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AQUARES NEWSLETTER

NEWSLETTER ABOUT THE PROJECT, CURRENT INFORMATION, PROGRESS AND
UPCOMING ACTIVITIES

SUPPORTING WATER EFFICIENCY THROUGH WATER REUSE

"AQUARES – Water reuse policies advancement for resource efficient European regions" is a project under the INTERREG Europe programme that aims to improve the implementation of regional development policies and programmes in the partnership regions, to increase resource efficiency, green growth, and environmental performance management in the water reuse sector. The project brings together 10 public organisations from 9 different European countries with the aim to achieve better water management of water resources through water reuse.

Like the fifth semester of the project, the sixth semester is affected by the COVID-19 pandemic as well, that means the transfer of the planned actions online. While project partners cannot meet in person, we stay in touch online and share the project outputs and fine-tuning the action plans based on lessons learned. AQUARES project still follows its original program plan and looking forward to move on to the second phase to implement the action plans to improve the policy instrument addressed.

THE AQUARES PROJECT CONTENT

- SITE VISIT IN LOMBARDY
- 2ND PUBLIC CONSULTATION MEETING IN SLOVENIA
- ST. ANTIN TREATMENT PLANT
- NEW RESEARCH PROJECTS
- OTHER NEWS
- UNESCO REPORT – DEBATE ON THE VALUE OF WATER



AQUARES
Interreg Europe



European Union
European Regional
Development Fund

NEWS

SITE VISIT OF LOMBARDY FOUNDATION FOR THE ENVIRONMENT

Lombardy Foundation for the Environment (FLA-www.planet.org), the Italian partner of AQUARES Interreg, has organized its Site Visit, in the morning of 25th March 2021 (10.00-12.00). Despite the event was held virtually (due to Covid-19 pandemic) through video and experts' presentations, the Site Visit was successful and hosted 62 participants.

At the event, FLA presented two of the five Good Practices identified during the First Phase of the project, thanks to the collaboration with MM Spa (www.mmspa.eu), the company in charge of them.

MM Spa is a multi-service company and a strategic partner in the development and management of water services for the city of Milan. It serves a population of approximately 2 million people, including residents and city users, providing also the services of management of the city sewer system and treatment of wastewater also through two large WWTPs.

WWTP of Milano San Rocco

<https://www.youtube.com/watch?v=WlumxrpRD90>



Milano San Rocco WWTP handles 40% of wastewater of the city of Milan and a part of the discharge of the municipality of Settimo Milanese (population equivalent of 1,050,000). It is located south of Milan, in a protected agricultural estate. The plant discharge directly in the river Lambro Meridionale and in the waterbodies connected to the irrigation network, Roggia Pizzabrasa and Roggia Carlesca, during the peak months.

The WWTP contribute to the purification of wastewater showing that a solution for improving urban water management is feasible and can also be at the cutting edge: treated water from the WWTP of Milano San Rocco not only significantly exceeds the requirements of current regulations but is also in line with foreseeable legislative changes. The water quality level is perfectly compatible with the agricultural practices and encourage the farmers not to adopt more traditional water sources, as drinking water or groundwater.

WWTP of Milano Nosedo

<https://www.youtube.com/watch?v=uqhJTvbx0b4>



WWTP of Milano-Nosedo is one of the largest European water processing sites. It treats 50% of sewage of Milan, particularly those coming from the central and eastern area of the city. The WWTP is able to treat about 150,000,000 m³/year of wastewater which is then given back to hydrographic system (Roggia Vettabbia) and reused for irrigation.

The wastewater used to irrigate the rural areas is a precious resource for agriculture, also from the circular economy viewpoint. The WWTP is indeed a great example of reduction of water demand from conventional sources and efficient use of water resource, even across sectors.

Nosedo WWTP is able to valorize the historical heritage: the existence of a very old network of irrigation canals that dates to the Middle Ages when wastewater was collected by Roggia Vettabbia. Between Milan and Melegnano, Vettabbia water was used for agricultural meadows in order to biologically remove organic pollutants and at the same time fertilize terrains (they were able to boost cattle breeding). Indeed, monks from Chiaravalle and Viboldone Abbeys are thought to be the founders of agricultural reuse of Vettabbia waters since 1200 d.c. and now the area is called the "Monks valley trail".

2ND PUBLIC CONSULTATION MEETING ON WATER REUSE | SLOVENIA

On January 19, 2021 Municipality of Trebnje organised a second public consultation meeting about water reuse in Slovenia. This time, the meeting was hosted online. There were four inspiring presentations followed by fruitful discussion. The meeting was opened by major of Trebnje, Alojzij Kastelic and project coordinator Sara Uhan who delivered some insights from AQUARES workflow.

Firstly, Dr. Marina Pintar from Biotechnical faculty, University of Ljubljana delivered presentation Challenges of using reclaimed water for irrigation in agriculture. Irrigation in agriculture is very complex and a special attention is needed, because watering affects quality of soil, groundwater, irrigation infrastructure, the appearance of the fruit/vegetable and human health. In the second session, Vane Urh from the Regional Development Centre Novo mesto delivered the presentation with a title Water reuse from the perspective of the regional planning – challenges of the South-East Slovenia in the next decades delivered by. He gave a little bit of socio-economic characteristics of the region and especially Municipality of Trebnje (growing population, growing industry, also growing demands for water) and how can Development Centre Novo mesto mediate communication between policy makers on national and local level.



The third presentation about regulation of the water reuse in Europe and its implementations in Slovenia was delivered by Lara Flis from Ministry of Environment and Spatial Planning. In discussion, the need for a detailed guideline for water reuse and monitoring standards in Slovenia was emphasized as well as potential of grey water and blue-green infrastructure.

Third theme was covered by the representors of the company Limnos, Martin Vrhovšek and Urša Brodnik. The company is specialized in constructed wetlands, co-natural sanitation of landfills and different sewage sludge treatments. They presented nature-based solutions for the protection of the surface water bodies. This topic is very relevant for Municipality of Trebnje. During discussion, we discussed about possibility for the implementation of constructed wetland for stormwater and urban river Temenica with combination of co-natural sanitation of landfills.

ST. ANTNIN TREATMENT PLANT | MALTA

A Eur 9 million project at the Sant'Antnin plant will allow farmers to dispose of farm waste in a more sustainable way, which will in turn lead to an increase in the production of New Water.

Thanks to the investment carried out, farmers will soon be able to transport farm waste which will be treated at the Sant' Antnin plant, elevating the pressure from the urban sewerage infrastructure. For the past 20 years, untreated farm waste was dumped into the Water Services Corporation's sewage system, to the detriment of sewage plants that are not built to handle such type of waste.

Ahead of the opening of the new treatment facility, Minister Miriam Dalli, Minister Anton Refalo, Parliamentary Secretary for the European Funds Stefan Zrinzo Azzopardi and WSC CEO Ivan Falzon visited the plant. Mr. Falzon explained how the success of the New Water experience in the north of the country is being now replicated in the south, where the preparations and the infrastructural works have been more complex.

The Minister for Energy, Enterprise and Sustainable Development, Hon. Miriam Dalli, explained that “with this investment, we are addressing two areas: treating farm waste and the production of New Water. Following talks between the Government, the WSC and the Ministry for Agriculture, Eur 2.4 million were invested in new equipment that offers farmers with an alternative method for farm waste disposal.”

Minister Anton Refalo said that “the WSC has invested in special machinery to help in the process of treating the slurry that the livestock breeder would have brought from his farm, while the Government Agricultural Bioresources Agency has invested in three mobile units that will operate on farms. All this has happened with the continuous collaboration of the relative cooperatives as well.

OBJECTIVES:

- The new plant will treat farm waste before it arrives at the Ta' Barkat WWTP, separating the effluent between solids and liquids. This process will allow the sewage purification plant at Ta' Barkat to produce more New Water as the load diminishes.
- This new process will drastically reduce the load on sewage treatment plants. Whilst safeguarding the infrastructure. Operations at Ta' Barkat WWTP will be drastically improved, allowing an increase in the production of New Water.
- Upon completion of the new WWTP and when fully operational, the production capacity of New Water will increase from 0.73 million m³ to 1.5 million m³, all of which will be distributed with the agricultural sector.



Source: <http://www.wsc.com.mt/st-antnin-treatment-plant/>

NEW RESEARCH PROJECT LAUNCHED | Reuse of filter rinse water from groundwater treatment to secure drinking water supply

OOVV is participating in the **FITWAS** project, which was launched in February 2021. The project duration will be three years. The total budget is €1.5 million, of which €1.1 million is funding from the German Federal Ministry of Education and Research. Six partners cooperate in this project: water suppliers, technology specialists (SMEs) and research institutions. The project is coordinated by the DVGW research center TUHH, Hamburg.



In Germany, filter rinse waters currently account for between 1% and 4% of the elevated groundwater. These filter rinsing waters, which contain iron and manganese, are currently generally disposed of as wastewater. Due to the increased demand for drinking water, the recovery of filter rinse water is of interest. The relevance of this research is high, since 60 % of the German drinking water is produced from groundwater, usually conventional sand filtration is one of the treatment steps.

By reusing filter rinse water from groundwater treatment, the availability of drinking water should thus be increased and the recycling potential of the filter sludge raised.

The project involves process development for the recycling of filter rinse water and the utilization of filter sludge by means of membrane filtration. Energy consumption and operational stability will also be investigated.

F-IEA has been invited to participate as Advisory of the project SMARTLAGOON under the H2020 European Research and Innovation



The San Antonio University Foundation (UCAM) on behalf of the SMARTLAGOON Consortium invites the Euromediterranean Water Institute Foundation to participate as a member in this committee from February 1st of 2021 until December 31st of 2024, with the objective to become a member of the Advisory Board a high-level group of experts appointed in the research area of the project.

The SMARTLAGOON project aims at developing cross-cutting and green technology for modelling and predicting socio-environmental processes across different temporal and spatial scales. This will be achieved through a digital twin strategy that allows researchers, stakeholders and policymakers to collect data more cost-effectively, and to create more precise models and predictions to support better decision making.

As a case study, this project uses the Mar Menor Lagoon (Murcia, Spain), whose ecosystem supports a great variety of human activities encompassing tourism, agriculture, fishing, and mining that have led to its deterioration.

The Advisory Board is established to ensure the external monitoring of the project progress and to provide expert supervision and assessment to the project members regarding the work packages implementation.

This monitoring body will also participate in the project exploitation strategy by supporting the efforts of the consortium in terms of capitalization of the outcomes and milestones to guarantee the transferability of the project results in policymaking and improving processes for the benefit of the European programme countries as well as all partner and associated countries within the European Research and Innovation Programme.

The AQUARES project presented at the meeting of the Environmental Advisory Council of the Ministry of Environmental Protection and Regional Development

On November 3, 2020, the representatives of the Baltic Coasts Association presented the AQUARES project at the meeting of the Environmental Advisory Council of the Ministry of Environmental Protection and Regional Development, during which they discussed the key areas identified in the project to promote sustainable and reusable water resources in Latvia.

The AQUARES project is approaching the end of its first Phase and each Partner country is developing an action plan to integrate the exchange of experiences into regional policy. In the case of Latvia, the action plan will be developed and based on the policy document - Operational Program "Growth and Employment", priority axis - 5. Environmental protection and resource efficiency.

Given that the new environmental policy guidelines until 2027, are currently under development, criteria for setting priority measures, for assessing funding priority, for estimating costs is important to identify the best solutions and areas for promoting the implementation of water reuse policies, technologies and innovations in Latvia.

Possible directions of action of the Latvian region action plan were discussed:

1. Necessary research on:

- ✓ use of water resources in Latvia - industries, specificities, treatments, costs
- ✓ water reuse potential

2. Promotion of cooperation between institutions

3. Reuse of rainwater

4. Reuse of drainage runoff



[Source](#)

New Water Supply Network Extension within the North of Malta

The Water Services Corporation is currently extending its network of highly treated waste water – New Water.

The Water Services Corporation has embarked on a network extension campaign for the provision of New Water supply with the aim to reach more farmers with this alternate water resource.

Since the launch of the New Water initiative, hundreds of farmers registered for this new water resource that guarantees a low salinity index which is suitable for the efficient cultivation of crops, whilst also extending their shelf-life. Through the same initiative, groundwater qualitative and quantitative pressures have been reduced, even though the recent periods of below-average annual rainfall.

The investment for the new network extension is being co-funded by the European Union's Cohesion Fund, with a total investment cost of Eur 2 million. Through this extension, more farmers located towards the northern part of Malta and its sister island, Gozo, will have an easier access to this water resource through the designated automated water dispensing system developed by the WSC.

During a site visit organized on the 25th January 2021, the CEO of the Water Services Corporation, said that New Water is acting as the lifeline for the agricultural sector within this region of the country. Present during the site visit, the Minister for Energy, Enterprise and Sustainability, Hon. Miriam Dalli said that the Maltese Government is committed to make New Water more accessible with farmers so that it can be used for irrigation.



In fact, this investment will lead to a larger network of farmers using this water resource, enabling them to cultivate more fruits and vegetables throughout the year.

The investment will see the installation of an additional 6-kilometer pipeline network installed, together with 51 automated water dispensing units. As such, it is being estimated that in the coming future, 700 registered farmers will be using this water resource within the northern part of Malta and another 420 within Gozo.

Enhancing policy solutions for water reuse, wastewater ground water pollution

Community brainstorming – INTERREG EUROPE Policy Learning Platform

Baltic Coasts was invited to attend the online Community brainstorming “Enhancing policy solutions for water reuse, wastewater and ground water pollution” organized by the INTERREG EUROPE Policy Platform. Several AQUARES good practices were selected indeed and presented during the online event which was attended by 24 participants from 7 different Interreg Europe projects as well as from the EUROCITIES working group on water.



The event represented a great networking and experience sharing opportunities on the specific identified topic. After an introduction on the recommendations included in the forthcoming policy brief on Sustainable water management in the circular economy, 17 flash presentations were given by participants to present policy solutions on water management across three different thematic blocks. Presentations are available [here](#).

Baltic Coasts presented the Latvian good practices "[Rainwater reuse for service vehicle washing](#)" as a good policy solution on water reuse.

The majority of participants agreed that vehicle washing is cost-effective and easy to implement. The good practice was presented in more detailed in the previous project newsletter. Since then a video has been developed where the developer explains the main reasons behind this simple and very effective idea and the steps through which the project was implemented. The video was highly appreciated by Latvian and partner stakeholders and also by the Interreg Europe Joint secretariat.

The video is available [here](#).

OTHER NEWS

Opportunities for Local Cooperation and Involvement in Sustainable Surface Water Management | Virtual event

On 4 March 2021 4 regional webinars in 4 river basin districts, were organized by the LIFE GoodWater IP project, gathering more than 200 participants, representing local governments, associations, alliances, farms and local communities from all over Latvia. The webinar "Opportunities for Local Cooperation and Involvement in Sustainable Surface Water Management" was a great opportunity to attend comprehensive expert presentations, to get involved in active discussions, to make questions and receive explanatory answers.

The aim of this informative event was to present the project on one hand, but also to inform interested stakeholders about the opportunity to submit their ideas in order to receive targeted financial support to tackle the problem of water pollution in their municipality with low-cost initiatives and measures.

The project managers Linda Fībīga and Jānis Šire from the Latvian Environment, Geology and Meteorology Center LVGMC presented the project's main activities and goals to participants, with special emphasis on surface water quality in each river basin district.

An overview of the completed and current researches undergone in several project's demonstration sites was also given.

The second part of the webinar was dedicated to awareness raising, encouraging citizens to cooperate in the long-term sustainable management of water bodies, such as rivers and lakes, as public involvement and cooperation are very important to achieve the project objectives.



The active discussion that followed the presentations proved people care about what happens to the rivers and lakes near them and are willing to gain more information and to get involved taking direct actions to contribute to sustainable water management.

The project team hopes to receive interesting and innovative ideas for the grant competition and is very pleased with the interest and willingness of the participants to take the opportunity to work together and implement various initiatives to improve the status of surface water resources.

Source: <https://goodwater.lv/vebinaros-par-grantu-programmu-informejam-vairak-ka-200-dalibniekus-no-visas-latvijas/>

The Value of Water | Debate on the UNESCO report

Floods and droughts can affect anyone, so it is crucial to develop a sense of responsibility for preserving the Earth's water resources. Their value was the subject of a UNESCO report, which had its simultaneous premiere around the world. The national online event on March 22 was organized by the Polish Academy of Sciences.

"In December 1992, the United Nations General Assembly established March 22 as World Water Day. The celebration began in 1994. Every year the theme of the World Water Day was different and always connected with the preparation of a report made available to the world by UNESCO.

"For several years, as the Polish Academy of Sciences, we have been organizing this event", recalled Prof. Paweł Rowiński, hydrologist and vice-president of the Polish Academy of Sciences.

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The participants of the meeting discussed the price of water and its costs and whether these concepts are the same. Prof. Jerzy Duszynski, president of the Polish Academy of Sciences, noted: "We think of water as something that is natural, available in any quantity. It is not so. Poland has very small water resources. We use a huge part of these resources and, practically speaking, we have no reserves. That is why the Water Day is a day when we care about people who have no access to water, but also about ourselves, because soon we may not have access to clean water".

REPORT ASSUMPTIONS

"Today's topic is <The Value of Water> and what it is to us. Value is not the same as the price of water. We look at the value of water today from five perspectives: environmental, infrastructure, sanitation, economic and cultural." - enumerated Richard Connor, editor and one of the creators of the World Water Development Report.

The UN's State of the World's Water Resources 2021 report states that:

- ✓ More than 2 billion people live in countries with water scarcity
- ✓ Between 2009 and 2019, floods killed nearly 55,000 people, affected 103 million people, and caused \$76.8 billion in losses
- ✓ More than 3 billion people and two out of five health care facilities worldwide lack adequate access to hand hygiene facilities, which is critical to preventing the spread of COVID-19.

"Water is a limited resource. The problem is the uneven distribution of freshwater and its increasing consumption. Increased water abstraction leads to depletion of many aquifers.

The report estimates that at the moment 30 percent of the world's groundwater is depleted," explained Dr. Iwona Wagner, a lecturer at the University of Łódź, who presented the UNESCO report.

"The creators of the report noted fundamental challenges, such as reconciling different water values and integrating them into decision-making, developing a common inclusive approach and incorporating its conclusions into fair, equitable planning and decision-making processes."

The value of the clean Baltic Sea

Dr. Krzysztof Berbeka from Jagiellonian University discussed the issue of the value of the clean Baltic Sea - the concept of price and value in relation to water resources. In his opinion, assigning an economic value to water resources is justified because it helps to assess whether the implementation of a given project will increase social welfare.

"Valuing the Baltic Sea can postpone European Union regulations that are unfavorable to Poland, strengthen our country's negotiating position, and influence the benefit-cost calculus, which changes depending on the scale - global, European or national. It will also allow for better allocation of public funds and meaningful comparison of project costs," said Dr. Krzysztof Berbeka.

Losses and interests

Dr. Mateusz Grygoruk from the Warsaw University of Life Sciences (SGGW) warned that polluting the environment is against economic, social and natural interests. "Removal of greenery causes large losses. An effective method of preserving the value of rivers is renaturalization, i.e. restoring their natural shape and restoring wetlands - creating marshy buffer zones" - he argued and added: "If we do not start implementing modern methods of water management, it will be much more difficult in a few years. When making water management decisions, it is important to be aware of the processes taking place, the possible risks and climate change."

Water resources management

Dr. Krzysztof Niedziałkowski of the Institute of Philosophy and Sociology of the Polish Academy of Sciences and the Institute of Mammal Biology of the Polish Academy of Sciences presented a socio-political perspective on water resources management.

"Water co-management is the result of complex interactions at different scales and between different actors. In addition to technical aspects, attention should also be paid to social aspects. Good co-management should presuppose participation, transparency, accountability, coherence, responsiveness, equity and ethics," enumerated Dr. Krzysztof Niedziałkowski. "The emerging conflicts and discussions around water fill me with optimism - Polish society is beginning to recognize the value of water and the fact that decisions related to it affect local communities. As a result, we are more willing to express our opinions and join the debate on water management," he argued.

THE PARTNERSHIP



(ES) Regional Government of Murcia, Ministry of Water, Agriculture, livestock and Fisheries, General Direction of Water



(EL) Ministry of Environment and Energy, Special Secretariat for Water



(PL) Lodzkie Region



(CZ) The Regional Development Agency of the Pardubice Region



(MT) Energy and Water Agency



(IT) Lombardy Foundation for the Environment



(DE) Water Board of Oldenburg and East Frisia



(ES) Euro-mediterranean Water Institute Foundation (FIEA)



(LV) Association "Baltic Coasts"



(SI) The Municipality of Trebnje

UPCOMING ACTIVITIES

INTERREGIONAL WORKSHOP

The Lead Partner, MURCIA, will hold an Interregional workshop in the sixth semester. The Workshop will focus on water reuse policy with the participation of public authorities. The partner has not announced any date or form of the workshop yet, because of ongoing COVID-19 pandemic situation. We will inform you about following workshop through Interreg Europe website or on social networks.

SITE VISITS

In the sixth semester, several site visits should take place according to the project plan. Since the travel and healthy restrictions have not been released, all site visits have been or will be hosted online. We will inform you about the events in advance through Interreg Europe website or on social networks of the project AQUARES.

MOVING FORWARD TO THE 2ND PHASE

The project will move forward to its second phase in June 2021 and partners will take steps to implement the action plans to improve the policy instrument addressed.

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