



# Innovative and Sustainable Groundwater Management in the Mediterranean

## D7.2 Communication and Dissemination Activities

VERSION 1.1



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Consortium	<p>Universitat Politècnica de València (UPV), Spain (Coordinator)</p> <p>Helmholtz-Zentrum für Umweltforschung (UFZ), Germany</p> <p>Università degli Studi di Parma (UNIPR), Italy</p> <p>Boğaziçi Üniversitesi (BU), Turkey</p> <p>Centre de Recherches et des Technologies des Eaux (CERTE), Tunisie</p> <p>Technical University of Crete (TUC), Greece</p> <p>Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento (IST-ID), Portugal</p>		

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## Glossary

BU	Boğaziçi Üniversitesi
CERTE	Centre de Recherches et des Technologies des Eaux
DMP	Data Management Plan
EGU	European Geosciences Union
FAIR	Findable, open Accessible, Interoperable and Reusable
IST-ID	Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento
MED	Mediterranean
TUC	Technical University of Crete
UFZ	Helmholtz-Zentrum für Umweltforschung
UNIPR	Università degli Studi di Parma
UPV	Universitat Politècnica de València
WP	Work Package

## Executive Summary

The overall objective of the InTheMED project is to implement innovative and sustainable management tools and remediation strategies for MED aquifers (inland and coastal) in order to mitigate anthropogenic and climate-change threats by creating new long-lasting spaces of social learning among different interdependent stakeholders, NGOs, and scientific researchers in five field case studies. These are located at the two shores of the MED basin, namely in Spain, Greece, Portugal, Tunisia, and Turkey.

InTheMED will develop an inclusive process that will establish an ensemble of innovative assessment and management tools and methodologies including a high-resolution monitoring approach, smart modelling, a socio-economic assessment, web-based decision support systems (DSS) and new configurations for governance to validate efficient and sustainable integrated groundwater management in the MED considering both the quantitative and qualitative aspects.

This Deliverable reports on the communication and dissemination activities from all partners of the project (Spain, Portugal, Germany, Greece, Italy, Tunisia, and Turkey) for the duration of the whole project, from March 2020 until August 2023. WP7 is responsible for the dissemination of InTheMED goals and coordinates this task at the consortium level, namely through the development of innovative communication pathways and dissemination materials to share the results of the project with multi-stakeholders and the wider society and end-user community, via awareness creation, publications, multimedia platforms, workshops, and online tools. The InTheMED dissemination strategy aims to promote the concepts, methods and results to the widest audience and achieve the largest impact and benefits on the different aspects of the project.



## 1. Introduction

WP7 is responsible for the dissemination of InTheMED goals and coordinates this task at the consortium level, namely through the development of innovative communication pathways and dissemination materials to share the results of the project with multi-stakeholders and the wider society and end-user community, via awareness creation, publications, multimedia platforms, workshops, and online tools.

This document reports on the communication and dissemination activities from all partners for the duration of the whole project, from March 2020 until August 2023, and is organized in three main chapters:

- **Chapter 1** introduces the communication background, stating the objectives, messages and targets groups defined in the Communication and Dissemination Plan (CDP), and it also refers to the key performance indicators (KPIs).
- **Chapter 2** reports on the dissemination and communication activities undertaken by the partners for the whole project, namely scientific publications, and participation/organization of events.
- **Chapter 3** summarizes the key results of the consortium in terms of impact and achievements regarding the communication and dissemination activities.

### 1.1. Communication Strategy

The communication strategy aims to leverage the innovative and sustainable management tools and remediation strategies for MED aquifers developed and implemented under the scope of the project and help to establish new long-lasting spaces of social learning among different interdependent stakeholders, NGOs, and scientific researchers in five field case studies, located at the two shores of the MED basin: Spain, Greece, Portugal, Tunisia, and Turkey.

Moreover, the communication messages underpin the four main pillars of InTheMED, which aims to diminish weaknesses through a combination of innovation tools and methodologies to

provide decision-makers with an interactive, innovative, and easy-to-use Fuzzy WebDSS and to improve their ability to respond to environmental, climatic, and socio-economic pressures.

The communication and dissemination strategy of the InTheMED project is based on the strategy stated in the D7.1 Communication and Dissemination Plan (CDP)<sup>1</sup>. The plan aims to promote the project's concepts, methods, and results to relevant stakeholders in the region and beyond by being transversal and interacting with all the other work packages and relevant stakeholders. The CDP identifies the most efficient means to communicate with partners and stakeholders and to disseminate, exploit and communicate the results and set out the objectives, tools, materials and channels, achievements, and tangible outcomes to targeted audiences and relevant stakeholders.

The most important aspects of the CDP are summarised in the following sub-sections. This deliverable shows how these aspects were addressed in order to communicate effectively about the InTheMED project.

### 1.1.1. Objectives

Dissemination activities play a crucial role in the InTheMED project and aim at communicating the project's objectives and results to a wide audience by promoting the adoption of the project's results and demonstrating its impact, as well as by facilitating the exchange of information and the interaction not only with other projects and initiatives related to the project but also with relevant stakeholders and society. To accomplish this the main objectives are:

- Guarantee and effective communication of the project messages and activities at local, national and EU levels;
- Identify appropriate target groups to address the dissemination messages;
- Implement a wide and differentiated set of dissemination tools and events;
- Illustrate how the project will cooperate with other PRIMA-funded projects or related initiatives;

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<sup>1</sup> <https://zenodo.org/record/4719557>

- Define how the dissemination activities will be administrated; and
- Assist InTheMED partners in implementing the communication strategy effectively.

### 1.1.2. Messages and Target Groups

A set of messages have been defined as the basis for a deeper approach to a specific target audience and in relation to the activities that compose the project implementation plan:

- InTheMED proposes a participatory approach and stakeholder engagement for innovative groundwater management by creating new long-lasting spaces for social learning.
- Benefit from an integrated approach of high-resolution monitoring approach, smart modelling, socio-economic assessment, and web-based decision support system (DSS) for sustainable integrated groundwater management.
- Establish efficient new configurations for groundwater governance.
- InTheMED will spread and share its relevant outcomes and good practices from the project with other related European initiatives and PRIMA projects.
- InTheMED results can be adopted as validated inputs for the European Commission. They could assist the EC in their labour of drawing new strategic plans or policy frameworks for groundwater management in the MED and the EU.

The target audience of InTheMED is variable ranging from academic institutions to governance structures and end-users (Figure 1). However, there are four main target audiences to ensure the implementation of the communication strategy at both local and MED levels ensuring at the same time a multiple-way exchange of knowledge and information:

- Scientific communities of scientists developing methods and models.
- Administration and Environmental Authorities, i.e., decision-makers, professionals, and organizations responsible for planning and implementing regional strategies for economic development and environmental protection.

- Other local stakeholders and potential end-users, such as businesses, industries, farmers and groups involved in the socio-economic development of the particular geographic area.
- Citizens, who will benefit from objective, reliable, and understandable information.

Furthermore, the engagement from end-users was ensured in the five case study areas from agricultural and industrial organizations, and national authorities.

### 1.1.3. Communication Tools and Channels

InTheMED project resorted to a broad range of channels to achieve its objectives, reach the target groups, and deliver the key messages from the project, namely:

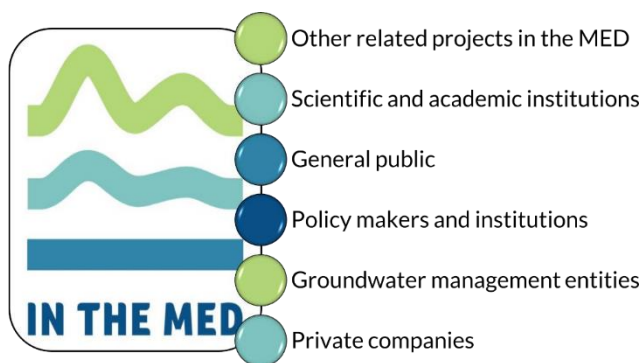


Figure 1. InTheMED target audience

- Project website,
- Social media,
- Printed promotional materials,
- Events,
- Scientific publications,
- Media and press releases and
- Project videos.

Online platforms were the preferred platforms to disseminate the InTheMED project, complemented by offline materials used in key events and distributed among relevant stakeholders.

### 1.1.4. Key Performance Indicators (KPIs)

The definition of Key Performance Indicators (KPIs) allows us to assess the impacts of InTheMED solutions and monitor the communication activities according to a set of quantitative and qualitative indicators. The evaluation of these activities will determine the degree of achievement of the communication and dissemination objectives, and the relationship between the outcomes and the efforts made to reach the goals. This analysis helps the project to better understand the facilitators and barriers to successful communication. A total of 12 indicators are summarised in Table 1 as well as their target value.

**Table 1.** Key Performance Indicators (KPIs) to monitor the successful deployment in terms of efficiency and effectiveness of dissemination and communication activities.

Output	Measurement Unit	Target value
Project visual identity	-	1
Project website	-	1
Project brochure in several languages (one per country)	Number of brochures	10,000
Project poster (one per country)	Number of posters	7
Project factsheet (one per country)	Number of factsheets	7
Project roll-up (one per country)	-	7
InTheMED newsletters	Number of newsletters	3
Scientific publications (including peer-review journals, conference proceedings)	Number of scientific publications	3
Open-access publications	Number of applications	3
General press articles published	Number of press articles	5
Relevant information about the case studies	Number of digital materials	5
Video tutorial for WebDSS	Number of videos	3

## 2. Dissemination and Communication Activities

The following sections summarise the dissemination and communication activities undertaken jointly by the consortium and individually by the partners for the whole duration of the project.

### 2.1. Project Website

The InTheMED website was the main information hub of the project. It was developed on Drupal platform by Omibee<sup>2</sup> and maintained and updated by IST-ID. The website is hosted in IST-ID servers with the domain <http://inthemedprima.com/>. It was designed taking the following criteria into consideration: usability, clear and accessible structure, easiness to content updating and a platform to exchange documents within the several partners of the project. All partners were requested to deliver content for the website in its official language, English.

The website map has been developed to offer a complete overview of the project and easy access to all its activities. The landing page (Figure 2) is a summary of all the contents of the website and highlights the most recent and important information about the activities developed. The website is organised in different menus, with information regarding the project, team members, advisory board, partners, and stakeholders.

The communication tab shows the news, outreach, stakeholders, interaction, and kit. Moreover, it also stores and makes publicly available the project results including public deliverables, publications, and data. The website also hosts the fuzzy web Decision Support System (DSS) under the results tab, which allows to visualize the results of all the different models as a simple-to-use and understandable tool that can help the stakeholders to make informed solutions or simply understand the implications of specific actions. An atlas of maps produced using the DSS is also available.

The domain will exist for two more years after the end of the project, although, an effort will be made to keep the website running after this period.

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<sup>2</sup> <https://omibee.com/>

## 2.2. Social Media

The dissemination strategy included the creation of a virtual identity and presence in social media platforms, namely:

- **Twitter**<sup>3</sup> (@InTheMED\_PRIMA and #InTheMED), used to broadcast real-time updates about the project, including relevant news, results and publications and also as a mean to interact with other projects and raise awareness about InTheMED project.
- **LinkedIn**<sup>4</sup>, used to act as a mirror of the website where the main updates of the project were posted.
- **Facebook**<sup>5</sup>, acted as the LinkedIn page.
- **YouTube**<sup>6</sup>, used to post InTheMED videos.



### 3rd living lab in Konya, Turkey

On March 21st, 2023, Boğaziçi University organized a final Living Lab in Konya, Turkey, within the scope of the InTheMED project.



### Participation of InTheMED on EGU2023

The final conference of the InTheMED was organized during the EGU General Assembly 2023 at the Vienna International Centre (Austria) from April 23rd to April 28th, 2023.

**Figure 2.** Landing page of InTheMED website

<sup>3</sup> [https://twitter.com/inthemed\\_prima](https://twitter.com/inthemed_prima)

<sup>4</sup> <https://pt.linkedin.com/in/inthemed-prima-5690461ba>

<sup>5</sup> <https://m.facebook.com/inthemedPRIMA/>

<sup>6</sup> <https://www.youtube.com/@projectinthemed4258>



These platforms were regularly updated with information related to the project and played a major role in communicating the InTheMED results and allowed reaching a wide and targeted audience, maximising the impact of the research results.



**Figure 3.** Examples of posts in LinkedIn and Twitter and an example of a video posted on the YouTube channel of the InTheMED project

Moreover, the partners have used their own channels to disseminate content as well as the channels of their institutions, namely:

- News posted on Instituto Superior Técnico<sup>7</sup> and CERENA<sup>8</sup> websites (IST-ID);

<sup>7</sup> <https://tecnico.ulisboa.pt/en/news/tecnico-researchers-participate-in-european-consortium-for-real-time-management-of-groundwater-resources/>

<sup>8</sup> <https://cerena.ist.utl.pt/news/inthemed-kick-meeting-innovative-and-sustainable-groundwater-management-mediterranean>, <https://cerena.tecnico.ulisboa.pt/projects/inthemed-innovative-and-sustainable-groundwater-management-mediterranean>



- Posts in the web<sup>9</sup> and Twitter<sup>10</sup> and Facebook<sup>11</sup> accounts of the IIAMA (Research Institute of Water and Environmental Engineering at the UPV), about the UPV team participation in the InTheMED project;
- Post on the University of Parma (UNIPR) website (in Italian)<sup>12</sup>; and
- Post on the Helmholtz Centre for Environmental Research (UFZ) website<sup>13</sup>

### 2.3. Printed Promotional Materials

Key physical promotional materials, such as leaflets, posters, and factsheets, were produced and spread within the InTheMED community and at international events, either in English and in the national languages of the partners to widen the public reached, allowing other potentially interested stakeholders and the general public to be informed about the project:

- Leaflets describing the InTheMED project and its main products (Figure 4). These leaflets were given to the participants of the Living Lab in Requena and in the dissemination session "The State and Management of the Aquifer" that was held in Requena on April 13, 2023. The purpose of these leaflets was to create awareness among the stakeholders and draw their attention to the InTheMED project.
- Posters, both in English and Spanish, describing the InTheMED project and its main goals, were used in events organized by the InTheMED partners and online dissemination.
- Factsheets describing the five field case studies of the project: Requena-Utiel (Spain), Tympaki (Greece, **Error! Reference source not found.**), Castro Verde (Portugal), Grombalia (Tunisia), and Konya (Turkey). These factsheets serve as online

<sup>9</sup> <https://www.iiama.upv.es/iiama/en/>

<sup>10</sup> [https://twitter.com/iiama\\_upv?s=20](https://twitter.com/iiama_upv?s=20)

<sup>11</sup> <https://www.facebook.com/iiama.upv/>

<sup>12</sup> <https://www.unipr.it/notizie/gestione-sostenibile-delle-risorse-idriche-finanziato-un-progetto-di-ricerca-che-coinvolge>

<sup>13</sup> <https://www.ufz.de/index.php?en=47792>

**Gestión innovadora y sostenible de las aguas subterráneas en el Mediterráneo**

- Herramientas de gestión innovadoras y sostenibles y estrategias de remediación de acuíferos en el Mediterráneo.
- Creación de espacios de aprendizaje social entre diferentes agentes interesados, ONGs e investigadores científicos.
- Sistema soporte a la decisión web para mitigar las amenazas antropogénicas y de cambio climático.

Un nuevo modelo de gobernanza para una gestión integrada eficiente y sostenible de las aguas subterráneas en el Mediterráneo

**InTheMED en cifras**

7 países (Europa, Asia y Norte de África)	7 talleres participativos	Duración del proyecto: 36 meses
5 casos de estudio en el Mediterráneo	Presupuesto de 1.9 M€	

**Soluciones de InTheMED**

Enfoque participativo	Aprendizaje social	Modelos simplificados
Monitoreo a tiempo real	Análisis de tendencias	Sistema soporte a la decisión

**Socios de InTheMED**

Póngase en contacto con InTheMED

@INTHEMED\_PRIMA  
www.facebook.com/InTheMEDPRIMA  
www.linkedin.com/company/inthemed-prima-5690461ba/  
www.inthemed-prima.com  
http://inthemedprima.com/

**Case Study - Tympaki, Greece**

InTheMED aims to implement innovative and sustainable management tools and remediation strategies for MED aquifers (inland and coastal) in order to mitigate anthropogenic and climate-change threats by creating long-lasting spaces of social learning among different interdependent stakeholders, NGOs, and scientific researchers in five field case studies, located at the two shores of the MED basin (Spain, Greece, Portugal, Tunisia, and Turkey).

**Characteristics**

- Size (km<sup>2</sup>): 55
- Population: 25,000
- Basin: Tympaki
- Location: Coastal
- Mean Precipitation (mm/y): 500
- Mean Temperature (°C): 15
- Groundwater users: Agriculture
- Overexploited: Yes
- Groundwater pollution: Nitrate, salinity

**Strengths**

- Water collection and allocation infrastructures (reservoir-networks)
- Good quality of wastewater for reuse
- Cost recovery derived from the water use, higher than 80%
- Adequate statistics to monitor the parameters involved in the water threats
- Involvement of associations and Local, Regional and National Governments in the conservation and good management of water resources

**Weaknesses**

- Strong rainfall seasonality can lead either to supply complications or flood risk
- Significant increase in built-up areas
- Low percentage of wastewater reuse
- Loss of aquatic biodiversity due to the presence of biocides, herbicides and pesticides used in agricultural activities
- High consumption of water for irrigation
- High degree of erosion in the study area
- Poor groundwater and soil quality
- Poor groundwater monitoring

**Opportunities**

- Increase water quality and quantity monitoring networks
- Increase data availability
- General public awareness for the water sustainability problematic

**Threats**

- Increased water demand due to climate change effects
- Lack of investment in infrastructure
- Elimination of aid from the Common Agricultural Policy (CAP) in Europe

**InTheMED Website & Social Media**

<https://inthemedprima.com/>  
@InTheMED\_PRIMA  
<https://www.facebook.com/inthemedPRIMA>  
<https://www.linkedin.com/in/inthemed-prima-5690461ba/>

**InTheMED Partners**

InTheMED is part of the PRIMA programme supported by the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 101019150.

**Figure 4.** Example of a leaflet, in Spanish, and of a factsheet describing the Tympaki (Greece) field case study of the InTheMED project dissemination on the project website to showcase the field examples, which served as case studies for the project.

## 2.4. Events

The communication and dissemination activities comprehend all WPs, the participation at dedicated events such as, exhibitions, conferences, workshops, training, among others. The list of events where the InTheMED partners participated as consortium and individually are listed below.

### Exhibition

- Presentation of the InTheMED project to the German Team, TU-Berlin, on the sidelines of their visit to CERTE, Tunisia (December, 10th, 2021).

## Organization of a Conference

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- Congreso Ibérico de las Aguas Subterráneas, CIAS 2021 (17 -19 November 2021, Valencia, Spain).
- 14th International Conference on Geostatistics for Environmental Applications, geoENV (22-24 June 2022, Parma, Italy).
- Sustainable Groundwater Management Conference, Sustain (6-8 October 2022, Valencia, Spain).
- Final Scientific Conference of the InTheMED project that took place at the EGU (European Geosciences Union) General Assembly (23-28 April 2023, Vienna, Austria).

## Organization of a Workshop

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- First Group Model Building Workshop in Konya, Turkey (September 30, 2021).
- Second Group Model Building Workshop in Konya, Turkey (February 17, 2022).
- Third Group Model Building Workshop in Konya, Turkey (March 21, 2023).

## Participation in Activities Organized Jointly with Other H2020 Project(s)

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- Interviews with Irrigation communities, municipalities and industrial and individual groundwater users with eGROUNDWATER project in Requena, Spain (2021).
- Meeting to discuss the numerical model of the Requena-Utiel aquifer, Spain.
- Living Lab in Requena, Spain, in collaboration with eGROUNDWATER project (2022).
- Comparison of the GRACE-based product with measured data from the collected database with the G3P H2020 project.
- Organization of the session “ECS SS3 | Mediterranean Coastal Aquifers Under Climate Change” during the 7th Europe Congress of the International Association for Hydro-environment Engineering and Research, jointly by Sustain-COAST, InTheMED and MEDSAL Prima Projects.

- Workshop with stakeholders of the Requena-Utiel aquifer, Spain, in collaboration with eGROUNDWATER project (2022).
- Workshop with stakeholders of the Requena-Utiel aquifer, Spain, in collaboration with eGROUNDWATER project (2023).
- Meeting between the Spanish teams of InTheMED and eGROUNDWATER to discuss the use of remote sensing and surrogate models (2023).

### Participation to a Conference

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- European Geoscience Union General Assembly 2021 (19-30 April 2021, Online).
- 48th IAH Congress, IAH 2021 (6-10 September 2021, Brussels, Belgium).
- Congreso Ibérico de las Aguas Subterráneas, CIAS 2021 (17-19 November 2021, Valencia, Spain).
- International Shared Aquifer Resources Management, ISARM 2021 (6-9 December 2021, Online).
- European Geoscience Union General Assembly 2022 (23-27 May 2022, Vienna, Austria).
- International Association of Hydrological Sciences 2022 Conference (29 May - 3 June 2022, Montpellier, France).
- 14<sup>th</sup> InterPore (30 May - 02 June 2022, Abu Dhabi, UAE).
- 15<sup>th</sup> Congress of the Hellenic Hydrotechnical Association (2-3 June 2022, Thessaloniki, Greece).
- 14<sup>th</sup> International Conference on Geostatistics for Environmental Applications, geoENV (22-24 June 2022, Parma, Italy).
- 21<sup>st</sup> Annual Conference of the International Association for Mathematical Geosciences, IAMG (29 August – 3 September 2022, Nancy, France).

- 7<sup>th</sup> Europe Congress of the International Association for Hydro-environment Engineering and Research, IAHR (7-9 September 2022, Athens, Greece).
- Sustainable Groundwater Management Conference, Sustain (6-8 October 2022, Valencia, Spain).
- 4<sup>th</sup> Euro-Mediterranean Conference for Environmental, (2 November 2022, Sousse, Tunisia).
- Congreso Ibérico de las Aguas Subterráneas, CIAS 2022 (23 - 25 November 2022, Albacete, Spain).
- 2<sup>nd</sup> edition of Mediterranean Geosciences Union- Springer MedGU 2022 (MedGU), Marrakech – Morocco (27 to 30 November 2022).
- European Geoscience Union General Assembly 2023 (23-30 April 2023, Vienna, Austria).
- 15<sup>th</sup> InterPore (22-25 May 2023, Edinburgh, Scotland).
- 5<sup>th</sup> Doctoral Congress in Engineering (15-16 June 2023, Porto, Portugal).
- Keynote talk on EWRA2023 – 12<sup>th</sup> World Congress of EWRA Thessaloniki, Greece (27 June - 1 July 2023).
- 22<sup>nd</sup> Annual Conference of the International Association for Mathematical Geosciences, IAMG (5-12 August 2023, Trondheim, Norway).
- Tunisian Water Days – 2<sup>nd</sup> edition of the Innovation Forum of the TUNGER 2+2 SUSPIRE (3 November 2023, Tuni, Tunisia).

### Participation to a Workshop

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- Webinar “Groundwater: facing a common challenge”, organized by Cetaqua Andalucía in collaboration with IIAMA-UPV (20 July 2021).
- WEF NEXUS Innovation Week (18 January 2022, online).
- Workshop in Requena, Spain, in collaboration with eGROUNDWATER project (2022)

- Presentation of groundwater survey methods in Potsdam University as part of an MSc course on Field Methods (2022),
- Workshop “Does the Requena-Utiel aquifer have a future? Keys to sustainable water management” (13 April 2023, Requena, Spain),
- Workshop in Requena in collaboration with eGROUNDWATER project (2023).
- Participation in the meeting with local stakeholders for the implementation of the organizational social responsibility for sustainable water resource management in Grombalia: Support for Water Sector Reform in Tunisia 1 (21-22 June 2023, Hammamet, Tunisia).

#### **Participation to an Event other than Conference of Workshop**

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- PhD Open Days at Instituto Superior Técnico (November 2021, Lisbon, Portugal).
- National Forum of Climate Change Adaptation Actors (FNAACC) – Science City of Tunis (11 December 2021, Tunisia).
- Living Lab Konya (17 February 2022, Turkey).
- PRIMA Groundwater Webinar: Groundwater: facing a common challenge (2022).
- Information day, ninth European Research and Innovation framework program, Horizon Europe (26 October 2022).
- PhD Open Days at Instituto Superior Técnico (November 2022, Lisbon, Portugal).
- Heraklion Crete organized by the National Technical Chamber of Greece “science and technology in the service of politics flood protection” (3 February 2023).
- 5<sup>th</sup> edition of the International Day of Women and Girls in Science (11 February 2023).
- Presentation of the InTheMED project in CERENA-IST Seminar Series “Forward past, what’s next?” (February 2023, Lisbon, Portugal).
- Participation in the Open Day “CLIMATHON 2.0: Climate change in Tunisia, Realities and Adaptation paths” – ISSTE (26 April 2023, Tunisia).

- Presentation “Water resources management in the Mediterranean region: Challenges and perspectives” in the kick-off meeting of the OURMED PRIMA project (13 June 2023, Tunisia).
- Energy Resources Engineering Annual Meeting, Instituto Superior Técnico (19 June 2023, Lisbon, Portugal).
- Participation in the Scientific forum on the prospective study of water in the horizon of 2050, INAT (21 June 2023, Tunisia).

## Training

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- Participation in Water Resources and Collective Action training session - Mission "Development of a management plan for groundwater - Grombalia groundwater (24 November 2022, Hammamet, Tunisia).
- Organisation of a training session: Capacity building on sustainable integrated (26 January 2023, Tunisia).

## 2.5. Final Conference

The InTheMED final conference was organized during the EGU (European Geosciences Union) General Assembly 2023 at the Vienna International Centre (Austria) from April 23<sup>rd</sup> to April 28<sup>th</sup>, 2023. All partners attended the event and had the opportunity to present and summarize the progress of each WP in which they are participating.

The InTheMED final scientific conference happened on April 28<sup>th</sup>, as part of the EGU program in a session entitled “HS8.1.9 - Sustainable Groundwater Management in Water Stressed Regions”, under the Hydrological Science (HS) program group. The session comprised oral and poster communications.

All partners presented the outcomes of their research activities developed under the scope of the project. Additionally, three invited guests presented during the oral presentation session. Each solicited talk occurred at the beginning of each sub-session.





**Figure 5.** InTheMED Project's coordinator, Jaime J. Gomez-Hernández, opening the EGU session entitled “HS8.1.9 - Sustainable Groundwater Management in Water Stressed Regions”.



**Figure 6.** Daniele Secci (UNIPR) presenting the results obtained under the InTheMED framework.





Figure 7. Poster sessions on the EGU2023.



Figure 8. Group photo of the InTheMED project members during the review meeting on the EGU2023.

The first talk was given by David Hyndman from the University of Texas at Dallas on “Using Remote Sensing and Integrated Hydrologic Models to Characterize How Irrigated Agriculture Affects Highly Overdrawn Aquifers in the United States”. The second, in the afternoon session, was given by James Butler from the Kansas Geological Survey about “Extending aquifer lifespans with pumping reductions: Experiences from the High Plains aquifer”. And the third and final speaker was Marx Andreas from UFZ that give a talk on “Development of a national-scale decision support system for the water sector in Germany”.

In total, there were 24 oral presentations and 15 poster presentations, of which 10 and 4 were outcomes from InTheMED project, respectively.

**April 28<sup>th</sup>, 2023 @ 08:30 – 17:40 - EGU session HS8.1.9 “Sustainable Groundwater Management in Water Stressed Regions” \***

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08:30 Posters on site and virtual

10:15 Coffee break

10:45 Convener introduction, Jaime Gómez-Hernández

10:50 Orals first sub-session: *Machine learning, inverse modeling and geostatistics* |  
Chairpersons: Vanessa A. Godoy, George Karatzas

12:30 Lunch

14:00 Orals second sub-session: *Modeling* | Chairpersons: Maria Giovanna Tanda, Seifeddine Jomaa

15:35 Coffee break

16:15 Orals third sub-session: *Groundwater management* | Chairperson: Jaime Gómez-Hernández

17:40 Closure

**Figure 9.** Agenda for InTheMED final conference

## 2.6. Scientific Publications

The project partners prepared InTheMED scientific publications of the results in open-source peer-reviewed journals and conferences to feature the most recent research results helping communicate the project's outcomes to the scientific community. The publications under the

scope of the project were shared with the community, through its upload under FAIR principles into the project data repository at ZENODO<sup>14</sup>, a European Commission-funded site located at CERN<sup>15</sup>.

The list of publications is shown below, and it is organized according to their publication year.

## 2021

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4. Vanessa A. Godoy, Gian F. Napa-García, Janire Uribe-Asarta, and J. Jaime Gómez-Hernández. Aprendizaje automático como herramienta para mejorar la caracterización de

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<sup>14</sup> <https://zenodo.org/communities/inthemed/>

<sup>15</sup> European Organization for Nuclear Research, & OpenAIRE. (2013). Zenodo. Retrieved from <https://www.zenodo.org>.

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6. Uygur, I., Saysel, A.K., Daloğlu Çetinkaya, I. (2021). Groundwater Governance in Çumra-Karapınar of Konya Closed Basin: From Community Control to an Open Access Regime. 8th International KOP Regional Development Symposium. Nevşehir, Turkey. 26-28 October.

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8. Varouchakis, E., Azevedo, L., Pereira, J. L., Trichakis, I., Karatzas, G. P., Jomaa, S., and Soupios, P.: 3D modelling of a hydrological structure combining spatial data science and geophysics: Application to a coastal aquifer system in the island of Crete, Greece, EGU General Assembly 2021, online, 19–30 Apr 2021, EGU21-2601, DOI: <https://doi.org/10.5194/egusphere-egu21-2601>

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11. Stefanarou, A. S., & Chrysikopoulos, C. V. (2021). Interaction of Titanium Dioxide with Formaldehyde in the Presence of Quartz Sand under Static and Dynamic Conditions. *Water* 2021, 13(10), 1420. DOI: <https://doi.org/10.3390/w13101420>  
  
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## 2.7. Media and Press Releases

InTheMED partners had two interviews with the media:

- Interview from one of the partners, Leonardo Azevedo (IST-ID team), by '90 Seconds of Science' (Portuguese project of the Institute of Chemical and Biological Technology António Xavier (ITQB NOVA), Faculty of Social and Human Sciences (FCSH NOVA), and Antena 1 (radio station), with the support of Novartis and Santander Universities) regarding the Portuguese participation in InTheMED on May 13, 2020.
- Interview with the first national TV channel (Watania 1) by the CERTE team  
Link: <https://youtu.be/JtczuFIQmcE> (min 20:10 to 20:56).

## 2.8. Project Videos

The videos produced in InTheMED includes two overall videos about the project and six other videos about specific technical outcomes created by the partners. The following list summarises the videos created within the InTheMED project:

- InTheMED overview by the project's coordinator, Prof. Jaime Gómez-Hernández.
- UPV & CERTE | InTheMED overall objectives, concept, partners and strategy, Green Night.



- TUC | Video about the database, disseminated to regional government of Crete, water resources directorate.
- CERTE | Electrochemical Water Treatment Demonstration.
- CERTE | Training session for the textile industry.
- BU | Tutorial on using system dynamics model (English version).
- BU | Tutorial on using system dynamics model (Turkish version).
- Video tutorial on how to use the DSS developed for the five case studies.

### 3. Conclusions

This deliverable reported the results of communication and dissemination activities carried out during the full extent of the project, including the six months extension.

The overall conclusion regarding the communication and dissemination under the InTheMED framework is that partners were able to successfully achieve and publicly share the innovative work done on management tools and remediation strategies for MED aquifers as well as help to establish new long-lasting spaces of social learning among different interdependent stakeholders, NGOs, and scientific researchers in five field case studies.

Moreover, the COVID-19 lockdown measures did not prevent the Consortium from building a relevant impact based on the available project results through continuing dissemination of InTheMED scientific results in high-level international conferences and journals.

Based on the KPIs identified, the progress achieved by the Consortium is summarised in the following table (Table 2).

**Table 2.** Key Performance Indicators (KPIs) to monitor the successful deployment in terms of efficiency and effectiveness of dissemination and communication activities.

Output	KPI's	Target	Final Results
Project visual identity	-	1	1

Project website	-	1	1
Project brochure in several languages (one per country)	Number of brochures	10,000	342
Project poster (one per country)	Number of posters	7	2
Project factsheet (one per country)	Number of factsheets	7	5
Project roll-up (one per country)	-	7	3
InTheMED newsletters	Number of newsletters	3	0
Scientific publications (including peer-review journals, conference proceedings)	Number of scientific publications	3	63
Open-access publications	Number of publications	3	11
General press articles published	Number of press articles	5	2
Relevant information about the case studies	Number of digital materials	5	5
Video tutorial for WebDSS	Number of videos	3	5

Moreover, the audience reached with the communication and dissemination activities described throughout the report is presented in the table below (Table 3).

**Table 3.** Type of audience reached with the communication and dissemination activities carried out throughout the whole InTheMED project. The number of audiences reached is an approximation.

Type of audience	Number of audiences reached
Civil Society	500
General Public	1500
Industry	100
Media	5
Policy makers	150
Other	300
Scientific community	1400



As described in this deliverable, the InTheMED project achieved a wide range of KPIs, most notably on the scientific publications, either in peer-review journals and conference proceedings, as well as the number of open-access publications and relevant information regarding the five case studies.