

# Deliverable 11.2

Website development

Date: 30 November 2020



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 869474.





Deliverable 1.1	Project management guidelines
Related Work Package	WP 11 - Dissemination and communication activities
Deliverable lead	REVOLVE
Author(s)	Josep Crous-Duran (REVOLVE) Luciana Abbruzzese (REVOLVE) Patricia Carbonell (REVOLVE) Lara Barange (REVOLVE)
Contact	josep@revolve.media
Reviewer	Nicole Heine (DECHEMA) WP11 - Dissemination and communication activities leader
Grant Agreement Number	869474
Instrument	Horizon 2020 Framework Programme
Start date	1st September 2020
Duration	48 months
Type of Delivery (R, DEM, DEC, Other) <sup>1</sup>	DEC
Dissemination Level (PU, CO, Cl) <sup>2</sup>	PU
Date last update	30 November 2020
Website	www.watermining.eu

<sup>&</sup>lt;sup>1</sup> R=Document, report; DEM=Demonstrator, pilot, prototype; DEC=website, patent fillings, videos, etc.; OTHER=other

<sup>&</sup>lt;sup>2</sup> PU=Public, CO=Confidential, only for members of the consortium (including the Commission Services), CI=Classified





Revision no	Date	Description	Author(s)
0.1	29/10/2020	First draft	Josep Crous-Duran (REVOLVE)
0.2	15/11/2020	Comments and suggestions from co- authors	Josep Crous-Duran (REVOLVE) Luciana Abbruzzese (REVOLVE) Patricia Carbonell (REVOLVE) Lara Barange (REVOLVE)
0.3	17/11/2020	Final edits	Josep Crous-Duran (REVOLVE)
0.4	25/11/2020	English proofreading	Lara Barange (REVOLVE)
0.5	26/11/2020	First project review	Nicole Heine (DECHEMA)
0.6	30/11/2020	Second project review	Patricia Osseweijer (TU Delft)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 869474.

The opinions expressed in this document reflect only the author's view and in no way reflect the European Commission's opinions. The European Commission is not responsible for any use that may be made of the information it contains.





# Table of Contents

1.	Introduction	8
2.	Project website	9
2.1.	Description	9
2.2.	Website map	9
2.2.1	1. Homepage	9
2.2.2		
2.2.3		
2.2.4		
2.2.5	5. Market place	26
2.2.6		
2.2.7	7. Contact	28
2.2.8	3. Intranet	28



## 1. Introduction

This deliverable D11.describes the WATER-MINING project website. This document gives an overview of the website's structure and main features, exemplified by screenshots. REVOLVE has designed and created the website, with inputs from other project partners.

The WATER-MINING website provides a brief, catchy and clear description of the project and its activities. It is a communication tool, promoting the project's goals and results to the WATER-MINING stakeholder groups including enablers (e.g. authorities, policymakers, SMEs), leaders (e.g. industry, end-users) and multipliers (e.g. universities, associations, media). The aim of the website is to become the primary point of contact and information for the WATER-MINING community. In this sense the website will:

- Explain the project's objectives and the division of the activities by work packages and tasks,
- Present the case studies and living labs,
- Provide the latest news and events updates related to the WATER-MINING community,
- Give access to the WATER-MINING documents available for download such as deliverables, press releases and/or scientific reports,
- Act as a source of images and videos related to the project and other communication material (media kit, leaflets, posters) and newsletters,
- Offer information about the project partners,
- Link to social media (Twitter and LinkedIn), and,
- Link to the project's internal web repository and to the WATER-MINING marketplace platform.

The website will be a repository for all public documentation generated during the project. It will also provide quick access to the internal web repository (intranet) and the WATER-MINING online platform, which provides a clear and open discussion of the potential and limitations of the methodologies developed and allow the exposure of these to the market for future commercial purposes.

The tone of the website is simple, clear and straightforward explaining the WATER-MINING project appropriately to stakeholders across the supply chain as well as the general public. The website is designed according to the WATER-MINING visual identity guidelines, making the project instantly and easily recognisable.

The WATER-MINING website was launched on 26<sup>th</sup> October 2020 and can be seen at the address <u>http://www.watermining.eu/</u>.



## 2. Project website

## 2.1. Description

The WATER-MINING website provides access to information, data and materials about the project, its partners, its case studies and events, and other activities organised for the project and/or from the project partners. It is expected that at least 25,000 users from relevant stakeholder groups will access the website over the four years of the project's duration (2020-2024).

WordPress was used for the website development. The website is built with a responsive web design (RWD) that is suitable for different browsers and screen sizes, displaying a different and optimised interface depending on what device is used to access the site. The template is designed in a horizontal structure using the WATER-MINING visual identity, integrating a mouseover menu, horizontal sliders, static banners (i.e. dedicated newsletter subscription), vertical thematic blocks and a footer containing the required disclaimer and the contact info where the audience can easily contact the project's coordinator and communication leader via e-mail or social networks. The domain name is 'watermining.eu', and it will be maintained for five years.

Currently, the website has seven main sections: 1. Home, 2. About us, 3. Implementation, 4. News and Events, 5. Market Place, 6. Resources, and 7. Contacts. The homepage offers an overview of the project, presenting the project's most important messages in a simple, catchy and clear way, with links to other sections for further information.

The project partners contributed to the structure and contents of the website and will moderate the content.

## 2.2. Website map

## 2.2.1. Homepage

#### (https://watermining.eu/)

While not all content is shown on the homepage (news and events, social media announcements, documents...), this section will be linking directly to the 'About us' section.

## 2.2.2. About us

#### (https://watermining.eu/about-us)

The head slider includes 2 slides with a WATER-MINING lead image and the animated logo. The main menu is on the header, together with the logo and links to the 7 sections of the website (About us, Implementation, News and Events, Market Place, Resources and Contact), as well as the link to the intranet of the project. The 'About us' section contains six sub-sections: What is WATER-MINING,

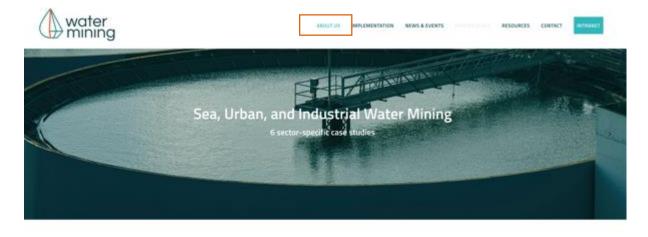


Objectives, Partners, Advisory board, Related projects, and a Frequent Asked Questions (FAQs), which are described below.

#### • What is WATER-MINING?

This section presents an overview of the WATER-MINING project and its objectives.

"Water access and its related energy, environmental and economic issues are one of the greatest challenges for society today. According to the <u>2030 Water Resources Group of the World Bank</u>, global water demand by 2030 is expected to exceed sustainable water supply. The WATER-MINING project aims to face this challenge and help ensure access to clean water and sanitation by developing innovative solutions for the sustainable use of alternative water sources, including urban and industrial wastewater and seawater desalination."



Water access and its related energy, environmental and economic issues are one of the greatest challenges for society today.

According to the 2030 Water Resources Group of the World Bank global water demand by 2030 is expected to exceed sustainable water supply. The WATER-MINING project aims to face this challenge and help ensure access to clean water and sanitation by developing innovative solutions for the sustainable use of alternative water sources, including urban and industrial wastewater and seawater desalination.

Figure 1. About us section presentation and introduction text.

#### • Objectives

The project's nine objectives are presented in a carrousel with a title and a brief description.



Figure 2. Objective's carrousel.



#### 1 - Demonstrate a more energy-efficient and less polluting desalination process

Prove the advantages of advanced desalination combined with solar energy and waste heat, while contributing to energy saving through softening pre-treatment, and improved water and other value-added resource recovery

# **2** - Upscale the production of a valuable bio-based product from the residues of wastewater treatment

Demonstrate innovation spin-off from granular sludge produced in wastewater treatment at large scale while producing market valued bio-based alginate-like polymers (Kaumera)

## **3** - Develop a more viable and sustainable technique for extracting phosphate from wastewater Demonstrate cost-effective removal and recovery of phosphate from the effluent of urban

wastewater treatment plants or surface water to ultra-low effluent concentrations

#### 4 - Design new methods for ensuring energy-efficient nutrient recovery from wastewater

Demonstrate the effectiveness of anaerobic membrane bioreactors and partial nitrification/annamox treatment coupled with nutrient recovery technologies to recover energy, water and materials from the main water stream in municipal wastewater treatment plants while obtaining high-quality water to be reused for industrial and/or agricultural purposes

#### 5 - Develop Zero-Liquid-Discharge loop systems for pollution-free industrial wastewater

Demonstrate the reutilisation of water and materials (chlorine, salts) through the Zero-Liquid-Discharge closed loop systems that enable prevent pollution and significantly reduce water, energy and resource consumption in the industrial environment

#### 6 - Promote innovative circular economy business models within the wastewater cycle

Create innovative circular economy business models (with a focus on the services economy), promoting new forms of collaboration between suppliers and material end-users

#### 7 - Attract public and private funding for follow-up investments and scaling up

Mobilise private funding through Public Private Partnerships, by building framework agreements between relevant stakeholders (including technology suppliers, industries and public actors) for follow-up investments to scale up implementation

# 8 - Increase public attention and encourage key actors' active involvement in water management services' risks and benefits

8a. Improve citizens' and stakeholders' understanding and trust through active and satisfying involvement in water services in the circular economy

*8b. Bring circular water systems to public attention and increase awareness of the opportunities in closing the cycle by making use of advanced information and communication tools* 

## 9 - Advance new policy and regulatory measures for stimulating the establishment of WATER-MINING innovation methods



To design and test a mix of European and national policy and regulatory measures that will stimulate the successful adoption of WATER-MINING technologies by addressing both market failure (business, financing, consumers) and policy failures (pricing, conflicts, assumptions, unintended consequences)

#### • Numbers

Some numbers related to the project are found in the subsection 'Objectives' and 'Partners, with a European physical map (showing the natural landscape features of Earth) as a background. These numbers are: 39 partners, 12 countries, 6 case studies; 4-year project, and €19.1M (€16.9M EU funding contribution).



Figure 3. Image showing some numbers of the project

#### • Partners

This sub-section shows the logos of the 38 partners involved in the project, ordered according to the project's official documentation. Each logo is also a link to the partner's own website, offering more information about the partner.

#### Partners







Figure 5. Basic information of the partners

#### • Advisory board

On a research project an Advisory Board (AB) is established for consultation and expert advice. The AB meets on a yearly basis, but it can occasionally also meet for specific needs on request. A short biography and photograph of each member of the WATER-MINING AB has been added to the website.



.....

Figure 6. Carrousel showing information of the Advisory Board members



#### The members of the AB are:

#### Professor Carles Solà, UAB (ES)

Former rector and professor of the Autonomous University of Barcelona (Spain) and former Minister for Universities, Research and Society of the Catalan Government, Carles is an expert in Experimental Economics, Behaviour Economics, Organisational Behaviour, Business Economics and Behavioural Finance.

#### Paul O' Callaghan, BlueTech Research (IE)

Founder of BlueTech Research in 2011 with the aim to support technological advancements in water management and to help find the solutions needed to provide clean water and safe sanitation. Paul now works to develop the water strategies of top global corporations, carrying out market analysis, competitive benchmarking and technology due diligence.

#### Linda Macpherson, New Water ReSources (USA)

Founder and managing member of New Water ReSources as a vehicle for changing people's thinking and behavior about water—especially water use and reuse. Linda currently assists governments, utilities, service districts, and professional associations around the world as they communicate to stakeholders about sustainable water planning, management, and reuse.

#### Dr. Dionysia Avgerinopoulou, Hellenic Parliament (GR)

Greek politician with influence on environmental matters, she currently serves as a member of the Greek Parliament as the Chairperson for the Special Permanent Committee of Environmental Protection of the Greek Parliament. Previously she served the Steering Committee of the Global Water Partnership Organization (GWPO) and as the Head of Water of the Energy and Environment Committee of the International Chamber of Commerce (ICC) in Paris (France).

#### Professor Neelke Doorn, TU Delft (NL)

Distinguished Antoni van Leeuwenhoek professor of 'Ethics of Water Engineering' at the Department of Ethics and Philosophy of Technology and Director of Education of the Faculty of Technology, Policy and Management. Neelke holds master's degrees in civil engineering (TU Delft 1997, cum laude), philosophy (Leiden 2005, cum laude), and Law (Open University 2016, cum laude). In May 2011 she obtained her PhD from the TU Delft on Moral Responsibility in R&D Networks

#### Leland R. Widger, Cargill Salt (USA)

With a PhD in synthetic organic and bioinorganic chemist, Leland is a Senior Researcher at Cargill Salt where he is responsible for the development and commercialisation of innovative products and processes related to the food, water quality, road safety and industrial salt market and businesses worldwide.

#### Paul Eijsbouts, SABIC (NL/Saudi Arabia)

Process team leader at SABIC (Saudi Basic Industries Corporation). SABIC is one of the world's leading manufacturers of chemicals, fertilisers, plastics and metals, silicones and glass fibre-reinforced



polymer sheets. Paul served as the coordinator of the Brine Recovery project (LIFE06 ENV/NL/000178), where he recovered 73% of the salt and saved 75% of indirect energy.

#### Professor Joyce Tait, Edinburgh University (UK)

Founding Director of the Innogen Institute, Joyce has an interdisciplinary background linking natural and social sciences with particular interests in supporting the development of advanced innovative technologies capable of delivering both economic and social benefits. She has worked on strategic planning for innovation, governance, risk management, regulation and standards, and stakeholder attitudes and influences.

#### Dr. Cristinel Deregatu, EUROPIREN (NL)

With a PhD in chemical engineering and experience in water treatment, Cristinel is responsible for the research activity of the EUROPIREN company in the Rotterdam laboratory that is actively looking for synthetic magnesium hydroxide with a higher purity than brucite, which can be used in applications where brucite (a natural mineral) cannot be used.

Corinne Van Voorden, Climate, Water, Circular Economy, Netherlands Enterprise Agency (NL) Innovation Advisor for the Netherlands Enterprise Agency, Corinne supports companies, knowledge institutes, governmental and non-governmental parties with the development of multidisciplinary European water, climate action and circular economy projects. She advises on strategic partnerships, innovation and European funding. She holds degrees in Engineering Management and Social Sciences and has previously worked for engineering and consulting companies on water business projects. Koen de Kruif, DCMR Environmental Protection Agency (NL)

Environmental scientist in the field of water pollution and energy studies. For 20 years he has worked for the DCMR regional environmental protection agency as a Senior Advisor in sustainability and environmental quality in the field of international relations, and since 2015, he has worked on circular economy issues, where he aims to achieve increased sustainability within industry and small - medium sized enterprises, reducing barriers and improving awareness and investment activities.

#### Frans Goorman, NEDMAG B.V.(NL)

Senior advisor and business development manager at NEDMAG B.V., a company that produces highquality dead burned magnesium oxide, magnesium chloride, calcium chloride and magnesium hydroxide and sells in Europe, North America, Middle East and Asia.

#### • Related projects

Here you can find links to the websites of so-called 'sister projects', i.e. projects funded under the same topic as the WATER-MINNG project (CE-SC5-04-2019), which have been added to the website to promote synergies among these projects. The projects published on the website are:



## **Related Projects**





Figure 7. WATER-MINING "sister" project's linking to their respective websites.

B-WaterSmart - Accelerating Water Smartness in Coastal Europe: https://b-watersmart.eu/

WIDER UPTAKE - Achieving wider uptake of water-smart solutions:

https://wideruptake.unipa.it/home

REWAISE - REsilient WAter Innovation for Smart Economy: http://rewaise.eu/

ULTIMATE - indUstry water-utiLiTy symblosis for a sMarter wATer society: https://ultimatewater.eu/

#### • Frequently Asked Questions (FAQs)

A Frequent Asked Questions (FAQs) document has been created in order to give basic information about the WATER-MINING project. The questions and answers published are:

#### What is the WATER-MINING project?

The WATER-MINING project is a research and innovation project which aims to develop more energyefficient technologies for treating wastewater from urban and industrial areas and from desalination and promote the extraction of valuable products from the residues generated during the process.

#### Why is it called WATER-MINING?

The project is called WATER-MINING because as well as innovating more sustainable methods to treat wastewater and obtain alternatives sources of usable WATER, the project aims to recover (MINING) important products from the residues generated during the process.

#### When did the project start and how is it funded?

The project started on the 1<sup>st</sup> September 2020 and lasts for four years, until the 31<sup>st</sup> August 2024. With a total budget of 19.1 million euros, the project is partly funded (16.9 million euros) by the European Union's Horizon 2020 research and innovation programme.

#### Who is involved in the project?

The project is coordinated by the Delft University of Technology in the Netherlands, and brings together 38 public and private partners, and four related third parties from 12 countries across *Europe*.

#### What are the expected outcomes?



There are many expected outcomes of the project through the development of innovative technologies for: 1) a more energy-efficient and less polluting desalination process; 2) more sustainable techniques for extracting important products from urban wastewater residues such as phosphates and other bio-based valuables products and 3) producing pollution-free industrial wastewater by using a Zero-Liquid-Discharge loop system.

In addition to these innovative methodologies the project also expects to: 1) increase public awareness of water management services and promote new circular economy business models within the wastewater cycle, 2) attract public and private funding for the scaling up of the methodologies developed, and 3) develop adequate policy and regulatory documents in accordance with the implementation of the methodologies developed.

#### How can the project benefit me?

The project's ultimate purpose is to ensure access to clean water and sanitation, meaning that every citizen will benefit from these new methods for obtaining quality water. Public administration bodies may also be interested in the project outcomes, as the project's methodologies may improve their wastewater management. Finally, this approach creates business opportunities for SMEs and other companies interested in the scaling-up of the methodologies and the market opportunities generated by these new sources of bio-based valuable products.

#### How does the WATER-MINING project contribute to a more circular economy model?

One of the main objectives of the project is to create new circular economy business models within the wastewater cycle. In this sense the project aims to improve the energy-efficiency of the processes, as well as enhance the recovery of valuable products from the residues and its reuse through the creation of a market where potential producers and buyers of these valuable products can meet and interact.

#### How can I be involved?

If you are interested in following the updates of the project you can visit our <u>website</u> or follow us on our social media channels (Twitter: <u>@watermining</u> and LinkedIn: Water-Mining <u>H2020</u>). If you want to announce event or news related to the project you can fill in the form available on the website (link). Finally, if you want to contact the project's coordinators or communication team please send an email to <u>info@watermining.eu</u>.

### 2.2.3. Implementation

#### (https://watermining.eu/implementation/)

The implementation section offers an overview of the project's different work packages and presents the case studies and living labs. This section has four sub-sections: Implementation, Work packages, Case studies, and Living Labs.

#### • Implementation

Water is a natural starting point for creating a more circular economy. Water is the single most important shared resource across all supply chains, and can be considered as a natural resource, a



consumable good, and a durable good. Each of these three forms involves different stakeholders, business models, infrastructure, services, and policies, and are subject to different barriers and drivers. To capture the full potential of the circular water economy, **WATER-MINING** project proposes different strategies for each of these three water forms, involving six sector-specific case studies (CS). The aim is to benchmark, refine and establish commercial implementation routes for the proposed approaches and technologies. The proposed strategies are carefully designed to reflect the different needs of water users, as follows:



#### Implementation

Water is a natural starting point for creating a more circular economy. Water is the single most important shared resource across all supply chains, and can be considered as a natural resource, a consumable good, and a durable good. Each of these three forms involve different stakeholders, business models, infrastructure, services and policies, and are subject to different barriers and drivers. To capture the full potential of the circular water economy, WATER-MINING project proposes different strategies for each of these 3 water forms, involving 6 sector-specific case studies (CS). The aim is to benchmark, refine and establish commercial implementation routes for the proposed approaches and technologies.

The proposed strategies are carefully designed to reflect the different needs of water users, as follows
Figure 8. Implementation sub-section

#### • Work packages

In this sub-section a short definition of each work package and the partner leading it are mentioned. This sub-section will also include link to the deliverables related to each work package.

	Work Packages	
	WP1 - Project Management	
	Description: The project management WP is structured so that scientific and technical issues are managed separately from finance and administration. Management tasks are done by qualified personnel so that researchers can pay full attention to the RTD and innovative activities. The management learn includes professionals with a depth of experience. This balanced composition promises a successful project and minimises development risks.	
<	WP leader: TU DELFT	3
	TUDelft	
	Work Packages Deliverables +	
	• • • • • • • • • • • • • • • • • • • •	

Figure 9. Work-package description carrousel



#### WP1 - Project Management. Leader: TU DELFT

The project management WP is structured so that scientific and technical issues are managed separately to finance and administration. Management tasks are done by qualified personnel so that researchers can pay full attention to the RTD and innovative activities. The management team includes professionals with a depth of experience. This balanced composition will ensure the project's success, and minimise development risks.

#### WP2 - Co-creation through social engagement for societal embedding. Leader: UAB

The objective of this WP is to identify relevant stakeholders to create a group of people interested in the technologies developed (Community of Practice) for each case study (6). During the project the expectations and concerns of the stakeholders will be integrated at the early-stage of design, and their moral values and perceptions are considered as indicators for the evaluation of the case studies from a social, economic and environmental perspective in a process of value-sensitive design. This WP will also engage end-users and citizens in experiencing and visualising circular economy water technologies by demonstrating Living Labs outreach and augmented reality.

# WP3 - Demonstration of renewable desalination and sustainable brine management. Leader: TU DELFT

WP3 designs specific methodologies for integrating a solar renewable energy source in the desalination processes often associated with a high level of energy use. The methodologies will be tested and implemented in two case studies (CS) in Europe: Lampedusa (Italy, CS1) and Almeria (Spain, CS2).

#### WP4 - Demonstration of extraction/valorisation of Kaumera Nereda Gum. Leader: TU DELFT

WP4 aims to optimize the Nereda<sup>®</sup> process developed by TU Delft in the 90s, with an improved extraction process to maximise resource recovery from the granular sludge generated during the process of wastewater treatment. Specific installations will be implemented to test the new methodology in one cold region (Utrecht, NL, CS3a) and one warm region (Faro, Portugal, CS3b). The recovered material (Kaumera Nereda Gum) will also be classified, and specific market applications will be identified during the project.

#### WP5 - Demonstration for phosphorus, water, salt and energy recovery from urban wastewater. Leader: EURECAT

WP5 deals with the demonstration of the technical and economic feasibility of innovative methodologies for recovering important elements (phosphorus) and products (salts) from urban wastewater treatment, with the intention of reducing energy needs and achieving maximum water quality for reuse in industrial and/or agricultural activities. These methodologies will be tested in two case studies in Larnaca (Cyprus, CS4) and La Llagosta (Spain, CS5).

#### WP6 - Demonstration for closed-loop water recovery in the industrial sector. Leader: HEXION

WP6 aims to reduce the amount of fresh water and energy used in industrial wastewater treatments. The reuse use of water and materials (chlorine, caustic, sodium) through closed-loop systems in the industrial environment will lead to significant reduction in water, energy and resource consumption, and will demonstrate the concept of chemical leasing. The methodology will be tested in Rotterdam (The Netherlands) and replicated in India.



#### WP7 - Development of ICT tools supporting process monitoring, control & optimization (DATA-MINING), immersive stakeholder engagement (AR-applications) & market creation. Leader: KWR

One of the main objectives of WP7 is to develop and deploy a WATER-MINING Platform, available from the project website that will connect wastewater owners to potential end-users of materials recovered from these wastewater streams. In addition, several augmented reality applications and an optimised dashboard will be developed to support the stakeholder engagement and demonstration process.

#### WP8 - Circularity and Sustainability evaluation of demo activities. Leader: BRUNEL.

WP8 is responsible for evaluating the sustainability of the WATER-MINING solutions and resource recovery technologies, taking into consideration technical, environmental, economic, social, and regulatory aspects. In addition, this WP will create a set of indicators to analyse and compare the potential circularity models against conventional technologies.

#### WP9 - Market exploitation and Circular Economy Business Modelling. Leader: SEALEAU

This WP will explore the potential design of effective business models and promote new forms of collaboration between public and private actors to support the implementation of the WATER-MINING products and technologies in the market by developing an exploitation package to introduce WATER-MINING products into industrial settings.

#### WP10 - Advanced Policy Formulation, policy packaging & roadmap. Leader: JIIS

WP10 is responsible for developing a 'Policy Package' including suggestions for policymakers and other stakeholders affected by these policy measures to facilitate the implementation of the project's innovative business models based on the concept of a circular economy.

#### WP11 - Dissemination and communication activities. Leader: DECHEMA

WP11 will ensure a structured and coordinated communication, dissemination and exploitation strategy, developing the most appropriate communication channels and tools to effectively raise awareness about the water mining technologies and their benefits, and to increase interaction with and dissemination to the project's target audiences, while enhancing engagement with scientific, technical, non-technical, regulatory and public stakeholders.

#### • Case-studies

The locations of the WATER-MINNG case studies are presented on a European map categorised depending on whether the methodology each case study will explore is related to a desalination plant (Sea-Mining), a urban wastewater plant (Urban-Mining) or industrial wastewaters methodologies (Industrial-Mining).



#### **Case Studies**



Figure 10. European map showing the location of the WATER-MINING case-studies and Living Labs

The case studies are:

CS1 Lampedusa (Italy) CS2 Almeria (Spain) CS3 Faro (Portugal) and Delft (The Netherlands) CS4 Larnaca (Cyprus) CS5 La Llagosta (Spain) CS6 Rotterdam (The Netherlands)

A text describing the differences between the three sources of water (Sea, Urban and Industrial) is included, in order to add context for the user. In the future, more detailed information on the case studies will be given.

#### Desalination / Sea-mining

Water as a resource: water demands need to be addressed by the Public Administration, and the need for alternative water resources are increasingly recognised. In this context, desalination is expected to play a key role, especially in water-stressed regions.

#### Urban Mining

Water as a consumable: Over the last century the global population has tripled, and together with the increased levels of consumption and higher living standard, water demand has increased substantially. Urban water consumption is just a small fraction of the total human water use, but it remains a potential alternative source of water.

#### Industrial Mining



Water as a durable: Durable goods are defined as the goods used for final consumption repeatedly over a period of more than one year. In this sense, the development of innovative technologies to facilitate the reuse of water in industry is seen as a promising approach for reducing water demand from industrial sectors.

#### • Living Labs

The WATER-MINING project aims to actively involve and engage stakeholders from the whole water value chain, with a particular emphasis on the agricultural, urban and industrial sectors. The creation of two Living Labs (LL) in Rotterdam (The Netherlands) and Almeria (Spain) will offer an engaging environment around the different innovations demonstrated. A short description of both LLs and links to the partners involved are given here:

#### Rotterdam (The Netherlands). Leader: FLOATING FARM

The Floating Farm is a small-scale innovative circular concept located in the port of Rotterdam (The Netherlands) addressing animal welfare, sustainable food production, changing landscape conditions and wastewater management in Rotterdam. The Floating Farm is aimed at local food production, and in relation to water and energy use it aims to be as self-sufficient as possible. The Floating Farm aims to produce and keep all the required energy and products inside the city, and will experiment with low-energy water desalination from the river Meuse, urine-water purification to produce reusable water and recover nutrients from the brine to be used as fertiliser for plant production. The Floating Farm has a high public profile and attracts many citizens and local stakeholders to its activities, which engage in value exploration, behavioural reflection, and innovation solutions. <u>More info</u> (link to: https://watermining.eu/floating-farm/)

#### Almeria (Spain). Leader: CIEMAT

The Plataforma Solar de Almeria (PSA) is located in southern Spain and has become a point of reference in the use of solar energy for desalination. PSA is recognised for its research infrastructure which is crucial for the development of top-quality and cutting-edge research, as well as the communication, exchange, and preservation of knowledge, the transfer of technology, and promotion of innovation. PSA is devoted to the use of solar thermal energy, both for concentrated solar power production and for desalination and water treatment, and as a Living Lab it will support the engagement of stakeholders involved in the Water-Energy-Food nexus in specific events, and by reaching citizens with their regular programme of visits. More info (link to: <u>https://watermining.eu/about-us/ciemat-2/</u>)



#### Living Labs

The WATER-MINING project aims at actively involve and engage stakeholders from the whole water value chain, with a particular emphasis in the agricultural, urban and industrial sectors. The creation of 2 Living Labs in Rotterdam (The Netherlands) and Almeria (Spain) will offer an engagement environment around the different innovations demonstrated

#### Rotterdam (The Netherlands) Leader: FLOATING FARM

The Floating Farm is a small-scale innovative circular concept located in the port of Rotterdam (The Netherlands) addressing animal welfare, sustainable flood production, changing landscape conditions and wastewater management in Rotterdam. The Floating Farm is aimed at local flood production in a sustainable, circular and in terms of water and energy be as selfsufficient as possible.

The Floating Farm aims to produce and keep all the required energy and products inside the city and will experience with low energy usage water desalination from the river Meuse, urinewater purification to produce reusable water and recover nutrients from the brine to be used as fertilizer for plant production. The Floating Farm has a high public profile and attracts many citizens and local stakeholders to its activities, which engage in value exploration, behavioural reflection and innovation solutions.

More info

## Almeria (Spain)

The Plataforma Solar de Almeria (PSA) is located in southern Spain and has become a reference in the use of solar energy for desalination processes. PSA is recognized as top large research infrastructure crucial for the development of top-quality cutting-edge research, as well as the communication, exchange, and preservation of knowledge, the transfer of technology, and promotion of innovation. In particular, PSA is devoted to the uses of solar thermal energy, both for concentrated solar power production and for desalination and water treatment and as a Living Lab will help with the engagement of stakeholders involved in the Water-Energy-Food nexus in specific events and reaching citizens with their regular program of visits.

More info

Figure 11. Description of the two Living Labs of the WATER-MINING project



### 2.2.4. News and Events

#### (https://watermining.eu/news/)

The 'News and Events' section will show all information related to news generated and events related to the WATER-MINING project community. These events will include internal project meetings, organised events such as stakeholder consultations, field visits, capacity building workshops, and/or external events where WATER-MINING will be present and that are relevant to the sector. It will be possible to view 'news' or 'Events' separately, and this section will also include a form for project partners to send their own news, events and photographs to be published on the website.

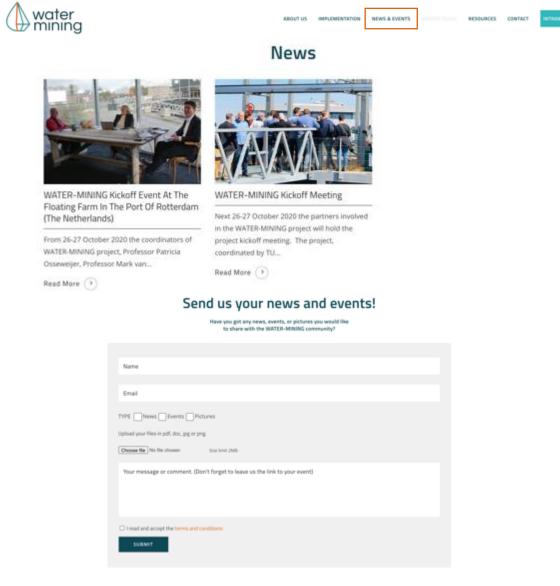


Figure 11. News and Events specific site



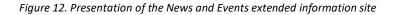
## WATER-MINING kickoff event at the Floating Farm in the Port of Rotterdam (The Netherlands)

From 26-27 October 2005 the sciondinators of WATER ASMING project, Professor Publics Diseweijer, Professor Mark van Loosdrecht and Dr. Denters Awgenos, held an online event from one of the project's Long Lats. - the Floating Farm in Rotzerlan port (the Netherlands). The averta brought singether over 100 participants from the project's 38 partner institutions, including the KLI project sificor Violeta Kurmitans.

For two days the tasks related to the different work packages were presented, together with an introduction to the project's case studies (I) and Uving Labs (2), WATDR AMAING stanted on 1st of September 2000, and for the next 4 years it will implement news tastheologies to obtain resulable water and magnituli from the wastewater of unbars, industrial and desatination plants.



The TU Delft coordinator team: Prof. Patricia Desmarijer, Prof. Mark van Loosdrecht and Dr. Dimitris Kangenes Invadicating the WEICR-MININ kick-off event five from Rottandam with a spectacular view on the Floating Farm. Photos: TRIMM For more information on the project, contact: info@waterrong.ex



#### 

#### Recent Posts

INSTEIN ADDING SUCIDIT events at the Finaling Farm in the Port of Rotestan (The Natherlands) INSTEIN-MINING Account researce



## 2.2.5. Market place

#### (https://watermining.eu/market-place/)

This section will include a link to the WATER-MINING platform that will put wastewater owners in contact with potential end-users of the materials recovered from urban and industrial wastewater streams and desalination plants. The platform is not yet available at the time of this document's publication, as it is due by M36 (D7.5 The WATER MINING Platform, leader: NTUA). However, a login window has already been created on the website, which will remain inactive until the platform is available.

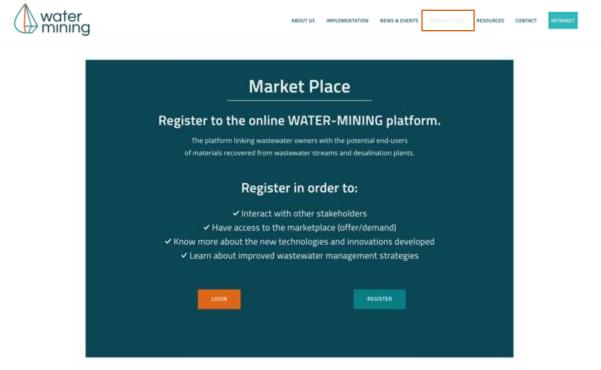


Figure 13. Access to the WATER-MINNG platform (not active)

Register for the online WATER-MINING platform. This platform connects wastewater owners to potential end-users of the materials recovered from wastewater streams and desalination plants. Register in order to:

- Interact with other stakeholders
- Access the marketplace (offer/demand)
- Discover more about the new technologies and innovations developed
- Learn more about improved wastewater management strategies



### 2.2.6. Resources

(https://watermining.eu/deliverables/)
(https://watermining.eu/press-releases/)

The resources section will include all the documents and outputs generated from the WATER-MINING project, which will be available to the general public. Two types of documents are currently available: Deliverables, and press releases. However, in the future this section will also contain the project's newsletters, technical and scientific publications and reports, factsheets, the policy recommendations developed, and all materials related to the project branding (visual identity guidelines, logos and related materials). This section will also include a photo and video gallery with images from the case studies, living labs and events related to the project.

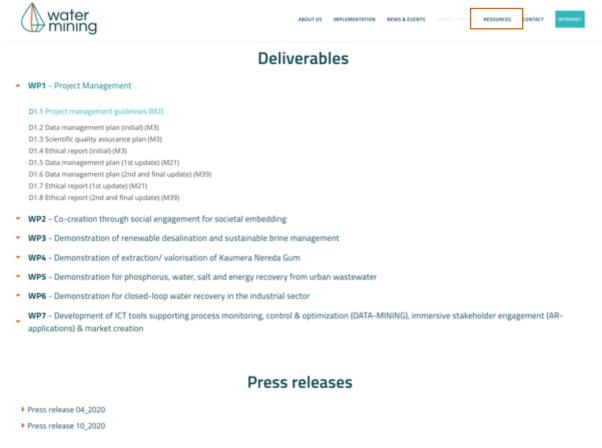


Figure 14. Image of the Resources section and how Deliverables and Press releases are stored



## 2.2.7. Contact

(https://watermining.eu/contact/)

This section shows the contact details (email and office addresses) of the project coordinator and the leaders of the communication work package, as well as a simple form for sending any queries to: <u>info@watermining.eu</u>, <u>which is</u> currently managed by the partner in charge of developing the website (REVOLVE).

Contact

CORDINATOR Professor Pathola Ossewajjer BELFT University af Technology	Name	
Building Sd. Soliti Kd Della, The Netherlands	Email	
COMMUNICATION LEADER Nicole Herine DECHEMA	Subject	
Therefore Hervest Aller 25 Bolds Hearthurt / Marr Germany	Message	

#### Figure 15. Contact section

## 2.2.8. Intranet

(https://dataverse.nl/loginpagebuiltin.xhtml)

A link from the project website to the internal web repository is also included, facilitating access to the intranet.

Username/Email Password Log In Forgot your password? Only if your institute isn't connected via SURFconext, create an account.		n't use institution ess and passwor		ise login	
Log In Forgot your password? Only if your institute isn't connected via SURFconext,			u.		
Forgot your password? Only if your institute isn't connected via SURFconext,	Password				
Only if your institute isn't connected via SURFconext,		Log In			
		Forgot you	r password?		
			ected via SURFe	conext,	

Figure 16. Login access to the internal web repository