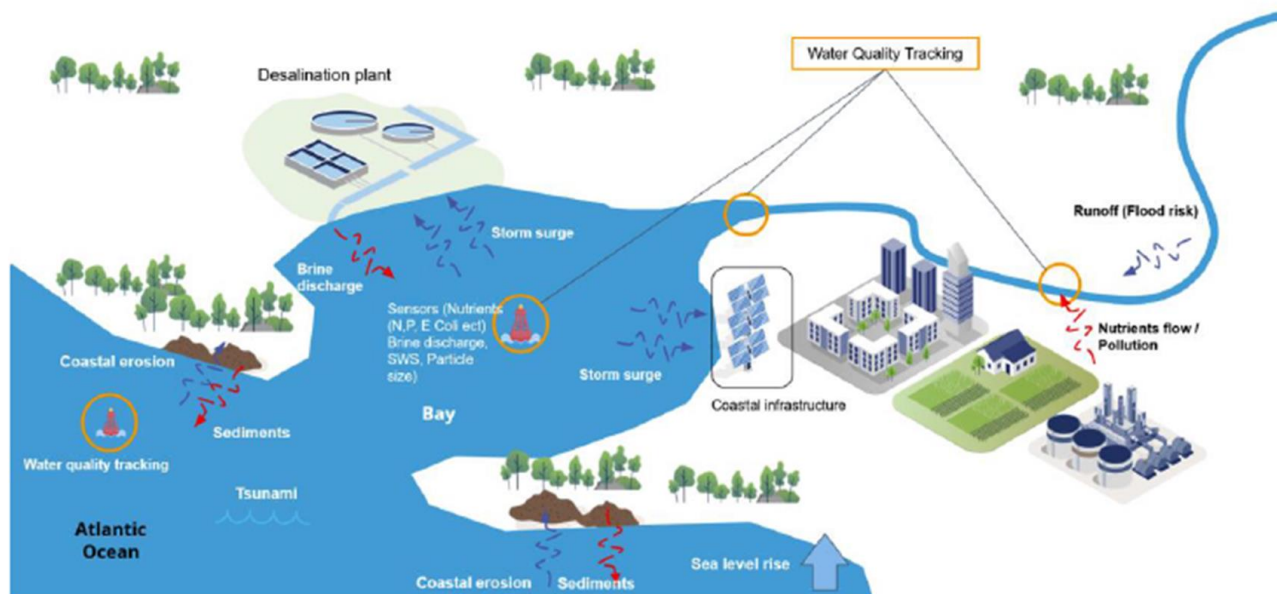


Figure 9 - Visual Scheme of the coastal water RUC (United Kingdom).