

# WP 6 DIANA service platform design and development D6.4 Web Portal

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# **Table of Contents**

Exe	ecutive summary	4
1.	Introduction	4
2.	Design and implementation	5
3.	Language versions	5
4.	Login	6
5.	Contents of website	6
	5.1. Home	6
	5.2. About	7
	5.3. Pilots	7
	5.4. Partners	7
	5.5. Downloads	7
	5.6. Contact	7
nex .	A: Screenshots	8
	1. 2. 3. 4. 5.	1. Introduction 2. Design and implementation 3. Language versions 4. Login 5. Contents of website 5.1. Home 5.2. About 5.3. Pilots 5.4. Partners 5.5. Downloads 5.6. Contact

# **Executive summary**

The deliverable D6.4 DIANA Web Portal is a deliverable of Work Package 6 Enabling environmental and awareness raising. It will be the central communication tool also providing access to the DIANA service platform. It also contains a detailed description of methodology and rationale of DIANA project website. Furthermore, screenshots of the website are provided.

### 1. Introduction

This deliverable refers to the construction and publishing of the project's website itself and the design and production of the related selected dissemination material. The purpose of this document is to give a brief description of the DIANA website <a href="https://diana-h2020.eu">https://diana-h2020.eu</a>.

The DIANA website has different objectives of providing

- 1. A portal for communication within the consortium, with stakeholders, with the scientific community, and with the general public;
- a virtual office and workspace for the consortium (including the virtual archive of all project documentation);
- 3. a platform for dissemination of project contents and results

The website is conceived as a portal of entry for all stakeholders, the general public, and the scientific community to the project itself to a range of topical pages, and to serve as an e-library of related documents.

Part of the contents will be translated to other languages (Greek, Italian, Romanian and Spanish); local editors will add locally relevant contents for different countries.

Initially, the emphasis is more on the intra-consortium communication and workspace. With time, the public function will become equally important.

# 2. Design and implementation

The website is based on Wordpress. Technical criteria for the design and implementation were

- designed as portal, with the option of integrating a private work area as needed;
- user-friendly, easy to read and navigate;
- short download /opening times (even for slow connections);
- responsive & works well on all platforms and with all current navigators.

# 3. Language versions

The main website is in English, containing the complete set of pages and sub-pages listed in section 5 "Contents of website".

Part of the contents will be translated to the pilots' languages (Italian, Romanian and Spanish) and to the Manager and Coordinator language (Greek).

Partners in charge of translation:

Language	Partner/s
Greek	AGRO APPS
Italian	Ariespace
Romanian	ROSA
Spanish	AgriSat

Table 1 – Partners in charge of translation

The Regional Teams are in charge of the corresponding regional page (see below), some of which will be in the region's main language. Translation of that part to English will be at the discretion of the Regional Team.





# 4. Login

The list of all registered users is maintained by the web administrator.

The login is via a standard website registration process, including an automatic security confirmation by email.

Once registered, DIANA team member's profiles will be manually upgraded to qualify for access to the private sections of the website workspace.

Guest login can visit the website, but he will not be allowed download private documents.

## 5. Contents of website

The DIANA website is dynamic. Its content will be regularly updated and changed incorporating relevant feedback from users and partners.

#### 5.1. Home page

The home page of DIANA website is the page that is first displayed when the user enters the address of DIANA website in a web browser. The main feature of the Home page is the website menu bar. The menu bar is designed in way that guides the user to navigate easily in the pages of the website.

The home page includes a header that hosts links to:

- Manager`s e-mail
- All social media
- Five different languages' flags
- Raindrops with links to: "WATER ABSTRACTIONS MONITORING", "SEASONAL DROUGHT FORECAST", "WFD IMPLEMENTATION" and "STAKEHOLDERS"

Under the Header the project Logo is displayed and when pressed it redirects to the home page.

Last, the home page includes a project news and events feed.





The end of the Home page but also in every page of the website is reserved for the footer where the information about funding is presented and the emblem of the EU with the project logo.

#### 5.2. About

The About menu page contains all the information the visitor/user needs to know about the project.

It contains the Work Packages in subpages: includes a description of each work packages of DIANA project (WP1 to WP7).

#### 5.3. Pilots

This menu page contains three subpages for each pilot area of DIANA project, which includes all the relevant information and photos related to the pilot area (Spain, Italy and Romania).

#### 5.4. Partners

Includes descriptive paragraphs and the logos with the website links of the nine partners of DIANA project.

#### 5.5. Downloads

The Downloads menu page includes all the material of DIANA project available for public and private downloading. The following subpages are included:

- Public project deliverables (as soon as they become available
- Project brochure and leaflet
- Publications (as soon as available)

#### 5.6. Contact

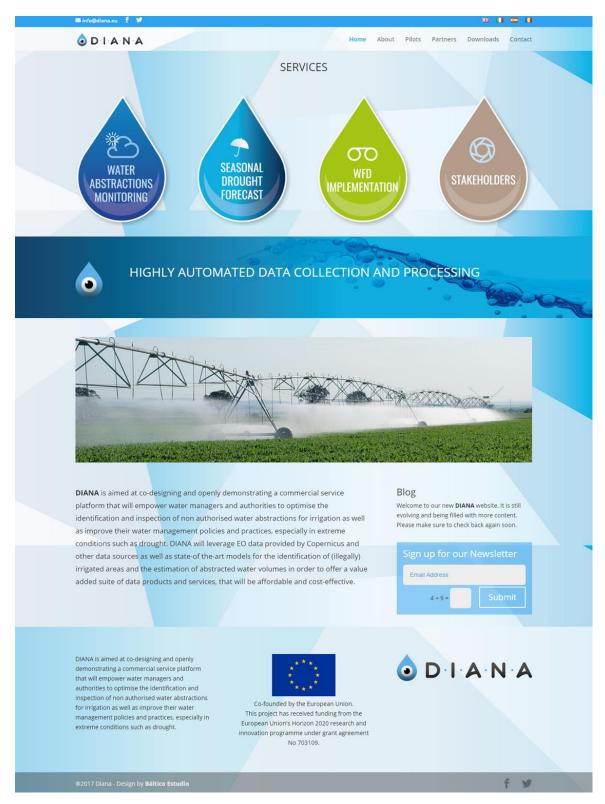
The contact page includes all the relevant contact information for the project such as address and email.





#### **Annexes**

#### **Annex A: Screenshots**

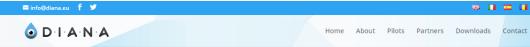












#### Seasonal climate forecasting in combination with hydrological and crop growth models for drought forecasting

By using seasonal climate forecast in combination with hydrological and crop growth models, a drought forecast will be provided to the users for their region of interest. This forecast can be used as input to update existing regional or local drought management plans enabling the authorities to take the needed actions in order to cope with the phenomena. The same authorities can use this forecast to alert farmers of the region in order to adjust their crop production planning by selecting more drought resistant crops. This service can also be used to define sensible areas where irrigation must not be allowed because the impact of abstraction could put at risk an ecosystem survival enabling better ecosystem management. This service can also be used in order to guide the reduction of water abstraction, if necessary, by decreasing the allowable amount of water per unit of area for each user.

The service will enable users to apply an improved and more pro-active planning approach to the management of their water resources. By providing them with the decision support tools required, users can develop evidence-based water/drought management plans or review existing ones, as well as adjust the officially allowed levels of water abstracted for irrigation in cases of drought.

Building upon the abovementioned data products, state-of-the-art techniques and algorithms will be utilized, to design the demand-driven services, co-created along with the users, in line with their requirements and the co-defined specifications.

DIANA is aimed at co-designing and openly demonstrating a commercial service platform that will empower water managers and authorities to optimise the identification and inspection of non authorised water abstractions for irrigation as well as improve their water management policies and practices, especially in extreme conditions such as drought.

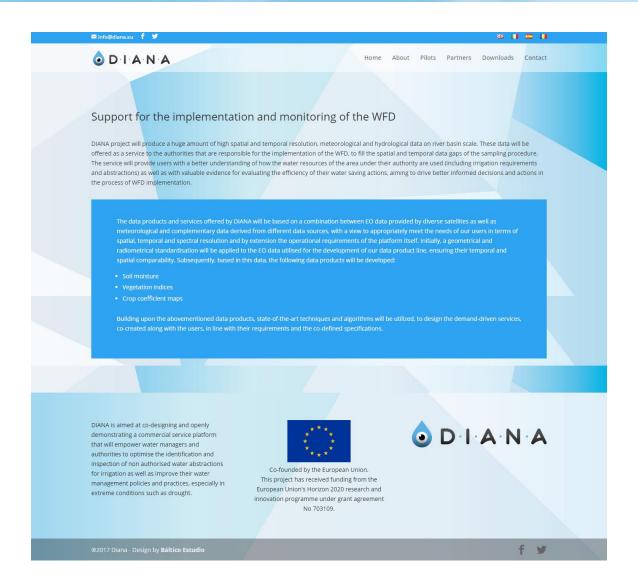


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#### About

The value propositions of DIANA will be co-created and defined along with users and stakeholders so as to be shaped according to their needs and requirements. Three pilots will be deployed in order to put them to the test in real operational environments of Spain, Italy and Romania.

All pilots will be integrated with the work flows of the users and their results will be co-evaluated and validated with them through a multi-layer methodology, fostering the acceptance of DIANA as a marketable solution. In order to ensure the demand-driven design of the DIANA service platform as well as set the stage for its market launch and uptake following the end of the project, a customer-driven business modelling process will be followed during the project, validating its business case and producing an effective business plan to serve as the roadmap for its postproject commercialization.



Finally, DIANA is implemented by a transnational and well-balanced consortium, consisting of innovative SMEs and pioneering authorities, all of which possess the complementary expertise as well as the motivation and commitment required to ensure not only the creation of meaningful project outcomes but also their successful commercial exploitation and sustainability.

#### Analysis and co-creation

The aim of WP1 is to successfully capture and analyse the needs and requirements of DIANA users and stakeholders including water managers and  $authorities\ that\ are\ responsible\ for\ monitoring\ water\ abstractions\ for\ irrigation\ and\ inspecting\ non-authorised\ abstractions,\ authorities\ developing$ water/drought management plans and issuing respective authorisations for water abstraction, authorities in charge of collecting water fees as well as farmers, representatives of farmers' associations and agricultural cooperatives and agricultural consultants. Users and stakeholders will also contribute towards the design of DIANA platform.

Objective 1.1. Identify and analyse the requirements of DIANA users and stakeholders.

Objective 1.2. Engage with DIANA users and stakeholders in participatory activities to co create the services of the platform as well as co-define the use cases to be piloted in each country.

Objective 1.3. Translate user needs and requirements as well as co-creation outcomes into demand-driven service specifications and technical requirements.

DIANA is aimed at co-designing and openly demonstrating a commercial service platform that will empower water managers and authorities to optimise the identification and inspection of non authorised water abstractions for irrigation as well as improve their water management policies and practices, especially in extreme conditions such as drought.



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#### **Pilots**

In order to openly demonstrate the value propositions of the DIANA service platform to the wider user community as well as test and validate its acceptance as a marketable solution, a total of 3 pilots within real-life daily settings will be set up and run by the consortium in 3 European countries, namely "La Mancha region and Andalucía" (Spain), "Campania region" (Italy) and Banat region (Romania). Their implementation will be realised through the direct participation of 3 authorities responsible for irrigation water management as well as 6 SMEs, all of which are members of the DIANA consortium

All pilots will be integrated with the work flows of the users and their results will be co-evaluated and validated with them, fostering the acceptance of DIANA as a marketable solution.

The reliability, accuracy, consistency and completeness of our data products will be assessed via uncertainty/error propagation techniques, whereas the co-evaluation of our services in terms of achieving the objectives of our users will be performed based on a suite of carefully selected Key Performance Indicators (KPIs) and results and experiences stemming from the implementation of the pilots. The KPIs will be co-defined in consultation with our users and focus on core themes such as usability, accessibility, interoperability, reliability, satisfaction levels. They will be complemented with qualitative data gathered through group interviews with pilot participants aimed at drawing meaningful conclusions from actual events and changes that DIANA has brought about their operations.

Partners AgriSat and Feragua will be responsible for the implementation of the DIANA pilot in two regions of Spain namely. La Mancha region and Andalucía. AgriSat is an SME with a great experience in leading-edge technology for decision support tools in operational irrigation and farm management in a wide range of environments as well as in the development of a range of holistic and innovative participatory validation approaches. The company currently serves users from individual farm to national level. Feragua is the association of irrigation water user's association from the region of Andalucía. The pilot in La Mancha region will take place in selected farmlands irrigated by the La-Mancha Oriental Aguifer Management Board, an area of 100,000 ha containing large farm holdings. The pilot case in Andalucía will be focused in the Middle



Guadalquivir Valley and will cover an area of approximately 12,000 ha of irrigated land. The dominant crops are oranges, olives, maize, cereals, cotton, tomato and vegetables whereas the irrigation methods used are drip and sprinkler. The water metering method that is currently used in the pilot case is individual farm metering while payment is charged per volume and per irrigated surface.

In this context, it is important to note that the consortium has received a Letter of Support from the Deputy Directorate General for water planning and sustainable water use of the Spanish Ministry of Agriculture. In the letter the Ministry expresses clearly its interest and support to the DIANA project along with its commitment to support the development and follow-up of the Spanish pilot case as well as its intention to disseminate DIANA project results to the river management authorities of Spain and other interested stakeholders. The letter is attached at the end of the current proposal.

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#### Narw (Romania)

National Administration "Romanian Water" (NARW) is the National Authority aimed at applying the national strategy in the field of water management and turning to good account, as well as managing of the national hydrological, hydrogeological and water resources quality network which includes the water resources belonging to the public domain. It coordinates and answers for how the surface and ground water resources over the Romanian territory are being used and for how the water management works are being operated, and it collaborates with all the holders of other works built on waters or related to waters.

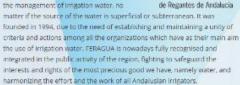
NARW is the single operator for natural or artificial surface water resources. regardless of the holder of any title of the hydraulic works, and groundwater resources, whatever their nature and related facilities, for which purpose it allocates right of use of water resources with their natural potential, under the law, except as expressly provided in the specific regulations in force.

The relevant responsibilities of NARW are Regulation and Coordination and Approval/Control, In fact, NARW services and responsibilities may be grouped into:

- Water resources administration and management
- Regulations in the field of water
- Inspection in the field of waters
- issues related to European Integration

#### Feragua (Spain)

The Andalusian Federation of the Irrigators Communities of Andalucia (FERAGUA) is an association without intentions of profit. which brings together the Irrigators of Andalucia (Irrigators Community, Irrigations. Private imigators, etc.) and is dedicated to the management of imigation water, no



Along its life, FERAGUA has been growing in the Andalusian Public life and currently integrates irrigators covering around 300,000 hectares. FERAGUA is very proud of having maintained along the years its political independence. which has allowed the association to work in favour of the irrigators with Governments of very different ideas. With an always-constructive disposition, toughness and dialogue capacity, FERAGUA has become an important group of decision making in the hydraulic policy of the region, it can be said that the FERAGUA is the most important representative of the "irrigated land" inside the Andalusia scope. In this sense, the Public Administration has recognized FERAGUA as the favourite speaker in numerous occasions, among which, the following must be pointed out: the writing of the waters law and its regulations, the elaboration of the hydrological National Plan and the Andalusian hydrological river Basin Plans, the collaboration in the making-up of the National Irrigation Plan, the white book of waters, the Communitarian Directive frame about Waters Policy, etc.

#### Consorzio di Bonifica del Sannio Alifano (Italy)

The Consorzio di Bonifica Sannio Alifano is located in the North Western part of Campania Region and, with an extension of 1950 Kmq., it is one of the largest in the Region. The Consorzio is a public econom



body, whose management is subject to the supervision and control of the Campania Region. The scope of the functions and duties of the Consorzio has been conferred on it by public laws on land reclamation. The Consorzio coordinates both public and private projects devoted to drainage, irrigation, flood control and soll defense, as well as those designed for the protection of surface and groundwater. It is also involved in activities pertinent to environmental safeguarding and is now mainly engaged in renovation of existing irrigation systems, with an emphasis on innovative irrigation use. In

Food security through irrigation in agriculture;

summary, the Consorzio carries out activities that include:

- Environmental safety:
- Land safety through minimizing hydrological risk and water protection

#### Wr (Belgium)

WR (www.white research.eu) is a social research SME



specializing in consumer behaviour, market analysis and business planning in the fields of Agriculture, Energy, ICT, Health, Transport as well as in other related sectors and sub-fields. The company addresses business strategy. policy, market and user related issues through an array of diverse analytic

More specifically. WR mines and interprets hard to grasp consumer insights. through a combination of modern analytics and marketing research and evaluation methods. The company employs several collective intelligence research methods and techniques such as crowd sourcing and co-creation workshops. Within this context. White Research carries relevant experience in collecting and analysing surveyed or experimental user related data and turning asymmetric information into meaningful advice and recommendations.

in addition. WR specializes in the design and evaluation of innovation and business modelling with a keen eye on social innovation and entrepreneurship. WR possesses valuable know how and expertise in offering business support and innovation management services in relation to business modelling and planning, market analysis and risk analysis, and supports the commercial exploitation and market uptake of research results and innovations. Through its core staff, WR has access to a wide ranging expertise and significant experience in translating research to realistic policy and business recommendations, thus enabling a hybrid Marketing Research -Management Consulting model, as well as linkages to several EU-related interested civic society groups and networks.

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#### 2eco (Portugal)

2eco is a SME created in May 2011 as a spin-off of the Centre for Environmental and Sustainability Research

<sup>2</sup>eco cestão do ambiente e economia ecológica

(CENSE) of the New University of Lisbon (UNL). The mission of Zeco is to promote the transfer of knowledge and uptake by end-users of results generated by the R&D activities of CENSE in the areas of ecological economics and environmental management, to the benefit of society. 2eco is focused in the interface between ecological and economic systems to promote societal transitions towards sustainable development.

Activities developed by Zeco include applied research, consultancy, studies. training and capacity building in environmental and sustainability assessment socio economic assessment, environmental policy instruments, valuation of ecosystem services, sustainable business strategies, environmental governance and planning, participation and decision support. It addresses horizontally all sustainability dimensions and main environmental issues, although with a particular focus in water management and biodiversity conservation.

Members of 2eco have been actively involved and coordinated the team from CENSE FFCT UNL in numerous EU and national research projects, such as ADVISOR (FP5) (coordinator); PIGS (LIFEENV); FRAP (FP6). PLEIADES (FP6). CEECEC (FP7), GoverNat and THEMES (Marie Curie), Recent FP7 projects include: SIRIUS, PROSUITE, SCALES, RESPONDER POLICYMIX, OpenNESS and NETGREEN (FP7).

In addition, Zeco has also been involved in several studies and applied R&D projects in close connection with governmental, non-governmental and private organizations in the field of environmental policy and management. namely dealing with policy design and evaluation, and strategic environmental and sustainability assessment.

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