



Project WIZ

"WaterZe spatial planning": encompass future drinkwater management conditions to adapt to climate change



water saving

PROJECT DESCRIPTION

The population growth and the intensification of the **urbanization** process have led to an increase in the demand for **drinking water** in urban centers, where the quantity available is increasingly exploited and subject to depletion. However, the general perception of the problem is not adequate due to lack of information and difficult access to it or lack of awareness on the subject. In this general context, the **WIZ** project was aimed at the protection and **sustainable management of water** in urban planning and built environment planning processes through the creation of an **online data collection platform**, taking into account the **impacts of climate change**. Thanks to WIZ all players involved in territorial and urban planning, in particular local administrations, can make informed choices based on information on the estimate of needs and the availability of drinking water, through comparisons between settlement patterns and climate scenarios, as well as the costs of water infrastructure. Furthermore, WIZ can give guidance to single persons as well. Thanks to its services, **every citizen** can know, through the web, the **availability (current and future) of drinking water** in a specific area, for example the place where he wants to go to live. The platform offers, in fact, two services: **WIZ4ALL** is addressed to individuals and enterprises, which informs about the origin and availability of water in a specific place; while **WIZ4PLANNERS** is directed at local authorities, including professionals and experts who work to support territorial planning processes, enabling the verification of the availability of water in relation to possible new settlements or uses.



The areas involved in the project (with different governance and environmental characteristics) were the 10 Municipalities of the Lower Valdarno, in Tuscany, and the Province of Pontevedra in Galicia (Spain), while the experimentation has been focused more specifically on the Spanish municipality of Baiona.

PROJECT PHASES

The main project activities (besides monitoring and management) were divided in **3** categories:

- **preparation** consisted mainly in holding meetings with the potential *stakeholders* (citizens, water service operators, enterprises, development planners, professionals, municipalities, scientific research and technical development communities), where the needs and objectives of each groups have been identified with reference to the project goals. The results of the meetings were merged into the [Manifesto of the Interest Groups](#), **11 in Italy** (Optimized Territorial Area Authority and Managers, National Basin Authorities, municipalities, reclamation consortia, Park Authority, provinces, Tuscany Region, citizens, scientific community, professionals, enterprises) and **8 in Spain** (managers, public administration, environmental groups, consumer associations, universities/ R&D centers on water resources, universities/ R&D centers on urban planning, professionals, enterprises, citizens). The activities continued with the definition of an updated framework on the aspects related to the available methodologies, regulations, best practices and accessibility of the information. In addition, the models, tools and technologies to be adopted, as well as the WIZ demonstration areas have been established and defined.
- **implementation** activities focused on the development of the **on-line WIZ platform** providing 2 types of services. The [WIZ4ALL](#) platform addressed to individuals and enterprises, is available to everybody for free via web and provides a series of information concerning water resources of a reference territory (availability, sources, network, etc...) such



enabling a "participative management". Registered users can also actively contribute, indicating the perceived water quality in their own environment, or failures and malfunctions of the service. Instead the **WIZ4PLANNERS** platform is directed at local authorities and professionals dealing with territorial planning for checking water availability in relation to possible new settlements or uses, and represents a tool to support "informed" decision making. To access this platform it is necessary to register. Forecasts on water resources take into account possible scenarios for **2030, 2060 and 2090**. "Institutionalization" activities have been carried out which included demonstration actions on the usefulness of the method, involving the technical and political sectors of the administrations, and the identification of management lines in which to insert WIZ as a procedure in order to make it a substantial instrument of the local planning, fostering greater integration between strategic policy areas and greater collaboration between policy level, public agencies and research institutions.

- **dissemination** (conferences, workshops, webcasts, etc.) realized on the basis of a Communication Plan that has coordinated initiatives directed to the general public as well as specialized communication activities for local planners to mainstream the approach, and to analysts, modelling and forecast-specialists, in order to encourage comments, contributions and feedback. The interventions were addressed to local planners, policy makers and decision makers also outside the demonstration area with the aim to put WIZ in contact with other communities dealing with similar issues.

PROJECT RESULTS

WIZ is a project that has shown how to facilitate the choices of territorial, urban and personal planning starting from information on the **present and future availability of water**. In the interested demonstration areas around **11% of the current water resource needs** of the resident population has been managed via the WIZ portal. Overall, **195 planning procedures** (80 in Italy, 115 in Spain) and the **needs of over 21.750 equivalent inhabitants** (over 19.000 in Italy and 2.740 in Spain) out of a total population of around **250.000 inhabitants** have been analyzed. In numbers the quantity of resources that has been managed through the WIZ4Planners portal is about **1,5 million cubic meters** per year.

The main achievements were:

- testing and activation of the (*open-source*) **on-line WIZ platform** providing two services: **WIZ4ALL** and **WIZ4PLANNERS**;
- **10 Italian pilot communities** have introduced the WIZ approach in their official decision-making and territorial planning procedures. Moreover the Water Authority of Tuscany has officially invited Acque SpA (integrated water service operator) to prepare the most appropriate ways to facilitate the use of WIZ throughout the region;
- WIZ has contributed to the integration of the *European Action Framework for Climate Change Adaptation* in the debate on local regulations with particular attention to future water management conditions. The project was also included among the interventions of **CLIMATE-ADAPT** - the European Platform on adaptation to climate change;
- WIZ has promoted the implementation at local level of the **Water Framework Directive** (2000/60 / EC), giving its contribution to the territorial planning processes as well as to the preparation of the amendment of the Tuscan Regional Law 1/2005;
- over **450 people** in Italy and Spain have been involved in the construction and validation of WIZ requirements (citizens, professional associations, enterprises, water service operators, water authorities, environmental groups, specialists and experts, universities and research groups);
- **network of contacts** has been established with other European water resources projects, among which AQUA PLANN (LIFE07 ENV / E / 000826), IES (LIFE11 ENV / ES / 000621), AG_UAS (LIFE09 ENV / ES / 0456), WSTORE2 (LIFE11 ENV / IT / 000035).

The outputs were:

- **WIZ Engine Report** containing information on the *on-line* platform's structure, developed to operate the WIZ4Planner and WIZ4All services;
- **documentation and training material for WIZ4Planners** composed of two parts: **Manual for planners** addressed to the user "planner", i.e local authorities in charge of urban planning and all professional figures linked to it, including architects, surveyors, etc...; **Manual for water service operators** directed at personnel which is addressee of water resource requests submitted by the user "planner" and which will have to provide an opinion on the feasibility or not of the received requests;
- **documentation and training material for WIZ4All** that collects all information necessary for the correct use of the platform (registration, structure of the interface, data provided, etc.);
- **reference document** of the "institutionalisation" strategy containing the terms and main references for the identification and consolidation of a project approach, selected to transform WIZ in mainstream;



- **WIZ summary for municipalities and local bodies.** It is a **guidelines** aimed at facilitating the mainstreaming of water policies in the urban planning processes. The document illustrates the advantages deriving from the use of the WIZ4Planners platform, both in terms of simplification of the administrative procedures and of a general awareness by the involved local bodies' staff;
- **WIZ guide for citizens** indicating them the possibility to interact through the platform, in a more direct and simpler manner, with the local administration bodies and to contribute to increase the common knowledge base;
- **WIZ summary for enterprises and professionals** addressed to private persons (professionals, enterprises of the construction industry, craft business and industries of any sector) interested to establish their activities in a certain territory. WIZ is a useful operative tool when deciding the establishment of a new settlement or activity requiring drinking water or water for other uses.

WIZ has been awarded the **BEST project of the Best LIFE Environment 2014** price.



Acronym

WIZ

Number of reference

LIFE09 ENV/IT/000056

Reference Programme

[LIFE](#)

Beneficiary Coordinator

ACQUE S.P.A

Contacts

Oberdan Cei

EU contribution

942.370

Call Year

2009

Start Year

2010

End Year

2013

Beneficiary headquarters

Via Bellatalla, 1
56121 Ospedaletto PI
Italy

Region

Toscana

Description

L'intervento si è realizzato tra Pisa, Firenze (IT), A Coruña (ES)