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June 2019 Newsletter n. 5

Dear Friends,
we would like to welcome you to the 5TH Newsletter of the CASTWATER project!

SUMMARY

STEERING COMMITTEE – MALTA (6th - 7th November 2018)

The fifth CASTWATER Steering Committee was held at the Palace Hotel in Malta last November the 6th and 7th.

The meeting presented the state of the art of the project activities, and in particular, the discussion focused on all activities made with the online digital monitoring tool and the deliverables to achieve. An important part of the meeting was dedicated to the participation of CASTWATER in Capitalisation Working groups of the Sustainable Tourism project meetings.

SUSTAINABLE TOURISM WATER MANAGEMENT NEEDS ASSESSMENT IN THE PARTNERSHIP TOURISTIC AREAS

Water Board of Lemesos made examined sustainable tourism water management in the partnership area. Water Demand Management defines the implementation of policies and strategies for maximising the correct utilisation of the water resource while minimising at the same time the water used.
The principal Water Demand Management and Awareness Needs and Recommendations are:

New pricing scheme: The economic cost of the water for the majority of the touristic enterprises is not essential. Therefore, a different type of pricing/tariffs (ex. Rewarding plans) is required to strengthen the need for touristic enterprises to achieve water efficiency.
Financial support for new technologies adoption: The cost of installation and maintenance of water demand management devices (smart metering, leakage detection systems, intelligent monitoring and control systems) is high and not financially viable (due to the low cost of water). There is a need for co-funding by the water providers or the government.
Policies and regulations: Except region of Murcia there is not any other region that implemented specific policies and rules to help water efficiency in the touristic sector. It is critical for governments to develop such policies that will boost the water efficiency of the tourist industry.
Sustainability certificates: The majority of the enterprises express their high interest to invest in achieving a sustainability certificate. There is a need for specific sustainability certificates available for each type of touristic enterprise.
Awareness/training: Employee training programs and rewards are limited. There is a need for advanced training courses and workshops by the tourism sector to train the employees to save water.
Alternative water sources: The existence of in-house alternative water sources

is rare in tourism establishments. There is a need to support the enterprises to implement such alternative water sources. This could be achieved by co-financing or tax releases or any other financial incentive by the governments.

A SWOT AND IMPACT ANALYSIS ON THE ADOPTION OF WATER EFFICIENCY AND MANAGEMENT SOLUTIONS BY THE TOURISM SECTOR

The Departmental Council of Herault made a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) of the regional context in the Med coastal areas. The study assessed water efficiency context on one side and the impact of water efficiency measures on the MED coastal areas socioeconomic and environmental issues on the other side. These factors were
selected and organised according to the PESTEL methodology (Political, Economical, Socio-cultural, Technological, Environmental, Legal).

For each partner, several respondents from different professional positions were requested.

Strengths:

- Water efficiency oriented local policies
- Incitative water prices and special pricing (progressive, seasonal)
- Growing trends in the number of tourists
- Good knowledge about the resource and existing solutions
- Awareness (of policy makers, tourism staff, tourists)
- Traditional value of scarce water
- Water sharing culture
- Good condition of water infrastructures

- Good availability of technology to measure water and to reduce water consumption
- Availability of water recycling technologies

Weaknesses:

- Low water price (low incentives)
- Growing trends in tourism standards (more water intensive)

Cultural perception of water resources as unlimited

- Cultural reluctance to water reuse
- Little interest to promote sustainable tourism image of the territory
- Ageing and leaking water infrastructures (necessary renewal)
- Poorly developed technology to recover rainwater
- Slow development of technology for water reuse
- The available supply of alternative water resources as a demotivator for efficiency

Opportunities:

- Existing sustainable development policies at the national level
- Existing international sustainable tourism development policies

Adoption of internal policies of tourism operators, certification programs

- A useful framework for water governance, with the participation of water users and integrated planning
- Reasonable return on investment for water saving devices
- Scarce water resources in an increasingly vulnerable region to climate change

consequences (trends and extreme events)

- Vulnerable ecosystems highly dependent on water flows
- Mostwater stressed season is the most intensive for tourism

Threats:

- Competition with touristic destinations with more water supply

-Lack of coordination between urban design and water use planning

- Possible legal barriers to water reuse
- Weak enforcement of regulations

The recognised importance of local policies and good local knowledge of the water issue are among the main favourable elements of the context on which these strategies can be built. Water pricing is a complex issue which is crucial to have an incentive effect for water efficiency measures. Awareness is another way to raise the value of scarce water. Tourism activity is growing but looks towards the 3S (Sea, Sun, Sand) model of mass tourism, with raising standards developing for more water-intensive activities. Sustainable development policies, as well as increased international awareness of the need for sustainable tourism practices, present opportunities to transform this model of tourism. However, the threats to touristic competitiveness, in an increasingly vulnerable region to climate change is a factor that raises concern and needs to be tackled. The competitiveness aspect was also the most concerning one in the impact analysis of water efficiency measures, where most of the impacts were

considered as positive.

This section is dedicated to the news which comes from all the project partners. Here below you can see the title of the local newsletter contents. If you want to know more, do not hesitate to contact us!

READ ALL LOCAL NEWS

Municipality of Rethymno

- EFFICIENT MANAGEMENT OF WATER RESOURCES IN TOURISM COASTAL AREAS

Emilia Romagna Region

- WATER SAVING IN ITALY'S GREEN PUBLIC PROCUREMENT
- PRESERVE WETLAND TO PRESERVE WATER CYCLE

Veneto Region

- WATER IN 6 WORDS: RARE.

University of Patras

- PROJECT FUNDING FOR THE MODERNIZATION OF THE OPERATION OF WATER SUPPLY NETWORKS IN WESTERN GREECE

Euromediterranean Water Institute Foundation

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- THE IEA FOUNDATION PARTICIPATES IN THE INTERNATIONAL INTERREGIONAL WORKSHOP ON WATER REUSE TECHNOLOGIES HELD IN MILAN
- THE NATIONAL WATER CONGRESS 2019
- THE MONTENEGRO'S PUBLIC AUTHORITIES VISIT MURCIA
- MURCIA CELEBRATES THE "WORLD WATER DAY" THROUGH AN INFORMATIVE DAY WITH OPEN ACCESS TO ALL PUBLIC

- THE FOUNDATION IEA DEFENDS THE TAJO-SEGURA TRANSFER IN THE WATER FORUM TOGETHER WITH THE IRRIGATORS FROM THE EASTERN-COAST
- FERAGUA REINFORCES ITS “KNOW HOW” ABOUT RECLAIMED WATER IN MURCIA
- GOOD NEWS FOR MURCIA’S WATER SECTOR
-

Institute of Agriculture and Tourism

- CONFERENCE AND WORKSHOP ON WATER LOSSES 2019 (Buzin)
- THE 7TH CROATIAN WATER CONFERENCE

Departmental Council of Herault

A GUIDE ADRESSES GREENSPACE AS MEANS FOR THE WELLBEING ON CAMPSITES.

Main topics of this leaflet consist of advices for both managers and owners to improve the internal structure of campsite in a global approach especially for the clients’ comfort. Thus, a better use of plants, trees, vegetal pathways bring

nature inside the campsite. Advices are tailored toward Mediterranean species in a sustainable way to reduce watering during summer time.
The leaflet is expected to be issued in the next weeks.

Energy and Water Agency

- MALTA WAS AWARDED THE EUROPEAN SUSTAINABILITY AWARD 2019
- "INVESTING IN CHADWICK LAKES FOR TOURISM PURPOSES" PROJECT IN MALTA

Valencia Tourism Foundation

- VALENCIA SEES THE CREATION OF AN ACCELERATOR OF START-UPS SPECIALISING IN HIGH TECHNOLOGY AND THE DIGITALISATION OF SUSTAINABLE WATER MANAGEMENT
- HOLDING OF THE NEXT WATER SUSTAINABILITY FAIR.
- ADVANCEMENTS IN THE SECTORISATION SYSTEM OF THE DRINKING WATER DISTRIBUTION NETWORK IN THE CITY, WHICH PERMITS IMPROVEMENTS IN RESPONSE TIMES FOR THE DETECTION AND REPAIR OF LEAKS.

Veneto Innovazione

- THE CIVILIZATION OF WATER IN VENETO. A SUSTAINABLE JOURNEY FROM PADUA TO THE VAST DELTA OF THE PO RIVER WITH THE MUSEUM WATER MUSEUM OF VENICE - TWO MEETINGS TO FIND OUT MORE
- VENETO BLUE FLAGS

MUNICIPALITY OF RETHYMNO

Municipality of Rethymno (Lead Partner)

Regione Emilia-Romagna

Emilia Romagna Region

Veneto Region

Water Board of Lemesos

University of Patras

Euromediterranean Water Institute Foundation

Institute of Agriculture and Tourism

Departmental Council of Herault

Malta Regional Development and Dialogue Foundation

Energy and Water Agency

Valencia Tourism Foundation

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News from Rethymnon

«EFFICIENT MANAGEMENT OF WATER RESOURCES IN TOURISM COASTAL AREAS»

"Water is the driving force of all nature"

Leonardo da Vinci

Within the framework of the European project CASTWATER, Rethymnon Municipality, lead partner of the project, organized an event at the Economic Chamber of Rethymnon on the celebration of the World Water Day. The event took place on the 29th of March 2019 and its main theme was the "Efficient management of water resources in tourism coastal areas". It is noted that the speakers of the event came not only from the wider region of Crete but also from all over Greece. Participants were representatives of water resource management bodies from all over Greece and representatives of the tourism industry.

The thematic section of the event was divided into two main sections covering the issue of effective water resource management. In particular, the first part of the event was dedicated on water management policies, while the second part involved the presentation of European initiatives and the tools developed for the protection and sustainable management of water resources.

Specifically, in the first part of the event representatives of water management bodies from all over Greece presented the infrastructure projects that have been implemented both in Crete and the rest of Greece as well as the planning process for the definition of the country's water management policy and the problems that arise from time to time with special reference to the issues that arose from the heavy rainfall that hit our country in 2019 was core theme. In addition, the direct relationship of tourism with the environment was highlighted, as the environment is the main ingredient of the tourism product.

On the second part of the event, the problems of water resource management that confront the companies that operate in the tourism industry, have been highlighted by the representative of Tourism Association of Rethymno. Afterwards, the representative of the official TUV AUSTRIA Certification Service Provider referred extensively on the direct economic benefit to the companies that the sound environmental management and reduced water consumption bring in.

He pointed out that many tourists, especially from abroad, are environmentally sensitized, and they seek for quality tourism experiences where the protection of natural environment is taken into consideration through all tourist facilities thus resulting in the need for more "green accommodation" facilities.

On behalf of the Region of Crete, particular reference has been made to its European Initiatives on Sustainable Development and Water Management, and in particular to the TOUREST program, which brings together seven project partners from four countries in order to support the development and proliferation of sustainable tourism policies and practices to increase water efficiency in ADRION coastal areas.

Finally, the CASTWATER online tool was presented by the specialized representative of the Municipality of Rethymnon. The benefits to the companies that use the tool have been highlighted, mainly based on recommendations provided to the company after assessing the water management practices applied. Finally, the need for prudent water use was emphasized through an integrated approach that considers not only human requirements but also the requirements of ecosystems and the environment.

The event was finalized with an open discussion and a fruitful dialogue that suggested further examination of the CASTWATER tool as well as further improvement on tis features. The interest of the participants in the CASTWATER tool was also revealed in the days that followed, as the visits on the CASTWATER website and the registered users in the platform of the online tool significantly increased.

News from Emilia Romagna

WATER SAVING IN ITALY'S GREEN PUBLIC PROCUREMENT

To face the environmental sustainability of buildings, European Union with the Directive 2014/24/UE, approved in Italy with the so called Tender Cod (D. lgs. 50/2016 and D. lgs. 56/2017), introduced the energetic and environmental criteria in their contract, promoting the green public procurement and establishing the Minimum Environmental Criteria (MEC). According to the Italy's Green Building Council, applying the building MEC, and specifically, by realising a green building can be saved 40% of water.

To be underlined are those aspect strictly connected to the tourist operators such as the collection, purification and reuse of rainwater and water saving. The firsts are connected to:

Realization of a separate network for the collection of rainwater

Water from drainage surfaces that are not subject to pollution (pavements, pedestrian areas and roads, etc.) shall be discharged into the environment.

The water is directly conveyed into the stormwater network and into rainwater tanks (e.g. cycle paths, gardens, etc.) collection for use as irrigation or to feed toilet storage boxes

The water coming from draining surfaces subject to pollution (driveways, parking lots) must be previously conveyed into purification and oil removal systems, including natural ones, before be fed into the stormwater grid.

The seconds, instead, are:

- Rainwater harvesting for irrigation and sanitary drains;
- Use of flow reduction, flow control, water temperature control systems;
- Use of sanitary appliances with double

discharge boxes (maximum 6l and reduced maximum 3l).

Non-residential buildings shall be provided with a water consumption monitoring system.

PRESERVE WETLAND TO PRESERVE WATER CYCLE

Why is it important to preserve ecosystems when talking about tourism? One of the most important ecosystems on earth are represented by wetlands, which play a fundamental role in the water cycle by receiving, storing and releasing water, regulating flows and supporting life and playing a very significant role in hydrology. Moreover, wetlands provide us with water, protect us from floods, droughts and other disasters, provide food and livelihoods for millions of people and support rich biodiversity. Those are key aspects if we consider where most of the coastal destination are set.

To have more information on the importance wetlands and their ecosystem services https://www.global-wetland-outlook.ramsar.org/ .

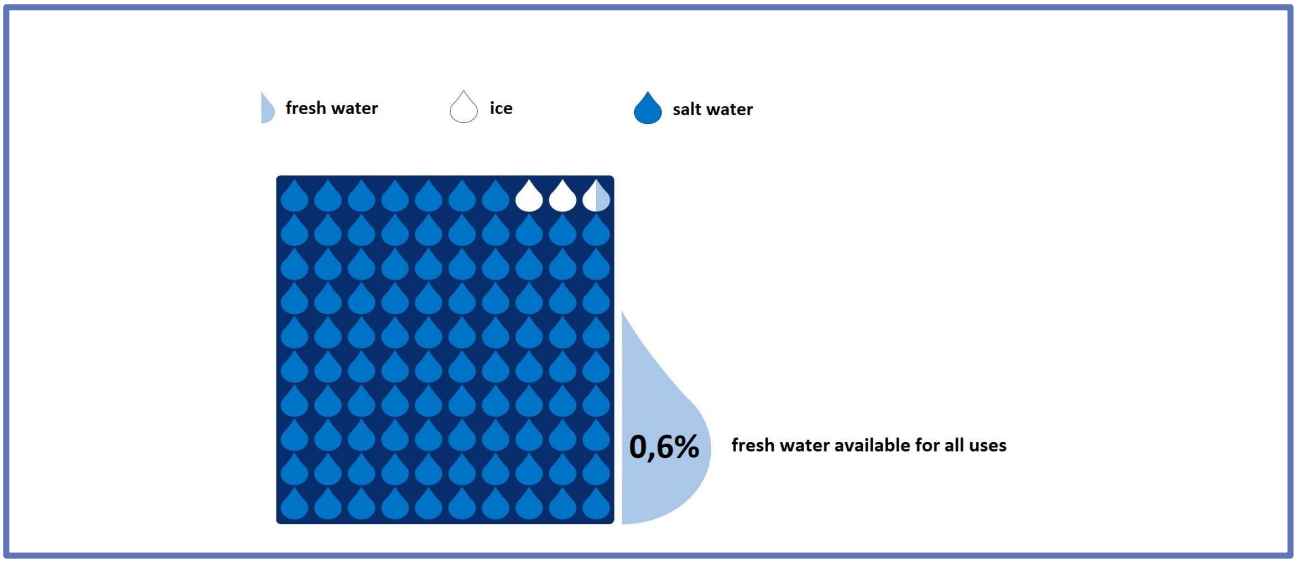
BEST PRACTICE FOR WATER SAVING

To achieve a high level of water efficiency it is not enough that there is a greater awareness of the end users who put into practice some actions aimed at a sustainable use of this resource (flow reducer, rainwater collection,...). In fact, these efficiency actions become really effective only if there is at the same time a reduction of waste in the water network. The biggest problems related to water losses in infrastructure, where in Italy it is estimated around the 40%. This level is reached because the 60% of the water infrastructures have been laid for more than 30 years and of these, 25% are over 50 years old.

From this point of view, Oliena (NU), Sardinia, is an Italian best practice. An audit of the distribution network was carried out for measuring flow rates and pressures, followed by the diagnosis of the problems detected and a series of technical improvements (design, pressure,...) that have allowed to reduce water losses by 50%. The targets have been achieved in 4 months of work, with no replacement of all the water pipeline system that have been integrated with technological instruments and a system of gate valves connected to a remote control that allows to identify faults and leaks from a terminal screen. In a quite short time, 17 litres of water were saved every second which correspond to about half a million cubic metres/year.

News from Veneto Region

WATER IN 6 WORDS



4.RARE

In this 5th issue, we continue with the 4th chapter of the publication made by International Center of Water Civilization Onlus: "*Water in 6 words*".
The overall publication covers the water issue giving an overview and in-depth analysis as well, of different themes, with the aim to improve the water awareness and culture.
We will publish one chapter per newsletter throughout all the next editions.

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©"Laguna di Venezia" Basin Council
Edit by Eriberto Eulisse and Michele Cappellesso
Year 2017

"The water crisis is the most pervasive, most severe, and most invisible dimension of the ecological devastation of the earth".
Vandana Shiva, 2004

QUANTITY AND DISTRIBUTION IN THE WORLD

Most of the water on our planet is contained in the oceans. As it is salted, it is not drinkable, therefore not potable and not suitable to be used for irrigation, except at very great expense. For all its activities, a minimal part of the water remains available to man, the fresh one, confined in underground deposits (aquifers) or accumulated in the form of surface water (rivers and lakes). These natural reservoirs are fed by water suspended in the air in the form of water vapor: clouds. Finally, a large reserve is present in the polar caps and glaciers of mountains in the solid state, but it is not available.

The fresh water available on our planet is less than a hundredth of the total water and this can become a serious problem if water management is not carried out with caution and thrift.
Another important fact is the unequal distribution of fresh water in the planet. 65% of the water resources of the planet is concentrated in fact within only 10 nations! An inhabitant of the United States, for example, has an average of 425 litres of water per day compared with 10 litres per day for an inhabitant of Madagascar. In Europe there are 237 litres of water per day available to an Italian on average, compared to 150 litres for a French.

The minimum per capita biological requirement for human survival is 5 litres of water per day for basic uses. However, the World Health Organization has stated that below the threshold of 50 litres of water per day there is suffering from lack of water. Today almost 1 billion people in the world do not have access to drinking water and

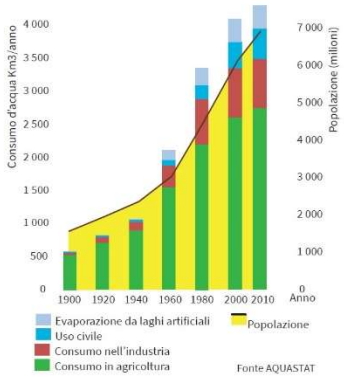
another 2.5 billion (including 1 billion children) do not have access to sanitation, without which the potability of water cannot be preserved.

In the countries of the South of the World, 80% of all diseases are due precisely to water scarcity. Intestinal diseases, cholera and malaria, caused precisely by the lack of drinking water, cause an average of one dead child per minute (IMF, 2015).

Every year the lack of drinking water
Causes more victims than all wars!

The water resource is more and more exploited

Today, the water reserve is strongly impoverished at a global level, due to the over-exploitation of the aquifers and the consequent impossibility for them to regenerate. The water stress that afflicts the planet is mainly due to **population growth**, a factor that inevitably implies an exponential increase in the demand for water for all uses, from agriculture/industry to civil uses.



If the basic water requirement per person is limited to about 5 litres per day, thousands are needed to produce the food we eat! [cfr. *The water imprint*].
To these must be added water that is used to produce the goods needed to meet the most common needs for living: clothes, objects, cars, mobile phones ... In fact, any type of industrial production always needs water.

Every year there are 83 million more people on earth.[1] The increase in population means an increase in the production of goods and services that require more water and, as a result, more pollution. Freshwater consumption increased seven-fold between 1900 and 2010 (when the world population quadrupled).[2] At this rate, in ten years, 2/3 of the world's population will be forced to live in conditions of water emergency.

In addition to population growth, **climate change** has also increased: in the last twenty years, intense phenomena have increased, with longer periods of drought, more frequent and violent rainfall. *Global warming , desertification and salinization of groundwater* are consequential phenomena.

In some cases, the reduction of the water flow in the rivers, due to excessive draining in favor of agriculture and production activities, can prevent many watercourses from reaching the estuary, with the disappearance of entire wetlands! The increased nutrient load released in rivers by agriculture (especially nitrogen and phosphorus) causes eutrophication and asphyxiation in the fish that lives there.[3] Rivers should always be guaranteed a minimum quantity of water, called "minimum vital flow", beyond which the life of the river is irreversibly compromised. Watercourses, in fact, are themselves living organisms capable of forming natural processes of *self-purification*.[4] In any case, the first factor responsible for water scarcity in the world is the deterioration of water quality, due to cumulative industrial, agricultural and civil pollution.

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1 Today Earth is home to about 7,3 billion inhabitants; they were 1,6 billion a hundred years ago; according to estimates, we will be 8,5 billion within 2030 and 9,7 billion in 2050.

2 The difference between the increase of water consumption and the growth of population can be explained by the global GDP (Gross Domestic Product) increase which grew over the same period by 27 times (FMI, 2015).

3 Eutrophication is referred to the abnormal growth of aquatic plants, caused by a surplus of nutrients in agriculture, which reduces the oxygen dissolved in the water and causes asphyxia.

4 Aquatic environments (rivers, ponds, swamps etc.) have a natural **self-purifying power** manifested in the ability to biologically decompose (biodegrade) organic substances deriving from animals, plants and some

Industrial, agricultural and civil pollution

The causes of water pollution are mainly related to the input of urban, industrial and agricultural effluents affecting both surface water and groundwater.

On average, **industry** uses 20% of the Earth's water resources. Water consumption in "advanced" countries is as high as 59%, compared to 8% in low-income countries. In addition, industry produces waste with a very high pollution load: heavy metals, solvents, toxic sludge, etc. In low-income countries, 80% of industrial waste is discharged in nature without prior treatment, fatally polluting valuable water resources.

Agriculture absorbs most of the planet's water resources: on average 70% of fresh water, even more in developing countries. Intensive agriculture can have a major impact on the environment through the use of pesticides, biocides, herbicides and fertilizers. There is therefore a risk that the percolation of these substances, year after year, if the process is not managed in compliance with the rules, could compromise the aquifers. In fact, correct irrigation methods could save huge amounts of water and a more reasonable use of pesticides would much better preserve the quality of aquifers.

Civil use absorbs 10% (15% in Italy) of water reserves. Sewage discharges from households contain organic substances and soaps that are polluting when discharged into the environment, sometimes reaching ground water. Thanks to *sewage treatment plants*, where they exist, this source of pollution can be significantly reduced.[5]

WATER IN OUR TERRITORY

The water in our homes comes mostly from the subsoil through a long and complex path during which it purifies itself, reaching an excellent quality. However, its path is increasingly fraught with obstacles and its quality is irreparably degrading.

Water reserves: the aquiferes

The sediments present in the subsoil derive mainly from the erosion of the rocks of the mountains and their transport downstream by the rivers. During the Ice Ages, most debris deposits and landscape modelling were carried out by glaciers and watercourses. The subsoil of the plain is not a homogeneous and uniform system as we are accustomed to believe; it is formed instead by several layers, more or less permeable, whose distribution determines important hydrogeological and landscape characteristics.

The Venetian plain can be schematically divided into three bands: the Upper Plain, the Middle Plain and the Lower Plain. The upper plain corresponds to the plain strip 10-20 km wide, which extends at the foot of the Alps. The heaviest and roughest materials (pebbles, gravel and sands), which are highly permeable, were deposited in it. In the middle strip of the middle plain, a few kilometres wide, permeable gravel and sandy layers follow one another in depth with other layers of thin, loamy and clay (not very permeable) materials. Here there is the so-called *springs belt*, from which the main Venetian spring rivers (Sile, Dese, Marzenego, Zero, etc.) are born, which flow into the Venice lagoon as a result of the water that spontaneously emerges from the ground. Finally, in the Lower Plain area, the furthest from the hills, thin materials (silt and clay) prevail, characterized by low permeability, alternating with layers of permeable material, thus generating very rich aquifers.

The territory of the "Lagoon of Venice" Basin Council is largely in the area of the Lower Plain. However, there is a portion of the territory (Scorzè, Noale, Quinto di Treviso,

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synthetic substances. This ability is due to the action of the micro-organisms present in the water, able to dismantel organic substances in the presence of oxygen. **Phytodepuration** uses the same concept for the treatment of civil waste water and uses plants (above all the marshy cane, which fosters the growth of these micro-organisms) as biologic filters.

5 **Purification**. The water used in our homes and then discharged through sinks, toilets, washing-machines and dishwashers reaches – through the sewarage – the waste water treatment plants where it goes under:

- mechanic pre-treatment, in order to separate and remove organic sedimentable substances (grilling, sandblasting, degreasing, primary sedimentation);
- Biological treatments to remove the organic substances through natural phenomena (the action of micro-organism acting in artificially created environments is exploited);
- Chemical or physical-chemical treatments, tp remove the pollutants thanks to chemical reactions (oxidation, neutralization), possibily associated with physical phenomena (adsorption, flocculation, stripping).

The pollutant component extracted from the wastewater through the sedimentation phases generates the sludge. Water is removed from the mud to reduce its volume; it is then stabilized and pathogenic organisms destroyed. Purified wastewater is finally reintroduced (watercourses or seawater), but can also be used for irrigation or in industry (reuse).

Zero Branco, Preganziol, Morgano) that belongs to the middle plain: a very important area for the abundance, quality and accessibility of the groundwater that is taken and used for various activities.

The pollution problem in the Venetian plain

The process of groundwater pollution is due to the introduction of more or less soluble foreign products into the groundwater, which alter the chemical composition of the water and make it unsuitable for certain uses, if not highly harmful to human health (ISPRA, 2016).

Concentration limits for substances that may be present in water are set, in principle, by the World Health Organization (WHO). Groundwater, like surface water, can also be polluted, although it is difficult to reach in the Lower Plain, as it is protected by several layers of impermeable material (clay) on top of each other.

There are three types of water pollution:
- *Microbiological pollution*: this is due to the presence of bacteria, viruses and protozoa, some of which cause illnesses that can be serious for humans. Such pollution is generally absent in groundwater, as it undergoes natural filtration during its movement underground, which eliminates any micro-organisms harmful to human health;
- *Chemical pollution*: it is determined by chemicals. According to the EPA,[6], thousands of chemicals have the potential to pollute water, but safety levels have not yet been established for all these substances. The main pollutants most frequently found in groundwater are: nitrates, nitrites, sulphates, chlorides, micropollutants (heavy metals, herbicides, solvents, benzene, vinyl chloride) and hydrocarbons;
- *thermal pollution*: this is caused by a rise in temperature, which reduces dissolved oxygen. Modern mini-hydroelectric plants, for example, cause this form of pollution; despite the proclaimed "green" energy they produce, they always have an impact on water.

In general, pollution is not very frequent in the middle and lower plains. But it can happen when chemical pollutants are released in the High Plain area, which is very permeable. In fact, the water that penetrates this area feeds the undifferentiated underground water basin which, in turn, feeds the aquifers of the Lower Plain.

We must not forget that, once created, groundwater pollution persists for a very long time, sometimes for very long periods.

There is no way to purify the aquifers except to take water and purify it. A process that is mostly titanic, often beyond the concrete possibilities of realization and too expensive. In many cases, for purification, we can only rely on nature, with its times that can be measured in hundreds or even thousands of years. Today polluted water will only become drinkable again in the very, very farther future. That is why we have to be very careful and do more prevention about how we use it. Maintaining quality water requires everyone's cooperation.

Waste and overexploitation of the resource: abusive wells

In the middle and lower plain areas of the provinces of Vicenza, Padua, Treviso and Venice there are many wells with spontaneous supply. The habit of letting the water continuously flow from the continuous jet fountains is deplorable and makes little sense. In this way, in fact, the water is dispersed and does not return to the aquifer from which it was taken. This is because the impermeable soils present in the first few metres of subsoil allow water to flow towards the surface network and, therefore, towards the sea or even into polluted soils. In short, these are unsustainable habits and behaviours: the use of a simple tap would save enormous quantities of water.[7]

In the area of higher collection of the ATO Lagoon of Venice,, from the approximately 5,000 private wells surveyed, a sufficient quantity of water is taken from the aquifer to feed an aqueduct capable of serving 1.5 million people!

Is water exhaustible?

Fresh surface or groundwater is a limited and *vulnerable* resource. Today, its availability continues to decrease due to unnecessary waste and increasing cumulative pollution. Water is therefore a depletable commodity. If it is true that its global quantity does not change, as the hydrologists explain, it is also true that the availability of good waters can change radically, even in a few years, due to senseless pollution.

In history, scarcity and uneven distribution have caused many wars for the control of water sources. The years to come will not be different. Some experts speculate, indeed, that an ever-increasing number of future conflicts will take place to grab the Blue Gold (no longer the black gold, which you can do without). Controlling Blue Gold will give enormous power precisely because the demand for water is constantly increasing globally, while the

6 U.S. *Environmental Protection Agency*

7 Current law forces the owner to previosuly communicate to the competent Authority the realization of a well and, consequently, the annual volume of water extracted. Moreover it obliges, for the collection carried out from the protected aquifers, to install adjusting devices able to prevent the continuous jet water release (Art. 40 of *Technical Rules for the Implementation of the Water Protection Plan,* DCR n. 107, of 5.11.2009).

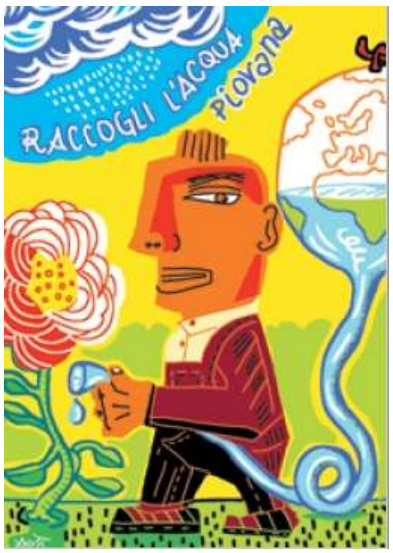
actual availability of good water is drastically diminishing.

“if the wars of this century were fought over oil, the wars of the next century will be fought over water -- unless we change our approach to managing this precious and vital resource.”

Ismail Serageldin, 1995

The water footprint: how much water do we use?

Some scientists have developed a method to calculate the amount of water that flows invisibly into our tables when we eat, or when we wear a pair of jeans or a t-shirt. It is called "Water Imprint" and considers, in addition to the water directly consumed to obtain a product, also that necessary to make this product available for consumption: from the procurement of raw materials to their processing, packaging, transport. In other words, the Water Imprint is the total volume of fresh water used to produce each good or service, measured in terms of volumes of water consumed (evaporated or incorporated into a product) and/or polluted (Hoekstra, Chapagain, 2011).



The *Water Imprint* is a discipline that allows today to determine the main indicators of environmental sustainability. Every single person, according to the *Water Imprint*, drinks on average 2 liters of water per day but consumes at least 5 if you calculate the one used for cooking and washing. If we then count the liters used for the production of the food he eats, human beings can use from 2,000 to even 5,000 liters per day of "virtual" water, depending on their diet. Similarly, you can calculate how much water a country exports or how much it imports, simply by considering what it produces. Italy, for example, is one of the countries that produces the greatest impact in terms of Water Imprint.

Good daily practices to save water

IN THE KITCHEN

• Wash dishes in a bowl (soaking the dishes facilitates cleaning). Use the cooking water of the pasta, which has a high degreasing and cleaning power.

• Only use the dishwasher when it is fully loaded. Many of these appliances use the same amount of water at half las at full load.
This will also save electricity.

• Repair water leaks, even the small ones. A leaking toilet or tap can lead to waste more than 100 litres of water per day!

• Use the flow reducer valve in every tab. The outgoing water will mix with the air and consumption will be reduced by up to 40%.

IN THE BATHROOM

• Replace the old toilet flushing cisterns with the differentiated flushing cisterns. 30% of household water consumption goes away with toilet flushing!

• When you take a bath you can use up to 150 litres of water, the equivalent of three showers.

• Close the tab when you shave, brush your teeth and do all those things that foresee downtimes before the rinsing. You can save up to 20 litres of water every time.

• Use the washing machine only when it is fully loaded, you will save up to 20.000 litres of water per year.

IN THE GARDEN

• Do not let water flush unnecessarily from wells or fountains!

• Water the plants during the evening hours, when the earth is less hot, It evaporates more slowly.

• Recycle the water used to wash fruits and vegetables for plants and flowers.

• Collect rainwater and use it for your garden.

• Install a drip irrigation system.

IN THE END...

• Use a bucket and not running water to wash your car. Thus you could save 80 litres of water per washing. Even better is the carwash that recycles dirty water.

• Water saving can be assured also through a good maintenance of seals, taps and pipes. A regular check of the counter will help you to notice possible leaks.

Some simple precautions to LIMIT THE POLLUTION of the water to be purified:

• Make sure that the cleaning products you buy are compatible with the environment (short biodegradable times, without phosphates). This will help to respect nature and to contribute to decrease purification costs

• Do not throw medicines, plastic or solvents into the sink or in the toilet.

• Do not disperse oils in the environment (1 liter oil makes 1 MILLION LITRES of water undrinkable!).

• Do not throw urban rubbish into the toilet, even small one

such as: hair, cotton, cotton buds,
medicines or chewing gum!

News from the University of Patras

Project Funding for the modernization of the operation of water supply networks in Western Greece

According to the decision of the Regional Director of Western Greece, Apostolos Katsifaras, 5 projects in Western Greece such as Patras, Erymanthos, Municipality of Andritsaina-Kresteno, Municipality of Andravida-Killini and Municipality of Aktio-Vonitsa, were included in the Operational Program «Western Greece 2014-2020» as major projects to modernize the operation of water supply networks. All 5 projects were positively evaluated and approved following an invitation by the Special Operations Program for the Operational Program of the Region of Western Greece, with a total budget of more than 7 million euros and related to the replacement of existing old water infrastructure, the development of leakage control systems in transfer and distribution networks related to water supply and management equipment of water supply. Mr. Katsifaras underlined that “For the Region of Western Greece, the improvement and modernization of the water infrastructure is of major importance, as

the primary objective of these interventions is to protect public health, to improve the quality of drinking water, to reduce leakage and ultimately to have significant savings in water resources". Finally, it should be stated that all projects are co-financed by the European Regional Development Fund (ERDF).

More information here (in Greek):
https://www.pde.gov.gr/gr/enimerosi/deltia-tupou/item/11553-me-perissotera-apo-7-ekatommuria-eyro-xrimatodotountai-erga-udreysis-se-patra-erumantho-andritsaina-krestena-andrabida-kyllini-kai-aktio-bonitsa.html

News from IEA FOUNDATION

THE IEA FOUNDATION PARTICIPATES IN THE INTERNATIONAL INTERREGIONAL WORKSHOP ON WATER REUSE TECHNOLOGIES HELD IN MILAN

The IEA Foundation has participated in the International Interregional workshop on water reuse technologies, hosted by Lombardy Foundation for the Environment, in Milan, on 27-28, 2019. Additionally, the second project meeting of the AQUARES project was also celebrated in the following days (28-29) and attended by the lead partner General Directorate of Water from the Region of Murcia together with the rest of partnership from Germany, the Czech Republic, Slovenia, Greece, Italy, Latvia, Malta and Poland.

Several representatives assisted in the meeting from the Water Council of Oldenburg and East Frisia (Germany), the Regional Development Agency of the Pardubice Region (Czech Republic), the Ministry of Environment and Energy of Greece, the Water and Energy Agency of Malta, the Foundation for the Environment of Lombardy (Italy), the Baltic Coast Association of Latvia, the Region of Lodzkie (Poland), the Municipality of Trebnje (Slovenia), as well as the Ministry of Water, Agriculture, Livestock and Fisheries and the Euro-Mediterranean Water Institute Foundation.

The workshop on 'Water reuse technologies' aimed at identifying viable strategies to control the use of reused water and limit inefficient uses. Among the topics of discussion were "*The technical challenges and scientific uncertainties*; *The specific barriers to water reuse in irrigation*; *Identification and optimization of appropriate technologies*" regarding water reuse.

The workshop also explored how to make the most of European funding instruments and proposing a dialogue to confront interests in the field of water reuse governance. At this

event, several representatives participated from the irrigation community of Cartagena, as well as academics experts in the water reuse technologies of the University of Alicante, who were invited by the IEA Foundation as stakeholders. Their cooperation showed that the region of Murcia stands out in the water reuse technologies and its interest to continue advancing in this field.

THE NATIONAL WATER CONGRESS 2019

Last 21th and 22th of February, the city of Orihuela hosted one of the most relevant events for water experts, the National Water Congress held at the Auditorium “La Lonja” and inaugurated by the mayor of Orihuela Sr. Emilio Bascuñana and the Councilor for the Environment, Miguel Ángel Fernández.

This scientific event, organized by the Department of Environment of the City of Orihuela and the University Institute of Water and Environmental Sciences of the University of Alicante UIWES, has sought to host experts in the water issue and delve into innovation issues and sustainability.

"Water is vital for everyone, but especially for Orihuela, because of its idiosyncrasies, its circumstances, its scarcity, because it is the engine of our agriculture and tourism. We have learned to manage it for centuries, and we took this initiative based on the Provincial Water Pact" said the mayor.

The IEA Foundation was one of the organizations attending this event, which in turn has been able to present the CASWATER project, in a face to face interaction.

THE MONTENEGRO’S PUBLIC AUTHORITIES VISIT MURCIA

A group of public authorities from Montenegro has visited Murcia last April 8-10. The study visit was organized and funded by the “Technical Assistance and Information Exchange Instrument of the European Commission” TAIEX.

The Regional Ministry of Water, Agriculture, Cattle Raising and Fisheries as a responsible for hydraulic works, sanitation and purification, water resources, modernization and improvement of irrigation and hydraulic infrastructures and rural roads has hosted this delegation of experts with the aim to provide practical advice on the implementation of the EU Directives concerning urban wastewater treatment. Practical guidance on water management in Spain was provided by representatives of the Ministry of Ecological Transition and the Spanish Association of Water Supply and Sanitation too.

The study visit included a site visit to the “Canal de Isabel II”, the public entity responsible for the management of the integral water cycle in the Region of Madrid. Another site visit was organised to the “Arroyo Culebro Wastewater Treatment Plant” (WWTP). Where the participants could receive information about its function on water reuse, uses of reclaimed water, treatment facilities and distribution networks.

The participants also have visited the Regional Ministry of Water, Agriculture, Cattle Raising and Fisheries in Murcia and the Regional Entity of Wastewater Treatment and Sanitation (ESAMUR), and learned about hydraulic works, sanitation and purification, water resources, modernization and

improvement of irrigation and hydraulic infrastructures and rural roads.

MURCIA CELEBRATES THE "WORLD WATER DAY" THROUGH AN INFORMATIVE DAY WITH OPEN ACCESS TO ALL PUBLIC

On the occasion of the "World Water Day" celebration (March 22), people from Murcia could celebrate the World Water Day on 23 March and learn more about the groundwater availability in our region in the informative day called "From the sky to the subsoil: the aquifer of the Vega Baja to Segura River" or "Hidrogeodía".

"Hidrogeodía" was a day of dissemination of Hydrogeology and the Hydrogeologist profession, promoted by the Spanish Group of the International Association of Hydrogeologists (AIH-GE), in cooperation with the IEA Foundation among other institutions.

The day consisted of free activities open to all types of public, regardless of their knowledge of the subject, and guided by hydrogeologists. The activity has been developed through a hydrogeological excursion in which people of all ages have been able to participate, visiting an area that shows the role of groundwater and the need to apply hydrogeological techniques to diagnose and correct problems or to value some fact.

The objectives of the "Hydrogeodía" were first to raise awareness of groundwater and its importance for the development and welfare of society, and also for the proper functioning of ecosystems. Secondly, to highlight the role played by groundwater in a global change context, both from a climatic and socio-economic point of view.

THE FOUNDATION IEA DEFENDS THE TAJO-SEGURA TRANSFER IN THE WATER FORUM TOGETHER WITH THE IRRIGATORS FROM THE EASTERN-COAST

The irrigators from the Eastern-Coast defended the Tajo-Segura transfer forty years after its construction and claimed that "the policy means the true water pollution of the XXI Century" in the Water Forum held in Madrid, on the 19th of February. The Forum was

organized by the daily newspaper ABC and "La Verdad," with the collaboration of "Cajamar", "Hyundai" and the Irrigators Union SCRATS, where numerous experts in politics and water management have attended and participated with their speech.

The event was distributed into three round tables debates, where the main topics to comment were "**Water policy in Spain: necessary infrastructure**", "**The efficient use of water in irrigation and its contribution to development**" and "**Water as an element of interterritorial balance**". On this last point of discussion, it is necessary to point out the presentation of Sr. Francisco Cabezas, director of the Euro-Mediterranean Water Institute Foundation together with the collaboration of Antonio

Martínez Nieto-in the role of General Secretary.

According to Francisco Cabezas, it is essential to review the National Hydrological Plan (NHP) and reach agreements "based on basic technical studies". Along the same lines, the president of “Fenacore” explained that "Politics must change the mentality and realize that the less the basins are regulated the greater the impact of climate change will be".

All participants in the round table agreed on the need to "tell politicians that there is another way of doing things". "We must encourage the mix of resources and not the use of water as a weapon of war". The different representatives of the irrigation communities also agreed that the time has come to "reflect on the real problems of this transfer and see what is possible to improve".

FERAGUA REINFORCES ITS “KNOW HOW” ABOUT RECLAIMED WATER IN MURCIA

A delegation of “Feragua” (the Irrigation Community Association of Andalucia) composed by its general secretary Pedro Parias and its technician Francisco Carrasco, visited the Region of Murcia at the beginning of March, since Murcia is a community leader in the waste water reuse, both in training and technology and especially in public policies of support to the use of this alternative hydric resource in irrigation.

At the meeting assisted Pedro Simon, who is a specialist in regenerated water and technical director of the Regional Entity of Sanitation and Wastewater Treatment (ESAMUR), a regional public company attached to the Ministry of Water of Murcia. Due to his collaboration, the delegation has deepened in the last applied treatments and technologies and became aware that the Government of Murcia contributes to irrigators with the treatment of water regeneration without costs, through ESAMUR. A totally different from Andalusia’s situation, where the cost is borne by the irrigator beneficiary of water. The difference lies between what is really betting and saying that you bet.

The representatives of “Feragua” also visited two representative irrigators communities of our region, such as the “Tajo-Segura” Transfer in Librilla, and the "Miraflores” from Jumilla, that have among their water resources those of the regeneration provided by EDAR plants managed by ESAMUR, as well as from other sources: surface, underground, Tajo-Segura Transfer and desalination, mixing water from all sources with the aim to deliver to its irrigators water that complies with the regulations of Decree 1620/2007 in the reuse of reclaimed water. The latter has a photovoltaic plant that can feed a pump with a nominal power of 578 kW from the Jumilla WWTP.

GOOD NEWS FOR MURCIA’S WATER SECTOR

The year 2019 begins with good expectations for the Region of Murcia as a new Circular Economy Strategy was launched with 51 measures with an investment of 510.4 million.

The authorities have presented eight lines of action for Circular Economy Strategy, in which 51 specific measures are integrated. The lines of action come to a total investment of 510.4 million euros between the years 2019 and 2025, and according to the regional government, they could generate directly about 2,000 “green” jobs.

Efficient water consumption is the fifth axis of this Strategy, where 5 actions

are integrated and which come to 205.3 million euros; followed by the promotion of R + D + i, with 3 initiatives "knowledge, awareness and participation" to which 46.6 million euros will be allocated; with 7 measures and 2.1 million euros and, finally, "employment and training" with 4 actions planned for, as the amount of 15.4 million euros.

cost-effective way. This Strategy places the Region of Murcia at the European forefront in the field of circular economy.

**Source: RETEMA (Technical Journal of the Environment)*

Among the measures included in the Circular Economy Strategy, it might be pointed out the creation of a plan to support entrepreneurs in the circular economy, a plan for a sustainable energy-efficiency. Also highlighting the improvement of energy-efficiency in the water cycle, the development of a regional eco-innovation plan, support for transfer mechanisms towards green technologies, training actions for primary and secondary school students, or for companies on how to improve their efficiency in the use of resources in a

News from IPTPO

CONFERENCE AND WORKSHOP ON WATER LOSSES 2019 (Buzin)

From 3 to 5 April 2019 the Sixth Conference and Workshop on Losses of Water was held (organized by the Croatian Water Pollution Control Society). The event took place in the Aristos hotel in Buzin (the suburb of Zagreb).
The main goal of the conference was to create an environment where experts from our region would have the opportunity to regularly improve their knowledge in the area of water loss control in public water supply systems.
In the first part of the lecture, news in the area of water loss management in Croatia were presented. This year, special attention has been paid to the topic of leakage by using satellite as well as standard topics such as data management (SCADA, telemetry, GIS, GIS Cloud, IT security), classical technology and leak detection methods, pressure regulation, etc.
As a result of the great positive changes in Croatia and the national water loss reduction program, it is crucial to implement a continuous learning program and to acquire new skills so this conference aims to make progress in this direction.

In the second part of the lecture, examples of good practice, i.e. experiences from our water companies (active leak control, pressure regulation, remote monitoring, apparent water losses, system maintenance, design improvement measures and costs etc.) are presented.

The specialty of the conference is a long break between individual groups of lectures during which participants have time to socialize with colleagues and get acquainted with the presented solutions, technologies and services. Participation interest is increasing from year to year - 2014 (65 participants), 2015 (115 participants), 2016 (120 participants), 2017 (130 participants), 2018 (170 participants and 20 companies with stalls and posters).

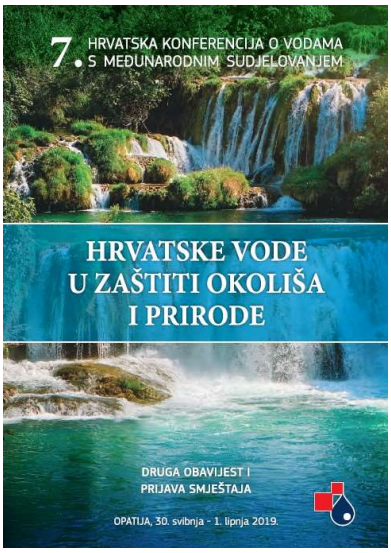
Special workshops were held in the days before and after the conference, on Wednesday, 03.04. and Friday 05.04. for a smaller number of interested

participants, with the aim of acquiring additional knowledge and skills.

For more information:
http://www.hdzv.hr/index.php/obavijesti/268-konferencija-gubitci-vode-2019

THE 7TH CROATIAN WATER CONFERENCE

The 7th Croatian Water Conference under the motto "Croatian Waters in Environmental and Nature Protection" will be held this year in Opatija from 30 May to 1 June 2019.
Water management according to the requirements of the European acquis has brought new values to Croatian water management. The Water Framework Directive is being implemented with the aim of achieving and preserving the good condition of all waters - land surface, underground and coastal, and development projects are realized in compliance with the highest standards of environmental protection and nature.
Climate change is evident, and hydrological extremes (flood and drought) are increasingly pronounced. Adapting to climate change is a permanent task, for which it is necessary to develop and maintain water management and water management systems in a sustainable manner.
With the use of funds from European funds, the development of water infrastructure today is significantly intensified in relation to earlier periods. There is still plenty of room for better absorption of available funding, a major challenge for all water management stakeholders - for state institutions, various water and land users, utility companies, higher



education and scientific institutions etc.
International water management cooperation is an indispensable factor in sustainable water management. In addition to traditional bilateral co-operation with neighboring countries, multilateral cooperation at the European Commission level is of great significance, at the level of the major international Danube and Sava basins and at the Mediterranean Sea level.

Main scientific and expert topics of the conference:
1) The state of water and the water dependent ecosystems, hydrological extremes and their consequences, trends - precipitation, land surface water, groundwater, transitional waters and coastal waters,
2) Systems of water and land use
3) Public water supply, drainage and wastewater treatment systems
4) Water policy, education, water management planning, international cooperation and public participation.

For more information:
http://www.hdzv.hr/index.php/obavijesti
http://www.hdzv.hr/images/2019/7_KONFERENCIJA_O_VODAMA_DRUGA_OBAVIJEST.pdf

News from Malta

Malta was awarded the European Sustainability Award 2019

The Ghajn National Water Conservation Awareness Centre in Rabat, Malta which is managed by the Energy and Water Agency, has been awarded with the European Sustainability Award for 2019, organised by the European Commission. The award took place during the Sustainability Europe 2030 – From Goals to Delivery conference in Brussels; organised by the European Strategy Centre of the EC.

This was awarded on the efforts to raise awareness on the current challenges the water sector is facing in the Maltese Islands, within the context of sustainable water resources management. This prize is usually awarded to those projects and initiatives which focus their efforts in turning the Sustainable Development Goals (SDGs) into concrete actions and opportunities. One of Ghajn's main targets is the future generation with specific focus on primary and secondary school students. In fact, the Centre carries out daily organised school visits in winter and hosts hundreds of students in the summer months.

Link: https://youtu.be/MhVzuZcbdHk

"Investing in Chadwick Lakes for Tourism Purposes" Project in Malta

The Chadwick Lakes; an ideal location, rich in historical culture and environmental beauty. It serves as an aquatic environment in an otherwise arid landscape and thereby could be utilised as a tourist attraction that unfortunately has been lacking in the recent times.

It is the 2nd largest water catchment in Malta however it is in a dire state. The primary goal of

the project is that of regenerating and valorising the Wied il Qlejgħa valley, including Chadwick Lakes by creating an innovative venue for natural heritage tourism whilst generating sensitivity towards biodiversity. The site under project is a reminder of the historical heritage related to the management of water resources, the same area that was the primary natural source of municipal water source in Malta back in the 1800s. Historical facts proposed to be displayed through information points along the trekking trail will ascertain the awareness of the area.

The project will look into rehabilitating one of Malta's important and unique sites of natural and cultural heritage. The works will promise a more scenic venue not to serve as a recreational spot and also to attract more tourists, school children and serve as a potential area for NGOs for a pilot site of other educational activities/projects.

News from VLC - Valencia Tourism Foundation

VALENCIA SEES THE CREATION OF AN ACCELERATOR OF START-UPS SPECIALISING IN HIGH TECHNOLOGY AND THE DIGITALISATION OF SUSTAINABLE WATER MANAGEMENT

Global Omnium opened the doors to 'Go Hub', a 2,500 metre accelerator housing close to 20 startups specialising in disruptive technologies - machine learning, artificial intelligence, virtual reality and robotics - to help the digital transformation of sustainable industry and cities.

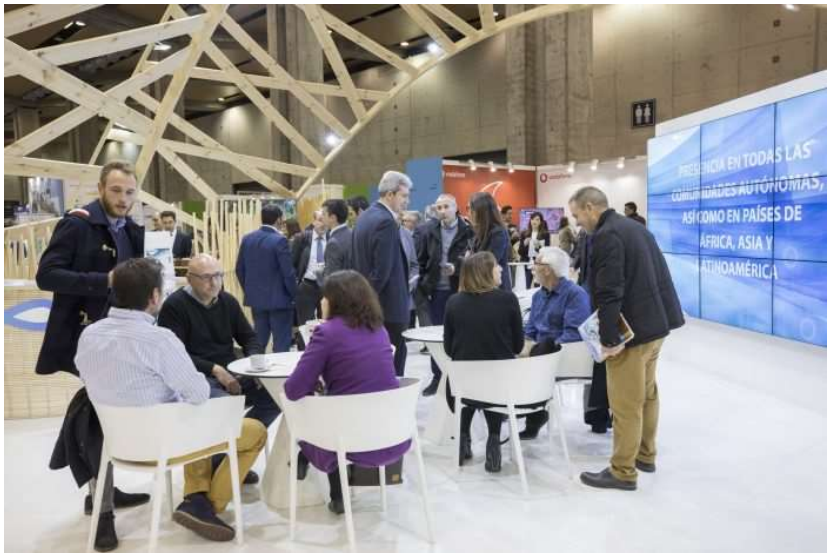
Beyond water management, Global Omnium's specialisation, these firms will offer technological solutions for all types of sectors, be they energy, mobility, food, health, textile or automotive.

Under the slogan 'Now. Not only water', Go Hub starts out with two business lines: on the one hand, 'Water tech hub', a project comprising startups specialising in technological solutions applied to the water sector and, on the other, startups whose projects are focused on the digital transformation of industry.

HOLDING OF THE NEXT WATER SUSTAINABILITY FAIR.

The International Fair for Efficient Water Management at Feria Valencia returns to the calendar this year to fulfil its biannual commitment and reach its fifth edition. The event, consolidated as a reference in the Mediterranean arc for the water sector, will again coincide with the well-established ECOFIRA International Environmental and Energy Solutions Fair, where many synergies are forged, above all, in the sphere of digitalisation and smart cities.

It is precisely the sphere of intelligent cities, and how to improve their sustainability through a



more efficient management of water and urban waste, that will be the guiding thread of an edition that has already started its preparations with the first meeting of its organising committee.

ADVANCEMENTS IN THE SECTORISATION SYSTEM OF THE DRINKING WATER DISTRIBUTION NETWORK IN THE CITY, WHICH PERMITS IMPROVEMENTS IN RESPONSE TIMES FOR THE DETECTION AND REPAIR OF LEAKS.

With the objective of improving network performance, an area has been delimited for it, in such a way that circulating flows can be exhaustively controlled, allowing assessment of the water volumes supplied compared to those distributed, and therefore improvement in detection times for leaks or incidents on the network.

Each station has been equipped with a filter, metre, hydraulic valve and two pressure measurers, as well as the latest data transmission technology.

It should be pointed out that this sectorisation does not result in the reduction of pressure for customers, or any reduction in the flow they demand. It simply improves network pressures, and reduces response times for leak detection and repair."

News from Veneto Innovazione

The civilization of water in Veneto. A sustainable journey from Padua to the vast Delta of the Po river with the museum water museum of Venice - two meetings to find out more

The heritage of water civilizations of the Veneto region perfectly combines slow tourism, art, culture, local products and sustainable development and it joins the Water Museum of Venice. It is a "digital and widespread museum" created by the International Centre for Water Civilization. It gathers over 60 museums, hydraulic assets and sites on the water between Padua and the Delta od Po river, including Municipalities (primarily Padua and Adria), the Padua Botanical Gardens and the Veneto Delta del Po Regional Park.

Last March two events in Padua and Adria presented the latest activities carried out by the Water Museum of Venice, including new digital eco-tourism itineraries and the promotion of a more sustainable development

The meetings also presented future project activities in line with the Sustainable Development Goals. Actions to focus on inherited water assets and give them a leading role in promoting new awareness of the delicate issues of future water management: topics at the centre of an international debate developed by UNESCO.

Veneto Blue Flags

The Foundation for Environmental Education (FEE) has awarded Veneto beaches with Blue Flags. They are: Bibione, Caorle, Brussa, Duna Verde, Levante, Ponente, Porto Santa Margherita, Eraclea Mare, Jesolo – Lido, Cavallino Treporti, Lido di Venezia, Sottomarina, Rosolina Mare, Albarella.

The iconic Blue Flag is one of the world's most recognised voluntary eco-labels awarded to beaches, marinas, and sustainable boating tourism operators. In

order to qualify for the Blue Flag, a series of stringent environmental, educational, safety, and accessibility criteria must be met and maintained.

The Foundation awarded also five marinas, which are: Albarella Marina, Le Saline at Chioggia, Jesolo marina, Cavallino marina, Darsena dell'Orologio at Caorle, Certosa Marina in Venezia.