

WATERLINE

NEWSLETTER

ISSUE 01 | MARCH 2023



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Welcome to WATERLINE

A message by the project coordinator

In an era in which data and digital transformation are critical to survive the ever-changing environments, never so more than now the water sector needs to adopt Industry 4.0 technologies. In conjunction to having the technologies available, one key enabler would be to have the workforce having the right skillset to cope with the ever-changing demands. On this note, on behalf of the WATERLINE team I would like to welcome you to the WATERLINE project and the first WATERLINE newsletter.

The WATERLINE project seeks to:

1. Support consolidation of the Digital water HEI alliance and create an opportunity for governance knowledge integration through the development of a common governance framework supporting digital water education in order to raise the excellence profile of the HEI from the Widening countries, as well as the excellence profile of their staff.

2. Build capacity for academics/researchers, based on a shared R&I capacity building plan, with a focus on widening HEIs, by R&I intensive partners, to raise their excellence profile for the development of excellent scientific research, education and innovation in the digital water sector.

3. Co-create a portfolio of digital water components for curriculum at Master level and leverage innovative extended reality emulative learning environments (LEs) to transit to knowledge and digitally driven HEIs that can better inform, educate and foster collaboration between academia and the surrounding ecosystem actors.

4. Build and foster a European network of academics/researchers, who will act as linchpins with actors from the surrounding quadruple helix ecosystem, including community, to allow partners to share and benefit from their different expertise in water domains and respective extended reality technologies to contribute better to education related to the water sphere, which is one of the major societal challenges.

5. Sustaining the alliance of extended-reality water emulative centres through the establishment of structured ambassador networks and the identification of future R&I funding landscape and by creating synergies with EU initiatives, Institutions, other EU-funded projects, and NCP HE networks through a network of networks approach.

Throughout this periodic newsletter we would like to reach out to like minded people who are interested in knowing more about the topics dealt with as part of the project. Updates on key milestones of the project and other interesting related materials shall be shared within this newsletter.

We are delighted that you are joining us as readers and hope that you find the articles timely, informative and enjoyable.

Enjoy the issue!

Edwin Zammit

Project coordinator

MEET THE MCAST TEAM



Edwin Zammit

Senior Lecturer II
WATERLINE Project coordinator and
MCAST's principal investigator (PI)



Lorna Bonnici West

Director Research & Innovation
WATERLINE Senior Researcher



Alex Rizzo

Senior Lecturer & Researcher/
Doctoral Programme Coordinator
Creator of WATERLINE project
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Edel Cassar

Director Strategy Implementation
WATERLINE contributor to WP2
Development of a governance
framework and R&I building plan



Owen Sacco

Senior Lecturer & Researcher
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Lisa Theuma

EdTech Researcher
WATERLINE Researcher



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Senior Research Officer at ARIC
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Entrepreneurship Programs Designer



Geoffrey Anthony Attard

EdTech Researcher
WATERLINE Software
Developer/Researcher



Christian Camilleri

Senior Lecturer I
WATERLINE Researcher

WATERLINE kick-off meeting: lessons learnt

An online kick-off meeting was held on 10 October 2022, followed by an in-person two-day meeting at the MCAST Resource Centre, Malta, on 6-7 December 2022. A member from each beneficiary partner and the associated partner UNEXE attended the in-person meeting, during which attendees discussed the action plan for the coming months. Key messages that also emerged from the kick-off meeting were:

- Scania Ravi, MCAST's Research Finance Manager MCAST's, delivered a session on the financial reporting of the project and presented a template that can be adopted by all partners.
- Naomi Timmer, Principal Investigator for H2O People, conducted a workshop about intercultural communication in projects to enhance intercultural communication amongst partners.
- Partners visited the MCAST Water Research & Training Centre where there is the water network test rig which will be developed as one of the emulated-simulated reality setups during the project's lifetime.



Positive feedback about the two-day meeting was provided by all partners, with some commenting about the practical combination of sessions and friendly environment for partners.

WATERLINE's key events, visits, and clustering activities: the past 6 months



WATERLINE participated in the 'Horizon Europe info day' organised by the Malta Council for Science and Technology at Villa Bighi, Kalkara, Malta at the end of November 2022. The Coordinator MCAST was invited to participate in a panel discussion, together with another five panelists, about successful Horizon Europe proposals.

WATERLINE consortium held a clustering activity with SMART4ENV project consortium on 6 December 2022.

A member from each beneficiary partner and the associated partner UNEXE, on 7th December 2022, visited Water Services Corporation, one of WATERLINE's associated partners pertaining to the industry.



Transforming Advanced Water Skilling Through the Creation of a Network of Extended-Reality Water Emulative Centres

WATERLINE

Edwin Zammit, Lorna Bennici West, Ediel Cassar, Owen Sacco, Geoffrey Azzopardo, Rizzo, Chris Camilleri, Lisa Theuma, Gonia Kara



WATERLINE participated in the 4th edition of the Research and Innovation Expo which took place on the 15 and 16 of December 2022 at the MCAST Resource Centre Auditorium.

WATERLINE at Working Group Human Capital Water Europe

On March 17th WATERLINE was presented in the Working Group Human Capital as one of the Best Practices to support employability within the Water Sector. Maria Lima-Toivanen, of SITES presented the WATERLINE preliminary results related to ongoing desk research study related to local sectoral strategies and policies to foster innovations, business, and growth in the digital water sector, the formulation of these strategies following the methodology of the smart specialisation strategies for sustainability.

Introduction of Water Europe and Human Capital

Water Europe is a non-profit organization that brings together the water-related sectors, including industries, academia, and policy-makers, to collaborate on addressing the water challenges facing Europe. The organization is based in Brussels and has over 200 member organizations from across Europe.

Water Europe's mission is to promote the sustainable use of water resources, promote innovation and research in the water sector, and ensure that European water policies and strategies are implemented effectively. The organization provides a platform for its members to share ideas, best practices, and information on water-related issues. It also plays a key role in advocating for policy changes to improve the sustainability of European water resources.

One of Water Europe's main initiatives is the Water Vision for Europe, which outlines a comprehensive strategy for a water-smart society in Europe. The Water Vision for Europe calls for the adoption of a systemic approach to water management that involves all sectors and stakeholders in a collaborative effort to ensure the sustainable use of water resources.

Overall, Water Europe serves as a catalyst for water-related research, innovation, and collaboration in Europe, helping to ensure that European water policy and management are effective, sustainable, and meet the needs of both current and future generations.

The Water Europe Human Capital Working Group is a group dedicated to addressing the challenges related to human capital development in the European water sector. This group is composed of representatives from various water-related industries, academic institutions, and research organizations, and focuses on fostering collaboration and knowledge sharing among its members.

The group's main objectives are to:

1. Develop a common understanding of the skills and competencies needed to address the challenges facing the European water sector.
2. Identify gaps in current training and education programs in the water sector and develop recommendations for improvement.
3. Promote the development of innovative water-related training and education programs.
4. Foster collaboration between industry, academia, and research organizations to develop solutions for human capital challenges in the water sector.

Topic of the Event
17 March, Online, 14.00-15.15h
Water Market Europe, Registration
'Agenda for Green Water Skills –
creation of an action plan'

To achieve these objectives, the working group conducts regular meetings, workshops, and webinars to discuss best practices, share experiences and insights, and identify areas where collaboration is needed. The group also works closely with policy-makers to advise and inform them on matters related to human capital and workforce development in the water sector.

There is a growing need for qualified professionals in the water sector, and the Water Europe Human Capital Working Group is playing an important role in building the necessary human capital infrastructure to address the challenges facing the European water landscape.

One of Water Europe's key reports on digital water is the "Digital Water Report," which provides an overview of the state of digitalization in the water sector and identifies key challenges and opportunities. The report highlights the need for greater collaboration and integration across the water sector value chain, as well as the importance of data-driven decision-making and the adoption of new technologies such as artificial intelligence, machine learning, and the Internet of Things.

The pandemic has accentuated the digital skills gap that already existed, and new inequalities are emerging as many people do not have the required level of digital skills or are in workplaces or schools lagging in digitalisation. The new curricula must include modern approaches in teaching and learning, such as curiosity-driven education, collaborative mentoring and remote co-supervision, and utilize digital tools for group creativity and promoting virtual mobility.

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The Working Group Human Capital is founded and chaired by Naomi Timmer, of H2O-People and Co-Chaired by Leonardo Piccinetti of SITES (both WATERLINE Consortium members) and is supported by a core team including two other consortium members, Zakhar Maletskyi of NMBU and Albert Chen of University of Exeter to ensure and create opportunities to a more human centred approach.

The WATERLINE presentation showed an overview of the innovation ecosystems and the strategies and policies that foster digitalisation of the water sector, the skills needed and the connections among the higher education sector and other stakeholders locally for the promotion of digital water. With the connection to Green Skills agenda of the European Commission a lively discussion for an action plan agenda was launched.

DIGITALIZING WATER



DIGIWATER INNOVATION CAMP

Students innovating the water sector with digital concepts

On March 15-17 2023, an international group of students, academic, governmental and industrial stakeholders gathered at Istanbul Technical University (ITU) in Turkey to share and develop novel applications of digital technologies in the water sector.

The innovation camp is an initiative of DIGIWATER, an Erasmus+ project which brings together six universities, six SMEs and umbrella organisation EWA. DIGIWATER has the ambition to develop innovative and multidisciplinary approaches to teach and stimulate entrepreneurial skills contributing to reduce the knowledge gap between professionals in the water sector and enabling faster uptake of innovations. DIGIWATER's innovation camp methodology was developed by KU Leuven and Sumaqua and was validated at a prior innovation camp in Leuven (Belgium) in October 2022, during which students worked on IoT and Big Data applications for the water sector.

The focus of the Istanbul innovation camp, hosted by ITU-MEMTEK and MEMSIS, was on the management of natural and man-made catastrophes in the water sector using digital concepts. This is particularly relevant given the recent earthquakes in Turkey, as well as the global increase in cybersecurity attacks. Students first generated ideas to tackle these problems in brainstorm sessions, which were preceded by stakeholder presentations. After this, students further detailed and structured their ideas based on a Business Model Canvas. To conclude the camp, students pitched their ideas in front of an international jury.



Using the jury's feedback, students will further elaborate their ideas by creating prototypes in the months after the innovation camp. The prototyping cycle is concluded by demo-casing the novel prototypes in end-user environments.

Forthcoming Events

30
MAR

13:00
-
14:00

EJWP Webinar
Strengthening Capacities of Water Organizations
through EJWP
ONLINE
<https://juniorwaterprogramme.eu/event/strengthening-capacities-of-organizations-teams-in-a-european-framework-2/>

30
MAR

15:00
-
17:00

WATERSET
Online workshop, Water Europe
<https://watereurope.glueup.com/event/74363/>

31
MAR

DEADLINE Registration
European Junior Water Programme
<https://juniorwaterprogramme.eu/>

JUN
2023

Starting - June 2023
European Junior Water Programme
<https://juniorwaterprogramme.eu/>

MAY
2023

Kick off May 2023
Blue Innovation Track for Advanced Water Leaders
H2O-People
<https://h2o-people.eu/programs/blue-innovation-track/>

20-22
JUN

Water Innovation Europe
Water Europe
<https://watereurope.eu/event/water-innovation-europe-2023/>

28
AUG - **02**
SEP

Save the date!
WATERLINE Summer school at University of Exeter

WATERLINE

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