HYDROUSA

H2020-CIRC-2-2017

Water in the context of circular economy

Full project title:

Demonstration of water loops with innovative regenerative business models for the Mediterranean region

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Report on the co-creation and training activities

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Brief Description	This report is the full evaluation of the co-creation and training activities activities implemented during the period M1-M60, measuring the overall objectives and the outcomes against the KPIs.

Keywords	Communication and dissemination; community building activities; co-creation, training, workshops, seminars, KPIs, evaluation

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TABLE OF CONTENTS

LIST OF FIGURES

This project has received funding from
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LIST OF TABLES

EXECUTIVE SUMMARY

This document contains a detailed Report of the implemented co-creation and training activities designed and implemented as part of the overall Community Engagement Strategy delivered in the total of 60 months of the HYDROUSA project. HYDROUSA project, "Demonstration of water loops with innovative regenerative business models for the Mediterranean region", aims to address water scarcity and sustainability challenges by implementing innovative solutions in water management. As part of its approach, the project places a strong emphasis on the co-creation and training activities, seeking active involvement from the local community and stakeholders to foster sustainable and inclusive water management practices and enable a more participatory water governance.

The primary focus of the co-creation and training actions within HYDROUSA project was to raise awareness, engage and empower members of the community including local opinion leaders, politicians, professionals, the younger generations, visitors and households. By involving them in participatory or open-space methods, the project's aim was to promote a sense of ownership and responsibility, ultimately ensuring the long-term success and acceptance of the implemented solutions. Through these activities, HYDROUSA seeks to create a collaborative environment that encourages knowledge exchange, fosters a conscious shift, and enhances community participation.

The report is starting with an introduction of HYDROUSA, revisiting the mission, the approach and the solutions provided, that are directly linked with the community building approach and the impact that we want to achieve. The report continues with an introduction to the applied tools of community building, along with the expected KPIs and outcomes of each action that were implemented, to address the specific objectives, including, the co-creation workshops, participatory trainings, the hackathon and others. Collectively HYDROUSA has directly involved more than **2549 people** through its practices and formats and has informed and introduced HYDROUSA through direct activities additionally to more than 12500 people (info stand, HYDROUSA game) while through the communication actions HYDROUSA reached more than **1,000,000 people**.

This report is closely linked to D9.4 (Updated Report on Dissemination and Communication), while its principles derive from D4.1 (Plan for participatory model for community engagement) and its strategy from D9.1 (Dissemination and Communication Plan).

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ABBREVIATIONS

AERIS	**Aeris Tecnologías Ambientales S.L.**
AGENSO	**Agricultural and Environmental Solutions**
ALCN	**Alchemia-nova GmbH**
CO	**Coordinator of the project**
CWP	**Catalan Water Partnership**
DCM	**Dissemination and Communication Manager**
DCP	**Dissemination and Communication Plan**
ELT	**Tinos Ecolodge**
ICRA	**Fundacio Institut Catala de Recerca de L'Aigua**
IHA	**Impact Hub Athens**
IRIDRA	**Iridra Srl**
LESVOS	**Municipality of Lesvos**
MEMIRA	**Memira Genesis Ltd**
NBS	**Nature-based solutions**
NTUA	**National Technical University of Athens**
PLENUM	**Plenum - Gesellschaft Für Ganzheitlich Nachhaltige Entwicklung GmbH**
RADKE	**Manfred Radtke**
UASB	**Upflow Anaerobic Sludge Blanket**
UNIVPM	**Marche Polytechnic University**

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1. INTRODUCTION: INNOVATIVE, REGENERATIVE AND CIRCULAR WATER SOLUTIONS

About HYDROUSA

Water management in the Mediterranean regions is currently fragmented and there are several barriers, which need to be overcome in order to close water loops and contribute towards the environmental and economic development of these areas.

Mediterranean regions face significant challenges in terms of water management and conservation. Water reserves are scarce, while the high touristic activities during the summer months stress the limited water reserves.

To overcome these challenges, Horizon2020 project, HYDROUSA is creating innovative, nature-based and nature-inspired water management solutions for different types of non-conventional water sources, characterised by low energy footprint. The whole water value chain benefits from this innovative approach of turning a problem into a solution.

Clear water loops are demonstrated, recovering added value products, while integrating and interacting with the local society and market. HYDROUSA not only develops and demonstrates innovative water services, but revolutionises the water value chains in Mediterranean areas from water use up to sewage treatment and reuse.

HYDROUSA changes the human water cycle by valorising non-conventional water resources, which are currently not being exploited. The project goes beyond the current water and wastewater management practices reimagining a water resilient economy, mitigating climate change and reforming the agro-food system (Figure 1.1).

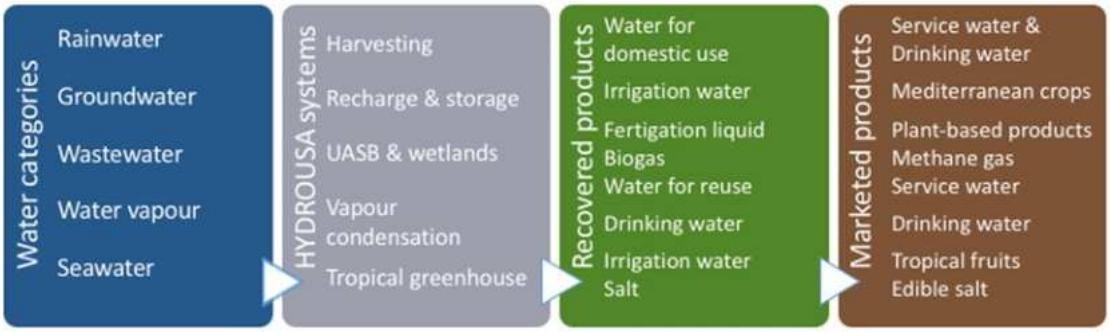

Figure 1.1 The HYDROUSA Practice

HYDROUSA mission

HYDROUSA aims to create a community of 'water allies', which believes and works on shifting the development paradigm of our world from an open market society based on economic profits to a world where local communities are empowered to develop tailor-made solutions to improve their wellbeing, while regenerating the local environmental ecosystems. This gives the opportunity to local operators to develop economic, social and environmental services based on closed water loops where decentralised, low-tech systems are favoured.

HYDROUSA solutions

HYDROUSA solutions provide several services and integrated technologies which are based on traditional handcraft and methods combined with modern nature-based solutions (NBS), ICT connection and automation systems. The proposed solutions show a perfect combination of building green infrastructures to make use of the plant-bearing benefits and generating green growth within an existing and demanding market while restoring ecosystems.

HYDROUSA community-based approach

Hence, the HYDROUSA community building activities (including co-creation and training practices) are focusing on the engagement of a diverse range of stakeholders who constitute an active “community or water allies'', engaging with the objectives of the project and communicating its outcomes to a wide range of target audiences. Through their experiences, citizens are becoming change makers within their communities.

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2. HYDROUSA: PROGRESS REPORT ON COMMUNITY BUILDING STRATEGY

2.1 Development of Community Engagement Strategy through the Dissemination and Communication Plan (DCP) (T9.1)

2.1.1 DCP Objectives

Starting in July 2018 (M1) Impact Hub Athens developed the backbone of a solid Communication and Dissemination Plan, delivering the following objectives:

- Create an overall and concrete dissemination and communication strategy for all partners
- Ensure that the vision, objectives, activities and results of the project become as widely known and understood as possible from a scientific, a technical and societal point of view
- Identify the Key Stakeholders and Target Audiences
- Form the key messages and taglines of our value proposition
- Analyse the respective communication means and the main Communication channels
- Create a map of Local and International Actors in private and public level
- Identify the community engagement and their involvement
- Specify quantitative indicators that will be used to evaluate how successful each dissemination/communication activity is
- Set and monitor the timeline of the execution of the comms and dissemination strategy for all partners

Six key elements (Figure 2.1) were taken into account to build our dissemination and communication strategy.

Figure 2.1 HYDROUSA Dissemination and Communication Plan Structure

2.1.2. Community Building strategy principles

The design principles to build a community of "water allies" in order to secure and maximize the impact of HYDROUSA project are the following:

Disseminate: inform and spread the message around water circular economy to a wide range of stakeholders including citizens, public and private institutions, local and international enterprises. To ensure that the vision, objectives, activities and results of the project become as widely known and understood as possible, both from a scientific and a technical point of view.

Build Community: activate and engage the target audience to be active participants online and offline in the project's milestones and being the ambassadors of its mission. We disseminate the project's outputs at local level, strengthening end user participation, expanding to other local and regional water authorities and businesses.

Advocate: deliver clear, concise messages to high-level stakeholders (European Commission, European agencies, Water boards/Water Authorities, Ministries/National agencies) and decision-makers in order to facilitate change.

Raise Awareness: provide clear, non-technical messages in an effective way to the public.

Ensure relevance and efficiency: ensure that the project keeps its focus on the actual needs of stakeholders by establishing a live mechanism of interactions between the project and interested parties in the field. We secure a successful run-time and final dissemination of project results to all relevant stakeholders.

Catalyse connections: provide platforms (physical and web-based) for networking and cooperation among the partners and the stakeholders.

2.1.3. Target Audience

When we identified the objectives of Community Building strategy, we implemented a thorough analysis of the potential stakeholders involved (Figure 2.2), customising the key messages and the "*tone of voice*". The communication and dissemination activities have been designed in order to address these key target audiences and stakeholders (Table 2.1), maximizing awareness of HYDROUSA objectives, the positive outreach and impact.

Figure 2.2 HYDROUSA Target Audience

Table 2.1 Target Audiences within HYDROUSA

		EUROPEAN	GLOBAL	NATIONWIDE	LOCAL
LOCAL COMMUNITY	Farmers associations, farmer cooperatives				*
	Municipalities				*
	Business Owners				*
	Water Users				*
INVESTORS	Private Investors	*	*	*	*
	Banks	*	*	*	
ACADEMIC COMMUNITY and NGOs	Scientific community	*	*	*	*
	Environmental / water related NGOs	*	*	*	*
	Educational institutions (schools & universities)	*	*	*	*
	Other H2020 and FP7 related projects	*		*	
POLICY MAKERS	European Commission	*			
	Water utilities and water regulators	*	*	*	*
	Ministries			*	
PUBLIC	Wide Public	*	*	*	*
	Supporters	*	*	*	*

2.1.4. Methodology

Enabling communication through the community: this was one of HYDROUSA principal strategies. We are building a dynamic "community of Water Allies" who deeply care, act and prototype nature-based solutions and technologies for water management and water treatment. This community is composed not only from local people, farmers, young students and researchers, but also representatives from the local authorities, international experts, EU regulations specialists. We create these physical, virtual and physical spaces to enable dialogue, raise awareness, test and advocate. On the making but especially when we launched the Demo Sites, we animate water related activities and discussions, stimulating active participation of the community.

In order to deliver the above, we connect with certain individuals to map the local dynamics.

Ambassadors: We are linking up to existing relevant projects to foster interaction with existing initiatives by identifying the individual ambassadors. These partnerships with individuals who represent networks, NGOs, activist groups, social innovation supporting organisations were tapped to promote HYDROUSA to other projects, creating a wide base of multipliers of our invitation for participatory change.

Local Opinion Makers: Local opinion makers and community leaders are essential partners to the project. Stakeholders like (i) mayors, (ii) "leaders" of local vibrant communities, (iii) hotel and tourism industry professionals & experts from local economy were essential part of HYDROUSA activities.

Stakeholders lists: In order to facilitate the communication and dissemination actions among the members of the consortium, stakeholder lists were created. These include the name and surname of the stakeholder, the contact information, the organisation that each person belongs to or their role, their persona type (e.g., impactful position in local authorities, opinion maker, local public servant, etc), the communication status and the target group they belong to.
A non-exhaustive contact list was compiled by each individual partner and was integrated in a database.

2.1.5. Community Building Designed Actions

Community Building - Citizens Science Activities create connections, deep understanding, engagement and ownership among the relevant stakeholders and the suggested solutions and principles of HYDROUSA. Below are the designed activities that were implemented to ensure local engagement, ownership and possibly the adaptation and continuation of the outputs of HYDROUSA solutions.

Table 2.2 Type of Activities

Community Building & Engagement
Co-creation Workshops
Summer Schools
Hackathon on Water Circular Economy
Artists & Researchers Residencies
Info Points
On Site Interviews
Seminars/Workshops

Table 2.3 Type of Activities/Target Audience

	LOCAL COMMUNITY				WIDER COMMUNIY					POLICY MAKERS			PUBLIC	
	Farmers	Municipalities	Local Business Owners	Water Users	Scientific Community	Environmental & Water related NGOs	Transferability Sites	Educational Institutions	Other H2020 and FP7 related projects	European Commission	Water Utilities-Regulators	Ministries	Wide Public	Supporters / Followers
Community Building Activities														
Co-creation Workshops	*	*	*	*	*									*
Summer Schools					*	*		*					*	*
Hackathon on Water Circular Economy	*	*	*	*	*	*		*	*	*	*	*	*	*
Artists & Researchers Residencies	*	*	*	*	*								*	*
Info Point	*	*	*	*		*		*	*				*	*
On Site Interviews	*	*	*	*										
Seminars/ Workshops	*	*	*	*	*	*	*	*			*	*	*	*

The following co- creation activities (Table 2.4) were realized in all the demo islands.

Table 2.4 Summary of co-creation activities implemented within HYDROUSA

Location of Event	Stakeholders	Type of community activities Activity	How activities shaped results
Lesvos Island HYDRO1 & HYDRO2	Municipalities, water utilities, farmers, farmers' associations, SMEs, citizens	Interviews Workshops/Seminars School Schools Open Days Questionnaires	Plant selection in agroforestry Monitoring & controlling platform Data Repository and Application programming interface (API) Precision Irrigation Application permit for HYDRO1 Raising Awareness on reclaimed water
Mykonos Island HYDRO3 & HYDRO4	Municipalities, water utilities, farmers, SMEs, Ecotourist facilities, citizens	Interviews School Schools Workshops/Seminars Open Days Questionnaires	Monitoring & controlling platform Data Repository and API Precision Irrigation Essential Oils extraction
Tinos Island HYDRO5 & HYDRO6	Municipalities, water utilities, farmers, farmers' associations, ecotourist facilities, public	Interviews Workshops/Seminars Summer Schools Open Days Questionnaires	Monitoring & controlling platform Precision Irrigation "Market Garden" Permaculture

2.1.6. Reporting Process

Reporting of the community driven actions (such as co-creation events, workshops, trainings etc.) was happening through the Dissemination and Communication Form (Figure 2.3) as described at D9.1. This reporting is critical for the efficient monitoring of dissemination and communication activities as activities took place from 28 partners located in several different countries.

A google form has been developed (Figure 2.3) to report the dissemination activities to make sure that all the dissemination information is collected and recorded. This form was distributed quarterly and filled by the partners and was submitted to the DCM. During the first 24 months of the project, 219 entries have been submitted to the online form while by the end of project 632 activities were reported. This means that on average 10.5 activities took place every month.
(https://docs.google.com/forms/d/e/1FAIpQLSeh2--ToIiq84BPzgJYubAGcmrTCa5BQ0pVWKNHsLIWRhKaKA/viewform).

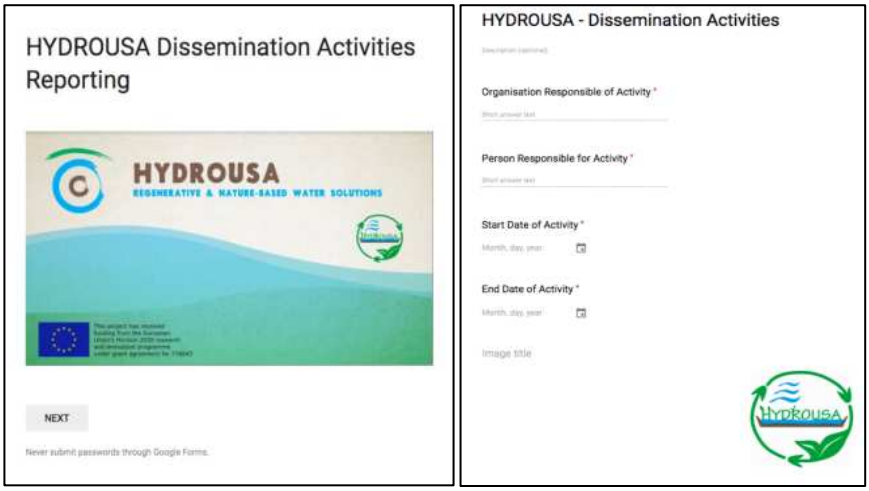

Figure 2.3 HYDROUSA Reporting Form

3. IMPLEMENTED ACTIVITIES FOR COMMUNITY BUILDING

In total 77 actions took place, engaging more than 15,000 individuals in the demo islands, online and across Europe (2,549 through co-creation, participatory and training activities and 12,529 through info stand, HYDROUSA game, exhibitions). The workshops and seminars explained the benefits arising by HYDROUSA technologies bringing together diverse actors in an informative but also interactive sections where key stakeholders including water authorities, regional authorities, municipalities, were bringing their perspective on the current status quo, along with other stakeholders like industry representatives, environmental companies, water and wastewater treatment plant operators, farmers associations and citizens. A dedicated training guide was created as part of D.4.1 (Plan for participatory model for community engagement) that was designed by Impact Hub Athens (IHA) and reviewed by alchemia-nova (ALCN) to ensure that a unified approach would be followed. Some of the leading examples are described below while and extensive list is attached at the end of the document.

3.1 Co-Creation Activities

3.1.1 User Input for Solution design

Citizens Input for the Agroforestry Design: Co-creation | LESVOS Island (HYDRO1 - HYDRO2)
In December 2018, IHA in collaboration with ALCN, LESVOS and MINAVRA organised and delivered the first community engagement activities in Antissa (Figure 3.1). More than 40 citizens, local actors - decision makers, farmers and representatives from the public participated in a co-creation workshop and in interviews regarding the history of the island, the common practices for irrigation, the main agricultural activities, the opportunities and the challenges of the local economy and the local community.

A stakeholder list was created before the co-creation workshop based on the relevant personas' types, we had identified (Table 3.1) and was updated after the visit. Data management was carried out in accordance with the General Data Protection Regulation (GDPR, 2016/679/EU). A three-day visit took place for community building, local engagement and citizen science to adapt our strategy to the regional circumstances.

During the workshop, the overall objectives of HYDROUSA were presented, while profiling each demo-site and outlining the relevance of HYDROUSA solutions for each island/site needs. The second part included participatory group discussions to design the agroforestry area according to traditional crops, irrigation techniques and natural fencing systems. The event was also covered by the local newspaper on a full pager at a printed edition.

Figure 3.1 Co-creation workshop in Lesvos

Table 3.1 Lesvos Personas Types

Persona Type	Our Need
Young residents	Support with work in the field - be involved in scaling stage
Impactful position in local Authorities	Connect us with people and provide information
Older residents	Narrate traditions
School teacher	Educate children on the program and help with future summer camps
University professor	Provide information - disseminate and engage students on the program
Local opinion leader	Connect us with other people and be an informal ambassador
Farmer	Support with work in the field and provide know how
Women's associations	Be involved in post-production of the agroforestry - processing – packaging
Expert on local plants	Consulting on plant selection and on the production phase
Local partner	Provide network of contacts, credibility and info

Local public servant	Logistics support, local media contact
Local business owner	Connect us with people and provide information
Journalists	Disseminate project

Visualizing a Circular Future for Tinos | Co-creation | TINOS ISLAND (HYDRO 5 - HYDRO 6)
In Tinos Island a series of co-creation and informative workshop was organised in two distinct meetings (Figure 3.2).

- The first co-creation workshop took place in June 2019 at the old Town Hall with the intention to introduce HYDROUSA objectives, vision and actions plans to local stakeholders. During the three days visit, one-to-one interviews with local opinion makers and key stakeholders took place, understanding better the local challenges and opportunities. This first invitation was to intentionally meet local partners and the island's stakeholders to design the content for the second co-creative workshop. The meeting was organised by IHA in close collaboration with Tinos Municipality and Tinos Ecolodge (ELT), where representatives from the local community joined the event to learn about the solutions that were about to be implemented and share their views and insights about the challenges of the island and its priorities that were related to water management resources.

Figure 3.2 Co-creation workshop in Tinos

- During the second visit IHA members teamed up with ALCN representatives and with the support of Tinos Municipality and ELT invited interested individuals with local knowledge to re-imagine Tinos as a paradigm of sustainable development showcasing smart applications incorporating values of circular economy. The invitations were personally sent to people who attended the first meeting in June 2019 and were registered in the stakeholders list based on the persona types identified for the island applications and to other people who were not present at the first visit but were identified as key persons to participate. A dedicated Facebook event was created for the purpose of the co-creation workshop (Figure 3.3) to widely communicate the project among the local population.

Farmers, agriculturalists, representatives of local authorities, restaurant owners, construction workers, artists, teachers and academics teamed up to co-design the future of Tinos. The workshop was implemented

according to the methodology of World Cafe by encouraging the participants to work in five teams, to think with heart and mind, to express freely, to fuse ideas and concepts and to interact in a friendly space. The process was successful as all the participants ended up with interesting ideas and solutions, revolving around the basic questions: How are we envisioning Tinos as a paradigm of sustainable development? Which are the best practices, already evident on the island? What is missing? Which is the contribution of each and every one based on profession/profile towards sustainable and circular economy practices?

Groups were invited to select a category between energy, water, food and employment and to explore sustainable concepts around it taking in mind the social, environmental and economic impact in parallel with the island's unique characteristics.

More than 80 people participated in both events.

Figure 3.3 Co-creation workshop in Tinos

User input for solution design | Co-creation | Site Interviews

In Mykonos Island as an adaptation to the COVID restrictions, IHA with the support of the local partners visited the island to conduct one to one interviews with local citizens gathering the required data for the user requirements regarding irrigation, water management and treatment. The co-creation activities were developed in collaboration with the local partners (DELAROS (DEL), Municipality of Mykonos) to identify the stakeholders and the target groups to "download" all the relevant information that were essential to understand the local dynamics and politics, the sociocultural environment, the economic state and potential opportunities and barriers that might arise. As in HYDRO3 and HYDRO4 the solutions are directed to households, businesses and farmers, we conducted more than 15 interviews to evaluate the current quo of water use, and overall resource and waste management for Mykonos (Figure 3.4). An online version was also distributed collecting 30 questionnaires from the local community. The above input was integrated in the design of the ICT requirements by AGENSO. The questionnaire was developed by ALCN with the collaboration of the IHA and AGENSO and was implemented in all the respective islands of the DEMO Sites.

Indicative questions

General

- How would you describe the island regarding its landscape?
- What would you share about topography, geography, history, climate conditions on the island and site?
- What are the mainland related activities - for what purposes is the land used for? (Surrounding environment (swimming places, ship constructions, etc))
- Which are the waste management practices on the island and our site? (Recycling, Composting)
- What type of tourist activity is taking place on the island and our site (Alternative tourism (eco –tourism etc))?
- Which are the high season periods? What are the numbers of tourists visiting during the touristic period for the island?
- What are the main characteristics of the natural environment (landscapes, monuments, etc)?
- Are you aware of other environmental – research related programmes on the island and on our site?

Water related

- What is the average monthly/yearly demand on water per sector-industry on the island and on the demo site?
- How is the above demand distributed in each season?
- Are there any particular water treatment methods on the island and on the demo site?
- What are the main sources of water for the households (e.g., wells, desalination plants, mountain's sources) What is the contribution of each source on the island in general and on the demo site specifically?
- What are the main sources of water for agriculture (e.g., wells, desalination plants, mountain's sources) What is the contribution of each source on the island in general and on the demo site specifically?

- What is the water demand for other industries (e.g., tourism, swimming pools, etc)
- Are you using desalination? If yes, what methods of treatment of residuals are you using (e.g., brine)

Wastewater

- Are you using any wastewater treatment methods on the island and on the demo site in particular? What is the percentage contribution of each method?
- Is there any use of the wastewater from the industries (e.g., olive oil production, tourism)

Figure 3.4 Interviews questions in Mykonos

Table 3.2 Mykonos Persona Types

Persona type	Opportunities for collaboration
Environmental & other associations/institutions	Finding possible synergies for co-creation, training and dissemination activities, like school visits, workshops and training
Journalists & Press	Disseminate project, publishing interviews and press releases
Impactful position in local Authorities	Connect us with people and provide info, dissemination
Local partner	Provide network of contacts, credibility and info
School teacher	Educate children on the program and help with future activities
Local opinion leader	Connect us with people and provide info, dissemination
Farmers	Provide input on older/traditional crops/fertigation/fencing systems, to inform HYDROs, adopt solutions
Local public servant	Logistics support, local media contact
Local business owner	Future adoption of solutions of rainwater harvesting, inform us on local business needs than can be answered by HYDROUSA applications
Young residents	Participation in workshops and meetings
Resident	Support, adopt and provide with local information

3.1.2 Solutions Demonstration and by products – Other Co-creation Activities

After the initial user requirement collection and the roll-out of the technologies in each of the demo-sites, follow up and new co-creation activities were formed, to elaborate and explore on the outputs and outcomes of each solution. By using the by-products (reclaimed water, fertilisers, energy, products) as a prima mater to generate future opportunities, spin-offs and collaborations actively, HYDROUSA can boost the agricultural and economic profile of the island creating benefits both for locals and visitors. The terms and conditions along with the possibilities and the bottlenecks were introduced and discuss with and experiential way.

Mykonos -Oregano / Lavender Harvesting - Essential Oils

After the irrigation of oregano and lavender fields with reclaimed rainwater, at our demo sites in Mykonos, we harvested the aromatic plants to produce essential oils. A distillation unit was installed at HYDRO3 and we are proud to introduce new products & cosmetics developed with our local partner DEL with the guidance of ALCN.

HYDRO3 was operational from November 2019 onwards. The system was monitored through an online system (for water quantity and quality), as well as through sampling campaigns where further parameters are analysed in the lab to ensure the high quality of the collected water for irrigation. The recovered rainwater is used for irrigation of the oregano field already since summer 2020. The first oregano harvest took place in June 2021. The oregano production was 50 kg. Part of the harvested herbs was given to local agrotourism units and greengrocers (Figure 3.5), while the rest was left to dry and were used to produce essential oil through citizens training, school visits and open days.

Figure 3.5 Harvested oregano of HYDRO3

A total of 150 people participated in such activities and more than 8 activities have been organised (Figure 3.6). We partnered with essential oil experts to explore possible by products that can boost the economic activity of the island, and prototyped different applications including, extracts for soap and creams. A demonstration workshop was also conducted in June 2023 to introduce these solutions and the insights to local and international stakeholders.

Figure 3.6 Essential Oil Workshop

Tinos, Permaculture School, Cosmetics and Edible Product Creation

After the completion, but also during the set-up of the DEMOs, the sites were accessible for citizens, students and professionals to participate in organised visits and trainings that were related to the outputs of each solution, surfacing positive outcomes that emerge from collaborations towards positive impact.

ELT at HYDRO6 have organised during the course of Implementation 4 Permaculture Schools (October 2018, September 2019, May 2022, October 2022 – 120 Participants) and 3 essential oil workshops (June 2022, July 2022, October 2022 – 20 participants) to introduce a practical example of sustainable resource management as part of HYDROUSA Mission. More than 140 people participating and interacting with the by-products of our solutions, the market-gardens and the crops cultivations, along with the water and energy resource systems, inspiring participants to start their own activities.

At HYDRO5, Kostas Karageorgios and the volunteer local group "Filoi Prasinou" (Green citizens driven informal association) along with students from the Technical School, visited HYDRO5 in November 2022 and explored the possibilities of the creation of high-value post-products using the aloe vera. The Municipality of Tinos, Dimitris Michailaris from NTUA and Tonia Zilianaiou from IHA introduced the project and its activities, sharing and amplifying the solutions for a circular future to 50 students. Additionally, the project was introduced to 2 kindergartens (Exomburgo Village, Loutra – 18 kids, March 2023) through an interactive presentation for our little island friends, highlight the flow of water and its importance to produce our food. Last but not least since December 2022 the aloe vera of the greenhouse, has been used in workshops in small local businesses, for the production of organic soaps and marmalade (Figure 3.7).














Figure 3.7 By-products Workshops Tinos

Lesvos - Organic Vegetables in collaboration with local restaurant

HYDRO2 production and its Innovative approach manifested an exciting community event inspired and implemented by NTUA and IRIDRA in collaboration with a local restaurant in Eresus. During the first summer

growing season in Antissa, several tons of good vegetables and fruits were produced, all grown by organic methods (no chemicals) and fertilised by the nutrients-rich (and also completely disinfected and safe) effluents from HYDRO1. The circular economy approach that can be defined as the water-food nexus was introduced to the citizens through a participatory gastronomy action for 40 citizens. Setting key challenging questions to the participants "Why send back the nitrogen to the atmosphere and loose the phosphorus in the rivers when you can reuse them in their proper chemical forms just reusing properly treated wastewater?", "how we can implement this model at scale, transforming the agricultural profile of the island?" A winning approach that got citizens familiar with HYDRO1 & HYDRO2 through a demonstration and a wonderful case study, from the research field. The local restaurant prepared for its customers vegetables and fruits that were produced in HYDRO2 using the reclaimed water generated by HYDRO1. Through the years the production was also available for social grocery shops, farmers and local citizens.

Figure 3.8 Products cultivated in HYDRO2 with reclaimed water are offered in local restaurant of Eressos

3.2 Organisation of Workshops and Seminars

DEMO Site Introductory Seminars

How can we develop long term – low carbon solutions, to address water-stress in the Mediterranean regions? How can we move towards a sustainable circular future?

HYDROUSA 2021 webinar series were designed by IHA to introduce the mission towards a viable scenario of a circular economy within the COVID restrictions. We addressed the challenges of water supply, wastewater and biodiversity loss – by extracting water from unconventional sources utilising state-of-the-art and nature based technological innovations to a total of 212 Participants. Three webinars were implemented, one for each of the demonstration Islands (Mykonos, Tinos and Lesvos).

The deep dive webinars brought together the project's partners, academics, engineers and interested stakeholders from the local community of the destinations. The webinars included an introduction to the project's mission, a discussion on the water challenges faced on each destination and the explanation of the innovative applications by the professionals in charge of the distinct technologies.

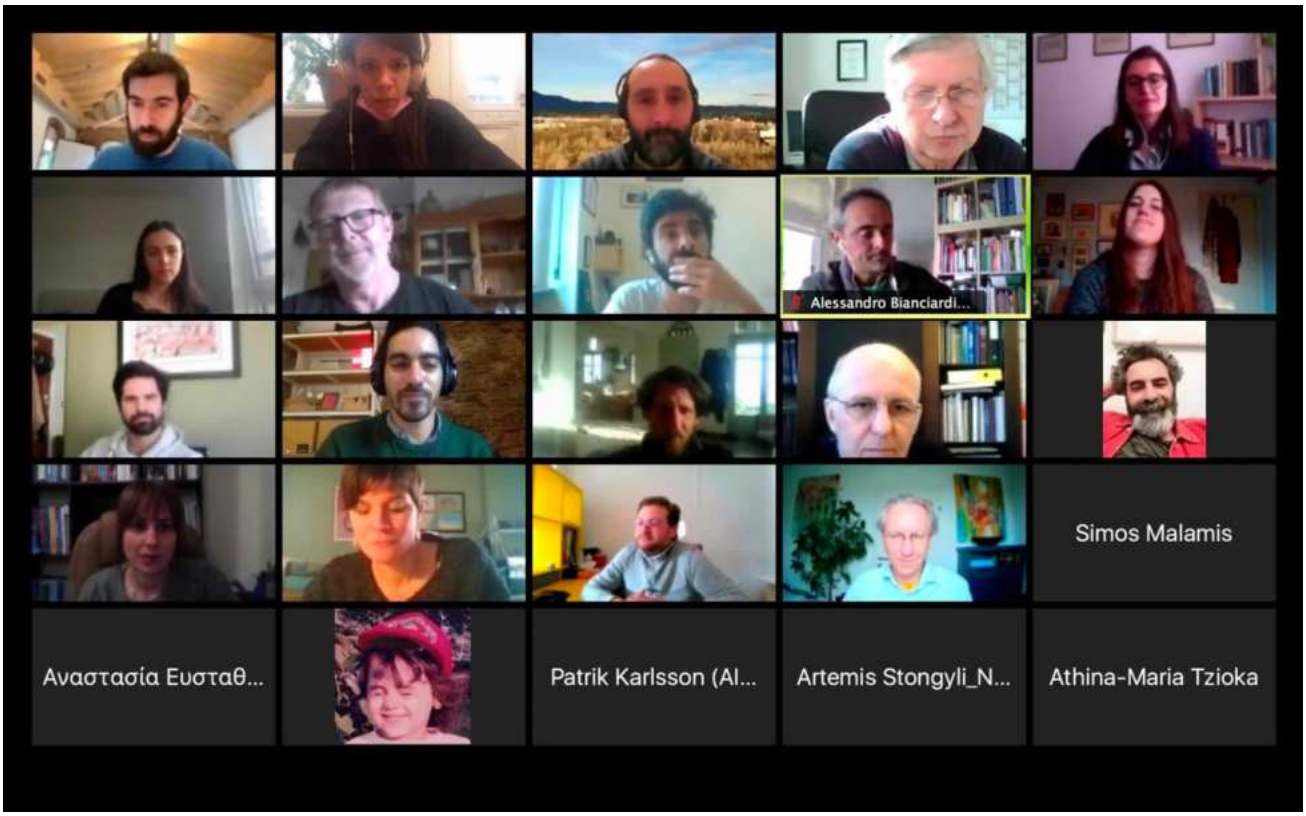

Figure 3.9 Interviews questions in Mykonos

The first webinar revolved around HYDROUSA applications of the island of Mykonos, introducing the residential rainwater harvesting [HYDRO4] & the subsurface rainwater harvesting system [HYDRO3] that were installed in Ano Mera. Representatives from the NTUA and IHA coordinated the discussion while Antonis Eleftheriou from Mykonos DEL) [HYDRO4] & Yannis Vassilakos, senior engineer of HYDRO3 introducing the applications and the particularities of the area as well as the key problems tackled.

The second webinar revolved around HYDROUSA applications on the island of Tinos, where two distinct applications are implemented: (i) a low-cost desalination system in Agios Fokas adhering to the values of evaporation and condensation, mimicking the natural processes of the Mangrove tree for the harvesting of a tropical Greenhouse and the production of edible salt [HYDRO5] and (ii) a combination of circular applications closing water loops in an eco-tourist unit [HYDRO6]. The agenda included an introduction to the island by Tasos Vidalis from the Municipality of Tinos deep dive sessions with Alessandro Bianciardi from PLANET company and Tiziana Centofanti from ALCN introducing the biomimetic technologies of HYDRO5 and Nikos Bedau, founder of Tinos Eco-lodge (ELT) strolled us digitally around the eco-tourist self-sufficient unit, presenting a combination of circular applications including rainwater catchment & water storage & production systems, greenhouses and production of organic crops.

The last webinar of our 2021 series revolved around HYDROUSA applications of the island of Lesvos, following a completely circular solution in the Antissa village in Lesvos as an official part of #EUGreenWeek2021. The pilot applications were presented in detail by our project coordination NTUA, AERIS and IRIDRA, initially introducing the sewage treatment system combining anaerobic processes with constructed wetlands and disinfection to treat municipal wastewater (HYDRO1) and the plan and design of the agroforestry system (HYDRO2) using reclaimed water with a high nutrient content (treated by HYDRO1) to increase diversity, productivity and profitability.

The webinars' agenda involved an informative quiz on each island's environmental condition, space for discussion and questions and a teaser for the project's next steps and potential transferability cases.

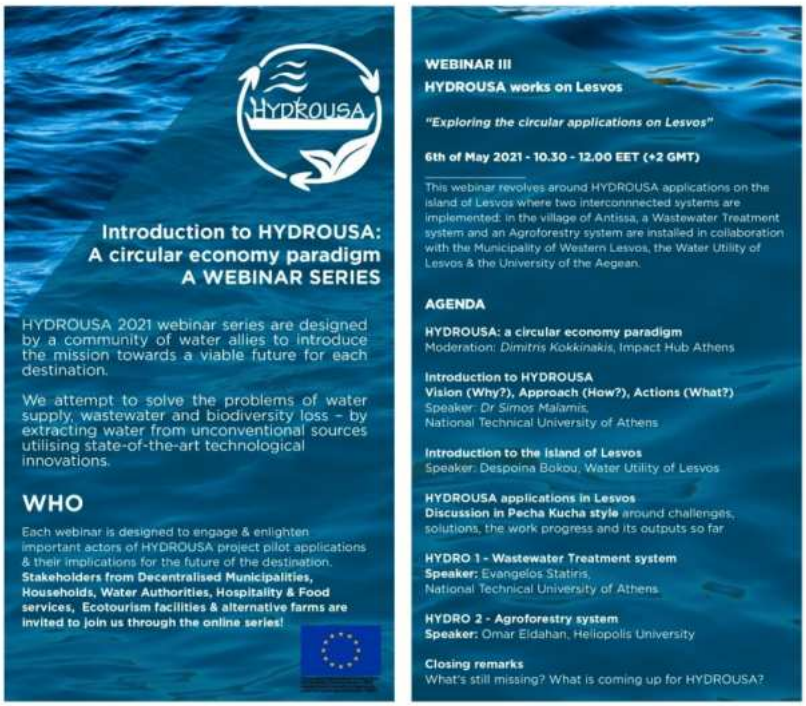

Figure 3.10 Demo site Webinars Promo Material

HYDROUSA Webinar by Catalan Water Partnership (CWP)

More than 100 people from all around Europe attended the HYDROUSA Project Webinar that took place virtually the 9th of July 2021 (Figure 3.11 and Figure 3.12). This virtual seminar was organized by the CWP, ICRA (Catalan Institute for Water Research), the NTUA and IHA, with the purpose of disseminating the advances on the development of the HYDROUSA project.

Sara Gabarron, Project Manager of the CWP opened the session and presented the agenda of the webinar as well as the first speaker, the Project Coordinator Simos Malamis who kicked off the webinar by presenting the HYDROUSA Project concept and its objectives. Giulia Cipolletta and Francesco Fatone from the UNIVPM followed explaining the legislation, barriers and opportunities for decentralized communities, leaving the floor to Patrik Karlsson from ALCN Greece to present the valorisation of alternative water resources from rainwater/Seawater.

Next, insights on the implementation of nature-based solutions to reclaim water were given by Fabio Masi from IRIDRA. After him, Óscar Prado from AERIS presented the opportunities to recover energy from wastewater. Tarek El Arabi from the Heliopolis University (HU) explained the nutrient recycling: Fertigation of an agroforestry field, followed by Zisis Tsiropoulos from AGENSO who presented the digitalization of HYDROUSA services. The last presentation was given by Dimitris Kokkinakis from IHA on how to Spread the Word: A Community of water allies, before ending the webinar with an interesting Q&A; A section moderated by Gianluigi Buttiglieri, researcher at ICRA, where all speakers contributed to solve the assistant's queries.

Figure 3.11 Invitation and Agenda of CWP HYDROUSA Webinar

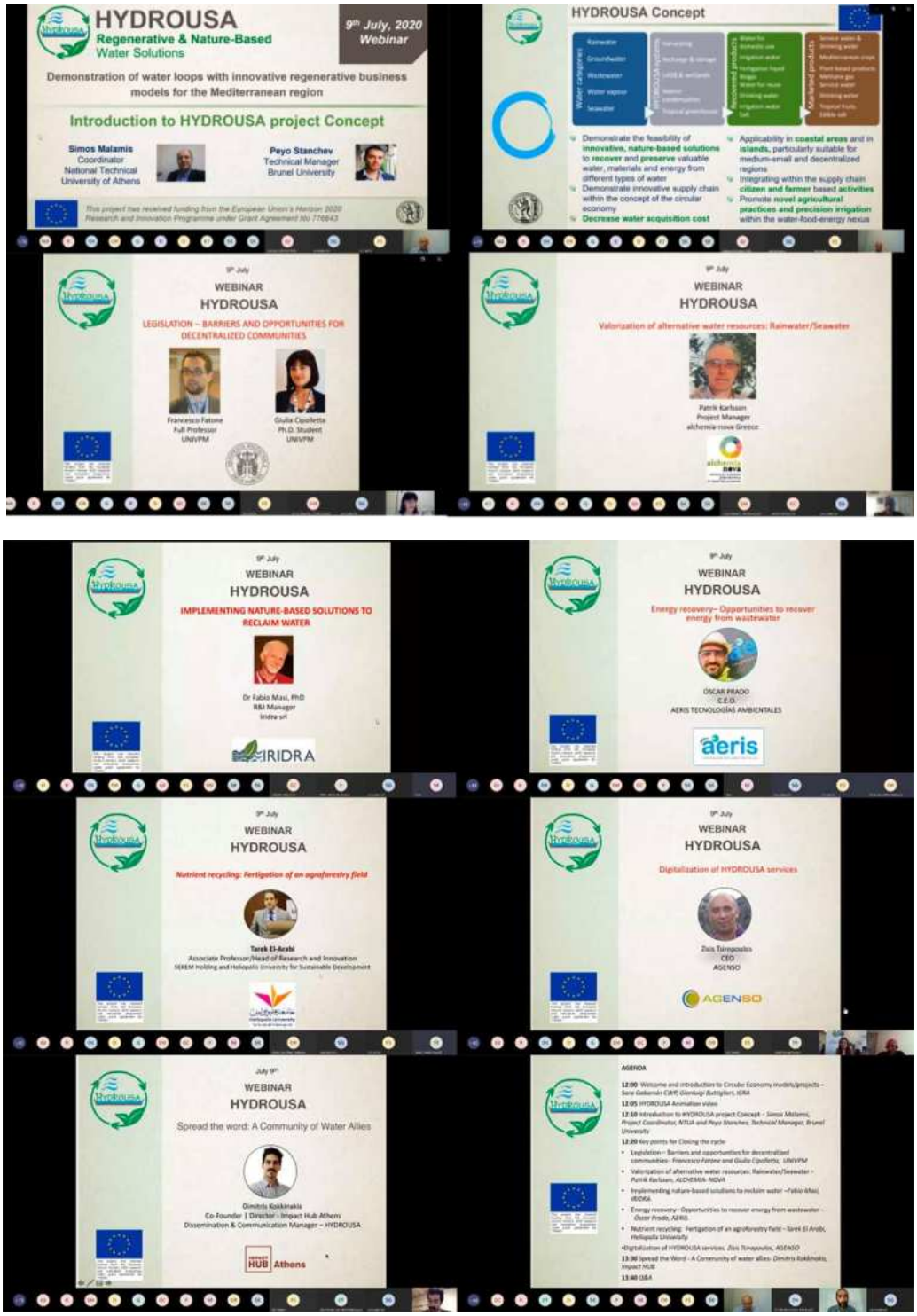

Figure 3.12 CWP HYDROUSA Webinars

HYDROYSA Seminars by PLENUM

PLENUM undertook the organisation of 8 seminars addressing university students to inspire them and enable them to indulge more into circularity and nature-based solutions with an interactive set of lectures in the form of a seminar. More than 175 Students from University of Technology Vienna, Sustainable Building Seminar (Master Programme, Master of Engineering), FH Campus Vienna, International Relations & Urban Policy Seminar on Sustainable Infrastructure Development, University of Natural Resources and Life Sciences, Vienna, Seminar Environmental Management, have participated in the seminars and interacted with HYDROUSA solutions. The departments selected were aligned to HYDROUSA main pillars of sustainability and circularity to leverage on the knowledge acquired and tap on new potential solutions. The postgraduate university course was in sustainable construction that is aligned with the household and corporate solutions of HYDROUSA (HYDRO4 rainwater harvesting, and HYDRO6 Eco-touristic facilities), which is carried out in cooperation with the Graz University of Technology, is primarily dedicated to raising awareness for a holistic, life cycle-oriented view of construction activities with regard to the 3-pillar model of sustainability. Through those seminars PLENUM enables graduates to be inspired by HYDROUSA and implement the principles of circularity and sustainable resource management from an ecological, economic and socio-cultural perspective in project development, planning and execution as well as in the operation and removal of buildings. Vienna's city management is a model for many political systems and urban centres. PLENUM have also contributed with material training for facilitation that were available to all the partner who were involved with trainings and seminars, while they introducing different facilitation practices through their participation in the consortium meetings.

HYDROUSA Seminars by SEMIDE

SEMIDE with its strategic role and lead on the Marketing and Exploitation activities, organised 8 seminars and workshops, focusing on the financial viability of the solutions, but also on identifying opportunities and bottlenecks of system scaling and implementation in respective areas. On 25th of November 2021 SEMIDE organised a seminar for 70 participants, showcasing HYDROUSA's economic approach for taking full benefits of nature- based Solutions (Figure 3.13). The seminar was addressing representatives from business networks, strategic partners, policy makers, potential end-users and local authorities, inspiring them to consider implementing circular and economic viable solutions for water management, implementing climate change adaptation strategies in French South Region.

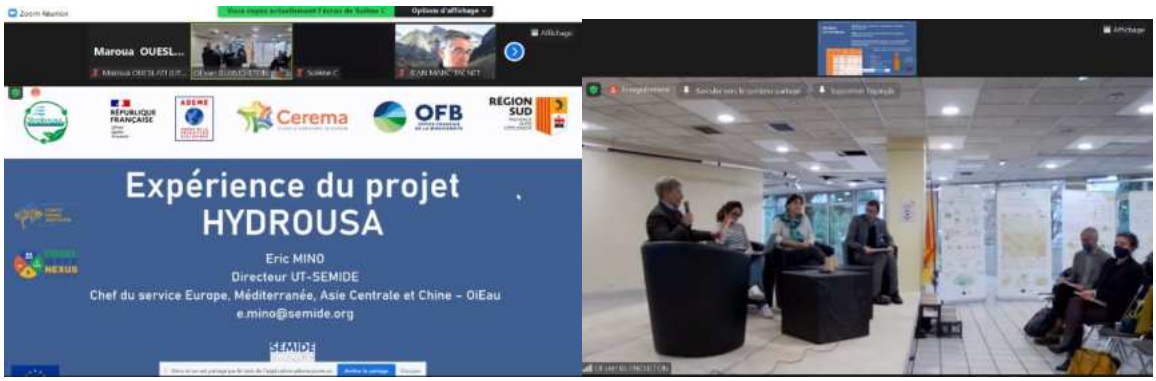

Figure 3.13 Workshop on Nature Based Solution for climate change adaptation in French South Region organised by SEMIDE

HYDROUSA Seminars by MEMIRA

HYDROUSA solutions were presented on the 6th of May 2021 in Cyprus, showcasing the benefits of constructed wetlands in small communities for efficient treatment and use of the effluent for irrigation for agriculture, with MEMIRA leading the seminar and creating leads for replication and applications of Nature Based solutions. Top community level representatives participated including the Head of Sewage and Reuse of the Water Development of the Ministry of Rural Development and Environment, Ms. Lia Georgiou and Dr Maria Zachariou Dodou, inspiring them to undertake circular practices for the water treatment systems in the entire island. The seminar was a follow up of the participation of MEMIRA to Choletria village on the 20 July 2020 were a poster of HYDROUSA was presented.

Also, on the 2nd July 2022, in Limassol Cyprus MEMIRA organised a seminar and workshop on Waste and Wastewater Management of Mountain and Rural Communities - Funding Mechanisms and Opportunities, addressing 120 representatives from local authorities, municipalities, policy makers, academics and civic society. In this workshop the Commissioner of Environment of Cyprus and the Commissioner for the Development of Mountainous Communities of Cyprus participated together with a significant number of the Communities' leaders.

Figure 3.14 Photos from the two Worksdhops organized by MEMIRA in Cyprus

HYDROUSA Seminars by ALCN & Plenum

How can your own water supply project be developed and implemented?

This was the key question raised at the HYDROUSA Seminar focusing on replication for AUSTRIA by the project partners of ALCN and PLENUM on 16th of November 2022. The event took place both in physical presence with 20 participants and online (+10 participants). The seminar was addressed to practitioners who were willing to implement circular water management and treatment projects in their regions. The main focus of discussion was the challenges surrounding the topic of water and wastewater use in Austria and developing possible solutions that build on the results of HYDROUSA and offer circular water use with the help of nature-based solutions. The aim was to find climate-resilient solutions to water scarcity and water waste in a collective setting. The following topics were also addressed during the seminar: EU regulations, wastewater treatment and use, innovative use of rainwater in the soil, agricultural use of wastewater and agroforestry, water – total solutions.

The format included Inspiring impulses and an interactive world café with Johannes Kisser and Heinz Gattringer (ALCN), Alfred Strigl (PLENUM), Nicolas Bedau (ELT) and Manfred Radtke (RADKE).

Figure 3.15 HYDROUSA replication workshop for Austria

HYDROUSA Seminars by IHA & NTUA

During the Inauguration event of HYDROOUSA project which took place in Athens on 29th of March 2019, 5 parallel seminars were organised introducing the different applications of HYDROUSA to targeted audiences that were willing to explore the implementation requirements. In each of the seminars there was an average of 20 participants from scientific community, industry, media, business network, strategic partners, water authorities, investors, general public and representatives from local authorities.

Seminar 1. Business Opportunities from circular water practices (instructor DEL)
Seminar 2. Mangrove Inspired desalination System (instructor PLANET)
Seminar 3. Water Loops in Eco-tourist facilities (instructor ELT)
Seminar 4. Agroforestry Practices for Regenerative Land (instructor ALCN)
Seminar 5. Waste Water Treatment Practices (instructor NTUA)

Figure 3.16 HYDROUSA Inauguration event in Athens

4. COMMUNITY FORMATS

4.1 Artistic Interventions

4.1.1 Art & research residency

During its 3rd and 4th year of implementation, HYDROUSA had operational the full-scale applied innovations of regenerative solutions in three Mediterranean islands, which integrated nature-based technological solutions in the context of circular economy. The project opened up its approach to the artistic community with the lead and experience of IHA.

The project in Summer 2022 was manifested with alternative citizens' activities and artistic approaches to strengthen the proposition for a circular transition. How might we deploy art to make a shift towards a more environmentally conscious community? How can art contribute to environmental and social change? How could we emotionally connect with a challenge, in order to inspire actions?

The Artist Residency was designed by IHA and was curated in collaboration with Eleni Riga an independent curator and initiator of the Office of Hydrocommons (#OfficeOfHydrocommons), an innovative curatorial model developed as part of #Occupy Atopos 2023 Program that is focused on water. The programme of #OfficeOfHydrocommons was launched on the World Water Day 2023 and it's a year of full research, art & science actions, and curatorial performances around the topic of water. HYDROUSA was honoured to collaborate with those individuals and institutions, who actively contribute with their means and expertise to a more circular transition.

In this framework, Despina Charitonidi, a sculptor and performer was the guest artist. Accompanied by four dancers she presented a fragment of her upcoming performance and first presentation in Greece at Atopos cvc "To fall with grace". This work explored the unseen processes and effects of human interventions in water related environments. More specifically, it focuses on the militarization and gentrification of oceans, the noise pollution and the effects on human and sea mammals. The project evolves and is linked to HYDROUSA solutions and findings. "To fall with grace" reflects on the value of water, and in a similar way HYDROUSA brings nature-based solutions to address water scarcity and dryness in the same way "To fall with grace" depicts how in a dry environment the beings act out of place - completely disoriented.

The artwork was displayed during the Open day at Tinos Ecolodge at Steni Village on the 23rd of June, and the following day at the central marina of Tinos Chora for the local community (Figure 4.1).

Art is a powerful means, and the objective of this residency was to foster community building, creatively communicate the value of innovative and circular 'uses' of water bodies. The Artist Performance was an interactive and creative experience to inspire and transmit feelings or ideas.

Figure 4.1 HYDROUSA Artistic/Creative Performance "To fall with grace"

4.1.2 3D printing for all

An interactive workshop took place in Chora in June 2022, where participants had the opportunity to create stencils, stickers and 3D-printed stamps for decorating a fabric bag or card, using a 3D printer and a paper and vinyl cutter. HYDROUSA and IHA partners with SYN Fab Lab for the production of this workshops that is combining artistic expressing with education and awareness raising. SYN Fab Lab is initiated by Olivia Kotsifa a creative professional who has 14 years of experience in the field of education and has served as an educational design, content and team coordinator for design and digital fabrication training centres in Belgium and Qatar, involving the education of children and teenagers aged 4-18 as well as teachers. In 2020, she returned to Greece where she founded the first mobile design and digital fabrication lab, SYN Fab Lab, which focuses on education and project development for specific locations across the country. Her goal is to make us rethink the way we live, work, and play through designing and creating meaningful change, unique to each place. This was an ideal partnership for HYDROUSA as it is fulfilling its mission and strategic goals for community engagement and awareness raising.

Both the educational and practical approach of the SYN Fab Lab addresses the UN Sustainable Development Goals and 21st century skills, with a particular emphasis on meaningful making, learning by making, autonomous learning, and creative thinking. The SYN Fab Lab houses electronic design and programming tools and equipment for 3D printing, laser cutting, vinyl cutting, CNC, mould making, and 3D scanning. Part of the

equipment was installed in the public square of Tinos with an open participation from the locals. HYDROUSA hosts were also present to distribute HYDROUSA leaflets and share more about the project.

As Olivia Kotsifa has been active in the global Fab Labs network since 2009 and has designed and implemented creative workshops for children and teenagers (4-18 years old), students, artists, educators, and the general public worldwide we strongly believe that is a great "Water Ally" that contribute also through her networks and work to HYDROUSA agenda (Figure 4.2).

Figure 4.2 HYDROUSA Artistic/Creative Workshop with SYN Fab Lab

4.1.3 Video - "FOR ME WATER IS…"

What is water for you? For HYDROUSA water is the most valuable element. It is the essence of life, one of the most precious resources that our planet has given us. Through HYDROUSA we implemented a campaign with the guidance of IHA and with the creative direction of MUSUNGU in order to capture the importance of water for all the community, including public representatives, local farmers, volunteers and project partners representatives in all the islands during the period of June 2022 to June 2023. This campaign was also used as a format to info stands and to our participation to exhibitions and trade fairs creating a common ground of the importance of water as a resource of life. Video statements were taken, in all the respective islands and were used for stories, teasers and promotion.

Figure 4.3 HYDROUSA - "For me water is…"

4.2 Info Stand

Throughout the Summer of 2023, HYDROUSA's Info Point stood as a beacon of information, operating daily at central spots within the community. Its significance extended far beyond just a physical presence; it served as a knowledge and conveying hub, fostering awareness, and igniting interest in the principles of the circular economy. With a clear aim to educate and inspire, the Info Point played a pivotal role in acquainting both locals and visitors with HYDROUSA's innovative nature-based and regenerative solutions.

Over the course of this month, an estimated 1000 citizens and tourists had the opportunity to engage with our dedicated hosts of IHA, who had a dedicated training on the educational and HYDROUSA's promotional materials, but also were passionate about conveying the message of sustainability and environmental stewardship. Through informative discussions, and interactive displays developed by ALCN, individuals gained insights into the transformative impact of HYDROUSA's initiatives. Beyond raising awareness, the Info Point served as a dynamic promotional hub, extending invitations to people to participate in the dedicated activities and events that HYDROUSA had planned (artistic performances, open days, summer school).

The Info Point (Figure 4.4) was a catalyst for knowledge dissemination and community engagement, exemplified HYDROUSA's commitment to involving locals and visitor's tourists. Its materials were designed by open-source hardware principles by Ludd, the social cooperative of engineers and Makers who are based in Athens creating a sustainable symbol of HYDROUSA nurturing a sense of responsibility and collective action in the pursuit of a more sustainable and harmonious future for all.

Figure 4.4 HYDROUSA Info Stand

Infor Stands in Exhibitions

Additionally, to the above HYDROUSA participated in large-scale Events, having great visibility to 11,000+ people from the scientific community and specific audiences like young students and researchers (e.g., Athens Science festival 2019 and 2022, Researchers Night Athens, Sharper Ancona Italy, European Researcher Night). Below are some examples of where HYDROUSA project was exhibited actively informing and exchanging with the community.

Figure 4.5 HYDROUSA at Athens Science Festival 2019 & 2022

Aquatech Water event: Amsterdam, Netherlands, October 2019

Aquatech Amsterdam is the world's leading water trade show for process, drinking and wastewater visited by over 20,000 water professionals. HYDROUSA was presented at the booth of ICT4Water cluster throughout the event, and even had a possibility to pitch the solutions developed (Figure 4.6).

Figure 4.6 HYDROUSA at Aquatec 2019

NTUA Researchers' Night: Athens, Greece, 2018 & 2022

In both 2018 (Figure 4.7) and 2022 (Figure 4.8), HYDROUSA was presented at the Sanitary Engineering Laboratory (SEL) booth during Researcher's Night. Students of different educational levels and representatives of the academic community were informed about HYDROUSA's solutions, but also saw the derived products (essential oils, lavender, oregano and other goods).

Figure 4.7 NTUA Researcher's Night 2018

Figure 4.8 Researcher's Night 2022

ECOMONDO Trade Fair; 2018, 2021 and 2022, Rimini, Italy and in Mexico 2022

HYDROUSA was presented by its coordinator at the 3rd European Nutrient Event: Towards Circular Economy of Phosphorus and other nutrients, in Rimini, Italy, on 5-9th November 2018. On October 2021, experts from the HYDROUSA team presented the circular economy approach of HYDROs 1-6, invited to the event WATER PROJECTS EUROPE – Water-smart industrial and utility-industry symbiosis within the Ecomondo exhibition in Rimini, Italy (Figure 4.9). In 2022, the HYDROUSA team had the opportunity to participate in Ecomondo exhibition and providing tangible results on decentralised water reuse. In 2022 the workshop with title "Water Project Europe – Challenges and eco-innovation actions addressing water scarcity and drought in Mediterranean countries" (Figure 4.10) was co-organized by NTUA and other project partners. In this workshop we discussed on climate change and its impacts on water scarcity and its political, economic and social implications. International collaboration and innovation actions are preferable mechanisms to tackle these challenges from a technical and socio-economic point of view. In addition, during ECOMONDO 2022 HYDROUSA was hosted at the booth of the European Union together with other EU-funded projects, presenting the circular solutions of the project as well as some of the derived products (Figure 4.11). Finally, HYDROUSA was also presented by UNIVPM team in Ecomondo trade fair in Mexico, in July 12-14 2022 (Figure 4.12).

Figure 4.9 HYDROUSA at ECOMONDO 2021 in Rimini

Figure 4.10 Photos from the workshop organized at ECOMONDO 2022 in Rimini

Figure 4.11 HYDROUSA's booth at ECOMONDO 2022, Rimini

Figure 4.12 HYDROUSA at ECOMONDO 2022, Mexico

Verde.tec Trade fair, Athens, Greece, March 2022

Verde. tec is one of the most important environmental technology events in Greece. It covers a wide range of topics on energy, circular economy and smart cities. On March 2022, HYDROUSA participated in Verde.tec trade fair at the booth of the Sanitary Engineering Laboratory (SEL) of the NTUA. The visitors had the opportunity to learn about HYDROUSA's solutions and also to have a close look at some of the derived products (oregano, lavender, aronia liqueurs, etc.) (see Figure 4.13)

Figure 4.13 HYDROUSA at Verde.tec trade fair.

AGROTICA Trade fair Thessaloniki, 20-23 October 2022

The AGROTICA trade fair is the most central networking point for the agricultural sector and the agricultural economy of Greece. HYDROUSA's solutions were presented at the AGROTICA trade fair at the booth of the project partner AGENSO. In particular, the low-cost irrigation automation system was presented, which calculates the ideal amount of irrigation water based on crop needs (Figure 4.14**Error! Reference source not found.**).

Figure 4.14 HYDROUSA at AGROTICA trade fair

World Water Forum 2022, 21-26 March 2022, Dakar, Senegal

The World Water Forum is the world's biggest water-related event, held every three years to bring together key political actors, business leaders, NGOs, donors, and international organizations to promote dialogue and facilitate access to water and sanitation. The 2022 Forum—under the theme, *Water Security for Peace and Development*—is jointly organized by the World Water Council (WWC) and the Government of Senegal and has been the first hosted in Sub-Saharan Africa. The Forum provided a unique platform for the water community and key decision makers to collaborate and make long-term progress on global water challenges. The 9th World Water Forum focused on four priorities: 1) water security and sanitation; 2) cooperation; 3) water for rural development; 4) means and tools for implementation of reforms in water and sanitation. Additionally, the Forum convened a Summit of Heads of States and major international institutions, to advance the political agenda on water and sanitation at the midpoint of the 2030 agenda on implementing the water and sanitation targets and Sustainable Development Goals (SDGs). The HYDROUSA project was presented

during the "Mediterranean Solutions from the 4th Mediterranean Water Forum" session during the Water Forum (Figure 4.15). We showed the regenerative, circular and nature-based dimensions of the project.

Figure 4.15 HYDROUSA at World Water Forum in Dakar

Agri travel and slow travel fair, Bergamo, April 2023

Focusing on rural tourism, eco-tourism, slow-tourism, and agro-tourism, this event attracted over 20.000 visitors. Particularly suitable for the marketing of the HYDRO6 solution, this has been a great opportunity to promote all solutions, since many public stakeholders and representatives from the rural agricultural field have been joining. Relevant contacts have been made. SEMIDE participated through a booth where the HYDROUSA project had a very high visibility (Figure 4.16).

Figure 4.16 HYDROUSA at the Agri Travel and Slow Travel Fair, in Bergamo

WATREX Expo, Cairo, May 2023

The WATREX Expo is being promoted by the organizers as "the biggest Exhibition and Conference for water and wastewater Technologies in the MENA Region". It took place in Cairo with in 2022 over 23.000 visitors

primarily coming from water scarce region and this event seems to be an excellent opportunity to showcase the EU-funded research and innovation project (Figure 4.17). To showcase the project, a poster was presented by SEMIDE to illustrate the different demo sites as well as the replicability studies in the Mediterranean and MENA regions.

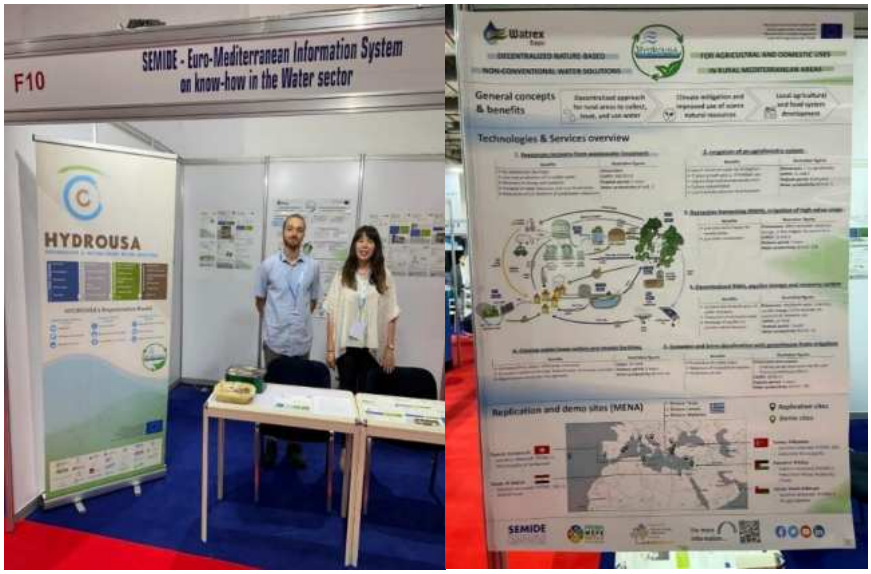

Figure 4.17 HYDROUSA at WATREX Expo 2023 in Cairo

4.3 Summer Schools

HYDROUSA opens to wider audiences, inviting researchers, entrepreneurs, young individuals, locals and professionals, a shared learning experience about circularity, innovation and sustainable use and management of water resources.

Tinos Summer Schools was a 4-day format that intended to build capacity and showcase alternatives to switch from linear to circular solutions. The main goal was to spread environmental consciousness, discovering different nature-based solutions and explore sustainable practices for water management and water treatment, along with a group of experts, innovators and technology leaders from ELT, IRIDRA, NTUA, ALCN, IHA, PLANET, SEMIDE and others. The Summer School implemented an interdisciplinary approach and provided practical training, seminars and hands-on experience, where participants deepen their knowledge in water management, ecosystems and agriculture. The objective was to connect with nature, improve our practical skills and understand rainwater harvesting loops, regenerative agriculture, sustainable and circular use of water. A further objective was to get the chance to connect with the local community, multicultural people and expand our networks by sharing ideas and opinions on the water management and water treatment systems to boost of the profile of the island.

A total of 20 participants and experts from all over Greece and Europe gathered on the island of Tinos to explore alternatives for the transition from a linear to a circular economy. Tinos – is a place that tackles a severe water shortage, with 90% of it coming from desalination plants to meet the needs of the islands. The participants of the project, coming from different backgrounds, created a group where multiple perspectives, thoughts and ideas were shared, and together with the contribution of the instructors, an inclusive presentation of the technical and practical development and implementation of the applied technologies HYDRO5 and HYDRO6 created a holistic exchange of knowledge and insights. During the programme, a number

of interactive activities encouraged critical thinking in order for the participants to exchange views and reflections.

An open workshop bringing together 20 local representatives from civic society (Abassada - Citizens Movement for Sustainability, Kalloni Tinos Social Cooperative for Recycling & Waste Management and HYPERCOMF Artistic Initiative on Agriculture and Environmental awareness) took place in a historical Municipal Building of the Municipality of Tinos. The goal was to discuss and merge the knowledge acquired from the 4-days training, with the locals expertise and perspectives, towards circularity. (Figure 4.18)

Figure 4.18 Tinos summer school within HYDROUSA project

Organised training visits with the guidance of DEL, were provided to groups of students at HYDRO3 demo site in Ano Mera, Mykonos, which proved to be an educational and eye-opening experience. The visits highlighted the site's significance in the realm of sustainable water management in the dry island of Mykonos, showcasing the nature-based technologies of rainwater harvesting - an eco-friendly irrigation system in action.

The benefits of these visits were manifold as through the visit HYDROUSA raised awareness among the students about the pressing need for sustainable water solutions and instilled a sense of environmental responsibility. It also provided them with practical insights into these technologies, potentially inspiring future careers in water management and conservation. Lastly, the visits demonstrated the tangible advantages of HYDROUSA's initiatives, such as reduced water consumption, improved water quality, and positive effects on the local ecosystem. In total more than 40 students were benefited by the interactive training at the school visits to HYDRO3's demo site. A valuable educational experience, equipping these students with the knowledge and motivation to contribute to a more sustainable future (Figure 4.19).

Figure 4.19: HYDROUSA – Mykonos Summer School to the demonstration site of HYDRO3

HYDROUSA consortium has warmly welcomed diverse groups of students during the years 2022 and 2023 at the Lesvos demonstration systems (i.e., HYDRO1 and HYDRO2). These groups have included enthusiastic secondary and high school students from the island, as well as university students from the Department of Environment at Aegean University. The purpose of these visits was to explore the HYDRO1 and HYDRO2 demonstration sites located in the village of Antissa. These educational excursions have provided opportunities for students to immerse themselves in the world of cutting-edge water treatment solutions and agricultural innovations developed at these demonstration sites (Figure 4.20).

For 48 students from Aegean University (2 groups of different semesters), a tailored training program was meticulously crafted under the expert guidance of Athanasios Stasinakis (Professor and the University of the Aegean). This program was thoughtfully designed to align with their semester assignments, ensuring that students gained a comprehensive understanding of HYDRO1 wastewater treatment system. They were introduced to innovative technologies, with a particular focus on the anaerobic treatment stage, vertical flow constructed wetlands, post-treatment units, biogas upgrade systems, and the composting unit. The educational experience highlighted the remarkable benefits of this process, emphasizing energy and nutrient recovery, all within an environmentally friendly and cost-effective operational framework. Furthermore, students learned about the importance of collaboration among various stakeholders through practical examples, such as the partnership with the Municipality of Western Lesvos for licensing for water reuse and the utilization of biogas as pure biomethane, fuelling community waste-pickup vehicles.

In addition to the HYDRO1 tour, students had the opportunity to explore HYDRO2, which showcased the regenerative potential of agroforestry, utilizing reclaimed water and nutrients through the composted sludge. This part of the visit provided insights into the irrigation methods employed in the agroforestry system, fertigation with compost, and comparative assessments between corn fields irrigated with network water versus reclaimed water.

Throughout their visit, students observed these systems in operation, gaining valuable insights into the objectives and goals of the HYDROUSA project. They also had the privilege of engaging with experts on-site, making these educational visits a true source of inspiration. By equipping these emerging environmentalists with practical knowledge and a deeper understanding of water management and agriculture innovation, these experiences are cultivating a generation of environmentally conscious individuals ready to make substantial contributions to a more sustainable future. Importantly, they are poised to bring this knowledge back to their communities in the near future, ensuring its positive impact extends far beyond the classroom.

During the visits by local schools (Eressos secondary and Petra's, Agra's high schools) more than 140 students were involved. An exciting and engaging component aiming at empowering students to actively participate in the HYDROUSA Project's objectives. As part of these workshops, students were encouraged to observe and photograph animal or plant species as key performance indicators of the enriched biodiversity. This collaborative approach aimed to foster a sense of ownership and inclusion within the new system, ultimately increasing its level of acceptance among the local community. These hands-on activities were strategically designed as co-creation initiatives in alignment with HYDROUSA's objectives (T9.6). In combination with the involvement of citizens and farmers in the workshops, their valuable perspectives and insights were integrated into the development of the agroforestry system, ensuring that it aligns with the needs and aspirations of the community. This approach not only educates but also empowers the next generation to play an active role in shaping a more sustainable and community-centred future.

Researchers from the University of the Aegean presented HYDROUSA project to pupils of the 5th secondary School of Mytilene. The use of constructed wetlands as an alternative practice for efficient wastewater treatment was discussed while analysis of treated wastewater was conducted using portable instruments.

Figure 4.20: Lesvos demonstration site of HYDRO1 and lecture of HYDROUSA to students

4.4 HYDROUSA Hackathon

Hacking The Future Of Sustainable Development: A Hackathon on Circular Economy by Impact Hub Athens, January – June 2023.

The Hackathon took place, around the topic of "The Future Of Sustainable Development" an emerging topic that manifests through high level policy makers to activist groups and citizens forums, online but also in everyday discussions. The format is bringing together individuals and teams who try to "hack" (find solutions) to the challenges that emerge from the pillars of HYDROUSA. Experts, stakeholders, water activists, social entrepreneurs work towards solutions that can contribute to climate adaptation. The 3 best suggested ideas were incubated at the Impact Hub getting their solutions into action.

In order to unfold new solutions and ideas, we have used the hackathon methodology- a design methodology built on the framework of collaboration and co-creation, combining the best qualities, skills and knowledge of people from different backgrounds. The hackathon uses the innovation, mindset, speed and fast prototyping principles of the startup culture, together with the solid, deep knowledge and experience of a pool of mentors and speakers who are active in relevant fields, industries and roles.

We partner closely with a variety of organisations and professionals in order to inject game changing results into their projects. The team of IHA has the expertise to design and apply the appropriate methodologies, providing innovative solutions to challenges and questions raised on small or big scale.

4.4.1 Theme

The theme of the program was positioned as follows: Climate change, biodiversity loss and resource depletion require urgent response due to their significant impacts on our environment, economy, and society. The effects are already visible on the communities around the world. Immediate actions are required to prevent further damage and ensure a sustainable and resilient future by conserving resources, promoting sustainable practices, and developing innovative solutions. This is where HYDROUSA comes to showcase and inspire, connect and enable regenerative solutions at scale.

We bring together a cross-section of the green, blue, or environmental community, from business and finance to government officials, national and international policymakers, civil society, and academia, and provide support to help initiatives reach the next level and scale their activities and impact. We invite research projects, ideas, or early-stage business solutions that positively impact the environment or offer solutions to the challenges of the climate crisis, to join us.

4.4.2 Pillars of intervention

Natural resource conservation: how can we close the loop on physical resources in both rural and urban areas? How can we secure or initiate regenerative solutions that efficiently secure water, energy, and food for our communities while conserving our natural resources? Could these solutions work in a decentralized way and add flexibility to our systems? Are these systems based on a nature-based solution approach with low energy profiles?

Circular Economy: How can we move to more circular resource management and move away from linear models of production and consumption?

Net Zero Future: How can we reduce greenhouse gas emissions to zero as much as possible, with the remaining emissions being reabsorbed from the atmosphere, for example by the oceans and forests?

We encouraged ideas and solutions that come from and/or serve underrepresented communities, promote gender equality (no discrimination, percentage of femininities in leadership positions), create new and/or equitable employment opportunities, and raise awareness or actively engage local communities or, more broadly, encourage active citizenship.

4.4.3 Programme Approach

The HACKATHON was designed based on the following practices:

- Provide a deep understanding of the specific needs of each participating startup through.
- Diagnostic session & individual development plans & curated connections with specific experts/mentors.
- Offer a series of workshops with experts in important elements for high end green & innovation sectors (green shipping, energy transition, green education, circularity).
- Provide tangible sales/growth/investment opportunities for the most promising enterprises that effectively address issues the challenge owners are already invested in.
- Provide expertise and further connections inside their organization, supply chain or distribution channels and beyond.
- Leverage workshops, events and other opportunities that our Impact Hub, the Climate Kic programmes & other local & European partners have been running, so that the participating ventures would gain access to our local & global network's expertise.
- Engage a deep and broad network of the corporate, public sector, not-for-profit sector, investment and financial sector, and personal relationships.
- Design based on a pragmatic approach (business cases, evidence-based impact cases) and bringing on-board best-case practices to share their experience.
- Involve corporate and public sector representatives that can bring insight on the real challenges around green transition in the respective industries.

4.4.4 Scouting

Scouting for Hackathon commenced in February 2023. 58 startups were approached via the extended community of IHA locally and internationally, to present the opportunity. The outreach to the projects was done according to the scouting strategy which was a combination of internal work of Impact Hub's Athens scouting team and marketing propagation. During the scouting phase, we employed both, an open call that is supported by a robust marketing campaign, as well as direct scouting of projects in our reach to increase the number of potential participants, as well as the quality of the programme.

We activated a conventional PR campaign (Facebook, LinkedIn advertising, etc.) and info sessions were organized in smaller groups to reach the relevant stakeholders in the ecosystem. Also, key stakeholders from Impact Hub Athens, local and European ecosystems were involved in disseminating the information about a call. The attraction strategy was actively communicating the core elements of the program, including the

experts, the network of supporters and local media partners. The scouting period lasted 2 months and 20 startups officially applied for the program.

Out of those, sixteen (16) teams having sustainable and innovative solutions were selected to join the Hackathon.

4.4.5 Programme

On April 28th and 29th, the heart of green entrepreneurship beat strongly at the premises of IHA during the Hackathon, an initiative by IHA with the scientific supervision of the NTUA, and in close collaboration with Greece ClimAccelerator 2023 of EIT – Climate KIC and with the further support of the John S. Latsis Public Benefit Foundation.

The kick-off of the Hackathon was given by the hosts of Impact Hub Athens, which this year celebrates 10 years of systematic and active presence in the field of sustainable and circular economy. Then, Simos Malamis, Associate Professor of the NTUA and coordinator of HYDROUSA project, and Andrei Geica, Co-Founder & Partner of Sporos Platform, took the floor. Dr Malamis presented the journey of HYDROUSA and the impact of the project (Figure 4.21). Mr. Geica encouraged the participants, acknowledging their already significant contribution to the global fight against climate change (Figure 4.22). Subsequently, the teams had the opportunity to introduce themselves with a tweet, creating anticipation for their final pitch.

Figure 4.21 Inspirational talk by Simos Malamis, Associate Professor at School of Civil Engineering of the National Technical University of Athens

Figure 4.22 Inspirational talk by Andrei Geica, Co-Founder, Chief Policy & Impact Officer at Sporos Platform

Saturday was dedicated to the participants. All teams had the opportunity to meet with over 25 experts, engage in interesting discussions with them, and refine their presentations Figure 4.23.

Figure 4.23 Meet the Expert Session, HYDROUSA partners and other professionals

With great anticipation, audience, teams and judging committee listened to the pitch of the 16 entrepreneurial projects, while the latter received and answered questions. The judges participating in the event were Dora Trachana (Uni.Fund), Andrei Geica (Sporos Platform), Simos Malamis (National Technical University of Athens), and Eleonore Cottarel (Investing for Purpose) (Figure 4.24).

Figure 4.24 Judges - Dora Trachana, Eleonore Cottarel, Simos Malamis, Andrei Geica

The day concluded with the announcement of the results, as well as a promise for continued interaction within the ecosystem that came together during the Hackathon and through the hard work. As mentioned by Andrei Geica in his opening speech, the goal is to reach a point in a few years where we no longer talk about a circular economy but simply refer to it as “the economy”.

4.4.6 Awarded Projects

Three startups emerged as winners of the Hackathon, earning prizes of 3,000 euros from a foundation focusing on sustainability: Voltera, Rhoé, and Ecogenia (Figure 4.25). Additionally, the following 11 Greek startups stood out based on their positive environmental impact, potential for expansion into new markets, team strength, innovation, and have progressed to the next phase of the acceleration program that got supported with acceleration services:

Voltera: Provides integrated urban solar as a service solution to individuals, communities and businesses.

Rhoe: A platform for coastal shipping that provides vessel owners and operators with a cost-competitive, clean energy swappable battery network without the need for high capital investment.

Ecogenia: Provides recruitment and training of the Greek youth to execute community-based climate action projects that otherwise would not get done.

Promilist: Redefines voyage optimisation solutions for a greener and a more sustainable shipping sector, by utilising artificial intelligence, naval engineering and earth observation data.

Emetrics: A low energy consumption IOT/5G solution that measures real time carbon emissions in shipping and logistics.

Pallinea: A Greek circular fashion platform that promotes sustainable consumption by facilitating the buying and selling of second-hand clothing, along with offering educational resources and workshops on upcycling.

BlueCans: Utilization of the plastic collected from the marine environment of Greece for the production of original designed objects of daily use, with the technology of injection moulding.

A New Tower of Winds: An action-research-based design process, which explores the potential for a network of urban passive-energy evaporative-cooling structures to help reduce the extremes of heat and pollution in Athens, and contributing to the corridors of cool clean air called for in the Athens Resilience Strategy for 2030 that will become an essential infrastructure for Athens in the coming summers.

Kookoonari: Designs and implementing of projects, educational programs and workshops regarding Zero Waste, Circular Economy and the Environment, for children, adults, schools, working spaces and the whole community.

ECOTIVITY: An app incentivizing consumer to adopt an eco-friendly lifestyle via zero waste tips, eco-friendly products and company suggestions, while rewarding them for their choices.

UrbanBeekiping: Restores the connection between people living in the cities and nature through beekeeping, while raising social awareness on the need for urban green spaces and biodiversity; produces the 1st urban honey in Greece.

Figure 4.25 The 3 winner startups Rhoé, Voltera, and Ecogenia

In the acceleration phase, the teams worked on the development of their business and financial models, exploring new markets and investment opportunities that are related to circularity and climate. This was done through a series of workshops with innovative business tools, personalized guidance, and

connections/collaboration with experts, specialists, and professionals from environmental organizations and businesses.

The goal of the HYDROUSA HACKATHON by IHA and with the partnership with Climaccelerator Greece was to create a strong network of professionals and investors who are engaged in and promote the development of sustainable, regenerative, and innovative solutions for environmental advocacy and protection of the planet.

The experts who participated in the HYDROUSA Hackathon where in total 25: Giorgos Skevis (CLEOS), Lida Tsene and Dimitris Kokkinakis (IHA), Fenia Sourla (Dataphoria), Laura Sommer (LKSommer), Maha Al-Salehi (SEMIDE), Diti Kotecha and Giannis Pitsakis (Théla), Konstantinos Pardalis (Schneider Electric Sustainability Business), Anna Tea (Green Facilitation), Eleni Nýktari (NTUA), Chetan Zawar (TikTok), Ignacio Navarro Pérez de Guzman (Greenpeace), Derek Roedel (Axtonne), Thodoris Kotzastavros (Social Builders), Sabrina Carvalho (Signify), Giorgos Makridis (Means4), Grigoris Andrikos (Cyclops SA), Majdi Chebil (Zscaler), Nikos Therapos (DotankPlus), Thanasis Koutsianas (Symbeeosis), Elena Stamou (Swaplanet), Zisis Tsiropoulos (AGENSO), Stavroula Kappa (NTUA), Ioannis Vasilakos (Hydraspis).

Figure 4.26 HYDROUSA e-newsletter IV

4.4.7 Support & Acceleration Services - Stage 1 - Business & Financial Modelling

The acceleration phase officially started in May 2023 and was concluded in June 2023. As mentioned above, 11 Greek startups were initially accepted and one of them has not fulfilled the stage. The startups have had the opportunity to attend a series of workshops, while we have been offering consultations with professional experts of the Impact Hub network.

During the acceleration phase we have focused on creating scalable business models since we saw that there were hidden scaling possibilities in almost all of the early-stage startups. Combining collective formats with individual sessions, we deconstructed the business cases to rebuild them in a more scalable and sustainable way. Most of the activities have taken place virtually, from 1-1 sessions to common community workshops. A combination of objectives has been met from inspiration to meaningful connection with experts and market

leaders, building capacity and getting involved in the enlarged community of Impact Hub and the network of HYDROUSA.

Altogether, we conducted:

Implemented Activities

- Entrepreneurial Workshops/Masterclasses
- Mastermind sessions
- Mentoring sessions
- Climate Impact Forecast Workshop

Tuesday, 23rd of May: Financial Module, Theory Workshop
Lector: Nikolaus Hutter
Facilitators: Elena Kalimeri, Stefan Kurandić
Topic: Cash Flow & P&L theoretical analysis

Thursday, 25th of May: Financial Module, Case Study Workshop
Lector: Nikolaus Hutter
Facilitators: Elena Kalimeri, Stefan Kurandić
Topic: Cash Flow and P&L case study analysis

Wednesday, 31st of May: Mastermind session
Facilitators: Elena Kalimeri, Stefan Kurandić
Topic: Cash Flow and P&L analysis

Wednesday, 7th of June: Mastermind session
Facilitators: Elena Kalimeri, Stefan Kurandić
Topic: Cash Flow and P&L analysis

Tuesday, 13th of June: Business Module, Theory Workshop
Lector: Nikolaus Hutter
Facilitators: Elena Kalimeri, Stefan Kurandić
Topic: Business Model theoretical analysis

Thursday, 15th of June, Business Module, Case Study Workshop
Lector: Nikolaus Hutter
Facilitators: Elena Kalimeri, Stefan Kurandić
Topic: Business Model case analysis

Wednesday, 21st of June: Mastermind session
Facilitators: Elena Kalimeri, Stefan Kurandić
Topic: Business Model analysis

Wednesday, 28th of June: Mastermind session
Facilitators: Elena Kalimeri, Stefan Kurandić
Topic: Business Model analysis

Friday, 30th of June: Climate Impact Forecast Workshop
Lector: Csaba Dudás, (Organizers: Impact Forecast.org)

Topic: Measurement of startup's climate impact (The participants explored the CIF tool, and how to make a climate impact forecast, but more importantly, explored the opportunities for improvement. The outcomes of the workshop are a quick scan assessment, prolonged access to the tool to refine the assessment later, impact-related new next steps, better preparation for further assessments, and a way to discuss impact effectively during pitching seasons).

4.4.8 Achievements

We consider the following as our main achievements of HYDROUSA Hackathon:

1. Having received 20 applications and engaging 110 individuals, supported 10 start-ups in depth.
2. Activation and engagement of key partnerships with representatives from Corporate, Private and Public Institutions who got involved with HYDROUSA solutions.
3. Creating synergies and promoting HYDROUSA and Climate Agenda among the entrepreneurial ecosystems.
4. Strengthening the sense of community, leveraging the local events so that startups, mentors/experts and business representatives had the opportunity to connect, get to know each other and share experiences with the potential of future collaborations.
5. HYDROUSA has been communicated through a series of Media raising awareness on the agenda of circularity.

5. KPI

Below there is an analysis of the related KPIs (Key Performance Indicators), as described in the Grant Agreement and in D9.1 Dissemination and Communication Plan.

Table 5.1: Key Performance Indicators (KPIs)

Performance Indicator	M1-M60	Total Goal
Co-creation workshops implemented	**10**	3
Participants in co-creation workshops	**246**	>200
Seminars/Workshops organized	**42**	12
Experts/social innovators/researchers involved	**47**	40
Participant citizens in educational activities	**2549**	500
Participants in Summer Schools	**351**	80
Participants in Hackathon on Water Circular Economy	**110**	80
People informed by the info stand & citizens science activities	**11280**	6000

6. CONCLUSION

In summary, HYDROUSA project's Community Engagement Strategy, developed through the Dissemination and Communication Plan (DCP), and specifically the Co-creation and training activities has played a pivotal role in addressing water scarcity and sustainability in the local communities and to the Mediterranean region. With the lead of IHA and the contribution of the local partners and the coordinator, since July 2018, a comprehensive strategy has been applied that has successfully met its objectives, including creating a broad awareness and understanding of the project's scientific, technical, and societal goals.

Key elements of the strategy, such as building a community of "water allies," have been effectively implemented, disseminating the project's goals, engaging the target audience, advocating for change, raising public awareness, ensuring relevance and efficiency, and fostering collaboration among stakeholders.

The co-creation and training activities reached approximately 15,000 people. A diverse range of stakeholders that were engaged through various community building actions like the co-creation workshops, summer schools, hackathons, and artistic interventions. These activities have successfully engaged thousands of individuals, enabling them to understand in more depth the importance of circularity, while actively participating in shaping HYDROUSA's solutions.

Through Info Stands, exhibitions, and Summer Schools, the project has further educated and inspired a wide audience, making them aware of HYDROUSA's innovative nature-based solutions and the principles of circular economy.

This robust strategy has created a dynamic "community of Water Allies" that is deeply committed to the project's mission. We believe that the impact of the Co-creation and Community Engagement Strategy ensures that HYDROUSA is well on its way to fulfilling and scaling its mission of addressing water scarcity and sustainability in the Mediterranean region.

7. APPENDIX

1	8-Dec-2018	IHA & ALCN	Antissa in the Centre #cocreation	1st Co-creation workshop HYDROUSA	Antissa, Lesvos, Greece	Strategic partners, Potential end-users, General public, Local authorities, Civil Society	40
2	22-Nov-2019	IHA & ALCN & AGENSO	HYDROUSA Tinos co-creation activity #cocreation	HYDROUSA - REGENERATIVE AND NATURE BASED WATER SOLUTIONS	Tinos, Greece	Media, Potential end-users, General public, Civil Society	40
3	10-Sep-2020	IHA,ALCN,Planet,Radtke Biotechnik	Circular Walk - HYDRO 5 - Planting Crops #cocreation	Circular Walk - HYDRO 5	Tinos, Greece	Scientific community, Potential end-users, NGOs, Civil Society	42
4	14-Sep-2020	IHA	Community building interviews and user requirements #cocreation	User Specifications - Insight gathering	Mykonos, Greece	Media, Water authorities, Potential end-users, Local authorities, Civil Society	15
5	2-Nov-2022	NTUA	Workshop #cocreation	HYDRO 5 visit - Technical School of Tinos - Exploring possibilities of By products	Tinos, Greece	school students, General Public	20
6	18-Nov-2022	NTUA	Workshop #cocreation	NTUA Visit - at Technical School of Tinos - HYDROUSA training - Exploring Videos of By products	Tinos, Greece	school students, General Public	20
7	8-Dec-2022	NTUA	WorkshopTraining #cocreation	Marmelade made with aloe - vera in collaboration with local shop of cosmetics and traditional products	Tinos, Greece	Local Bussness, General Public	5
8	8-Dec-2022	NTUA	Workshop Training #cocreation	Organic Soap Making with local Tinos business Karo	Tinos, Greece	Local Bussness, General Public	4
9	21-Jun-2022	IHA	Meets the Local Makers - #cocreation	https://www.hydrousa.org/hydrousa-summer-school/	Tinos, Greece	Strategic partners, Water authorities, Potential end-users, NGOs, General public, Local authorities, Civil Society	40
10	10-Jun-2023	NTELAROS	Mykonos goes Circular - Alternative Practices #cocreation	Essential Oils Workshop - Exploring By Products	Mykonos (Greece)	Scientific Community, EC, Private companies	20
11	3-Dec-2018	Plenum	University of Natural Resources and Life Sciences Vienna, lecture Wintersemester 2018, Environmental Management	https://boku.ac.at/personen/person/1439E127B10EE43F/	Vienna, Austria	students	35
12	22-Jan-2019	CWP	TALLER DE PROJECTES DE COOPERACIÓ DEL CATALAN WATER PARTNERSHIP (CWP)	DIGITALIZATION, SHARE VALUE AND STRATEGIC CHANGE	Barcelona	Scientific community, Business network, Associated Members of the CWP	30
13	12-Feb-2019	CWP	water and innovation seminar	Engagement - Generation and dynamisation of collaborative projects	Girona, Spain	Scientific community	15
14	29-Mar-2019	Delaros	HYDROUSA Launching event innovation cruise	Business Opportunities from circular water practices	Athens,Greece	Scientific community, Industry, Media, Business network, Strategic partners, Water authorities, Investors, General public, Local authorities	20

15	29-Mar-2019	Planet	HYDROUSA Launching event innovation cruise		Athens,Greece	Scientific community, Media, Potential end-users	20
16	29-Mar-2019	Ecolodge Tinos	HYDROUSA Launching event innovation cruise	Water Loops in Eco-tourist facilities	Athens,Greece	General public	20
17	29-Mar-2019	ALCN	HYDROUSA Launching event innovation cruise	Agroforestry Practices for Regenerative Land	Athens,Greece	Scientific community, Media, Potential end-users	20
18	29-Mar-2019	NTUA	HYDROUSA Launching event innovation cruise	Waste Water Treatment Practices	Athens,Greece	Scientific community, Media, Potential end-users	20
19	4-Apr-2019	IHA	International affairs university meet Impact Hub Athens	HYDROUSA - Regenerative and nature-based water solutions	Athens Greece	General public	44
20	12-Apr-2019	IRIDRA	Seminario Istituto Tecnico Francesco Datini	Gestione sostenibile delle acque ed economia circolare: Soluzioni naturali innovative ed il progetto HYDROUSA	Agronomic Technical Institute Datini of Prato (Italy)	General public	60
21	16-Apr-2019	IHA	TAZ REISEN	HYDROUSA - Regenerative and nature-based water solutions	Athens Greece	General public	11
22	16-20-Sep-2019	NTUA	H2020 projects	HYDROUSA transferability	Astana, Kazakhstan	Scientific community	7
23	23-Jan-2020	Plenum	University of Natural Resources and Life Sciences Vienna, Seminar Wintersemester 2020, Sustainability Strategies	https://boku.ac.at/personen/person/1439E127B10EE43F/	Vienna, Austria	Scientific community, students	28
24	18-Feb-2020	CWP	Economia Circular: Eines i estratègies d'Innovació Industrial (Postgraduate Course, UPC)	Agua: Retos y Oportunidades Iniciativas de economía circular del sector del agua	UPC Barcelona (Spain)	Scientific community, Students	20
25	27-Mar-2020	CWP	WEBINAR ONLINE-Oportunitats en projectes innovadors de digitalització del sector de l'aigua.	OPORTUNITATS EN PROJECTES INNOVADORS DE DIGITALITZACIÓ DEL SECTOR DE L'AIGUA	WEBINAR ONLINE - Girona (Spain)	Scientific community, Industry, Business network	50
26	24-Apr-2020	CWP	Webinar: Oportunidades en el marco de la regeneración del Agua	Oportunidades en el marco de la regeneración del agua	online webinar	Scientific community, Business network, Water authorities	100
27	8-May-2020	CWP	On-line WEBINAR. Gestión del agua y sostenibilidad en la industria alimentaria de Galicia	Ejemplos de proyectos de clústeres. Oportunidades de colaboración intersectorial	online webinar	Scientific community, Industry, Business network, Strategic partners, Potential end-users	50
28	9-Jul-2020	CWP	WEBINAR HYDROUSA PROJECT: Towards a circular economy model for the water cycle - https://vimeo.com/436816354	WEBINAR HYDROUSA PROJECT: Towards a circular economy model for the water cycle	online	Scientific community, Industry, Business network, Strategic partners, Water authorities, Potential end-users, General public, Local authorities	150
29	9-Jul-2020	AERIS	Regenerative and nature-based water solutions	Energy recovery– Opportunities to recover energy from wastewater	online webinar	Scientific community, Industry, Strategic partners, Water authorities, General public	100
30	16-Dec-2020	Plenum	University of Natural Resources and Life Sciences Vienna, lecture Wintersemester 2020, Environmental Management	https://boku.ac.at/personen/person/1439E127B10EE43F/	Vienna, Austria	Scientific community, students	18

31	26-Jan-2021	CWP	Webinar	Retos en la gestión del agua en el sector alimentario	online	Industry, Business network, Strategic partners	40
32	4-Mar-2021	IHA	HYDROUSA Webinar I: Ways to capture rainwater for domestic & agricultural use	HYDROUSA Webinar I: Ways to capture rainwater for domestic & agricultural use	online	Scientific community, Strategic partners, Water authorities, Potential end-users, NGOs, General public, Civil Society	65
33	1-Apr-2021	IHA	HYDROUSA Webinar II: Exploring the circular applications on Tinos	HYDROUSA Webinar II: Exploring the circular applications on Tinos	online	Scientific community, Strategic partners, Potential end-users, NGOs, General public, Civil Society	57
34	22-Apr-2021	ALCN	Kyklos InCommon	-	Thessaloniki, Greece	General public	43
35	6-May-2021	IHA	HYDROUSA Webinar III	following a completely circular solution in the Antissa village in Lesvos.	online	Scientific community, Strategic partners, Water authorities, Potential end-users, NGOs, General public, Civil Society	90
36	14-May-2021	ALCN	Design for Sustainability and Circular Economy	Hydrousa and CE	Syros,Greece	Scientific community, Students	35
37	17-May-2021	PLENUM GmbH	Styria Chamber of Commerce, Austria: Sustainability & SDG Training for Companies	https://www.win.steiermark.at/cms/beitrag/12792682/115636992/	Graz, Austria	Business network, General public, Industry	16
38	14-Sep-2021	SEMIDE	kick-off meeting of the 4th Mediterranean Water Forum	Innovative solutions from HYDROUSA project	Maseille, France	Scientific community, Industry, Media, Business network, Strategic partners, Policy makers, Water authorities, Potential end-users, Investors, NGOs, General public, Local authorities	125
39	19-Nov-2021	Plenum	University of Natural Resources and Life Sciences Vienna, lecture Wintersemester, 2021, Environmental Management	https://boku.ac.at/personen/person/1439E127B10EE43F/	Vienna, Austria	Scientific community, Civil Society, students	25
40	25-Nov-2021	CWP	Seminar to students of the Science and Integrated Management of Water Master program (University of Barcelona)	Engagement - Generación y dinamización de proyectos colaborativos	Barcelona, Spain	Scientific community, Students	15
41	15-Jan-2022	Plenum	University of Technology Vienna, Sustainable Building Seminar (Master Programme)	https://www.tuwien.at/ace/masterprogramme/nachhaltiges-bauen	Vienna, Austria	Scientific community, Industry, Master Students	15
42	27-Jan-2022	UNIVPM	Strategie per una corretta gestione della risorsa idrica nella provincia Pesaro-Urbino	La scarsità idrica nel bacino del Mediterraneo: sfide complesse e soluzioni sistemiche	Online	Scientific community, General public, Civil Society	45
43	24-Mar-2022	CWP	Seminar to masters students at the University of Barcelona (Master's in global challenges for sustainability www.charm-eu.eu/)	The Role of the Cluster in Managing Water-Related Social Challenges	Barcelona, Spain	Scientific community, University students	20
44	3-May-2022	Plenum	University of Natural Resources and Life	https://boku.ac.at/personen/person/1439E127B10EE43F/	Vienna, Austria	Scientific community, students	25

			Sciences, Vienna, Seminar Environmental Management				
45	4-Jun-2022	CWP	Universitat d'Estiu de Mercabarna: L'alimentació saludable de la ciutadania	L'aigua, el risc invisible	Barcelona, Spain	Industry, Business network, Students	50
46	2-Jul-2022	MEMIRA	Διαχείριση Απορριμμάτων και Λυμάτων Ορεινών Κοινοτήτων - Χρηματοδοτήσεις	-	Foini Limassol Cyprus	Local authorities	120
47	11-Jul-2022	UNIVPM	CLIMATE CHANGE E SERVIZIO IDRICO: LA SFIDA DEL PNRR PER UN SISTEMA EFFICIENTE E RESILIENTE	Digitalizzazione, gestione del Rischio e Riuso	Napoli, Italy	Scientific community, General public, Civil Society	50
48	17-Dec-2022	Plenum	University of Technology Vienna, Sustainable Building Seminar (Master Programme, Master of Engineering)	https://www.tuwien.at/ace/master programme/nachhaltiges-bauen	Vienna, Austria	Scientific community, Master students	15
49	18-Dec-2022	Plenum	FH Campus Vienna, International Relations & Urban Policy Seminar on Sustainable Infrastructure Development	https://www.fh-campuswien.ac.at/studium-weiterbildung/studien-und-lehrgangsangebot/international-relations-and-urban-policy.html	Vienna, Austria	Scientific community, Business network, Strategic partners, Master Students	14
50	16-Feb-2023	Radtke	Seminar Umweltbeirat Veitshöchheim	Gemeinde Veitshöchheim Umweltbeirat Berichte	Municipality Veitshöchheim	Policy makers, Potential end-users, Local authorities	19
51	24-Apr-2023	IHA	Business Clinic on Nature Based Solution - New Paradigm Ventures	https://athens.impacthub.net/climaccelerator-a-brand-new-environmental-platform-in-europe/?lang=en	Athens, Greece - Online	Business network, StartUps, Potential end-users, NGOs	20
52	30-May-2023	CWP	Seminar in the CHARM master (Master's in Global Challenges for Sustainability)	The Role of the Cluster in Managing Water-Related Social Challenges	Barcelona, Spain	Students	30
53	10-Oct-2019	Delaros	Hydrousa 2020 in Mykonos island #summerschool	Hydrousa 2020 in Mykonos island	Mykonos, Greece	General public, Students	80
54	29-Sep-2021	Delaros	Introduction in Mykonos Water Resources #summerschool	Update in Hydrousa project	Mykonos, Greece	General public, Students	25
55	20-Jun-2022	IHA	Tinos Summer School - #summerschool	https://www.hydrousa.org/hydrousa-summer-school/ - Embrassing the future of eco-community drive initiatives	Tinos, Greece	Scientific community, Industry, Media, Business network, Strategic partners, Water authorities, Potential end-users, NGOs, General public, Local authorities, Civil Society	40
56	21-Oct-2022	NTUA	Workshop #summerschool	Department of Environment - University of the Aegean postgraduate students HYDRO 1-2 site visit	Antissa, Lesvos, Greece	Scientific community	23
57	23-Mar-2023	NTUA	School Visit - Workshop #summerschool	Kindergarten Exomburgou Tinos - Visit HYDRO 5	Tinos, Greece	school students	18
58	26-Apr-2023	Western Lesvos municipality	School Visit - Workshop #summerschool	High school of Petra's students HYDRO 1-2 site visit	Antissa, Lesvos, Greece	General public, school students	40
59	27-Apr-2023	Western Lesvos	School Visit - Workshop #summerschool	High school of Agra's students HYDRO 1-2 site visit	Antissa, Lesvos, Greece	school students	60

		municipality					
60	12-May-2023	NTUA	School Visit #summerschool	Department of Environment - University of the Aegean students HYDRO 1 site visit	Antissa, Lesvos, Greece	Scientific community, Potential end-users, General public	25
61	13-May-2023	Western Lesvos municipality	School Visit #summerschool	Secondary school of Eressos' student HYDRO 1-2 site visit	Antissa, Lesvos, Greece	secondary school students	40
62	24-Jun-2022	IHA	Artistic Residency - Fall with Grace #art	https://tinostoday.gr/ekdilosi-tou-programmatos-hydrousa-stin-tino/	Tinos Greece	Scientific community, General public, Civil Society	50
63	24-Jun-2022	IHA	Artistic Residency - 3D printers and lasers cuts for water #art	https://www.facebook.com/events/421767426476447/	Tinos Greece	General Public Civil Society	40
64	13-Apr-2022	IHA	Artistic Actions - Film Making For Me Water Is #art	https://www.youtube.com/watch?v=eJRfuUL-4YM	Tinos, Mykonos, Lesvos	Scientific community, General public, Civil Society	269
65	2-Mar-2023	AGENSO	HYDROUSA GAME	https://www.hydrousa.org/hydrousa-game/	Online	Scientific community, Media, Water authorities, Potential end-users, NGOs, General public, Civil Society	980
66	28-Apr-2023	IHA	Hackathon on circularity	https://athens.impacthub.net/climaccelerator-a-brand-new-environmental-platform-in-europe/?lang=en	Athens, Greece - Online	European Commission, Scientific community, Business network, Strategic partners, Policy makers, Potential end-users, NGOs, Investors	110
67	28-Sep-2018	ASA	2018 European Researchers' Night	HYDROUSA in the Elba island	Portoferraio ITALY	General public, Local authorities, Civil Society	30
68	3-7-Apr-2019	IHA & ALCN	Athens Science Festival	HYDROUSA - Regenerative and nature-based water solutions	Athens Greece	General public, Civil Society	4000
69	28-29-Aug-2019	NTUA	Researchers Night - Athens		Athens, Greece	General public	2000
70	27-Sep-2019	NTUA	Reseachers Night		Athens, Greece	Civil Society	1000
71	5-8-Nov-2019	NTUA	AquaTech Water Event	Shared Booth together with other H2020 projects within the ICT4WATER cluster	Amsterdam, Netherlands	Scientific community, Industry, Business network, Water authorities	300
72	27-Nov-2020	NTUA	Researchers Night - Athens	Activities of the Sanitary Engineering Laboratory	Athens, Greece	Scientific community, General public	1000
73	27-Nov-2020	UNIVPM	Sharper- Researcher's Night	WWEELAB-DEPURAZIONE E VALORIZZAZIONE DI ACQUE REFLUE E RIFIUTI	Online	Scientific community, General public, Civil Society	500
74	27-Sep-2019	UNIVPM	Sharper. Researcher's Night		Ancona, Italy	Scientific community, General public	250
75	09-12-Jun-2022	IHA	New European Bauhaus	HYDROUSA - Regenerative and nature-based water solutions - Info STand	Brussels, Belgium	Scientific community, Industry, Business network, Strategic partners, Policy makers, NGOs	1000
76	20-Oct-2022	AGENSO	AGROTICA fair	HYDROUSA project presentation to audience	Thessaloniki	Scientific community, Industry, Potential end-users, General public, Local authorities, farmers	200
77	1-Jun-2022	IHA	Info Stand - #infostand	Introducing HYDROUSA to the general public	Tinos, Greece	General public, Civil Society	1000
	Sum						**15078**