



Third e-newsletter October 2021

Foreword

As we're disseminating this 3rd newsletter, the **Fiware4Water project** enters its 3rd and last year. All the activities, being technical or related to socio-political engagement, are being achieved with success with the common objective to showcase the feasibility to use the FIWARE system (platform and ecosystem) to digitalise the water sector. In fact, the whole water infrastructure is currently under a critical and necessary digitalization process, which is establishing the basis for the **actual digital water transition**. Through 4 demo cases, 3 demo networks and a wide work collaboration with the DW2020 cluster, the F4W project is giving **concrete examples** of the feasibility for the water sector to successfully cover critical issues such as: improving the water systems performance, improving water quality, using resources more efficiently, reducing pollution and ad hoc operational costs savings, in such a way that global sustainability aspects are satisfied in compliance with current regulations and future economic, social and environmental needs.

It's now **time to testify** and to organise the transmission of our great results to all water stakeholders, notably concerning the possibility to develop smart models and applications to improve water management all along the water cycle, whatever the level of maturity of the system in place. To do that, a series of 14 interviews has started to be published. In addition, a series of 4 thematic 1h-workshops will be held from January to April 2022 about: 1) socio-political and citizen engagement on Digital Water, 2) population of FIWARE platform on the water sector, 3) how AI, ML, Water Data modelling could support smart management of water and 4) contribution of F4W to EU policies and digital transition. Then a final conference will be organised back-to-back to a major water event in order to maximise the dissemination of our results.



Sonia Siauve, OIEau, Project coordinator on behalf of Fiware4Water consortium

Update from the 3 Demo Networks

Demo Network #1 MUNICIPALITIES	Demo Network #2 WATER AUTHORITIES	Demo Network #3 TECHNOLOGY PROVIDERS
LOWER DANUBE, THE MIDDLE EAST & NORTH AFRICA LED BY BUSINESS DEVELOPMENT GROUP Assessment of the potential for uptake of the Fiware4Water portfolio of smart devices and Apps in the area, based on the ConCensus approach	INTERNATIONAL NETWORK OF BASIN ORGANISATIONS LED BY INTERNATIONAL OFFICE FOR WATER Organisation of 6 workshops to showcase the benefits of Fiware4Water smart applications and devices for managing water in an integrated way	FIWARE INNOVATION HUBS LED BY FIWARE Implementation of a technology transfer program to support water management-oriented SMEs, based on Fiware Mundus programme (incl. SMEs challenges)

Demo Network #1: Municipalities

The Danube River is the second longest river of Europe, but our focus is on Lower basin, consisting mainly of 4 countries with very different cultural and economic backgrounds. The water sectors in lower Danube river is public, meaning that all organizations in water sector (including several hundreds of water utilities) are owned by public bodies as the local or regional councils. Their main challenges is to consider working together, as the current legislation and past activities does not support such common activities (including innovative technology implementations the digital solutions). Being public bodies, the interaction with their market (mainly citizens) is very low and inconsistent. The services offered to the citizens are at the minimum, including only constant water delivery at certain quality, but not considering citizens as potential market partners. What we innovate within the FIWARE4Water project it is the introduction of a new concept of "bottom-up decisions" within water sector, as an innovative way to implement environmental policies. The creation of several pro-active Local water forums, as part of the global network of Local Water Forums, will help the decision makers, politicians and water sector in each country, in developing complementary voluntary programs run by the citizens, as a good example of partnerships at each region level.



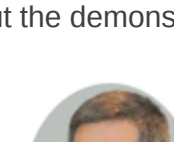
Ciprian Naniu, BDC, ciprian.naniu@bdcgroup.ro

Full article

Read more on Demo Network 1

Demo Network #2: Water authorities

River basin organisations are facing the challenge of collecting accurate data on water and being able to use these data to improve water management. As digital water still appear to be a new topic, the preliminary step is to inform the actors of its multiple benefits to help managing water. In November 2020, a first webinar with INBO took place. It was a very good occasion to raise the awareness of river basin organisations about digital water and to present them how Fiware4Water's outcomes can support their missions. Fiware4Water consortium started with developing digital water solutions such as the FIWARE reference architecture for the water sector. This part is dealing with IT development. But non-technological solutions such as capacity development and socio-political engagement have also been developed. All these solutions, being technical or not, could represent as a whole a real support for river basin organisations in their missions related to water resources management. All the outcomes of the Fiware4water project will be showcased to our members during workshops that will occur in the 7 regional branches of INBO from now until the end of the project. In December 2021, for example, a dedicated session on the smart applications and devices for managing water smartly will take place at the INBO general assembly in Malta. It will not just be about key IT innovation but more about the demonstration of the multiple benefits of digital water.



Eric Tardieu, INBO, e.tardieu@inbo-news.org

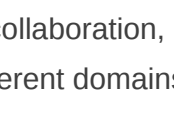
Full article

Read more on Demo Network 2

Demo Network #3: Technology providers

Our demo network supports real innovation helping companies to stay relevant; turning their ideas into ready-to-use smart solutions that create new markets and make a meaningful impact in the society. Global challenges, such as climate change, demand flexible and adaptive governance approaches to deal with risk and uncertainty, moving from reactive managements, to preventive and predictive ones based on a real-time informed decision support system. The so-called Digital Transformation also brings fundamental challenges to industries and cities that need to move from isolation to globally connected systems that work together effectively. In short, becoming 'Smart' is not just about installing digital interfaces or smart sensors in traditional infrastructures or streamlining systems' operations. It is also about using technology and data purposefully to make better decisions and deliver better services. In this respect, the lack of common standard APIs and data models, as well as system integration has demonstrated to have an important impact in terms of agility of the processes and business productivity.

Our role here is to bring these common standards to the water sector. In particular, the FIWARE hubs network help companies to make an effective and better usage of 'data' with FIWARE, playing also a fundamental role in our ecosystem acting as an enabling force for inter-city and inter-country collaboration, making possible real innovation and the development of sustainable markets in different domains.



Angeles Tojedo, FIWARE Foundation, anageles.tojedo@fiware.org

Full article

Read more on Demo Network 3

Launch of Fiware4Water series of interviews

Since early October until the end of the year Fiware4Water is publishing a series of interviews to present the ambition, the scientific dimension, what is digital water, the demo cases, the demo networks, the socio-political engagement as well as the European perspective. In total 12 videos will be made available to provide an easy comprehension of the project. The first three videos are **already available on the website**.

Interview #1	Interview #2	Interview #3	Interview #4	Interview #5	Interview #6
GENERAL PRINCIPLES Sonia Siauve OIEau Project coordinator	SCIENTIFIC PERSPECTIVE Lydia Varmakodou LEGOS Scientific coordinator	WHAT IS DIGITAL WATER? LINA SCHEVCHUKA EURECAT Project manager	EUROPEAN PERSPECTIVE Violeta Kuznetsova ETDMA Project manager	TECHNOLOGICAL PERSPECTIVE MATHIEU LUTY REAL TIME INFRASTRUCTURE MANAGEMENT Vladimir Vukobratovic ETDMA ETDMA	SOCIO-POLITICAL PERSPECTIVE IMPROVING THE WATER SECTOR EFFICIENCY Stephane Deschamps BDC
INTERVIEW #7 DEMO CASE #1 WATER SUPPLY CENTRE FOR WATER RESOURCES MANAGEMENT Julian van der Weiden Waterent	INTERVIEW #8 DEMO CASE #2 JAMES METZ M&P CONSULTING Joshua Poyden, South West Water	INTERVIEW #9 DEMO NETWORK #1 WATER UTILITIES Ciprian Naniu BDC	INTERVIEW #10 DEMO NETWORK #2 WATER AUTHORITIES Eric Tardieu INBO	INTERVIEW #11 DEMO NETWORK #3 TECHNOLOGY PROVIDERS Angeles Tojedo FIWARE	INTERVIEW #12 SOCIAL AND POLITICAL ENGAGEMENT Richard Holman EURECAT

DigitalWater2020 synergy group feedbacks

The 5 projects, F4W, aqua3S, DigitalWater.City, NAIADES and ScoreWater composing the DigitalWater2020 synergy group have received funding from the European Union's Horizon 2020 Research and Innovation programme. They all address digital water related issues. DW2020 is organised into 5 tasks force dealing with the Fiware. Since its creation in May 2020, the DW2020 different task forces have met many times to share and develop common approaches on ontology, sensors, and business and multiply their effects in terms of communication. Follow us on the social media to be kept updated with the latest.

[More](#)

Learn more

How to tackle heterogeneity of data produced by a wide range of devices? Focus on the MQTT Bridge NGSI-LD context broker

The Technologiezentrum Wasser has been working on the test of a nanosensor and the development of scientific models for the detection of anomalies in datasets.

Aside NTUA developments about data-models, EYDAP is implementing the exploitation of all data produced.

The local forum has been launched in Western Romania A short brief

One of the main aspect of the F4W framework is real-time data. Avoiding any loss in data quality due to calibration problems. Tying, or connectivity issues during the transfer of data to the application is quite a big deal. This is why an automated data validation framework is being developed right now, in The Netherlands, to prevent all kind of issues.

To come

Deliverables

Fiware4Water E-Book will be released by the end of November. Based on the series of interviews with our partners, a special care has been dedicated to present the projects' ambitions and results including the socio-political dimension in a tailored way for non-experts.

Addressed to the potential end-users of Fiware4Water, the second **Social Innovation Factsheet** will be soon delivered to present the key outcomes such as Fiware4Water platform through the glance of the technological, capacity development, governance and economic dimensions.

The report on the **application of ConCensus** presenting, among other things, the whole process of the Water Local Forum deployed by our Demo Network 1 should be delivered in December

Save the dates

- Demo network#1: water municipalities**
Contact: ciprian.naniu@bdcgroup.ro
25 Followers' cities: Danube stakeholders' conference
25 November 2022, Timisoara, Romania, [Registration](#)

- Demo network#2: water authorities (hybrid event)**
Contact: n.amorsi@oieau.fr
How digital solutions can contribute to the implementation of EU policies?
8 December 2022, Malta, [Registration](#)

- 4 virtual workshops** are already planned to present the final progress of Fiware4Water
Contact: n.amorsi@oieau.fr, [Registration](#)
#1- Socio-political and citizen engagement on Digital Water
7 January 2022, from 14h to 15h30 CET

- #2- Population of FIWARE platform on the water sector**
4 February 2022, from 9h to 10h30 CET

- #3- How AI, ML, Water Data modelling could support smart management of water?**
4 March 2022, from 14h to 15h30 CET

- #4- Contribution of F4W to European policies**
1 April 2022, from 9h to 10h30 CET

How to get involved?



Project email: fiware4water@oieau.fr

Fiware4Water consortium

