iMERMAID

D1.1: Report on societal actions

Task 1.2: Pollution mitigation via influencing social perception

WP1: Societal actions for the reduction of chemical pollution

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Date: 28 February 2026

Funded by the European Union

GRANT AGREEMENT NUMBER	101112824
ACRONYM/ FULL TITLE	iMERMAID/ Innovative solutions for Mediterranean Ecosystem Remediation via Monitoring and decontamination from Chemical Pollution
START DATE	01 June 2023
END DATE	31 May 2026
PROJECT URL	www.imermaid.eu
DELIVERABLE TITLE	Report on Societal Actions
WORK PACKAGE	WP1
CONTRACTUAL DATE OF DELIVERY	28/02/2026
ACTUAL DATE OF DELIVERY	M33 (28/02/2026)
NATURE	R – Report
DISSEMINATION LEVEL	Public
LEAD BENEFICIARY	H2O People
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ABSTRACT	The Report summarises the activities undertaken within the project which are geared towards influencing societal perceptions and norms on the topic of aquatic/marine chemical pollution.

Document Revision Log

Version	Description of changes	Author	Role in the project
0.1	Table of Content and content descriptions outline	Naomi Timmer, Chrysoula Papacharalampou, H2O People	Beneficiary
0.2	Draft Report for internal revision	Naomi Timmer, Chrysoula Papacharalampou, H2O People	Beneficiary
0.3	Final draft version	Naomi Timmer, Chrysoula Papacharalampou, H2O People	Beneficiary
0.4	First internal review	Leo Mensel, ECSA	Beneficiary
0.5	Second internal review	Giasmin Cecconi, SMAT	Beneficiary
0.6	Final (with integrated peer-review and workshop feedback)	Naomi Timmer, Chrysoula Papacharalampou, H2O People	Beneficiary
1.0	Final review and formatting	Rodrigo Sedano, ITCL Technology Centre	Project Coordinator

Executive Summary

This report compiles, integrates and presents the information of the actions carried out to identify and influence the social perceptions on chemicals and their connection with the marine ecosystem. The focus of the report is on the activities which are a direct follow-up of the iMERMAID Toolkit for social impact. The activities included span from the beginning of the project (June 2023) until January 2026. The activities are carried out until the end of the project (May 2026) and the tools created are made publicly available beyond the project duration with the aim that they will continue to be actively used by the intended target groups.

The societal activities conducted within the iMERMAID project are grouped in three main categories: (1) social media campaigns, aimed for science communication purposes; (2) schooling project through a tailored schooling workbook and implementation materials (including translations to partners' local languages), aimed for embeddedness of citizen science in schooling programmes and raising awareness among young Europeans; and (3) capacity building programmes (targeting both young and experienced professionals, and involving participants of the project's partners).

The analysis accompanying the results could be evaluated as a 'proof of concept' of the iMERMAID Toolkit, valorising the proposed approach and leading to the report's key recommendations.

As a core recommendation, the report stresses the value of *capacity building* as a key and distinct impact pathway within research and innovation projects. In practice, this translates into purposeful, in-project resource allocation to capacity building activities.

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Acronyms

BIT	Blue Innovation Track
CM	Consortium Meeting
CoEC	Contaminants of Emerging Concern
EJWP	European Junior Water Programme
FoK	Flows of Knowledge
JRC	Joint Research Centre
KER	Key Exploitable Results
KPI	Key Performance Indicator
LSP	Lego Serious Play
M	Month
R&I	Research & Innovation
SMC	Social Media Campaign
SRL	Societal Readiness Level
T	Task
WP	Work Package

1.0 *Introduction*

iMERMAID is an EU-funded project focussing on the protection of the Mediterranean Sea and its surroundings, which play a crucial role in various socioeconomic activities. The project aims to address the growing threats of chemical contamination and pollution of the marine ecosystem, which are caused by human activities. More specifically, the project aims to propose and integrate innovative strategies for the monitoring, prevention and remediation of pollution caused by contaminants of emerging concern (CoECs).

Work Package (WP) 1 focusses on the societal actions for the reduction of chemical pollution. These include a compilation of activities spanning from the formulation of policy recommendations (T1.1), the conducting of sustainability assessments with the objective to evaluate the environmental impact of new technologies and the potential water pollution mitigation brought about by their adoption (T1.3) and the influencing of perceptions and behaviours through raising awareness across a range of key actors (T1.2). This comprehensive set of activities share the same goal: create fertile ground for social change by embedding new evidence and knowledge in materials that are accessible by a spectrum of societal actors. The activities are woven with each other so that they inform the work conducted. For example, in T1.3, the environmental handprint method (Vatanen et al., 2021) has been implemented to assess the environmental impacts of the technologies developed during the iMERMAID project and their beneficial effect on local and regional ecosystems in comparison to pre-existing technologies. The outcome of these analyses, even while in a preliminary stage (see D1.4), have informed the content of the second and third Social Media campaigns (T1.2), while the components considered in the analyses, along with the selected impact categories, are aligned with key policy areas associated with the overall work of the iMERMAID project. Additionally, the systemic, *'source-to-sea'* approach and logic, which is widely adopted in the EU Mission Ocean and Waters, has been guiding also in the development and implementation of the project's societal actions, so that they enabled the target audiences to understand the i

This report compiles, integrates and presents the information of the actions carried out to identify and influence the social perceptions on chemicals and their connection with the marine ecosystem. The focus of the report is on the activities conducted under T1.2. and as a direct follow-up of the iMERMAID Toolkit for social impact (D1.3). The activities conducted under T1.1 and T1.3 are reported and analysed under separate deliverables, namely D1.2 and D1.4 respectively. A detailed overview of the activities included in the scoping of this report are presented below (Table 1). The activities span from the beginning of the project (June 2023) until January 2026. The activities are carried out until the end of the project (May 2026) and the tools created are made publicly available beyond the project duration with the hope and aim that they will continue to be actively used by the intended target groups. To this end, efforts have been made to include the iMERMAID Toolkit and its deriving activities in the iMERMAID's Key Exploitable Results (KERs) and its overall dissemination, setting a precedent for relevant work conducted in other research and innovation (R&I) projects. The analysis accompanying the results could be evaluated as a 'proof of concept', leading to several findings and recommendations.

It is noted that under the iMERMAID project, an additional set of activities could be considered adjacent and complementary to the work conducted under WP1 and T1.2 in particular. These include activities of

WP5 and WP6, that are geared towards outreach and dissemination, such as the project's communication plan, and target innovation and impact management, such as, the project's Open Calls and innovation and exploitation strategies. These are reported under separate deliverables and are not included in the scoping of this report. Exception to this boundary delineation include the activities that contribute to the Toolkit implementation or cannot be implemented otherwise (i.e., capacity building activities). Relatedly, connections to these activities and/or deliverables are drawn when necessary to strengthen the interconnectivity within the project.

The iMERMAID Toolkit for social impact (D1.3 published in May 2024 hereafter: Toolkit) has been developed as part of the iMERMAID project to support community engagement at a local scale. The engagement activities included in the Toolkit are geared towards the reduction of chemical marine and water pollution caused by contaminants of emerging concern (CoECs), while the purpose of the Toolkit is to select, collate and/or adapt available methods and resources deemed appropriate and relevant for the design and implementation of community engagement (at local scale). The Toolkit has served as the basis for the societal activities conducted under T1.2. Hence, it also forms the basis for their reporting in this project deliverable.

A detailed report on the Toolkit can be retrieved in the respective deliverable (D1.3). In summary, the Toolkit is created so that it is suitable for participatory approaches across a range of audiences, whose knowledge and form of influence differ. Building on iMERMAID as the example, the target audiences include: (1) citizens of the iMERMAID use case regions, (2) regional stakeholders relevant to the iMERMAID's use case regions, and (3) schoolteachers (or educators at large).

The context of the iMERMAID project – with its focus on the Mediterranean Sea and involving use cases from five Mediterranean countries, with four languages among them- has been instrumental in the choices made during the Toolkit creation and implementation. The tools selected not only serve different and diverse target audiences (expert and non-expert) but also needed to be versatile and easy to use for those implementing within the local contexts and communities (cross-generational). We also anticipated that not all tools would be adopted across all contexts, nor that they would have the same *effect* (or *impact*) for the various target audiences at hand. Against this background, we have made deliberate choices that have served the purpose and needs of the iMERMAID project. Nonetheless, we find that the versatility and modality of the methods presented constitute strengths of our approach that extend beyond the project, its scope and needs could benefit other consortia, projects and collaborative efforts involving diverse societal actors across geographies and cultures, as will be further discussed in chapter 4 of this report.

Diversity of contexts, variation in knowledge and expertise in water and marine chemistry, and disparity of experience with awareness-raising and science communication activities have been common threads among the societal actors involved in the creation and implementation of the societal activities of WP1 within the iMERMAID project. These common denominators have fundamentally shaped the rationale of the Toolkit during its creation, but, mainly during its implementation phase, i.e., when the societal activities were taking place. Tangible (but only indicative) examples include the following: translation of the iMERMAID schooling workbook in the local languages of the iMERMAID use cases (addressing diversity of context), Social Media campaign posts on basic and advanced knowledge and alternative choice options

for citizens (address diversity in knowledge and expertise), supplementary materials for schoolteachers/educators for carrying out the iMERMAID schooling workbook activities (addressing diversity in science communication experience).

The rationale underpinning the societal activities of T1.2 relates to the change of mindsets and individual behaviour as well as social behaviour through strengthened capacity and increased awareness. Inspiration for the tools and implementation processes were drawn especially from 'How to Change' of Katy Milkman (2021) and 'Jam Cultures' of Jitske Kramer (2020) to emphasize behaviour as part of individual as well as sociological processes. For example, the *Fresh Start Effect of Milkman* is integrated in the timed Social Media campaigns and capacity building programme. The integration of inclusive messages of Jam Cultures to include the minority voices and citizen science were trained within in the capacity building programme, integrated in facilitation rules and the choices of tools in sessions with stakeholders.

A recent (2025) report published by the EU Policy Lab of the Joint Research Centre (JRC) highlights the value of behavioural change interventions for wide and multiple policy scopes. Specifically, according to the report, small changes in individual behaviour can ripple towards triggering broader societal shifts. Predicting the chain and/or cascade of the effectuated changes (from individual to collective) is not straightforward; however, it becomes evident that policy changes (for example nutrition labels on products) trigger behaviours and further policy changes that benefit society at large. On the wider policy context, integrating solid understanding of human behaviour into policy design makes policies more effective; while taking into consideration the perspectives of citizens can accelerate policy adoption, especially when policies interconnect with each other. Additionally, behavioural insights can help map out the behaviours of key stakeholders, informing targeted strategies for effective policy levers and interventions.

Building on this evidence and rationale, the activities designed and executed within the iMERMAID project, and T1.2 in particular, were aimed at influencing the perceptions of the targeted audiences on given topics and/or increasing their capacity in specific activities. Where possible, a baseline/reference point has been established (*before* the activity was performed) to allow for analysis against the change that occurred *after* the activity has been performed. We therefore have aimed at creating *societal impact* through the set of activities implemented.

As discussed in literature, *societal impacts* (of research / research projects) are defined as the changes to people, communities, and/or environments outside of academia that occurred due to the research process or findings (Gerlak et al. 2023). Societal impacts are typically divided into categories (e.g., as in Edwards and Meagher, 2020) and include: conceptual, connectivity, instrumental, cultural and capacity building categories. These categories, with the exception of cultural, typically include shorter-term changes that lead to longer-term impacts of social and environmental change over time (Meadow & Owen, 2021).

For the needs of WP1/T1.2, we understand *impact* as the "*positive or negative, primary of secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended"* (OECD 2022). Similarly, under the *Horizon Europe* programme, *impact* is defined as the *long-term scientific/societal/economic effect(s), which result(s) from the uptake/use of project results (outcomes).* For

the needs of this report, we therefore *focus on the activities and the outputs/outcomes* within the short- and mid-term period of the project duration, while the impact of these activities could be assessed and evaluated long-term, i.e., beyond the duration and scope of the iMERMAID project. We understand the trade-offs emerging from these choices, in terms of definition and focus, and we discuss further on the topic later in this report (chapter 4: findings and chapter 5: recommendations). The various definitions and dimensions of (societal) impact (of research and research projects) have also been explored and discussed with the iMERMAID project partners during the project. A dedicated activity based on the iMERMAID Toolkit has also been performed on this topic. Further details follow in chapter 3 of this report.

The structure of the remainder of the report on societal actions is as follows: we present an overview of the approach on societal impact adopted for the creation of the Toolkit and for assessing the change occurred (chapter 2), followed by the overview of the activities conducted and, where possible and relevant, of their outputs and outcomes. The report concludes with a discussion on the findings deriving from the work conducted and a set of recommendations for future projects based on our findings and lived experiences.

2.0 Approach on Societal Impact

For the needs of the iMERMAID project and the societal actions included in WP1, and T1.2 in particular, we explored methods and approaches for assessing the societal impact of the work conducted. The definition of *societal impact* adopted has been discussed in the introductory note. There are several principles based on which we made choices when selecting and creating the approach for assessing the societal impact of the activities: we believe that impact deriving from the activities of a research and innovation (R&I) project cannot happen in isolation. Rather, for impact deriving from R&I to materialize, factors such as context and goals (the '*why*'), stakeholders and beneficiaries (the '*who*'), and interventions/activities (the '*what*') matter tremendously. Additionally, it is the change occurring at micro- and meso-levels and at short- and mid-term that contributes to the overall impact. Therefore, this type of change needs to be monitored, analysed, assessed and evaluated for its contribution to the specific context and goals (short- and mid-term) and its potential to assist in achieving impact (long-term and usually beyond the duration of the R&I project).

This rationale has shaped the choice of methods and approaches we have selected and built upon. A prerequisite is the role of capacity building within the societal impact considerations. More explicitly, for the work conducted, *capacity building is considered a core impact dimension*. Thus, *capacity building is an explicit impact pathway* for the iMERMAID project, and one that we have focused on for all target audiences. For example, the EJWP and BIT program formats (T6.5 of the iMERMAID project) tailored towards the needs of participants from partner organisations were integrated in the project, including skills training to facilitate and support the cooperation. Beyond the project partners, capacity building extends to the local communities and across generations. This manifests in awareness-raising activities (e.g., Social Media campaigns) and knowledge dissemination through schooling workbooks and practical workshops both for educators and for school students. While the impact of these activities could only be assessed and evaluated beyond the duration of the project, we find that investing in knowledge and skill development has short- and mid-term effects which can be monitored and, with the assumption that they are continued, can have a lasting effect and impact on the target audiences.

A methodology that is well aligned with the rationale and core principles set is the ***Flows of Knowledge*** and this is why it has been selected as the foundation for the approach created for the needs of the project.

Flows of Knoweldge (FoK) is a method to assess the policy and practice impacts of scientific research. The method was developed (and updated) based on extensive professional experience in the impact evaluation field in the United Kingdom. It is a relatively versatile approach to assess case studies' impact, which is built around three core questions: (1) ***what changed***, *(2)* ***why*** *and (3)* ***which lessons can be learned***. These questions are answered in a narrative, based on information on impacts, actors and causes. To write the narrative, the information is analysed according to a framework. FoK as a method distinguishes **five impact types**, **five stakeholder categories** and **eight causal factors** that can result in, or risk, the generation of impact. An overview of the FoK core elements is presented in Table 2.

The FoK has been a building block in the creation process of the H2O People-Centered Impact Framework (Figure 1), which has been developed during the iMERMAID project, and its rationale and structure have been adopted in the design of the implemented activities. As such, for each of the activities performed, the context and goals (the '*why*') is considered and reported, while surveys and questionnaires are developed to understand needs and create baselines for analyses purposes, for example assess short-term

effect/change. Nonetheless, since the framework has been created during the project, it has not been implemented throughout it, and we are unable to report on all the outcomes of the interventions (in this case activities) conducted. Throughout the activities' implementation, we assess change either by performing pre- and post-tests (e.g., before and after a workshop) and utilising quality assurance methods (e.g., surveys after skills training weeks) and while the change occurred is reported when captured (see chapter 3), further validation is required, for example through the design of a project that will build on the framework and implement it throughout for all related aspects.

Table 1: Overview of the Flows of Knowledge. Adapted from Edwards and Meagher 2020.

Parts	Core Evaluation Questions
1A. IMPACTS	***What changed?***
	Instrumental: Changes to plans, decisions, behaviour, practice, actions and policy
	Conceptual: Changes to knowledge, awareness, attitudes, emotions
	Capacity-building: Changes to skills and expertise
	Enduring connectivity: Changes to number and quality of relationships and trust
	Culture/ attitude towards knowledge exchange, and research impact itself
1B. ACTORS	***Who changed? (Influencers and influenced)***
	Policymakers: including regulatory bodies; local, national and international
	Practitioners: public, private, NGOs
	Communities: of place or interest, general public
	Researchers: within and beyond the project and institution
	Other:
2. CAUSAL FACTORS	***Why/ how did changes occur?***
	Problem-framing: Level of importance; tractability of the problem; active negotiation of research questions; appropriateness of research design.
	Research Management: Research culture; integration between disciplines and teams; promotion of research services; planning; strategy.
	Inputs: Funding; staff capacity and turnover; legacy of previous work; access to equipment and resources.
	Outputs: Quality and usefulness of content; appropriate format.
	Dissemination: Targeted and efficient delivery of outputs to users and other audiences.
	Engagement: Level and quality of interaction with users and other stakeholders; co-production of knowledge; collaboration during design, dissemination and uptakes of outputs.
	Users: Influence of knowledge intermediaries.
	Context: Social, political, economic, climate and geographical factors.
3. LESSONS LEARNED	***Lessons learned for impact identification and generation***
	1. What worked? What could (or should) have been done differently? 2. What could (or should) be done in the future?

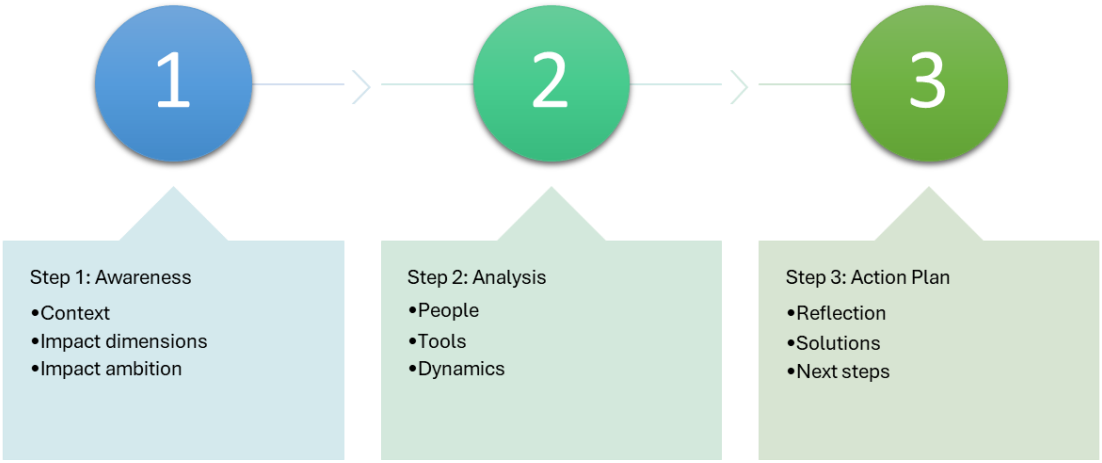

Figure 1: The H2O People-Centered Impact Framework. It consists of three distinctive steps, and it builds upon the Flows of Knowledge methodology. Prerequisite for its implementation is that capacity building is considered a distinctive impact pathway.

3.0 Results

This chapter presents and analyses all the societal actions that took place during the reporting period (M4-M30) of iMERMAID project. This period covers the duration of the task (T1.2) under which the activities were designed and performed. In actual time, it covers the period September 2023 - November 2025. Several activities took place in December 2025/ January 2026, and they have been included in the report for completeness.

Since the societal actions have been performed based on the iMERMAID Toolkit for societal impact, we are presenting the results following the Toolkit format and sequence and using a standardised structure to facilitate the display and communication of information. The standardised format follows below (Table 3).

First, we present an overview of the societal activities, including the Toolkit component and rather logistical details of the activity taking place. The overview is presented in Table 2. We note that audiences are grouped in broad categories to serve informational purposes and describe the audience involved in the specific activity. Dimension refers to the purpose for which the tool has been intended. Additional details are shared where necessary and possible. The repeated use of tools is only indicated, and results are analysed further in the remainder of the chapter. Next, a more detailed- analysis per Toolkit activity, including comments on relevant audience and baseline/assessment of change and/or quotes where possible and relevant are provided. Several tools (e.g., EJWP and schooling project) have been performed multiple times and across different contexts. We present all the relevant information in the standardised format, and we analyse them in further detail in a more selected manner, for example the cases in which either more data is made available (e.g., pre- and post-test analyses) or have led to additional activities/actions.

We note that the tools that the results section focuses mainly on the societal activities that have been originally included in the iMERMAID project (namely: Social Media campaigns, schooling project and capacity building programme). Many of the tools included in the Toolkit have been purposefully embedded in the training weeks, workshops, consortium meetings (CMs) or utilised for dissemination and outreach purposes (for example conferences). These tools are not analysed separately in detail. Instead, they are included in the report for completeness, and they are analysed as part of the wider group of activities where they were integrated. The choice to analyse these in depth is not only driven by contractual requirements. Instead, these activities are rather comprehensive (i.e., activity groups rather than activities) and they encompass several of the toolkit recommendations.

Table 2: Overview of activities conducted under the scope of T1.2 and structured as per the iMERMAID Toolkit on societal actions.

Tool	Dimension / Purpose *(Dimension)*	Date(s) & Location(s)	Context & Objective(s) of activity	Audience (including size)

Collaborative Stakeholder Mapping	Stakeholder engagement	November 2024 – Tunis 17 June 2025, Novi Sad, Serbia	EJWP project on improving schooling project uptake & CM#4, input from project partners. CM #5. EJWP training/ capacity building on societal impact.	Project partners & EJWP participants
Future Radar	Stakeholder engagement	November 2023. Athens, Greece.	CM #2.	Project partners
Experiencing Futures	Stakeholder engagement	November 2023. Athens, Greece.	CM #2.	Project partners
Social Media Campaign(ing)	Citizen Engagement	LinkedIn and Instagram March-May 2024 (SMC #1); Nov 2024-Jan 2025 (SMC #2); Sept-Dec 2025/ Jan 2026 (SMC #3)	Create and assess baseline (SMC #1); disseminate new knowledge (SMC #2); offer alternative options based on project's findings (SMC #3)	(Non-expert) citizens, focus on younger generation active on Social Media
Game Based Knowledge Transfer	Stakeholder engagement and capacity building	22 May 2024 - Finland August 2025 - Banja Luka 8 December 2025 - Brussels	CM #3. Toolkit demonstration workshop. Schooling exhibition and game table Water Resilience Forum Exhibition	Project partners & EJWP participants
Flows of Knowledge (tool)	Capacity Building	22 May 2024 - Finland 14 March 2025; 20 May 2025; 22 May 2025 Italy	CM #3. Toolkit demonstration workshop. Co-creation workshops with teachers and students for schoolbook	Project partners & EJWP participants Schoolteachers & students (22)
Lego Serious Play	Stakeholder Engagement	Multiple dates & locations, across countries of	Mainly aligned with CMs and focussed on capacity building on young water	Project partners (50) & EJWP participants. Indirect

		project partner organisations 22 May 2024- Finland 16 September 2024 - Portugal Conference workshop (Delft, NL, 6 June 2025)	professionals across partner organisations and beyond. Project showcase & training at scientific conference.	stakeholders (11); experts in the fields of water & citizen science (25)
HowSpace	Stakeholder Engagement & augmented collaboration/ decision making	22 May 2024 - Finland 14 February 2025 -online 27 March 2025 - online 22, 27 & 30 May 2025 - online 14 September 2025 - online 16 October 2025 - online 10 & 17 November 2025 - online	CM #3. Toolkit demonstration workshop. Activity focused during – and around as preparation or evaluation – sessions, when actively invited. EJWP Impact Project Schooling Implementation Accelerator project Evaluations hosted by other clients facilitated by H2O People with preference of hybrid meeting	Project partners & direct stakeholders Project partners & EJWP participants (12).
Intergenerational workshops	Capacity Building	Multiple dates & locations (aligned with CMs) 16 November 2023 – Greece 18 November 2024 – Tunisia 23 May 2024 – Finland 18 June 2025 - Serbia	During CMs with focus on cooperation across and within project partner organisations	Project partners (40-50/session)

Schooling projects	Citizen engagement & Capacity Building	Multiple dates & locations (across use case regions)	Informative and hands-on sessions on location across Greece, Italy, Spain and Cyprus to raise awareness on chemical marine pollution and disseminate project output.	Schoolteachers, school students, project partners, & direct and indirect stakeholders
EJWP (integrated leadership program for young professionals)	Capacity Building	Multiple dates & locations (across countries of project partner organisations)	Aligned with CMs and focussed on capacity building on young water professionals across partner organisations and beyond.	Project partners & EJWP participants
BIT (integrated advanced leadership program)	Capacity Building	31 October – 4 November 2024. Eesergroen, The Netherlands	Capacity & leadership development for experienced water professionals across project partner organisations and beyond.	Project partners & indirect stakeholders (7)
InterVision (Peer-to-Peer Coaching)	Capacity Building	Multiple dates & locations (across countries & online of project partner organisations) 27 September 2023 – Croatia 17 September 2024 – Portugal 21 March 2025 – Wales, UK 20 June 2025 - Serbia 17 October 2025 - online	Aligned with CMs and EJWP training weeks. Workshop technique on active listening and peer-to-peer learning	EJWP participants (av.10 attendees/session)
Deep Democracy	Stakeholder engagement	Multiple dates & locations (across	EJWP trainings. CM #3 & #5. Capacity building	Project partners & EJWP participants

		countries of project partner organisations) 16 November 2023 – Greece 18 June 2025 – Serbia 27 November 2025 - Italy	and 'discussion with feet' on definition of societal impact	(40 attendees/session)
Citizen Science	Citizen Engagement	Multiple dates & locations (across countries of project partner organisations and use case regions)	Foundation of iMERMAID schooling workbook. Included in CM and schooling presentations. Project showcase & training at scientific conference	School teachers, project partners & direct and indirect stakeholders

Table 3: Standard format for reporting on individual societal activities. Same activities performed within different context and/or for different audiences are grouped together.

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Audience(s), including group size
Short description of activity / activities	Toolkit resource utilised	Citizen Engagement And/ or Stakeholder Engagement And/or Capacity Building	Specific logistical details of activity/activities	Description of Target Group(s) and respective group size
Output(s): *what has been produced/achieved thanks/during the activity?*				
Notes / Findings specific to activity & context: *which are the activity- and/or context-specific remarks/learnings/outcomes?*				

The remainder of the chapter presents in further detail and analyses the societal activities as these were originally intended in the iMERMAID project. These include Social Media campaigns, schooling project and capacity building project targeting young professionals. The choice to analyse these in depth is not only

driven by contractual requirements. Instead, these activities are rather comprehensive (i.e., activity groups rather than activities) and they encompass several of the toolkit recommendations. These interdependencies across tools/activities are analysed at the end of the chapter, where we offer a commentary on the activities performed but which are not included in the aforementioned three activity groups.

3.1. Social Media campaigns

During the iMERMAID project, three Social Media campaigns were performed under T1.2, focussing overall on behavioural change through science communication. The iMERMAID Social Media campaigns are a strategic communication initiative designed to accelerate societal and behavioural change around chemical pollution in the Mediterranean region with a focus on social influencing of the general public.

The vision underpinning the Social Media campaigns puts the local communities and their stories, and voices at the heart of the content. Thus, the core belief is that community-led story-telling and relatable science communication can drive meaningful change. This is especially true if the focus is not only on providing (new) knowledge but also offering alternatives. In the long-term, we envision the creation of a movement of informed citizens who are motivated to preserve the Mediterranean Sea and its ecosystem against chemical pollution from CoECs.

The campaigns reflect three distinct phases of the project and its work. Thus, the focus of each of the campaigns is different. More specifically, the aim of the first Social Media campaign (phase 1) performed during M10 through to M12 of the project (i.e., March through to May 2024) is to set the scene and create a baseline of knowledge and social perceptions, against which analyses and/or interpretation of findings can be conducted. For the creation of the campaign, a sound scientific foundation focussing on questions such as '*What is a CoEC*?','*Who contributes to the CoEC-related pollution*?', and 'How are nature and people affected?' was used.

After establishing a foundation to work with, the second Social Media campaign aimed to contribute new knowledge on how marine pollution is generated specifically in each of the iMERMAID use cases (across Cyprus, Greece, Italy, Spain and Tunisia) and could thus be reduced locally by targeted actions. Working closely with partners active in each of the use cases, use-case-specific information on the local challenges, the value of the solutions under-development and the needs and requirements for a successful local uptake, were collected and then communicated in an appealing way for the target audience. The work underpinning the second Social Media campaign reflected also the phase of the project in which it was released M18-M20 of the project, i.e., November 2024 through to January 2025), which was a phase during which the first outputs and results were made available, and mobilisation of local stakeholders would be a valuable step towards valorisation of the results.

Lastly, the third Social Media campaign was released towards the last stages of the project (M28- M30, i.e., September through to December 2025), and its aim was multi-fold: empower communities and activists across Europe (focus: Mediterranean countries) to take action against chemical pollution; showcase innovation solutions and project insights as developed by the iMERMAID project partners; promote behavioural change by highlighting the impact of everyday practices and lifestyle choices on water quality; strengthen public understanding of CoECs and their long-term effects on ecosystems and human health and activate behavioural change at community level. This campaign has also reiterated key messages of the previous two campaigns (e.g., by reposting content), capitalising on repetition to build new knowledge and behaviour, and providing a basis to monitor the change occurred over time (i.e., the impact of the posts).

The campaigns ran in 10-week intervals during their respective periods. They included two posts per week on LinkedIn and Instagram, chosen for their complementary strengths in professional outreach and visual storytelling. The posts included knowledge dissemination through interactive quizzes and compelling visuals. We note that the design of the Social Media campaigns involved engagement with project partners (for scientific input and/or feedback) and, more importantly, capacity building of project participants – especially of the younger professionals involved in the project through the European Junior Water Programme (EJWP). The involvement of the EJWP participants in the design of the campaigns not only capitalised on their own expertise but also enabled them to familiarise with key concepts and tasks associated with science communication and public engagement and carry that knowledge with them also after the iMERMAID project has been concluded.

The tables below summarise the three iMERMAID Social Media campaigns, utilising the standardised format. Overall findings deriving from the implementation of the iMERMAID Social Media campaigns are discussed in chapter 4.

Table 4: iMERMAID Social Media Campaign #1.

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Audience(s), including group size
Social Media Campaign targeting local (use case) populations and stakeholders, with the aim to establish a baseline on understanding of and knowledge about marine chemical pollution from contaminants of emerging concern (CoECs).	Social Media Campaigning	Citizen & Stakeholder Engagement	LinkedIn & Instagram. March-May 2024.	Citizens, local communities, activists with focus on Mediterranean countries and stakeholders of iMERMAID use case regions. Emphasis on younger generations and users of Social Media. Environmental professionals and policymakers across Europe. General public interested in sustainable living and water protection.
Output(s): - Social Media Campaigns' format, including quizzes and infographics				

- Key themes identified and established as basis for building series of social media campaigns - Baseline establishment for comparison purposes (with quiz results from social media campaign #3)
Notes / Findings specific to activity & context: - Higher engagement on LinkedIn (99 responds to quiz), compared to X (47 responds). Nonetheless, X respondents showcase higher awareness (overall 62% correct responses on X, compared to 47% correct responses on LinkedIn)

Table 5: iMERMAID Social Media Campaign #2.

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Audience(s), including group size
Social Media Campaign targeting local (use case) populations and stakeholders, with the aim to communicate about the context-specific CoEC challenges and possible solutions.	Social Media Campaigning	Citizen & Stakeholder Engagement	LinkedIn & Instagram. November 2024 - January 2025.	Citizens, local communities, activists with focus on Mediterranean countries and stakeholders of iMERMAID use case regions. Emphasis on younger generations and users of Social Media. Environmental professionals and policymakers across Europe. General public interested in sustainable living and water protection.
Output(s): • Impressions = 9.206 • Reach = 9.206 • Engagements = 735 • Video views = 902				

- Quiz reply = 75
- Followers ' growth: 161 new followers with a high 10.10% engagement rate
- What worked well = video contents scored high engagement (11.6%) compared to image contents (10.35%) and text (11.4%)

Notes / Findings specific to activity & context:

- Geography (Location): The audience distribution reflects the project's Mediterranean focus. The Grand Tunis Metropolitan Area (6.6%) holds the top spot, likely driven by local partners or pilot site activities in Tunisia. This is followed by Brussels (2.9%), indicating strong connectivity with the EU policy bubble. The rest of the audience is well-distributed across key Southern and Central European hubs (Turin, Lisbon, Athens, Novi Sad), ensuring a broad regional reach.
- Seniority: The followers are evenly split between the future workforce and experienced professionals. Entry-level (32.7%) and Senior (32.3%) profiles make up the majority, creating a balanced mix of young researchers/students and established experts. There is also a solid representation of decision-makers (Directors, Managers, and CXOs combined make up over 13%).
- Industry: The project primarily attracts the scientific community, with Research Services (16%) and Higher Education (10.2%) being the dominant sectors. However, there is significant engagement from relevant industrial sectors such as Environmental Services (7.1%), Pharmaceutical Manufacturing (4.5%), and Chemical Manufacturing (2.3%), proving that the project is successfully reaching stakeholders directly related to water pollution challenges.

Table 6: iMERMAID Social Media Campaign #3.

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Audience(s), including group size
Social Media Campaign targeting local (use case) populations and stakeholders, with the aim to communicate alternatives so that individual change in actions/behaviours can lead to overall reduction of marine chemical pollution from contaminants	Social Media Campaigning	Citizen & Stakeholder Engagement	LinkedIn & Instagram. September 2025 – January 2026.	Citizens, local communities, activists with focus on Mediterranean countries and stakeholders of iMERMAID use case regions. Emphasis on younger generations and users of Social Media. Environmental professionals and

of emerging concern (CoECs).				policymakers across Europe. General public interested in sustainable living and water protection.

Output(s):

- Impressions: 11.618
- Reach: 11.618
- Engagement: 1.118
- Follower growth: 69

Notes / Findings specific to activity & context:

- The iMERMAID Social Media polls indicate a highly conscious and supportive audience, though they reveal specific knowledge gaps regarding technical processes and personal disposal habits.

1. The most striking behavioural insight is the **83% "Yes" response** to eating crops watered with treated wastewater. This suggests that the project's audience is interested in innovative action and has a high level of trust in water treatment technologies. Only 17% expressed hesitation ("It depends"), indicating that public perception is not a major barrier to the adoption of water reuse among this follower base.

2. The audience demonstrated a sophisticated understanding of how everyday items contribute to water pollution. **89% of respondents** correctly identified that shampoo, laundry detergent, and sunscreen "all of the above" can release harmful chemicals into the water. This indicates that the campaign successfully reached an informed audience that recognizes the link between domestic consumption and environmental health.

3. While the audience supports water reuse, there is a clear split in knowledge about current wastewater outcomes. Respondents were split **50/50** on whether wastewater is currently used for crops or discharged into nature. This highlights a "process gap" where stakeholders are aware of the *potential* of reuse but are less certain about the *actual* current operations of their local wastewater treatment plants.

- Increase of reach and engagement with time (during project's lifecycle)
- Comparison/analysis with baseline established from social media campaign #1 not possible in a reliable manner. While there are observations /indications (for example, we observe an increase in correct responses) that indicate a positive uptake- therefore indicate that there is increased awareness among the respondents the results are not reliable enough to draw conclusions (therefore we cannot use them as proof of the method/concept).

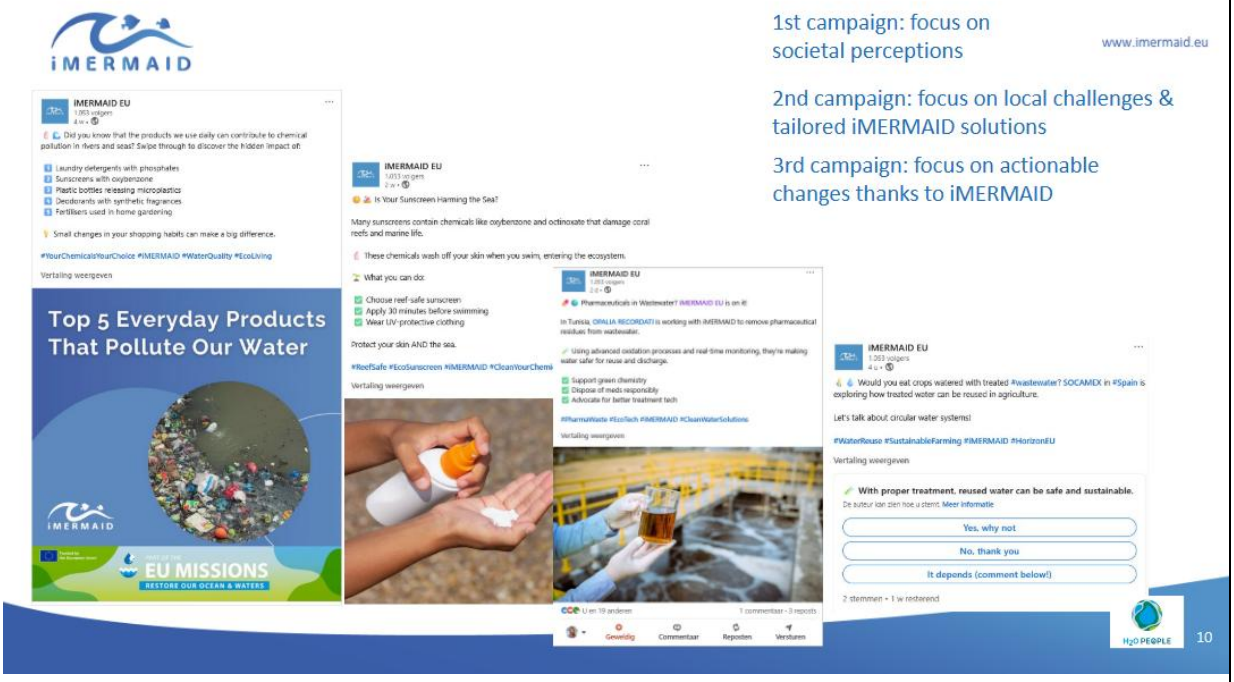

Figure 2: Samples of the iMERMAID Social Media Campaign posts.

3.2 Schooling Project

The iMERMAID Schooling Project (or iMERMAID Schoolbook) includes the creation of a workbook with 'missions' (i.e., activities) to be conducted at school and/or outdoors in cooperation with teaching staff, with the aim to empower and sensitise younger generations (primary and secondary school students and high school students) living in the Mediterranean region on environmental topics. Specific focus thereby lies on chemical pollution in inland water and sea, caused by contaminants of emerging concern (CoEC). Citizen science principles and rationale form the basis and core of the schooling project. Further, the final version of the schoolbook and of its supplementary/implantation materials (see below for more information) are the result of co-creation with project partners, and especially with young professionals involved in the EJWP programme. This also explains the interoperable character of several of the reported activities (see chapter 3.4).

The schoolbook implementation activities took place mainly in the iMERMAID use case regions, namely Cyprus, Italy, Greece, Spain and Tunisia, but also in countries where project partners are based and/or have been active, for example, Austria and the Netherlands. The implementation activities carried out by the project partners are included in task T1.2.

In order to facilitate the schoolbook implementation at country level, tailored materials have been developed and supported by the leading partners (H2O People and ECSA). The implementation materials include translations of the schoolbook (originally developed in English) to the local languages, specifically in Greek, Italian, Spanish and French. Additionally, a handbook for teachers has been created (as output of an EJWP project) to provide hands-on guidance to educators for carrying out the schoolbook activities

with their students. Additionally, materials to support the monitoring and evaluation of change effectuated thanks to the schoolbook activities (impact on capacity building) have been developed. These materials (i.e. questionnaires) are rooted in the idea of *pre- and post-test* (i.e., assessing what is the difference attributed to one training session) and are based on the terminology and rationale of the *Flows of Knowledge*. The questionnaires (also translated in the local languages of the iMERMAID use case regions) are developed for co-creation activities, targeting teachers/educators who have been approached to assess and provide feedback on the iMERMAID Schoolbook, but also for student audiences who participate in the implementation activities. All materials are made publicly available on the iMERMAID website, under a dedicated section, where future implementation activities can be logged (along with evidence, suggestions and supplementary materials) to enable the monitoring of the mid- and long-term uptake of the schoolbook and its materials. The implementation activities include a combination of train-the-trainer sessions, targeting teachers and educators, and sessions with students. Additionally, the schooling project has been presented to expert and non-expert audiences during conferences and events.

Aiming to do justice to all the schooling project implementation activities, we provide comprehensive summaries of the activities per target group using an adjusted table standard format below. The bulk of the activities have targeted teachers/educators and students, and the activities conducted with these target groups are presented ***per country*** (initials of country next to each activity), including analytics where size allows. Activities targeting expert and non-expert audiences are also provided for reference and completeness. We note that these activities mainly serve for dissemination purposes.

Additional activities of the Schooling Project will be performed with high schools in Italy in February and March 2026. As part of the EJWP project, which will conclude before the final training week in Berlin (May 2026).

Table 7: The demonstration and implementation of the schooling project to teachers/educators.

Countries are indicated by initials next to the activity. The following legend applies: Austria (AU), Bosnia and Herzegovina (BH), Cyprus (CY), France (FR), Greece (GR), Italy (IT), (the) Netherlands (NL), Spain (SP). The standard format has been adjusted to facilitate information display.

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Format and/or Schoolbook Mission)	Audience(s), including group size
Train-the-trainer activities, such as workshops, presentations and interactive meetings with the aim to present the iMERMAID schooling project and its elements and request expert feedback for	Schooling project/ workbook	Capacity Building	(IT): 14 March 2025 (online); 20 and 22 May 2025; 12 November 2025 (online) (CY): 13 June 2025 (BH): 27 August 2025 (GR): 30 April 2025 and 14 May 2025	(IT): Schoolbook and handbook presentation; Mission #1, #3, #10, #11 as case studies; Use of Flows of Knowledge questionnaires.	Teachers/ Educators (IT): 5 (CY): 15 (BH): 15 (GR):20

better local integration and uptake.				(CY): Schoolbook presentation (lecture). (BH): Mission #1, #7, #8, #10, #11, #12, #14. (GR): Schoolbook presentation (lecture).	

Output(s): The interaction with the teachers have resulted in the following:

- Creation of Teacher's Handbook, outlining implementation details of the iMERMAID Schoolbook' missions. This need derived from teacher's request for clarification of certain topics that are unclear to teachers, in order to highlight topics that may be common knowledge to experts, but which are not so well known to a school teacher.
- Update on schoolbook content, for example in the missions involving experimental work, so that it is aligned with the capabilities, competencies and knowledge of the students (ages ranging from 10 through to 14).
- Dissemination of project's deliverables for sustained and continuous usage, post project duration.

Notes / Findings specific to activity & context:

- There are practical barriers (e.g., limited access to new knowledge/methods) by educators working outside of higher education/research institutions. This was noted during the co-creation sessions with teachers/educators. To bridge the background knowledge gaps and provide additional clarifications were required (12 November 2024, Italy), the Teachers' Handbook (EJWP 5/6 project) was created. The content and format of the handbook were successfully valorised with the intended audience (14 March 2025, Italy). The Handbook's value goes beyond the project's timeline, providing guidelines and practical insights to all educators who will – in the future- access the schoolbook materials available on the project's website.

Figure 3: iMERMAID Schooling project activities for educators in Greece, performed by iMERMAID project partners (spring 2025). Pictures shared with the permission of the participating schools.

Figure 4: iMERMAID Schooling project activities for school teachers in Italy, performed by iMERMAID project partners (autumn 2025). Pictures shared with the permission of the participating school.

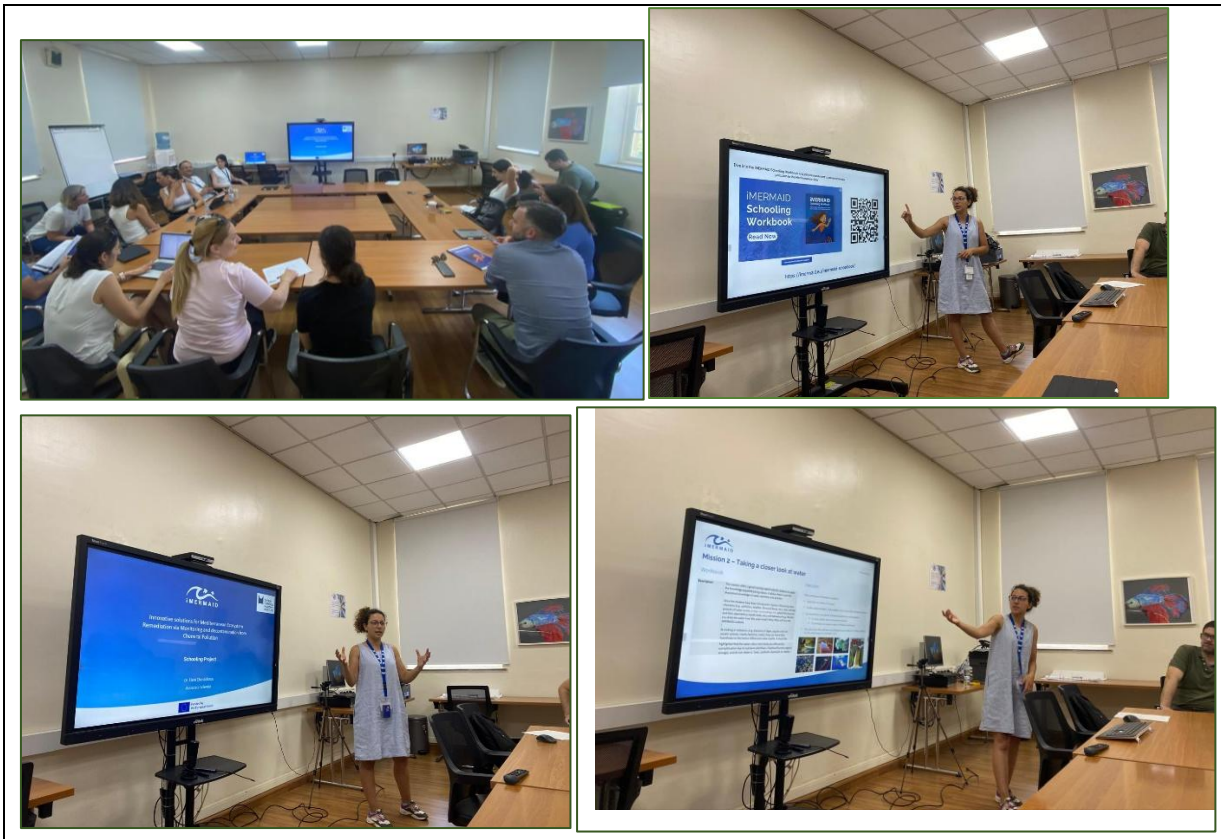

Figure 5: iMERMAID Schooling project activities for school teachers in Cyprus, performed by iMERMAID project partners (summer 2025). Pictures shared with the permission of the participating school.

Table 8: The demonstration and implementation of the schooling project to students.

Countries are indicated by initials next to the activity. The following legend applies: Austria (AU), Bosnia and Herzegovina (BH), Cyprus (CY), France (FR), Greece (GR), Italy (IT), (the) Netherlands (NL), Spain (SP). The standard format has been adjusted to facilitate information display.

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Format and/or Schoolbook Mission)	Audience(s), including group size
Workshops and hand-on activities based on the iMERMAID schoolbook with students. Sessions organised and conducted by project partners	Schooling project/ workbook	Capacity Building	(SP): 10 November 2025; 3 December 2025 (CY): 8-12 July 2024; 21-25 June 2025; 25-29 June 2025	(SP): Schoolbook presentation; Mission #1, #2, #3, #5, #10, #11; #15 (CY): Mission #1, #2, #26	Students *(age group)* (SP): 60 *(9-12 years old)* (CY): 20 *(9-15 years old)*

located in specified regions and fluent in the local language.			(BH): 27 August 2025 (AU): 10 April 2025	(BH): Mission #1, #7, #8, #10, #11, #12, #14. (AU): Workshop on soil contamination	(BH): 50 *(14-15 years old)* (AU):60 *(8-10 years old)*

Output(s):

The interaction with the students across contexts and age groups have resulted in the following:

- Translation of all materials in their respective mother tongues for easier and better comprehension
- Creation of questionnaires for evaluating the effect of trainings/sessions on students
- Active consideration of technological innovations and platforms accessible by students in the development of post-project monitoring of workbook activities
- Skill training and refinement (e.g., how to explain complex topics in simpler ways) of experts and educators involved in the training sessions, as evidenced by this quote: "It was a wonderful experience. The children's innocence and questions were very interesting, and we had some important discussions. They finished the schooling project very happy"

Notes / Findings specific to activity & context:

- Playful, science-based learning helps raise awareness on complex topics and reveals practical ways for contributing to locally crafted solutions to wicked problems. While the outcome/impact of this process is long-term and not easy to trace, the process supports curiosity-driven learning and interest in science, its underpinning methods and its practical applications, as well as the upbringing of a generation of rounded and environmentally aware citizens.

- Learning and reflection are reciprocal and mutual: students and educators alike benefit from the experience. This holds true especially for those who act as educators outside of their professional realm (for example: project partners specialising in engineering). Organising and delivering a session with students contributes to sharpening skills and competences, while contributing to confidence building.

Figure 6: iMERMAID Schooling project activities in a school in Carbonero El Mayor (Spain), performed by iMERMAID project partners (December 2025). Pictures shared with the permission of the participating school.

Table 9: The demonstration and implementation of the schooling project to expert- and non-expert audiences during conferences and outreach/public events.

Countries are indicated by initials next to the activity. The following legend applies: Austria (AU), Bosnia (BH), Cyprus (CY), France (FR), Greece (GR), Italy (IT), (the) Netherlands (NL), Spain (SP). The standard format has been adjusted to facilitate information display.

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Format and/or Schoolbook Mission)	Audience(s), including group size
Conference presentation and/or workshops and sessions during events targeting both expert and non-expert audiences.	Schooling project/ workbook	Capacity Building	(GR): 4 July 2025 (NL): 5 June 2025 (AU):26 September 2025	(GR): public lecture. Project, schoolbook & toolkit presentation. (NL): CS4Water conference. Project, schoolbook & toolkit (Lego Serious Play) presentation & workshop. (AU): European Researchers Night "Life is science". Project & schoolbook presentation.	Expert and non-expert audiences (GR): 100 (NL): 25 (AU):45
Output(s): The activities targeting expert and non-expert audiences, as outlined in this table, focused on information dissemination around the iMERMAID project and on a set of activities in the domain of social impact. The outputs were therefore not extensively monitored. These interactions may have resulted in collaborative activities and synergies (e.g., through enlarged network) which extend beyond the scope and boundaries of this report.					
Notes / Findings specific to activity & context: The outputs of these activities could be monitored for mapping out synergies from R&I activities, which may extend beyond the project scoping and duration.					

3.3. European Junior Water Programme (EJWP)

The European Junior Water programme builds capacities of diverse early-career professionals within water-related challenges that affects all aspects of life on our planet. The programme is built on three pillars to empower integrated leadership: 1. Networking. 2. Personal development training, and 3. Knowledge transfer and creation, to boost the careers of participants, strengthen and connecting the

organizations and communities. In the integrated 2-year, part-time programme, EJWP enables development of leadership and communication skills, collaboration in sector projects with partner organizations, and active participation in European professional communities and events. The EJWP development journey takes place as part of current career paths within organizations.

During iMERMAID, two groups (EJWP5 and EJWP6) were formed, consisting of young water professionals of the project's partner organisations. Participants already registered to participate in the EJWP groups from external organisations were also integrated into the EJWP5 and EJWP6 groups, to further expand exposure and benefits for participants and participating organisations. A total of ten (10) training weeks have been organised during the period of reporting, the two groups jointly spend 6 training weeks, 2 specific for EJWP5 in 2023 and 2 at the end of 2025 & the final one will be organized in May 2026. The training weeks were aligned as much as possible with the project's consortium meetings, in terms of timing and location, to maximise participation across the consortium. Additionally, the projects conducted by the EJWP groups were aligned with the project's activities and tasks, enabling the group of young water professionals to actively contribute with their knowledge and competences to the ongoing work, but also obtain new (expert) knowledge and actively practice the knowledge acquired during the trainings, for example on collaboration and personal leadership. The detailed overview is presented in Table 10. The last training week is scheduled in Q2 of 2026, in alignment with the last iMERMAID CM (taking place in Berlin, Germany). Throughout the training weeks, a majority of the tools and methods included in the iMERMAID Toolkit for social impact have been incorporated into the trainings where appropriate. All EJWP receive a certificate outlining the content and activities of the training weeks (Figure 7).

Table 10: EJWP5&6 activities, associated with and built around the iMERMAID project.

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Audience(s), including group size
EJWP (integrated leadership program for young professionals)	European Junior Water Programme (EJWP) – training logic & format	Capacity Building	25-29 September 2023 – Croatia 13-17 November 2023 – Greece 20-24 May 2024 – Finland 16-20 September 2024 – Portugal 25-29 November 2024 – Tunisia 17-21 March 2025 – Wales 16-20 June 2025 – Serbia 25-29 August 2025 – Bosnia and Herzegovina	Young Water Professionals from iMERMAID project partner organisations & beyond (av.10/group)

			24-28 November 2025 - Italy	

Output(s):

- Skills & expertise development through workshops, masterclasses, field trip visits, group assignments and coaching, as showcased by the certificate (Figure 7).
- Average evaluation score of nine (out of ten) EJWP training weeks: 8.94/10
- Posters for all projects conducted by the EJWP5&6 participants, showcasing the impact of capacity building of young professionals within and for the project and its partners
- Social Media Campaigns #1 and #2, including recommendations for science communication projects
- Teacher's Handbook for iMERMAID's Schooling Project
- Schooling accelerator programme

Notes / Findings specific to activity & context:

- Enhanced skills & competences for young water professionals, as reflected in their personal development plans, including but not limited to personal leaderships, intercultural communication, interdisciplinary collaboration, creative thinking.
- New expert skills, for example on science communication and workshop delivery, thanks to the active involvement in group projects/assignments and to the delivery of societal activities as part of the WP1 implementation (e.g., schooling project implementation activities).
- Quote from EWJP participant (**on newly gained skills**): "*I definitely gained greater self-awareness in key areas like my personal communication style, my ability to build relationships with people from diverse cultures, and Deep Democracy. [….] I plan to apply these learnings directly in my work. As a project manager, it is essential for me to understand my communication style and be aware of its potential benefits and consequences. I will also be more mindful of the decision-making process, ensuring it is truly democratic. I am fortunate to always have worked with people from diverse cultures, and although we may believe we are already aware of cultural differences, there is always something new we need to adapt to, learn, or acknowledge to build better relationships. This is crucial not only in my professional life but also in my personal one.*"
- Quote from EJWP participant (**on value of professional development at team level/ beyond individual**): "*I have already performed the Feedback Game on my Team - to build*

on relationships and being open and honest. I have presented on my experience to the Wider Wastewater Assets Team in DCWW (70ppl).”

- Quote from EJWP participants (on format/atmosphere): (1) *“True feeling of inclusion and acceptance of everyone in the group to allow everyone to feel safe to participate and learn. Perspective and reflection are my take home words of the week.”*; (2) *“I'm truly happy to be working with a group from very different backgrounds, that still gives one another space to share different experiences and perceptions. I like that EJWP creates such a space.”*

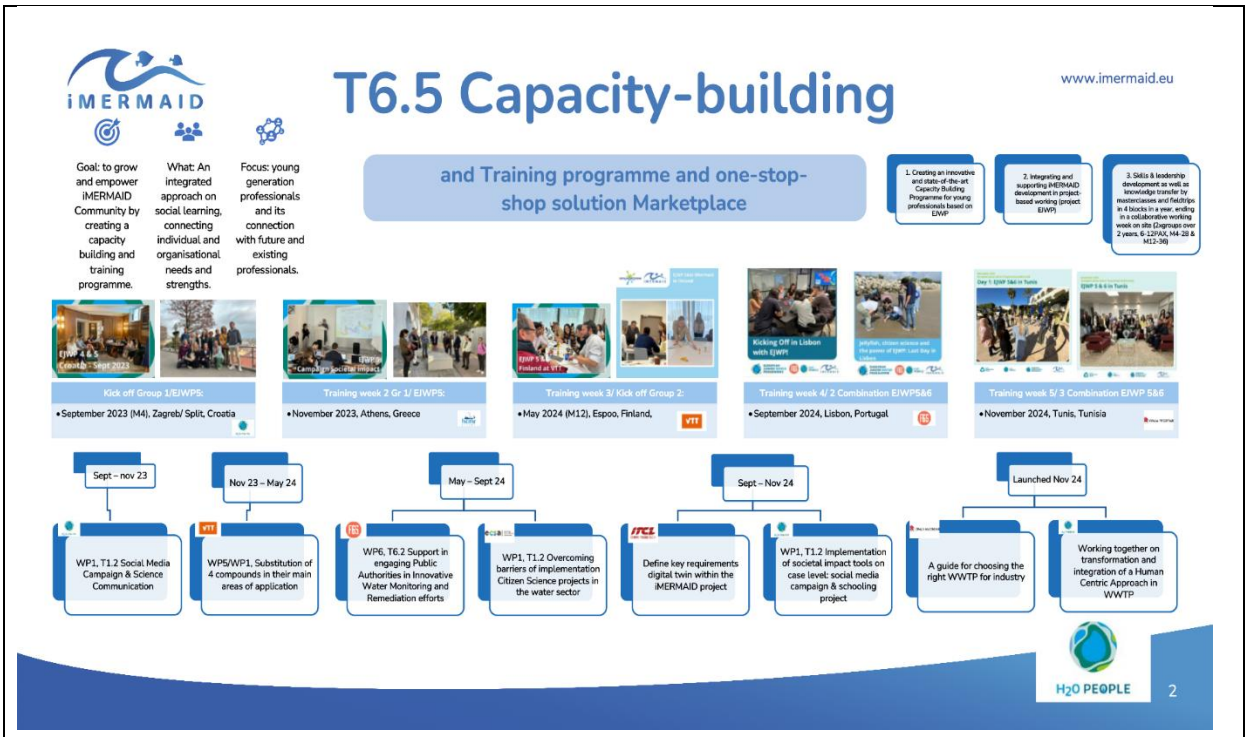

Figure 7: Snapshot of EJWP within iMERMAID (conducted under WP6, T6.5).

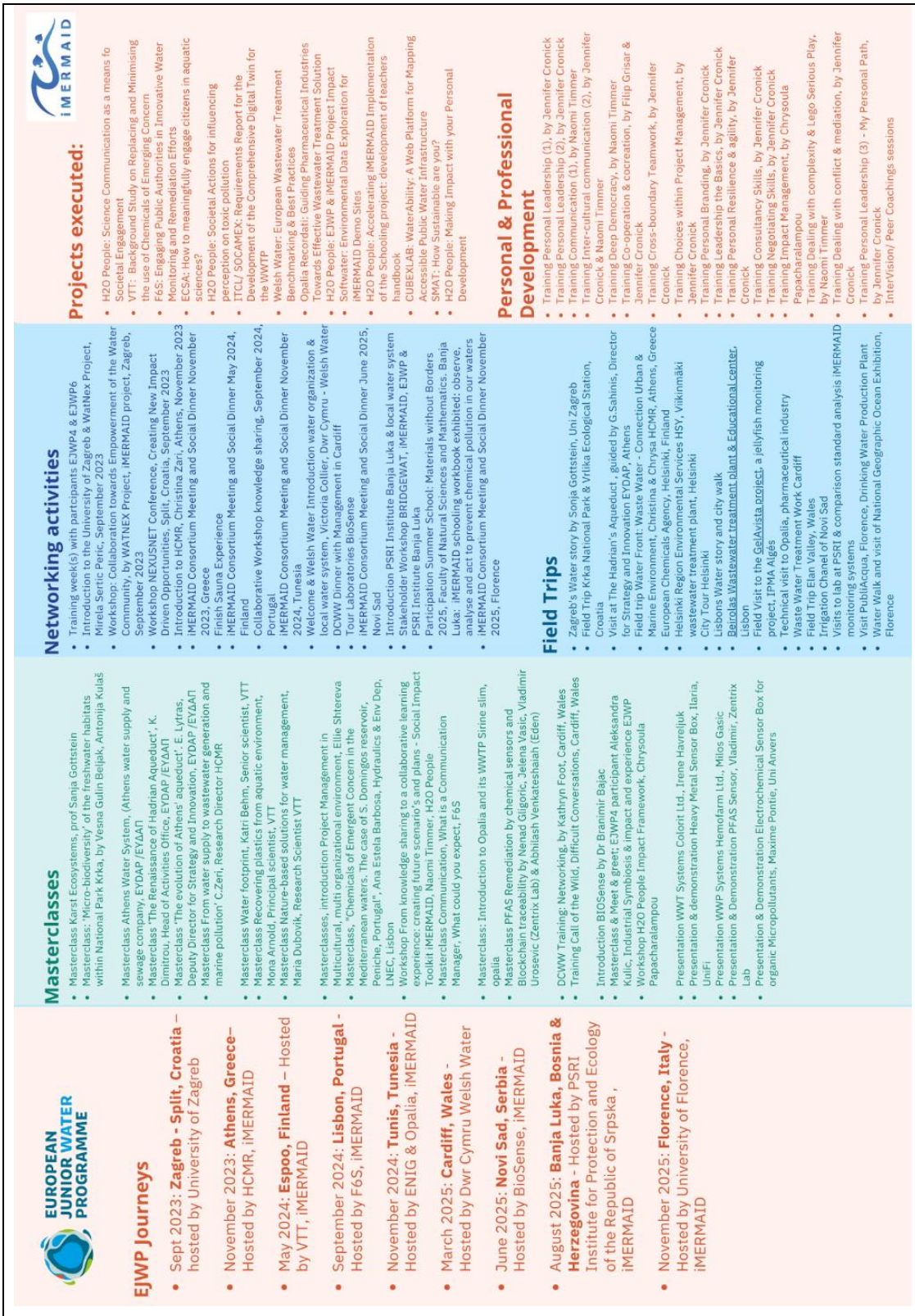

Figure 8: EJWP Certificate, example from EJWP 5/6 participant.

3.4 Interconnectivity of societal activities

In this section, we offer a comprehensive overview of societal activities which were implemented as part of the iMERMAID project and are based on the respective Toolkit. They offer a validation of the Toolkit and its methods, showcasing the value of integrating action and seeking synergies throughout the project process and lifecycle.

- The inclusion of the iMERMAD Toolkit in the iMERMAID Open Calls created a unique opportunity to explore how a set of tools geared towards societal impact could be further validated by an external partners based within Associate Regions. These include two projects, namely: BRIDGEWAT and MARINER. This created the foundation for embedding social innovation in the key exploitable results of a R&I project. The experiences from the two 'validation' projects from the Associated Regions are summarised in the tables below (Table 11 and Table 12).

Table 11: Overview of iMERMAID Toolkit implementation and validation by the BRIDGEWAT project.

Tools applied for stakeholder engagement and raising awareness purposes. The input is delivered directly from the beneficiary organisation. All activities were implemented in accordance with the corresponding tool descriptions provided in the iMERMAID Toolkit for Societal Actions (D1.3).

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Audience(s), including group size
Toolkit Validation within the **BRIDGEWAT project** (Associate Region project, financed under iMERMAID's Open Call #1)	(i)Collaborative Stakeholder Mapping (ii)Social Media Campaign(ing) (iii)Schooling projects	Stakeholder Engagement Capacity Building Awareness raising	(i)11 May 2025; 8 June 2025; 25 July 2025 (ii)May 2025-onwards (iii) 24 June 2025; 4 July 2025; 23 July 2025 at Banja Luka	(i)policy-makers, academia and industry representatives (total:160 participants) (iii) approx. 100 students *(16-25 years old)*
Output(s): - Collaborative Stakeholder Mapping approached from the Toolkit were applied in the preparation and delivery of stakeholder-focused events. - Social Media campaigning was used onwards to support dissemination and visibility of project activities, including conferences, schooling events and stakeholder meetings. These activities helped ensure consistent communication of project messages and wider outreach beyond direct event participants. - The schooling project concepts and materials were showcased during student training activities held in August 2025. These sessions were delivered within the BRIDGEWAT project to high school and university students (approx. age range 16–25), reaching over 100 students in total. The Toolkit-supported approach helped translate complex topics				

	related to hazardous chemicals, water pollution and monitoring into accessible educational content and increased awareness among younger audiences
Findings and quotes specific to activity & context: - The Toolkit supported structured identification of relevant actors and facilitated inclusive dialogue on chemical management and water quality issues. The **Collaborative Stakeholder Mapping** tool was especially useful in supporting a structured identification and prioritisation of relevant local actors. It is a clear framework made it easy to adapt to the project context and local conditions, helping to ensure inclusive and transparent engagement. - Social Media Campaign(ing) supported communication and visibility of project activities. They were easy to integrate into existing channels and helped translate technical project topics into accessible messages for a broader audience. - The Schooling Project proved effective in raising awareness and encouraging dialogue across age groups, combining scientific knowledge with local experience - The Toolkit offered **sufficient methodological guidance** while **allowing flexibility to tailor activities to specific target groups**. Overall, it was easy to adopt and complemented existing engagement approaches by providing structure, clarity and replicability. - Reflection on Toolkit integration (from partner organisation): *"The iMERMAID Toolkit supported a more structured and inclusive approach to societal engagement, while remaining flexible enough to be adapted to local project needs."* - Reflection on collaboration with H2O People (from partner organisation): *"The collaboration with N.T. helped translate the Toolkit concepts into practical, context-specific activities that could be effectively implemented within the project."*	

Table 12: Overview of iMERMAID Toolkit implementation and validation by the MARINER, within the broader Eilat-Eilot municipality (Israel).

Tools applied for three (3) outreach and awareness activities. The input is delivered directly from the beneficiary organisation. All activities were implemented in accordance with the corresponding tool descriptions provided in the iMERMAID Toolkit for Societal Actions (D1.3).

Activity / Activities	Tool	Dimension	Date(s) & Location(s)	Audience(s), including group size

Toolkit Validation within the MARINER project (Associate Region project, financed under iMERMAID's Open Call #2)	Schooling project Game based knowledge transfer (Pharmabuster game) Collaborative Stakeholder Mapping	Stakeholder Engagement Capacity Building Awareness raising	(i)Youth Climate Assembly, 19 Nov 2025 (ii) Ben Gurion University academic eligible course, 18 Dec 2025 (iii) Training at Inter-University Institute for Marine Sciences, 21 Jan 2026 (iv) Eilat-Eilot renewable energy conference, 21 Jan 2026 (v) Mashav International training program of the Israel Foreign Affairs Ministry organised by the Arava Institute, 3 Dec 2025 (vi) Major Cities conference, 9 Oct 2025 (vii) ShaRED Sea Regional in Cyprus, 10 Sept 2025	(i)Middle school students (28) *(13-15 years old)* (ii) Psychology and Marine Biology students (6) (iii)Science middle school teachers (17)

Output(s):

- For all three outreach events, the Pharmabuster game (game-based knowledge transfer), was used, after being translated into Hebrew by the MARINER project coordinator and adapted for local use. While the translation process required additional effort and the original printing format had to be redesigned to meet local printing standards, the tool was overall easy to adapt to the local context.
- The pollution mapping exercise (collaborative mapping) allowed participants to collaboratively identify local pollution hotspots and connect abstract concepts to their own environment to discuss biological vs chemical pollution and how it is treated.

Findings and quotes specific to activity & context:

- Across all workshops, discussing chemical pollution through personal experiences and role play proved particularly powerful. This approach helped translate a seemingly distant issue into something tangible and close, prompting reflections not only on the impact of pharmaceuticals on marine ecosystems, but also on human health, consumption patterns, hyper-productivity, and our relationship with the sea. The high level of participation (including from students and teachers at the end of long training days) demonstrated the strong potential of participatory, experience-based tools for societal engagement.
- Reflection on Game-based knowledge transfer (from a facilitator)*: "The game format proved highly effective, though some texts could be shortened and more visual or color-coded boxes could further enhance engagement (feedback we got from the users). The availability of H2O People and the fact of having experienced the game in Bosnia-Herzegovina was extremely helpful in facilitating smooth replication alongside the written guidelines."*
- Reflection on Toolkit integration (from a participant)*: "I have never thought about the impact of medicine and chemical pollution, before, even though I consider myself environmentally aware*." (shift in perception)
- Quote from the training with the policy makers (municipality): *"The iMERMAID Schoolbook has simplified our dissemination activities by offering us examples of activities that have already been tested and proven effective. From our first outreach event, we managed to facilitate the activity in a precise way and we have received constructive, and very encouraging feedback making us believe the public will remember lastly the lessons learnt from the game."*

Figure 9: Implementation of societal activities within the MARINER project. In action: a training with science teachers, using the Pharmabusters game.

- **Capacity building** (in the form of trainings, workshops and knowledge sessions) also targeted seasoned professionals across project partners and across expertise. More specifically, iMERMAID project partners participated in a ***Blue Innovation Track (BIT)*** training week, focussing on skills development and peer learning. A senior impact practitioner, and partner in the iMERMAID project shares their experience: "*It was an intensive week with Advanced Leadership Strategies, Inclusive Teambuilding for Impact, Innovation Sprints – and some walks outside of the comfort zone! It was a special opportunity to get out of the daily business and focus on my personal development only. Working on topics brought in by the other participants and thus taking different roles and viewpoints were beneficial in this context.*" The short- and longer-term impact of the capacity building programme of the iMERMAID project, in the EJWP format, has also been captured in a dedicated EJWP 5/6 project. In this collaboration, the EJWP participants summarised

the journey of learning and building their community (in the 'memory lane') and created the posters of all EJWP projects conducted by the EJWP participants during the iMERMAID project (Figure 9 and Figure 10). These are hosted on the H2O People website, providing lasting evidence of the EJWP impact beyond the project's lifespan.

Figure 10: EJWP5/6 Memory Lane.

Figure 11: EJWP 5/6 Project posters (indicative).

- The ***Deep Democracy*** tool, in the forms of workshops and 'Conversation by Feet', has been utilised for the validation of ideas and concepts (e.g. concepts of impact and impact management) used within the iMERMAID project. As a concrete example, the 'conversation' which took place in Novi Sad (Serbia), on 17 June 2025, among project partners and EJWP participants, encouraged all project partners to reflect on what impact (deriving from a research & innovation project) is and share their view on the concept, even if that opinion did not represent the shared understanding among consortium members (i.e., minority voices being heard and respected). This *Deep Democracy* exercise was intended for consensus building on concepts and terms, which informed the specification of definitions used in relevant project deliverables. Building on this experience, a training session, in the form of a workshop, dedicated to impact and its management was organised during the CM and EJWP training week. The quotes on impact training highlight its relevance and applicability beyond the scope of the project: "*Useful material for meetings with large groups to understand perspectives and feelings and to come to clear and fair outcome /decisions*" and "*This was an interesting training and the workshop was great in getting everyone involved and challenged ideas and opinions in a way that doesn't make it feel <scary>* ". Another conversation by feet took place in Athens (Greece), during CM#2, in November 2023. The discussion focused on the following statement: *The integrated approach 'human skills-knowledge connectivity-voice diversity' can maximise the societal impact of the project's outputs.* This was to confirm among partners that the *Flows of Knowledge* concepts and impact types are applicable to the iMERMAID project. This has led to the creation of the H2O People Impact Framework and has

informed the impact narrative of the project, especially in relation to its societal outreach and deriving activities.

- Several online collaboration activities were facilitated using ***HowSpace***. This online cooperation platform, included in the iMERMAID Toolkit, has been utilised for in-project cooperation, especially to follow the learning development within the iMERMAID/EJWP projects (hosted by H2O People, namely: EJWP Impact Project and Schooling Implementation Accelerator)) as well as the Project Start-Up meetings and Mid-Term Evaluations. The online collaborative sessions sparked active engagement among participants, with an average of 24 contributions per session and an average of 20 comments per user (per session). The activities/sessions carried out in alignment with the preparation of a group project (within the EJWP set-up) and with project mid-term evaluations. Separate, ad-hoc sessions also took place, when the facilitator (H2O People) was actively requested to host a session on how to serve a specific objective whose outcome would benefit from a collaborative approach, for example evaluations of project outputs. The overview of HowSpace activities and their engagement (in terms of visits and time spent) are summarised below (Figure 12).

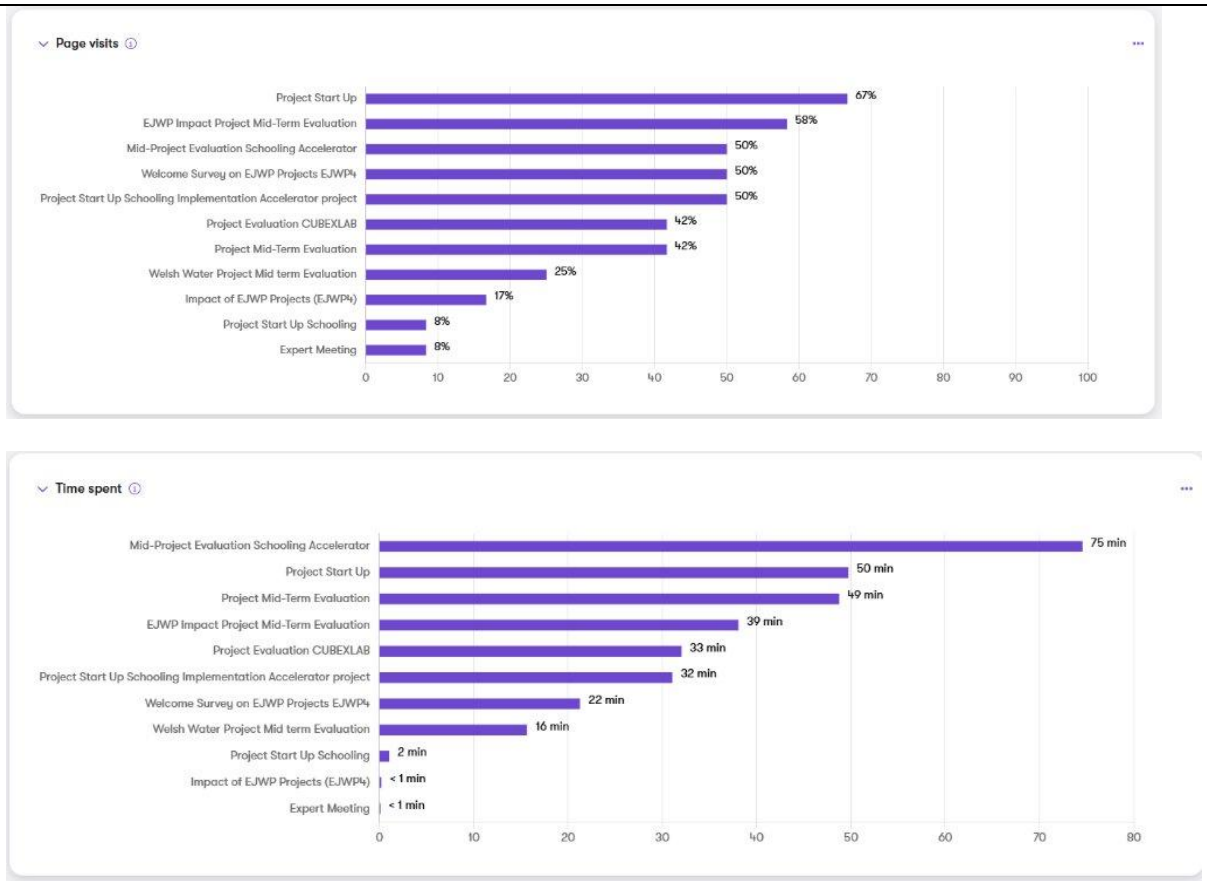

Figure 12: HowSpace usage (number of visits and time spent) during the iMERMAID project.

Taking into consideration the activities outlined in this section, it becomes evident that the societal activities of iMERMAID are not only intertwined with each other but also facilitate exchange ('*flows*') of information, knowledge, learning, and connectivity across and beyond the project, its partners and its lifecycle. Therefore, the societal actions contribute actively to the Key Performance Indicators (KPIs) of the project. As an indicative case in point, we have summarised the KPIs of WP1 (up until M31 of the project, i.e., December 2025). We note that the KPIs are monitored until the end of the project lifecycle and they will be included in the respective project deliverables, upon project completion.

4.0 Findings & reflection

When reflecting on the design and implementation of the project's societal activities geared towards achieving societal impact, one recognises the value of context for the successful completion of intervention and of their successful uptake by the respective targeted audiences. Impact cannot take place in isolation. Instead, the interventions and activities should be designed so that they place the needs of their audience at the centre. This purposeful design should not be an afterthought. Rather, impact pathways should be developed, aiming at change at micro- and meso-levels, so that they assist and support the realization of (longer-term) impact. Targeted actions, as a cohesive aspect of the impact pathways, should be a project design question, ideally including as many partners as possible, to allow for a holistic and comprehensive co-design and leading to a smooth execution.

Social Media Campaigns (SMCs) could raise awareness, but we could have used the Social Media accounts of partner organisations instead of iMERMAID project to capitalise on the established followers/audiences of the project partners. Further, the SMCs could have also been translated into the local languages for better reach. We observe that the LinkedIn posts have attracted other industrial partners, which is great for enhancing cooperation and peer-to-peer learning. While this was not an explicit targeted outcome, it is a positive one. Nonetheless, if the explicit target audience is citizens, and especially those of a younger generation, alternative means of communication (e.g., short videos) and/or alternative platforms (e.g., TikTok) may have served the purpose better. The audiences targeted in the iMERMAID project were diverse and across contexts and age groups, which created a creative and logistical challenge in reaching them all effectively. We accept the trade-offs of our choices and strategy, and we share our recommendations (chapter 5) based on our lived experience within the project.

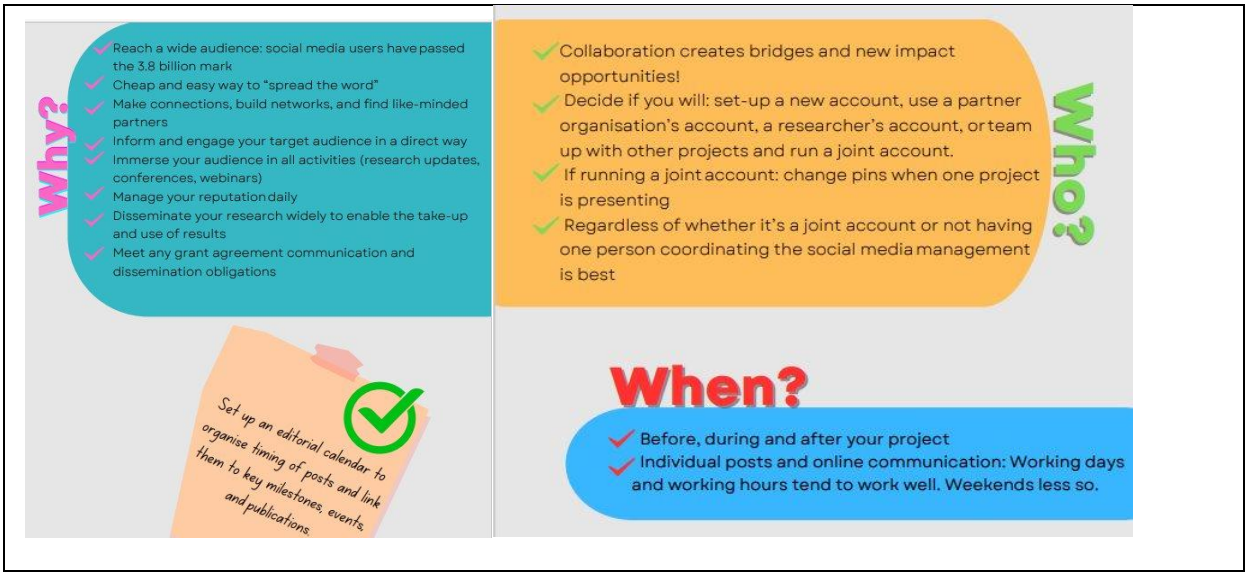

Figure 13: Recommendations for science communication within R&I projects, based on the findings of the respective EJWP project within iMERMAID on science communication.

The project's communication manager has shared her reflections and recommendations on the use of Social Media campaigns within R&I context:

"*My main recommendation is to embed communication coaching early in the project lifecycle. When scientists and researchers are equipped with the tools to share their own stories, the engagement rate doesn't just meet industry standards, it exceeds them, as seen in our high 10.10% engagement rate, proving that there is a massive appetite for authentic, science-based digital storytelling. For future projects, I recommend maintaining a dual focus; by training our partners to act as local amplifiers, we ensured that our audience wasn't just observing the research, but was actively comprised of the very industries, such as environmental services and pharma, that face these pollution challenges daily. With video content consistently outperforming static images, reaching an 11.6% engagement rate, it is clear that complex scientific data becomes far more accessible when humanized through motion*".

The majority of Schooling Project activities took place in 2025 (i.e., when entering the last year of the project cycle). This development was to be expected, considering the project and deliverables timeline. It is expected and hoped that the materials created (and updated) will continue to be used throughout the project life cycle and beyond. The schooling project was co-created with input from the expert project partners. This choice increased the engagement and enhanced the collaboration but also created feedback loops that required additional time for completion. The co-creation process was extended also to the local stakeholders (in this case teachers and students). The project partners mobilised schools and teachers in their respective countries and organised sessions with educators to collect their feedback and input on the iMERMAID workbook and assess its applicability and adoption in the local context. This exercise enriched the content and led not only to re-designing parts of the workbook but also to creating additional outputs: the evaluation questionnaires and the Teacher's Handbook.

This handbook provides clarification on certain scientific topics that may be unknown or unclear to the teachers/educators, challenging the assumptions of the project experts on what is common knowledge outside of the scientific realm. It is also a guide for a practical, hands-on application of the schoolbook at the different schools, while providing further insights and explanations to the educators where necessary and mirroring the schoolbook structure for "bridging the gap between theory and application', therefore facilitating the use of the materials overall. The implementation of the schoolbook is also supported by the development of supplementary materials in the local languages of the iMERMAID use cases, e.g. the questionnaires for assessing the knowledge gained by the students, as well as the online platform for submitting results and encouraging citizen science in practice. Evidently, other materials created for the sessions organised at a local level are developed in the local languages. This difference poses a practical challenge for the re-use of these materials. Nonetheless, the materials remain informative as formats and experiences and lessons learned among project partners.

Citizen science is the cornerstone of the iMERMAID schooling project and workbook. Citizen science is an approach that has been selected because it encourages citizens to actively engage with the scientific process and research. In the case of the iMERMAID missions, by collecting and sharing data, citizens collect important information about the state of the local environment and can contribute to developing solutions together with scientific institutions and research organisation that are tailored to the local needs (in terms of technical requirements) and local perceptions and culture (in terms of uptake).

The **combined set of activities** presented and implemented create a blueprint for other R&I projects, especially those whose work expands across contexts and audiences. Considering the scoping and objectives of the iMERMAID project, we find that the Toolkit as well as the findings of its implementation, feed directly into the needs of contemporary developments of the European water sector at large. More specifically, they feed into the discussions for the formulation of the EU Water Academy. The experiences and lessons learned from the integration of capacity building activities within the realm of social impact could not only help shape the discussions but also create opportunities to actively support EU researchers and practitioners towards the realisation of the ambitions set in the EU Water Resilience Strategy in this domain of work.

The **handprint approach** provides a transparent methodology to avoid greenwashing in environmental communication, but at the same time informs other societal stakeholders (client companies in business-to-business context and consumers in business-to costumer setups) about both the environmental burden and the environmental advantage brought about by a new technology. The preliminary findings have been helpful in informing the content of science communication activities. It would have been more beneficial to align the activities further, to allow for more interactive communication of the results, although this may only have been possible when testing existing technologies, rather than testing those under development.

5.0 Conclusions and Recommendations

Impact literacy within R&I should be improved. Each R&I (and beyond) project should define what impact is for the partners and their stakeholders and gear their activities towards those shared goals. They need to be realistic about what is an output, what is an outcome and what the impact may be – including a timeline of when that could be achieved. Language and terminology matter – not least because they formulate the ambition and expectation of the project partners.

As discussed at length by Bogers & Young (2026), at a time when science is increasingly expected to interact with society at large, the use of Social Media for research purposes offers opportunities which could be grouped in sets of activities (from the viewpoint of an academic): (i) dissemination, i.e. sharing of ongoing work with peers, stakeholders and the general public; (ii) co-creation, i.e., crowdsource ideas and create or invite collaborative knowledge, (iii) networking, i.e., getting access to opportunities and meeting new experts/collaborators; and (iv) ideation, i.e. getting inspired by others' methods, manage information, and test scoping of ideas. While the use of Social Media for research purposes also involves risks, for example relating to ethical considerations or the 'dark side' of the democratisation of knowledge (leading to misinterpretation and to misinformation), their use remains a tool for connection and their purposeful use can spark opportunities for new and lasting collaborations and can serve the democratisation of knowledge and the societal justification of research funds.

Building on the value of Social Media for research purposes and drawing from our experience in this domain, we recommend the following considerations when ***Social Media campaigns*** are ***utilised for science communication purposes*** across several audience: (i) opt for engaging content, for example, quizzes; (ii) re-use content across campaigns and platforms, to amplify reach and enable the message to 'land'; (iii) create and deliver a series of SMCs and plan them throughout the duration of the project in order to build a compelling story that the interested audience can follow; (iv) tailor delivery method to audience and platform, for example, create short videos for young audiences and post them on age-appropriate platforms; (v) utilize established Social Media accounts, for example from project partners, to amplify outreach and be able to engage with local communities as direct stakeholders of the project; (vi) take into account the trade-offs and limitations of the methods adopted when analysing the results of the SMCs (or of outreach in general), and include them in the narrative accompanying any numerical evidence; (vii) monitor the engagement of the SMCs and embrace the on-going trends to inform the content of the project's SMCs.

The Horizon Europe Cluster 5 2025 Work Programme has officially introduced the Societal Readiness Level (SRL) Pilot. This is a mandatory contractual requirement in this programme. SRL tracks the readiness of users, institutions and communities to adopt the solutions of the funded research project(s). Since this is a new requirement, it is no surprise that there is currently limited work on the methodologies that could support a project's SRL design and tracking.

Social activities geared towards achieving societal impact are included in most R&I activities and projects as a key component. This is no longer a trend; instead, it is a fundamental element of successful grant acquisition and delivery. For the social activities to be adequately realized though, we strongly recommend that the effort required for their design and implementation is accurately represented and accounted for in the project proposal, in terms of project months and budget dedicated to these activities. Relatedly, project partners should account for active involvement of their staff in the implementation of these

activities, especially when these require context-specific knowledge and/or experience. Additionally, in order for organization to adopt capacity building as a key pathway to impact, they need to not only grasp the concepts (therefore improve their impact literacy), but also actively enable their staff (especially the younger generation of professionals) to participate in capacity development activities, for example by dedicating working time in these activities, so that they don't become an 'add-on' post-normal-work hours. Capacity building in a group setting is a vehicle for continuous connectivity post-project, contributing to the viability of relationships cultivated during a structure, but time-bound cooperation. Building on this, we strongly recommend that capacity building is a core element of the societal actions planned to be executed in the context of R&I projects. We recommend that capacity building is considered a distinctive pathway to societal impact within R&I projects, and this conviction is built in in the design of the project. In practice, this translates into purposeful, in-project resource allocation to capacity building activities.

Social activities or activities geared towards societal impact should be included in the key exploitable results (KERs) in a format that allows their replication and further validation. In this vein, we openly and cordially invite projects to utilise and implement the iMERMAID Toolkit, contributing to its wider validation across R&I projects and contexts.

6.0 Acknowledgments

This report would not have been possible without the execution of the societal activities by the project partners within their local ecosystems. We extend our sincere thanks to those iMERMAID colleagues and project partners who have been actively involved in the societal actions of the project, either by contributing to the co-creation of the materials, or by organizing and delivering a schooling project workshop/activity, or by getting involved in science communication activities. Your contributions and active involvement have made this report possible – and have created a lasting effect in your local ecosystems.

A big thanks is also extended to the participants of the EJWP5 and EJWP6 groups (associated with the iMERMAID project) for their key contributions to project outputs (e.g., the Social Media campaigns) and for their enthusiastic adoption of the concepts introduced during the trainings and through the Toolkit. You are living proof that capacity building is a pathway to societal impact, and we could not thank you enough for this!

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The Mediterranean Sea and its surrounding regions support a diverse variety of essential socioeconomic activities. It is one of the highly exploited water ways and the influence of anthropogenic activities on its marine habitats and ecosystems has grown significantly since the industrial revolution. Because of this, the Mediterranean Sea basin is very vulnerable to chemical contamination and build-up. To safeguard the Mediterranean Sea basin from contaminants for emerging concerns (CoEC), iMERMAID will integrate, coordinate, and synergize innovative preventive, monitoring, and remediation solutions. iMERMAID will build an evidence-based multidimensional framework that will guide policymaking and transform societal perceptions to reduce CoEC usage, emissions, and pollution. Furthermore, next generation sensor and remediation solutions will be developed within iMERMAID to monitor and remove prioritized chemicals from its source while reducing upstream pollution. iMERMAID builds an ideal interdisciplinary team by bringing together prominent SMEs, researchers, regulators, and innovation professionals who have been essential in improving the knowledge and awareness of CoEC. Beyond state-of-the-art techniques, iMERMAID will strive to strengthen regulations against CoEC, expand economic possibilities and competitiveness, improve the standard of living for EU residents, while preventing the accumulation of chemical pollution in the Mediterranean Sea basin. iMERMAID will empower the efforts to create a zero pollution, contaminant free waters by enabling the Chemical Strategy's goals to become a practical reality.

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