

Project deliverables

Deliverable #D6.1

Project website

Funded by

Financial support has been provided by PRIMA;
a program supported by the European Union

AGREEMAR

Adaptive agreements on benefits sharing for managed aquifer recharge in the Mediterranean region

Deliverable #D6.1

Project website

Author(s)

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Executive summary

This report describes the website of the AGREEMAR project. The website was developed by the Research Group INOWAS at Technische Universität Dresden and launched in July 2022. The website serves as central tool for dissemination of project results and external communication. The URL of the website is: <https://www.agreemar.inowas.com>.

Work package	WP6. Project management
Deliverable number and title	D6.1 Project website
Partner responsible	Technische Universität Dresden (TUD)
Deliverable author(s)	Catalin Stefan (TUD)
Quality assurance	Jana Glass (TUD)
Planned delivery date	August 2022
Actual delivery date	31 August 2022
Citation	Stefan, C. 2022. AGREEMAR Deliverable D6.1: Internet website of the AGREEMAR project. Available online at https://www.agreemar.inowas.com/deliverables .
Photo credits (cover)	@ Jessy Smith Unsplash (adapted)
Dissemination level	PU (Public)

Revision history

Version	Date	Author	Remarks
V0.1	22.07.2022	Catalin Stefan (TUD)	First version
V1.0	31.08.2022	Catalin Stefan (TUD)	Updated

Abstract

The present deliverable D6.1 describes the structure and the content of the dedicated website for the AGREEMAR project. The website was created by the project coordinator who is also in charge of its maintenance and regular updates. Several guiding principles were considered in the website development such as accessibility, user-friendliness, modern responsive design, intuitive navigation, software compatibility, customization and long-term life-time beyond project finalization. The website consists of two parts: a public platform implemented in WordPress and an internal collaborative workspace installed in MS SharePoint. The address of the website is <https://www.agremar.inowas.com/>.

Table of contents

Abstract.....	3
Table of contents	4
List of figures.....	5
1 Background	6
2 Website implementation	6
2.1 The public area	6
2.1.1 Software infrastructure.....	6
2.1.2 Website content	7
2.2 The internal area	13
3 Monitoring and updates.....	15
3.1 Web monitoring tools.....	15
3.2 Management and updates.....	15
4. Conclusions	15

List of figures

Figure 1.	The 'INTRO' section including the primary menu, a slide show of suggestive stock images and the logos of project partners and PRIMA program.....	7
Figure 2.	The Challenges section aims to attract reader's attention to water-related challenges faced by countries in the Mediterranean basin	8
Figure 3.	The research approach of the project is introduced in the Solution section, which includes four sub-sections: a) feasibility mapping for MAR, b) groundwater modelling, c) governance systems, and d) stakeholders' engagement.....	8
Figure 4.	An overview of main relevant components of the website is provided in the section The project at a glance	9
Figure 5.	The section Demo sites includes the maps of the four project case studies in Portugal, Spain, Cyprus and Tunisia.....	9
Figure 6.	The general concept of managed aquifer recharge (MAR) is presented in the section entitled What is MAR	10
Figure 7.	The News section in blog format includes articles about project progress, meetings, etc.....	10
Figure 8.	The dynamic Twitter section includes the lasted posts from the project's Twitter channel.....	11
Figure 9.	The Footer section includes acknowledgement, contact details, a secondary menu and a link to SharePoint platform.....	11
Figure 10.	Individual static pages accessible from the primary menu included in the website header.....	12
Figure 11.	The intro page of the SharePoint collaborative platform with a content overview	13
Figure 12.	Internal document management system.....	14
Figure 13.	Project calendar with monthly overview on internal and external events	14

1 Background

The overall objective of Deliverable D6.1 is to create a modern and user-friendly website for the AGREEMAR project following the current web development standards. The use of the website needs to be intuitive, the structure shall be logical and easy to navigate through it, the content must be informative without overwhelming the reader and accessible according to national and EU legal provisions.

Specifically, the website development intended to respect the following guiding principles:

- To develop an appealing visual identity of the project
- To present key information of the project to stakeholders
- To provide a mean to disseminate the actions and outputs from the project
- To allow barrier-free content accessibility according to existing regulations
- To create a high level of attractivity and user-friendliness
- To enable an intuitive and fast navigation experience
- To accommodate easy implementation of features and functionalities
- To create two separate platforms for external outreach and internal communication
- To allow easy software maintenance and content updates
- To safeguard long-term existence of the website beyond project completion
- To minimize the resources needed for website development and maintenance
- To facilitate integration with other web-tools and software used by the project

2 Website implementation

The website of the AGREEMAR project (<https://www.agreemar.inowas.com/>) was launched in July 2022 as part the Work Package 6 “Project management”, task 6.2 “External communication and outreach”. The website is managed by the project coordinator and WP6 leader, TUD, with content being provided by all members of the consortium.

To facilitate the separation between the general public platform for dissemination and outreach and the internal communication workflow and data management within the consortium, the project website is comprised of two parts:

1. The **public website**: a platform for communication and dissemination of project results and interactions with project-relevant stakeholders.
2. The **collaborative platform**: an internal workspace accessible only by the project consortium and used to monitor the project progress and share working documents.

2.1 The public area

2.1.1 Software infrastructure

The public area of the AGREEMAR project website was developed using WordPress, a free and open-source Content Management System (www.wordpress.org). The software provides a very flexible and user-friendly platform for the development of websites of various scales and complexities. Specifically, WordPress was selected for its very easy customization, no setup costs, collaborative content management, cross-platform and browser compatibility, and wide availability of plugins and extensions. A modern graphic theme was installed and adapted to the project needs, with special efforts dedicated to making the website widely accessible according to current standards.

To safeguard long-term availability of its content, the website was deployed on a sub-domain (‘agreemar’) of the main internet domain of the research group INOWAS at TU Dresden (www.inowas.com). The inowas.com website is hosting also the groundwater modelling platform used in the project, a core product developed by the INOWAS group since 2014, commonly used in various research projects and training applications. By adoption this solution, no financial resources are needed to cover the costs of a dedicated domain name and hosting package, the project website being thus available also after the project finalization.

2.1.2 Website content

The presentation of the website content is done by combining two display methods:

- a continuous **one-page** approach (in which the most relevant content of the website is presented in sections that are accessible by simply scrolling down the first page of the website). The advantage of this approach is that it allows a very fast navigation through the website content, with the possibility to click a link to *read more* about a specific topic.
- static** content pages (in which additional content is displayed in separate pages by clicking the links of a menu). The advantage of this approach is that more detailed content can be displayed in separate pages, often with the possibility of further hierarchical structures (sub-pages).

a) The **one-page** approach includes the following sections:

INTRO section: the 'INTRO' section includes the primary menu, the project logo and title superimposed on an image slideshow, together with the logo of the PRIMA program and links to project description and latest news (Figure 1). On the bottom, the logos of the project partners are displayed.



Figure 1. The 'INTRO' section including the primary menu, a slide show of suggestive stock images and the logos of project partners and PRIMA program

CHALLENGES section: the CHALLENGES section is represented by a catchy image and a short statement describing the motivation of the project. The role of the section is to sensitize the reader to the main challenges related to water scarcity in the Mediterranean basin and to facilitate the introduction of the project approach.

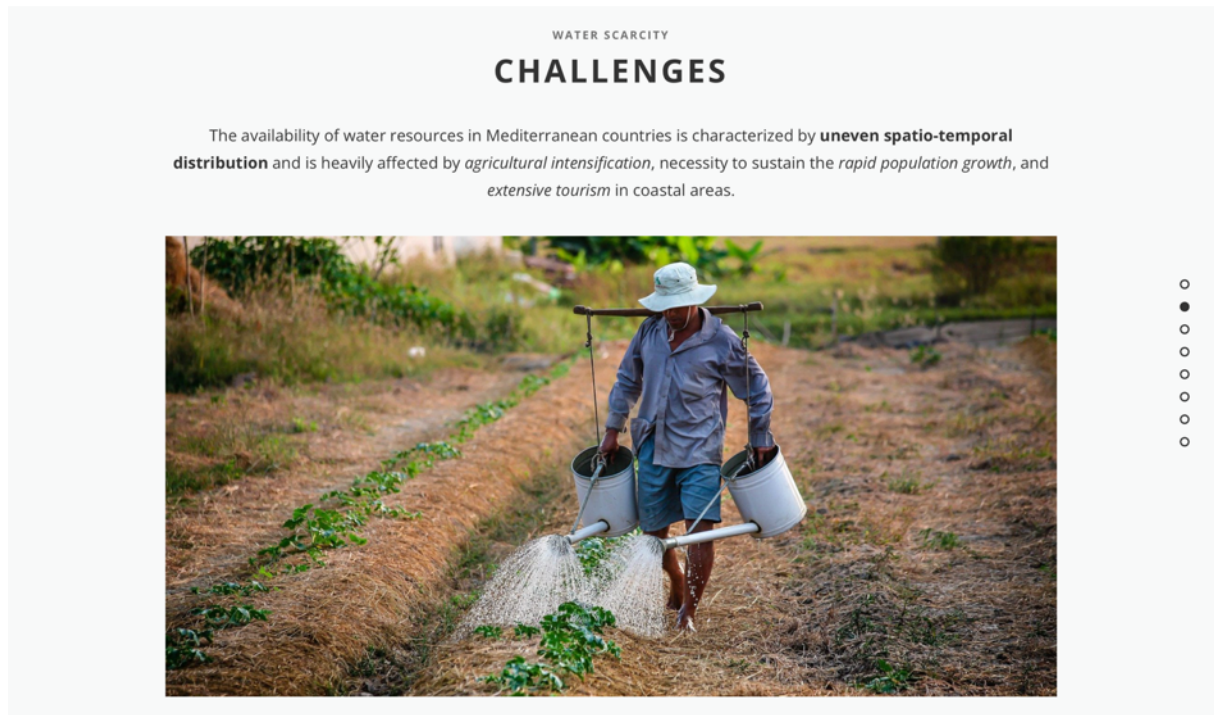


Figure 2. The Challenges section aims to attract reader's attention to water-related challenges faced by countries in the Mediterranean basin

SOLUTION section: the research approach of the project is introduced in the section 'OUR SOLUTION', with four sub-sections: a) feasibility mapping for MAR, b) groundwater modelling, c) governance systems, and d) stakeholders' engagement. Later on, the sub-sections will include links to separate pages with more details, interim results etc.

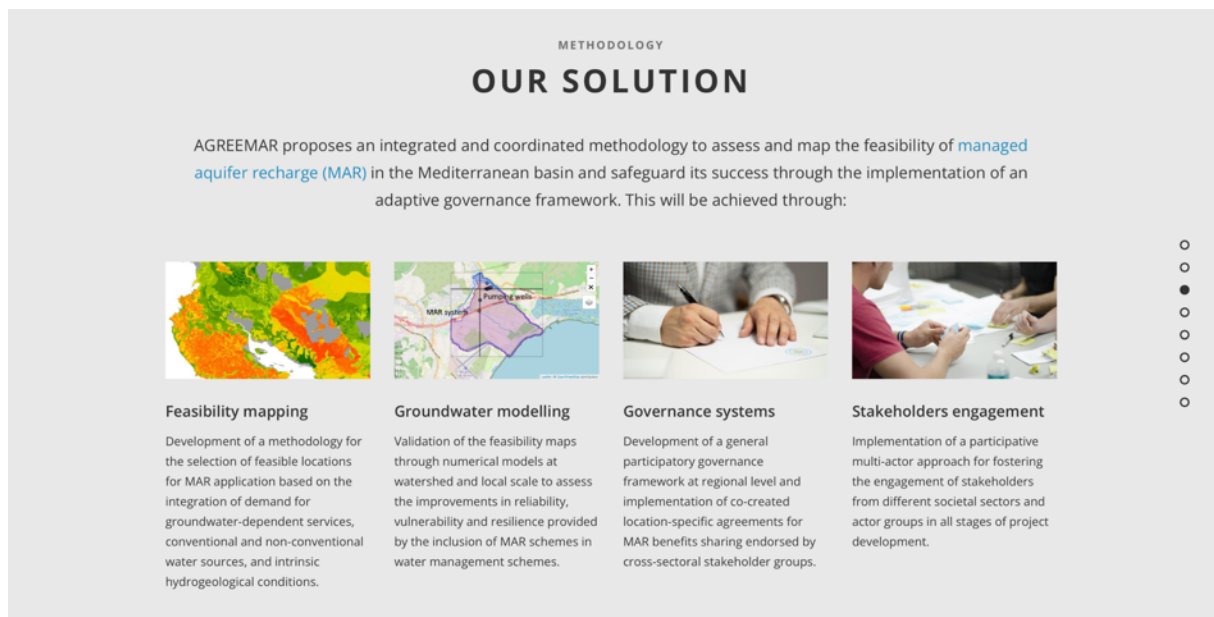


Figure 3. The research approach of the project is introduced in the Solution section, which includes four sub-sections: a) feasibility mapping for MAR, b) groundwater modelling, c) governance systems, and d) stakeholders' engagement

NUTSHELL section: here, an overview is provided for the most relevant sections of the website, including general facts about the project, our demo sites, the work plan with objectives and timeline, project partners, main objectives, short description of the PRIMA program etc. This overview will be extended in the future with project results and other sub-sections. To facilitate easy navigation, each sub-section includes a link to a separate, dedicated page with more information about each category.

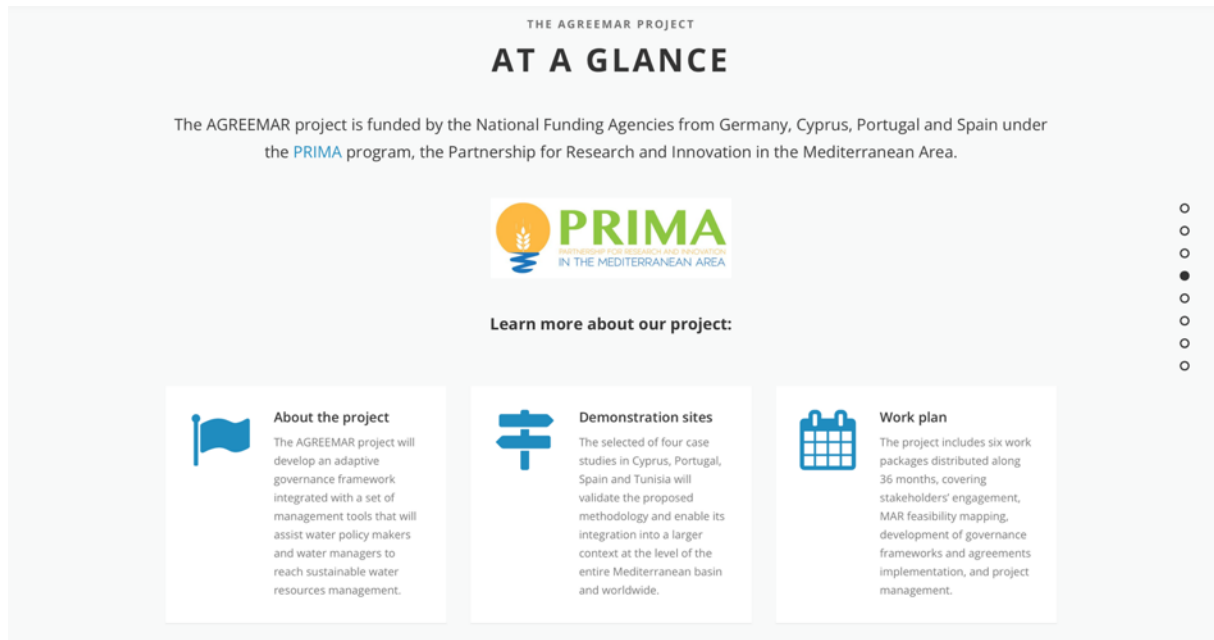


Figure 4. An overview of main relevant components of the website is provided in the section *The project at a glance*

DEMO SITES section: it includes a schematic representation of the four demo sites of the AGREEMAR project, with geospatial representation of the main regional demo site in each country and a cropped image of the pre-identified local sites. Links are provided for separate pages with more information about each site.

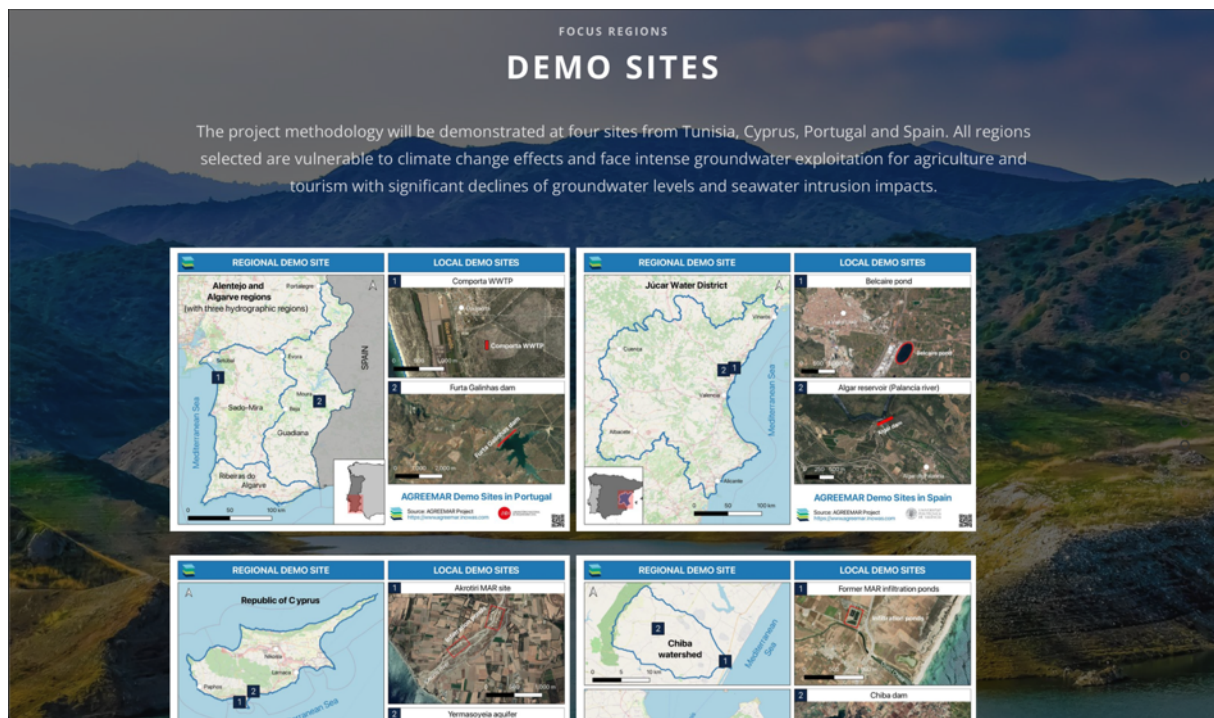


Figure 5. The section *Demo sites* includes the maps of the four project case studies in Portugal, Spain, Cyprus and Tunisia

WHAT IS MAR section: this section introduces the concept of managed aquifer recharge (MAR) with a short definition and a sketch with the integration of MAR in the hydrological cycle. A link is provided to the external knowledge base of the INOWAS platform where the concept is explained in detail with several examples of MAR techniques, case studies etc.

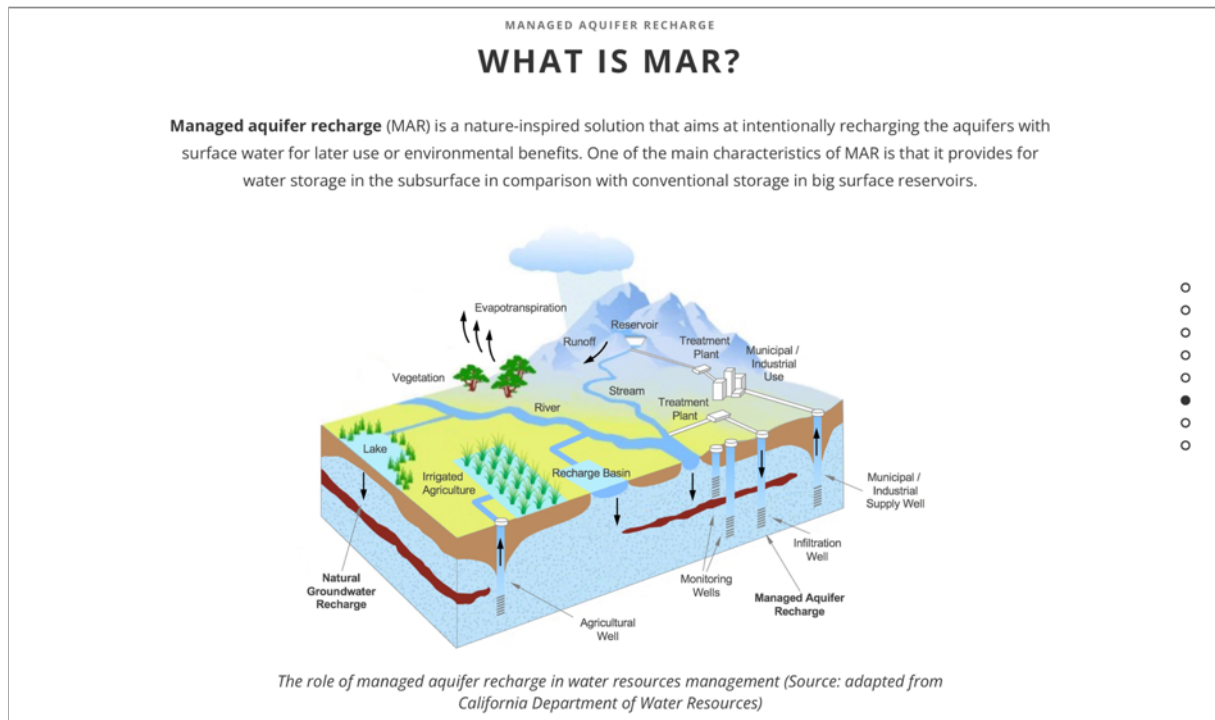


Figure 6. The general concept of managed aquifer recharge (MAR) is presented in the section entitled What is MAR

NEWS section: it includes short articles about relevant events, project progress reports, meetings with stakeholders, etc. The news are organised in a blog-style format, each project partner having the possibility to publish articles in the news section.

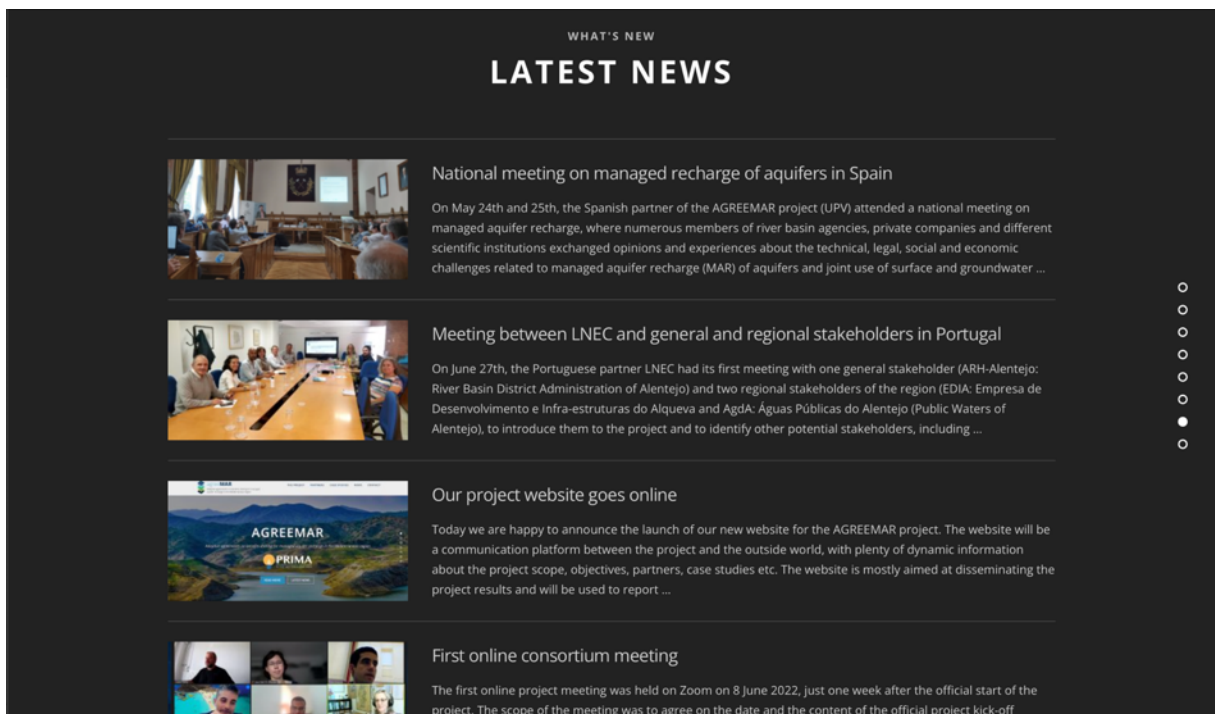


Figure 7. The News section in blog format includes articles about project progress, meetings, etc.

TWITTER section: a WordPress plugging was used to integrate the latest Twitter posts in a dedicated section on the website *one-page* template. The Twitter address of the project is [@agreemarPRIMA](https://twitter.com/agreemarPRIMA). The plugin offers several customization options and the information is dynamic (the content is automatically updated when new tweets are posted).

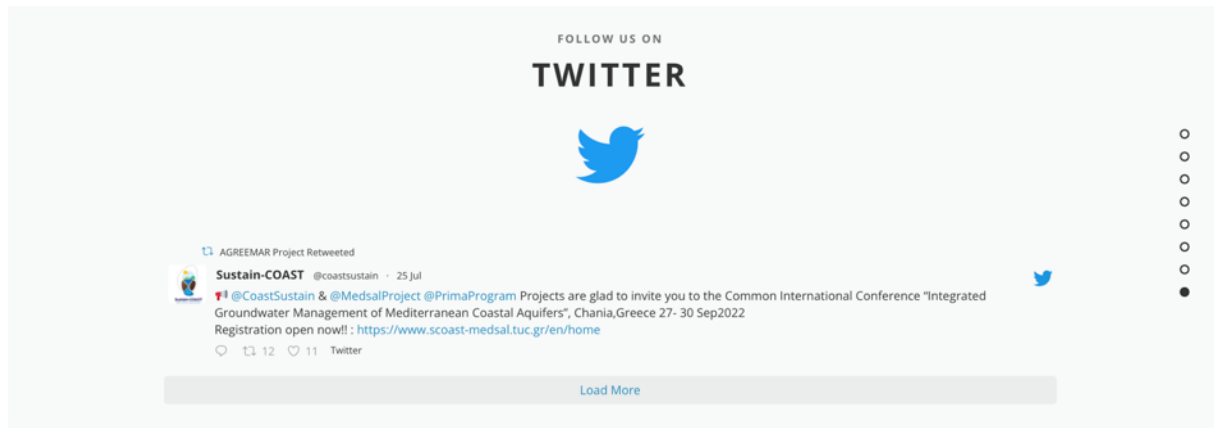


Figure 8. The dynamic Twitter section includes the lasted posts from the project's Twitter channel

FOOTER section: this is the bottom section of the one-page website template and includes the acknowledgement text to project funding, the logos of the project agencies and the contact details of the project coordinator. Additionally, the sidebar includes a secondary menu with legal information according to regulations (imprint, privacy and accesability), as well as a link to the internal communication platform (SharePoint).

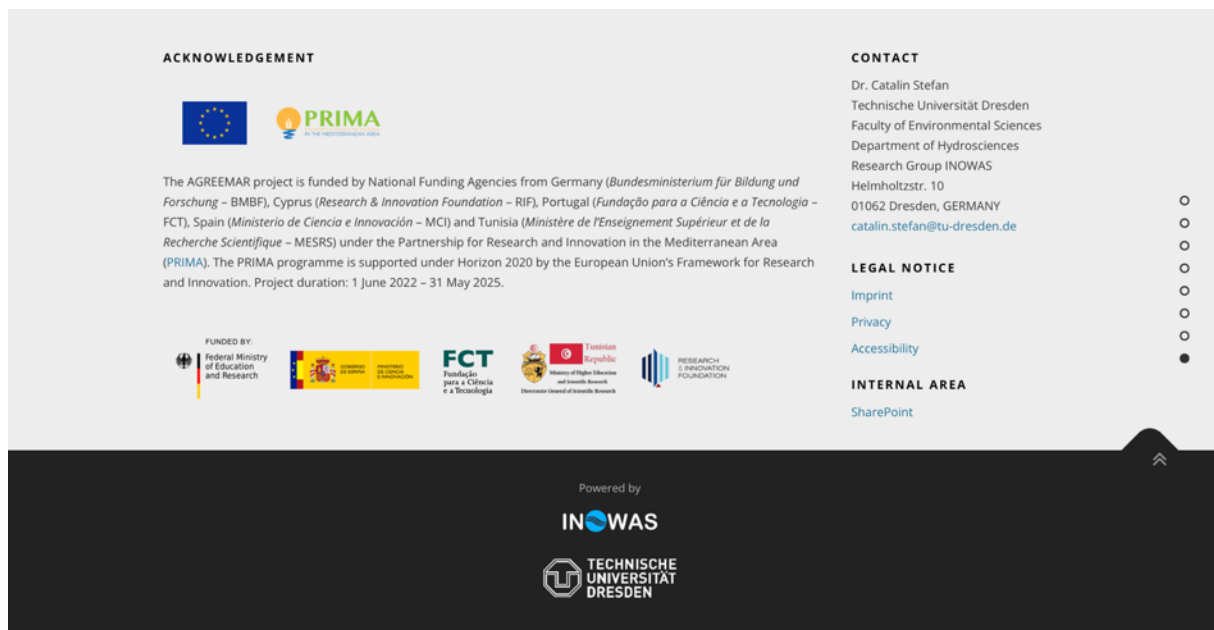


Figure 9. The Footer section includes acknowledgement, contact details, a secondary menu and a link to SharePoint platform

b) The primary header menu provides links to **static pages** (Figure 10): project objectives (A), research approach (B), work plan (C), demo sites (D), project partners (E), PRIMA program (F), resources (G), contact (H).

OBJECTIVES

A

The long-term aim of AGREEMAR is to optimize the hydrological balance in Mediterranean countries by developing governance models, management strategies, costs-benefits analyses, technical specifications and simulation tools to optimize the water storage in aquifers, enabling increased resilience to climate change.

The specific objectives are:

- To validate**, optimize and up-scale adaptive and innovative water management strategies, such as MAR solutions, and use of non-conventional water sources to augment aquifer storage (O1).
- To improve** the cross-sectoral uptake of MAR for climate change adaptation (CCA) and to ensure the adoption of integrated governance models that will guarantee long-term, safe and efficient implementation, based on environmental, social and economic indicators (O2).
- To facilitate** strengthening the institutional and managerial capacities of stakeholders to take up the integrated approach for planning and implementation of MAR (O3).

RESEARCH APPROACH

B

AGREEMAR proposes a multi-scale approach aimed to foster the implementation of managed aquifer recharge (MAR) in the Mediterranean basin. The particular scope of the project is to develop specific governance models for MAR and to demonstrate their applicability at selected case study areas. The implementation of MAR agreements (AGREEMAR governance models) will be supported by four pillars approaches that will help to demonstrate the qualitative and quantitative feasibility of future MAR schemes:

- Feasibility mapping**: Development of a methodology for the selection of feasible locations for MAR application based on the integration of demand for groundwater-dependent services, conventional and non-conventional water sources, and intrinsic hydrogeological conditions.
- Groundwater modelling**: Validation of the feasibility maps through numerical models at watershed and local scale to assess the improvements in reliability, sustainability and resilience provided by the inclusion of MAR schemes in water management schemes.
- Governance systems**: Development of a general participatory governance framework at regional level and implementation of co-created location-specific agreements for MAR benefits sharing endorsed by cross-sectoral stakeholder groups.
- Stakeholders engagement**: Implementation of a participatory multi-actor approach for fostering the engagement of stakeholders from different societal sectors and actor groups in all stages of project development.

WORK PLAN

C


The AGREEMAR project is funded for a period of three years (1 June 2022 – 31 May 2025) and includes six work packages. This page provides information about the specific objectives of each work package, the responsible lead partner, as well as a list of deliverables resulted from each work package.

- Work package 1. Fostering stakeholders' engagement (Jun 2022 – May 2025)
- Work package 2. MAR feasibility mapping (Jun 2022 – Aug 2023)
- Work package 3. Adaptive governance framework (Jun 2022 – Jun 2024)
- Work package 4. Validation through numerical modelling (Jun 2023 – Nov 2024)
- Work package 5. Agreements implementation at local scale (Mar 2024 – May 2025)
- Work package 6. Project management (Jun 2022 – May 2025)

Work package 1. Fostering stakeholders' engagement

The needs, capacities, roles, responsibilities and commitment as well as engagement of stakeholders from four Mediterranean case studies will be mapped at national/regional level and analyzed for the development of the feasibility maps, the elaboration and endorsement of adaptive agreements, and their implementation for a local MAR system.

Lead partner:

 adelphi

DEMONSTRATION SITES

D

The selected demo sites will validate the proposed methodology and enable its integration into a larger context at the level of the entire Mediterranean basin. In the long term, a boost in MAR implementation will contribute to protect and improve the services dependent on aquifers, by maintaining or increasing the volume of water that can be extracted for different uses, positive associated impact on other services and support to aquatic ecosystems.

PORTUGAL

REGIONAL DEMO SITE: Alentejo and Algarve administrative regions; validation at local scale at **Camporta** (use of secondary treated wastewater in infiltration basins to recharge the underlying aquifer) and **Furta Galinhas** dam (surface dam to retain flash flood waters and agricultural surpluses with subsequent infiltration into the aquifer).

SPAIN


REGIONAL DEMO SITE: Júcar Water District; validation at local scale at **Belcaire pond** (storage pond to store water from peak surface flows in order to recharge the Rambla de Albufera aquifer) and **Algar reservoir** (surface dam to retain water during peak flows and infiltrate them into the Fuent de Quert and Plana de Segura aquifers).


PARTNERS


E

AGREEMAR includes six partners covering universities, public companies, and national research centres from Germany, Spain, Cyprus, Portugal and Tunisia, together with stakeholders from four Mediterranean regional clusters.

Technische Universität Dresden (TUD), GERMANY
Laboratorio Nacional de Engenharia Civil (LNEC), PORTUGAL
ERATOSTHENES Centre of Excellence (ECOE), CYPRUS
adelphi research gGmbH, GERMANY
Universitat Politècnica de València (UPV), SPAIN
Institut National Agronomique de Tunisie (INAT), TUNISIA

 **Technische Universität Dresden (TUD), GERMANY**

 **Catalin Stefan**
Project Coordinator


 **Jana Glass**
Project Member

PRIMA PROGRAM

F

The Partnership for Research and Innovation in the Mediterranean (PRIMA) is a EU Horizon2020 initiative funding projects that contribute to sustainable use of natural resources, economic growth and stability in the Mediterranean region.

In total, 19 countries participate in PRIMA, aiming to jointly "achieve, support and promote integration, alignment and joint implementation of national R&I programmes under a common research and innovation strategy to address the diverse challenges in water scarcity, agriculture, food security".

 **PRIMA**
IN THE MEDITERRANEAN AREA

The main objectives of PRIMA are:

- ALIGNMENT OF NATIONAL PROGRAMMES**: Orientation of relevant national research and innovation programmes towards the implementation of the strategic agenda.
- CRITICAL MASS OF ACTORS AND RESOURCES**: Involvement of all relevant public and private sector actors in implementing the strategic agenda by pooling knowledge and financial resources to achieve the necessary critical mass.
- STRENGTHENING R&I CAPACITIES**: Strengthening of the research and innovation funding capacities and of the implementation capabilities of all actors involved including SMEs, academia, non-governmental organisations and local research centres.


DELIVERABLES

G

- Deliverable #D1.1**
First Dissemination and Communication Strategy and Plan (DCSP)
(Expected: January 2023)
- Deliverable #D1.1a** (PDF file, 1.4 MB)
Preliminary analysis of project-relevant stakeholders
(Published: 30 August 2022)
- Deliverable #D1.2**
Awareness and outreach campaign
(Expected: November 2022)
- Deliverable #D1.3**
Final Dissemination and Communication Strategy and Plan (DCSP)
(Expected: May 2025)
- Deliverable #D2.1**
Matrix of feasibility indicators
(Expected: October 2022)
- Deliverable #D2.2**
Stakeholder-adapted criteria weighting system
(Expected: November 2022)
- Deliverable #D2.3**
Validated feasibility map for each case study area
(Expected: August 2023)
- Deliverable #D3.1**

CONTACT

H

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<https://www.tu-dresden.de/uef/inowas>

LATEST NEWS

National meeting on managed recharge of aquifers in Spain
July 11, 2022

Meeting between LNEC and general and regional stakeholders in Portugal
June 28, 2022

Our project website goes online
June 15, 2022

First online consortium meeting
June 8, 2022

The Cyprus partner signed the funding contract
June 7, 2022

The AGREEMAR project just started
June 1, 2022

Figure 10. Individual static pages accessible from the primary menu included in the website header

2.2 The internal area

A collaborative intranet workspace was created in order to facilitate the management of all project information, including different types of working documents and deliverables. The software selected was Microsoft SharePoint¹, a service offered free of charge by the TUD's IT department. The platform was created by the project coordinator and is accessible only to project consortium members who can read the content online, upload and download documents, text, images, collaborate on documents etc. The service is available at the following address: <https://sharepoint.tu-dresden.de/projects/agreemar>.

The SharePoint platform offers the following solutions:

- **Document management:** create, edit and share documents, and collaborate on them in real-time, compatible with conventional MS Office formats
- **Project management:** create tasks, track project timeline, collect minutes of meetings, events calendar, management of users, internal communication (notifications, blog etc.)

The following sections includes screenshots of most relevant services provided by the SharePoint platform (Figure 11 to Figure 13):

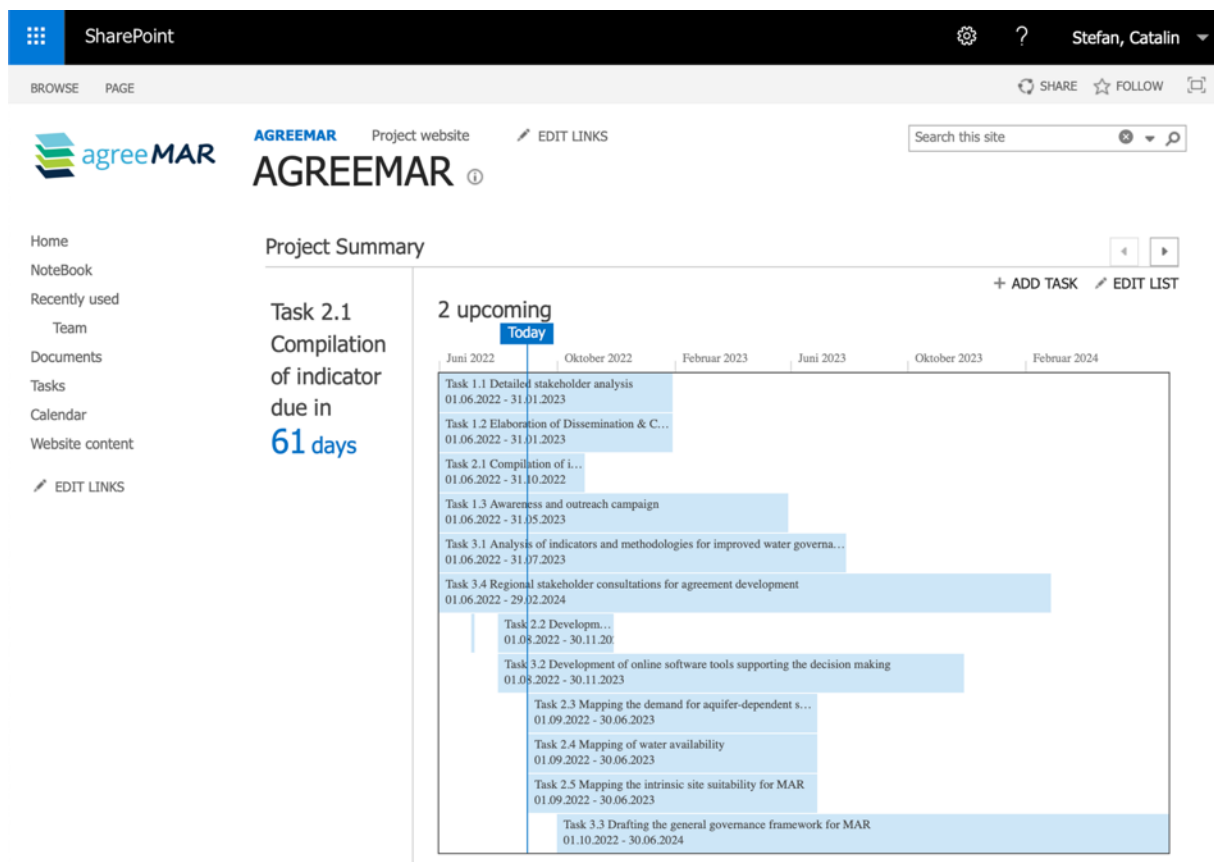
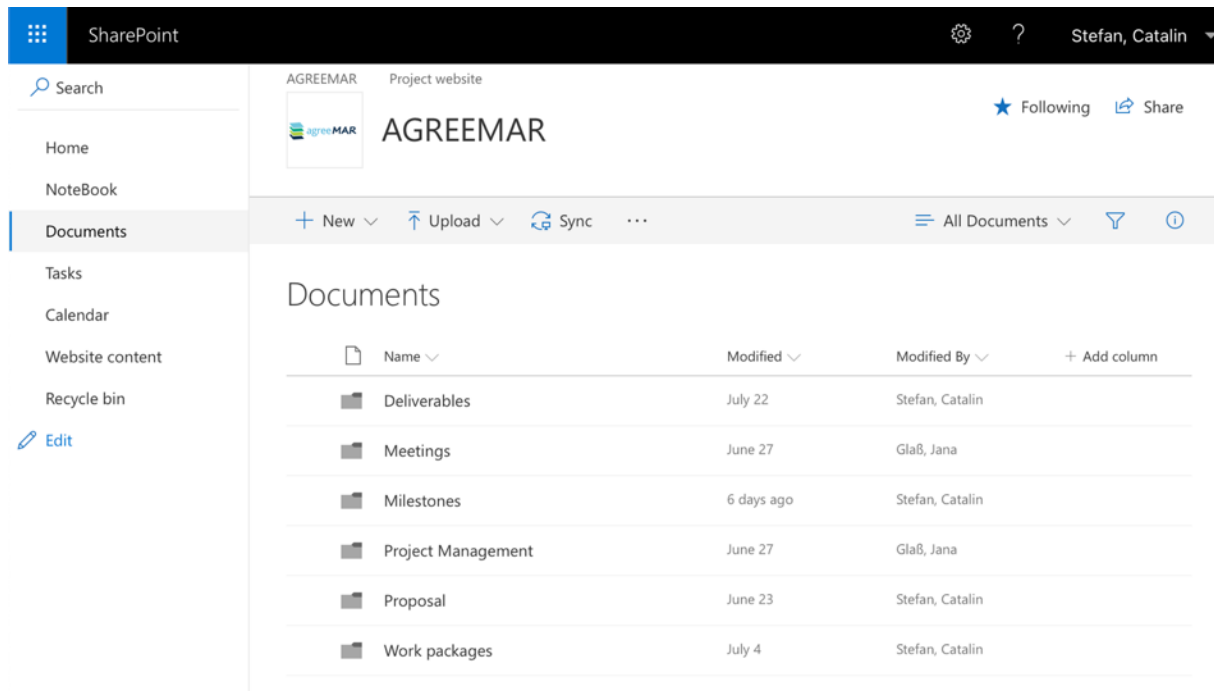


Figure 11. The intro page of the SharePoint collaborative platform with a content overview

¹ <https://www.microsoft.com/en/microsoft-365/sharepoint/collaboration>



SharePoint

AGREEMAR Project website

AGREEMAR

Following Share

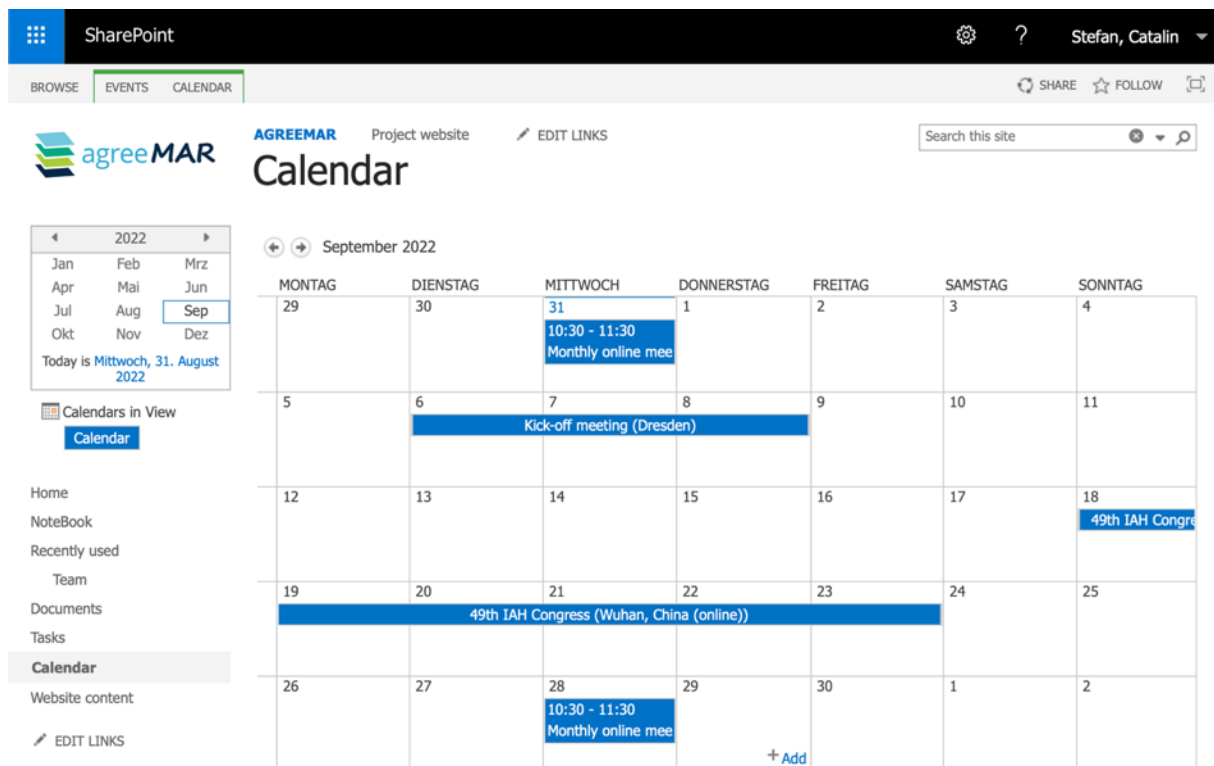
+ New Upload Sync

All Documents

Documents

Name	Modified	Modified By
Deliverables	July 22	Stefan, Catalin
Meetings	June 27	Glaß, Jana
Milestones	6 days ago	Stefan, Catalin
Project Management	June 27	Glaß, Jana
Proposal	June 23	Stefan, Catalin
Work packages	July 4	Stefan, Catalin

Figure 12. Internal document management system



SharePoint

AGREEMAR Project website

Calendar

SEARCH

September 2022

MONTAG	DIENSTAG	MITTWOCH	DONNERSTAG	FREITAG	SAMSTAG	SONNTAG
29	30	31 10:30 - 11:30 Monthly online mee	1	2	3	4
5	6	7 Kick-off meeting (Dresden)	8	9	10	11
12	13	14	15	16	17	18 49th IAH Congress (Wuhan, China (online))
19	20	21 49th IAH Congress (Wuhan, China (online))	22	23	24	25
26	27	28 10:30 - 11:30 Monthly online mee	29	30	1	2

+ Add

Figure 13. Project calendar with monthly overview on internal and external events

3 Monitoring and updates

3.1 Web monitoring tools

Automatic traffic analysis tools are used for estimation of website performance and to identify needs for improvement. A dedicated WordPress plugin was installed to collect the following parameters: daily views and visitors, total number of visits, unique visitors, page views, visit duration, demographic analysis of visits, technology for browser and operation system, type and source of traffic (direct access, external referral). The web traffic analysis will be done in agreement with existing data protection regulations.

3.2 Management and updates

The public website is managed by the project coordinator who will conduct technical maintenance such as periodical software upgrade and content backup. New content is also uploaded regularly, especially in form of short news articles and structural improvements. The project partners can also publish content under the guidance of the project coordinator (a quality check procedure is in place) or communicate the content to the coordinator (for example, during the monthly, internal online meetings. The functionalities and the content are continuously revised and updated to meet stakeholders' expectations and engage them in the research activities. Additionally, automatic update of the WordPress installation is provided by the external hosting provider and the conformity with the accessibility regulations and data protection directives will be supervised by TUD's internal expert staff.

The project coordinator manages also the internal SharePoint workspace and supervises the overall project progress. The technical software updates and automatic backup is provided by TUD. Also here the existing rules for personal data protection prevail.

4. Conclusions

A website was developed for the AGREEMAR project consisting in one public platform (based on WordPress) and one internal communication workspace (based on MS SharePoint). The present deliverable D6.1 describes the structure and the content of the website and shows examples of key functionalities. The public website (deployed at the address <https://www.agreemar.inowas.com>) and the internal SharePoint platform (installed at the address <https://sharepoint.tu-dresden.de/projects/agreemar>) match the objectives formulated in the research proposal and address the consortium's needs for promoting outreach and communication activities. The website is under continuous development and will accommodate further content during the project implementation.