Fiware4Water Demo Network 2
On line workshop
Associated with Europe-INBO

“How digital solutions can contribute to the implementation of EU water policies?”

9 December 2021

REGISTRATION

Speakers

Digital Water .City

University of Exeter

eurecat Centre Tecnològic de Catalunya

KWR

OFB Office Français de la Biodiversité

Réseau International des Organismes de Bassin

OiEau Office International de l’Eau

FIWARE 4 WATER

CONTEXT AND OBJECTIVES

The digital strategy of the European Commission includes the acceleration of the digitalisation of all the sectors of the society, notably the water sector which is lagging behind others. It is crucial to encourage the uptake, the development and the commercialisation of smart technologies into the whole water cycle and ecosystem, as it is reminded in the recent EU communication on the EU Action Plan: "Towards a Zero Pollution for Air, Water and Soil" (and annexes) - a key deliverable of the European Green Deal, adopted on 12 May 2021.

New innovations, such as artificial intelligence (AI), digital twins, digital data space or instrumentation can provide possibilities and solutions to issues related to water quality and quantity, hence creating new opportunities for strengthening water monitoring from source to tap. The success of such digital solutions depends not only on the technologies themselves but also on their safe and seamless integration into the legacy systems already put in place by water utilities.

Furthermore, the deployment of digital solutions can also serve to raise awareness and involve all the water stakeholders, being policymakers, water managers and water utilities. Digitalisation can also offer more information to citizens and consumers about household consumption, raise their awareness on the sustainable use of water and influence their behaviour.

More largely, the technological dimension of digital solutions is not enough to support their up-take. Their related governance mechanism, capacity building and economic affordability are also key dimensions to be considered.

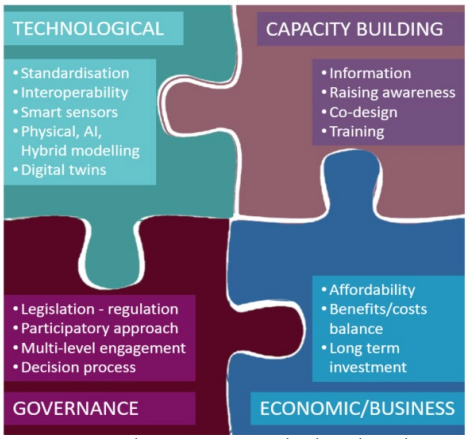

Figure 1: Social innovation applied to digital water

The link between ICT (*Information and Communication Technologies*) and water protection is now recognised and supported by EU in its different funding programmes. EU hence promotes and supports the possibilities of digitalisation of the water sector notably by establishing the ICT4Water cluster, a community of 61 EU-funded research and innovation projects on digital innovations for water. Among them, the **Fiware4Water project** is developing digital solutions for water managers and water utilities which cover the whole water cycle: from real-time operational monitoring, management and control of source water to developing AI-based models for water quantity and quality analytics. The added-value of this project is the use of an open source, free of charge, interoperable and standardised informatics platform called FIWARE. Based on FIWARE technology, a Fiware4Water reference architecture has been developed and deployed in different locations in EU. This architecture can be deployed and integrated seamlessly and safely to any legacy water management system. In parallel, Fiware4Water is addressing the socio-political related issues to digital water. Through two dedicated demo networks, the raising awareness has been launched on the digital multiple benefits and localised guidelines are under development.

The objective of this workshop is firstly to showcase examples of digital solutions and explain how it participates to reaching the objectives of several EU water policies. It will also be the opportunity to exchange with river basin organisations the importance of engaging with all the stakeholders and notably with citizens.

CONTENTS

Workshop format

The workshop is structured for water managers to gather a common understanding of digital water to then address technological and non-technological dimensions of digital water in two working sessions.

The format combines plenary sessions (the introduction to set the scene and the conclusion) and two working sessions where participants will be engaged in discussions. Additional inputs on digital water will be presented during the working sessions for participants to react, share and identify recommendations aligned with their potential needs.

Workshop content

Setting the digital water scene

The introduction will set the general digital scene in the field of water with a horizon of EU digitalisation strategy for the water sector. A specific focus on the technological and non-technological solutions brought by Fiware4Water will be highlighted. A common ground will then be set before moving to the working sessions.

Working session 1: Path towards digital solutions: from the needs to the possibilities

The first presentation will focus on the policy relevance of the digital solutions developed by Fiware4Water to highlight how they can support managers to be compliant with EU directives. The second presentation will provide an insight on the types of IT solutions already used by water managers.

Then, the floor will be open for the participants to share their needs for digital solutions, explore the barriers and obstacles they might face and identify recommendations they would like to address to ease the access to digital solutions.

Working session 2: The role of the socio-political engagement to implement digital solutions

The presentation will begin with the Local Water Forum approach applied to engage with citizens in the co-creation of water policies. Then, concrete examples from Fiware4Water will be given with the UK Demo Case.

The floor will be open for the participants to react on such approach and discuss how local water forum could become a tool for them to engage with basin actors on the digital issues.

Conclusion and closing

The last time of the workshop will be to present the key points of each working sessions back into the plenary. The next steps of fiware4water will also be explained with the opportunities for the participants to carry on their preliminary exchanges on digital water with the support of Fiware4Water partners.

AGENDA		
14:00 14:50	**Introduction – Setting the digital water scene**	
	Welcoming address	INBO Secretariat Maltese Presidency representative OFB
	What is digital water?	Luis Echeverria, EURECAT (video)
	Digital water challenges for river basin organisation	Eric Tardieu, INBO
	Focus on Fiware4Water digital solutions	Lydia Vamvakeridou-Lyroudia, KWR, Exeter (video)
	Opening of the working sessions	Sonia Siauve, OiEau
14:50 15:30	**Working session # 1 – Path towards digital solutions: from the needs to the possibilities**	
	Presentation • Digital solutions for water managers and their policy relevance • Panorama of digital solutions **Discussion** • What are the needs for digital solutions? • What are the barriers and obstacles for up-take of digital solutions? • Which recommendations to facilitate the access to digital solutions?	Nicolas Caradot, KWB Sonia Siauve, OiEau
15:30 16:10	**Working session # 2 –The role of the socio-political engagement to implement digital solutions**	
	Presentation • Local Water forum • Feedbacks from the local water forum established in UK **Discussion** • How to use local water forum in RBMP development and implementation? • Which recommendations to facilitate the involvement of basin actors with digital solutions?	Richard Elelman, EURECAT Kate Baker, Exeter
16:15 16:30	**Conclusion**	