EU Framework Program for Research and Innovation (WATER-4a-2014 - H2020)

Project Nr: 641821

Applying European market leadership to river basin networks and spreading of innovation on water ICT models, tools and data.

Deliverable D4.2
Project integration: brokering of supply chain opportunities and provision of support services to interested parties

Version 1.0.

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Project integration

1.1.   Introduction

The overall objective of Work Package 4 is to facilitate effective market translation of those products and services identified as potentially being of most interest to the target market (River Basin Managers). The key tasks of this work package are focused on catalysing the virtual marketplace by actively engaging with the key stakeholders and introducing companies within relevant and active supply chains to the offerings prioritised and 'incubated' in previous work packages (Task 4.1) and giving support to companies/organisations potentially interested in taking these offerings to market to help them further validate the relative value/strategic fit of the offering, and, if appropriate, how to create offerings that are attractive to the end users (Task 4.2).

The work carried out to fulfil these key tasks is described in more detail in the following sections. It should be noted that this report relates to the status of activities as of November 2016, with a further three months of the project still to run, and with further actions planned to build on the progress achieved to date.

Relationship with WP2 and 3, and WaterInnEU strategic objective

Tasks within Work Package 4 were directly informed by the results of WP2 and 3.

More than 120 legacy EU funded projects identified in WP2 were comprehensively screened for their relevance to current river basin management and their readiness and suitability for translation into market ready products. As described in DL 4.1, considerable barriers were encountered both in terms of material being out of date and particularly in finding owners that were willing and able to engage.

Potential end-users surveyed and interviewed within Work Package 3 indicated that the Marketplace should offer *pre-screened* suitable products for River Basin Management (RBM) and matchmaking services to facilitate the selection and application of products. In particular, there was a need to overcome the 'information overload' faced by many RBM practitioners, by presenting a selection of innovative and outstanding products, indicating all relevant information at first sight, and supporting implementation where interest is generated.

This information was used to develop the format of a Product Specification Sheet (PSS) which would be used to present the products on the WaterInnEU Marketplace under Task 4.1, and in formulating the range of services offered under Task 4.2.

The WaterInnEU strategic approach was thus refined into two main elements (Figure 1). The first is the focus on providing pre-screened, and clearly articulated standardised materials for stakeholders involved in RBM. To this end the selected products are uploaded on to the PSS which first highlights the value proposition of the products, together with the target market and relevant applications. Comprehensive technical details are subsequently available if required. This stage ensures that users are presented only with high quality and relevant material.

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Strategic Objective – *Market led innovation platform that screens and accelerates the <u>most relevant</u> products and services to River Basin Managers*

1. Translation of project outputs into standard specifications for market relevant products and services

2. Screening and prioritisation of most relevant informed by market need

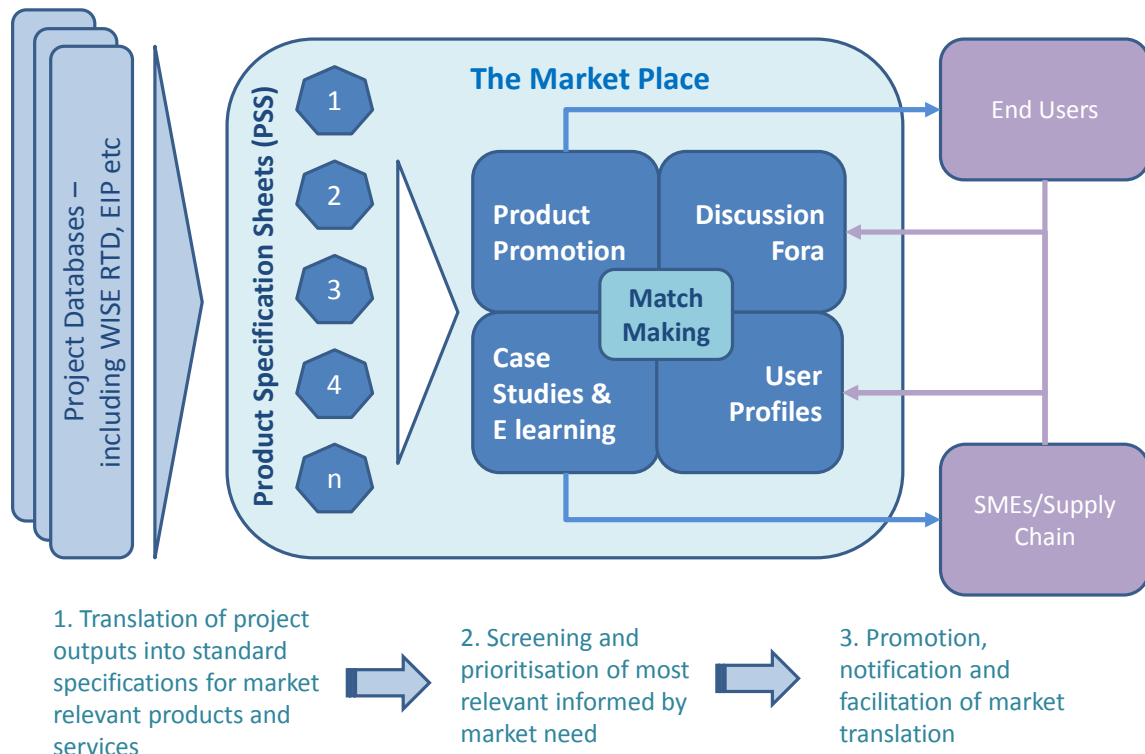3. Promotion, notification and facilitation of market translation

Figure 1: WaterInnEU Marketplace approach

The second element is the Marketplace matchmaking and support services. These facilitate product selection and implementation, via a combination of automated matching between end users and supply chain providers, one-on-one expert advice, targeted dissemination, training modules, and discussion fora.
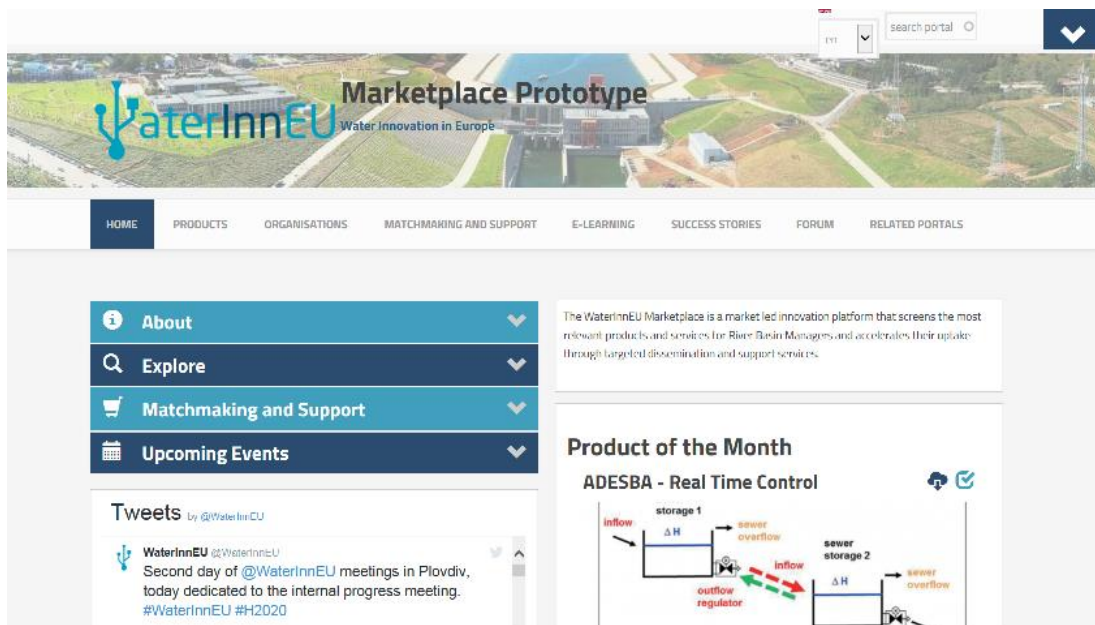

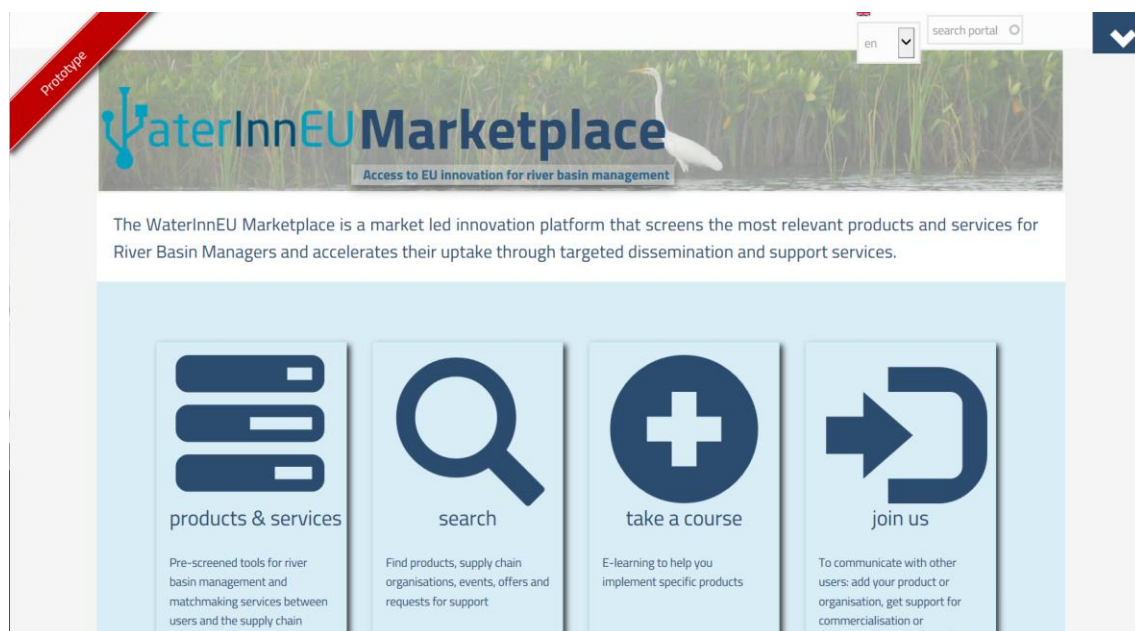*Figure 2: First marketplace prototype*

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Figure 3: Marketplace prototype

1.2. Task 4.1 Brokering of supply chain opportunities

This task has built on the work carried out in previous work packages, where the most attractive and market ready tools and products have been identified and prioritised (WP2) according to the priority needs of potential end users of the virtual marketplace (WP3).

The purpose of this task has been to reach out to the wider active supply chains across Europe to make them aware of the current portfolio of tools available from WaterInnEU. This has been undertaken by building on collateral and contacts developed in WP2 and WP3, as well as by exploiting the functionality of the platform developed in WP 6. The Marketplace platform is the key and central marketing asset for WaterInnEU and is the focal point and hub for all communication and dissemination activities. As described in other deliverables (DL 6.1 First virtual marketplace report; DL 6.2 Final virtual marketplace report and DL 6.3 Marketplace platform), the platform is the central repository for the basic marketing material that has been developed for all the prioritised tools and products (including best practice guidance documents), and allows for the manipulation and promotion of content, as appropriate. In addition, it provides interactive functionality for third parties to express interest, receive further information, and to engage support from the Consortium in potential market translation activities (delivered under Task 4.2).

Key and relevant information and data relating to the prioritised products are uploaded on to the platform by means of the team members filling in the information on a standardised template, called the Product Specification Sheet (PSS), see Figure 4. The PSS was designed by the WaterInnEU team following end user recommendations, and with the objective of making the products easy to find and understand. Some examples of PSSs can be found in Annexes at the end of this document.

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Support provided by WaterInnEU team members at this stage ensures high quality information is provided with product value proposition and target applications clearly highlighted.

Thank you for completing this Product Specification sheet.

1. The Field Description column gives a brief explanation of the type of information required. Please insert your answers into the column "Answers" using Free Text and/or providing links or choosing from the pre-defined terms where provided.

2. Please complete all Fields which have a *, but leave blank any other fields that are not relevant to your product.

Field name	pre-defined terms for drop down selection or Text	Field Description	Answers
Product name / Owner	FREE TEXT	Product name or title and owner	
Product description*	FREE TEXT Max. 300 words	Overview of the product: what it does and how it addresses a gap in the market	
Photo	Photo		
Application & target markets *	FREE TEXT	What the product is used for, where and by whom	
Competitive Advantages*	FREE TEXT	The unique selling point of the product	
Stage of commercial development*	Commercially available Looking for first markets Looking for development partners Awaiting product validation/certification		

Figure 4: PSS template

The main mechanisms for initial marketing of the Marketplace to date have included the following:

1. Development of **communication materials and dissemination via relevant channels**, specifically via the preparation of one Market Briefing brochure (see Annex 1), one press release (see Annex 2), one news flash (see Annex 3) and one newsletter (see Annex 4). Each of these documents had a different objective, with the content adjusted accordingly, but served to keep the name of the project and the platform on the radar of the target audience. These have been posted on partners' and third party websites, distributed via targeted mailshots to pre-qualified targets (identified during WP 3), and via individual partner networks (including the extensive reach of the GWP) and marketing/social media channels (Twitter, blogs, etc.). This became more relevant and appropriate as the Marketplace platform became available, together with high quality and validated content via the first tranche of PSSs developed for the priority products. To this end, the first Market Briefing was prepared and distributed by mailshot in early September 2016, specifically promoting the first tranche of products, see Figures 5 and following.

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Figure 5: Cover of the promotional Market Briefing brochure distributed since September 2016.
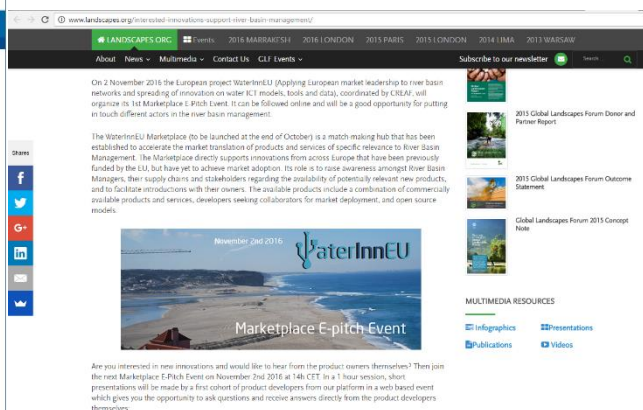

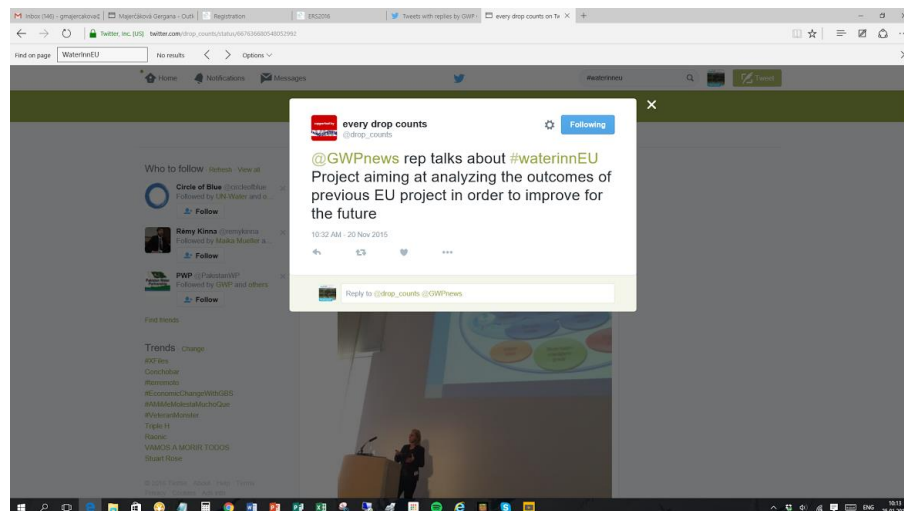*Figure 6: Examples of the impact of the press release distribution to promote the E-pitching event.*

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Figure 7: View of the Market Briefing Newsletter (left) sent in September 2016 to promote the first set of products and the newsflash (right) sent in October 2016 to promote the E-pitching event.
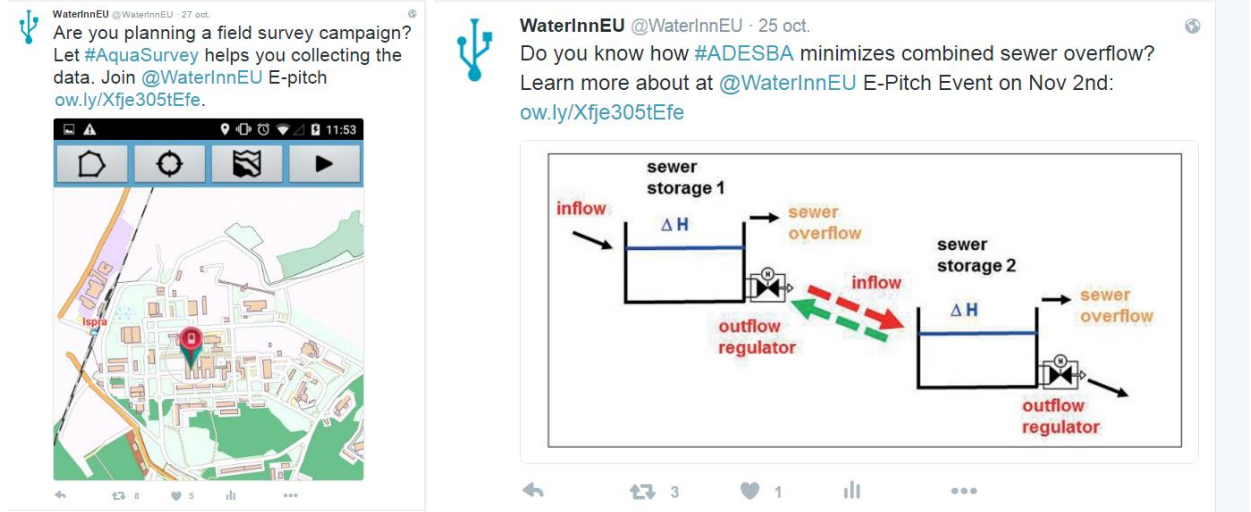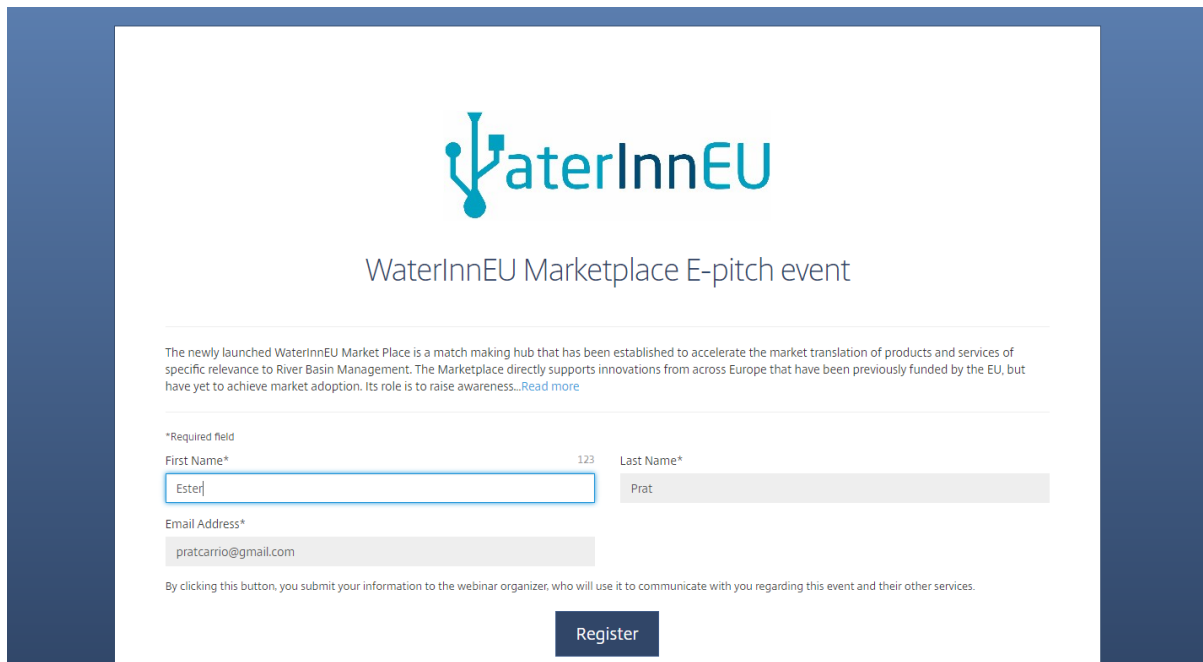
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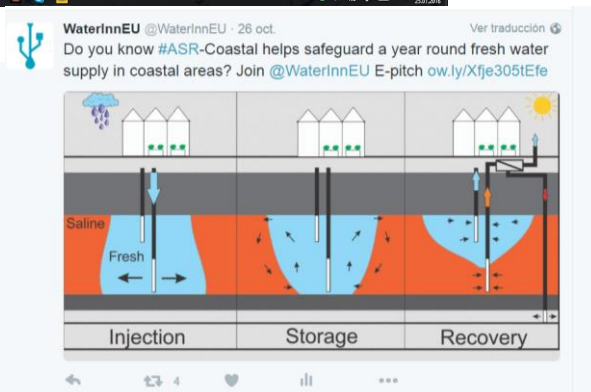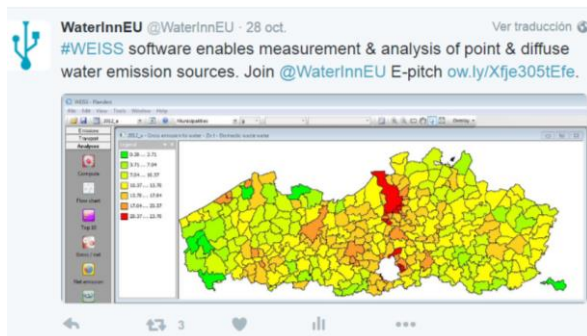
Figure 8: Promotion of the products via Twitter.

2. Hosting of an on line ***E-pitching event*** for which four product owners were selected on the basis of their interest in market promotion (ADESBA, ASR-Coastal, Aquasurvey and WEISS) and then supported in the preparation of a 10 minutes pitch pack, for subsequent delivery at the formal online event on the 2nd November 2016. The session was hosted and facilitated by CREAF on behalf of the Consortium. The process included a 'run through' for the whole team in October 20th to ensure that all participants were adequately prepared and coached for the event. This event was well publicised though the channels described in 1 above, with 25 registrations from across Europe for the final event. The attendees included engineering and innovation companies, researchers and institutions.

Figure 9: Registration page for the WaterInnEU E-pitching event in November 2nd 2016.

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The primary objective of this event was to raise the profile of these specific products amongst the relevant target markets and stakeholders, and to encourage direct interaction between them during the session via an online Questions & Answers facility. Attendees were then encouraged to follow up directly with the product owners, or the Consortium Partners who could then play an active role facilitating further interaction, in line with Task 4.2 below. The event was also important in raising the profile and credibility of the WaterInnEU platform and the overall service offering.

Initial feedback from this event, received from both product owners and people who registered and attended, shows that it was considered very valuable. The products owners SEGNO and KWR received specific expressions of interest by two members of the audience, both for their products (ADESBA and ASR Coastal, respectively) and to explore potential future opportunities for partnership, which are now being followed up in line with task 4.2 below. This, and the fact that there are new interesting products in the platform has encouraged the organization of a second E-pitch event at the beginning of January.
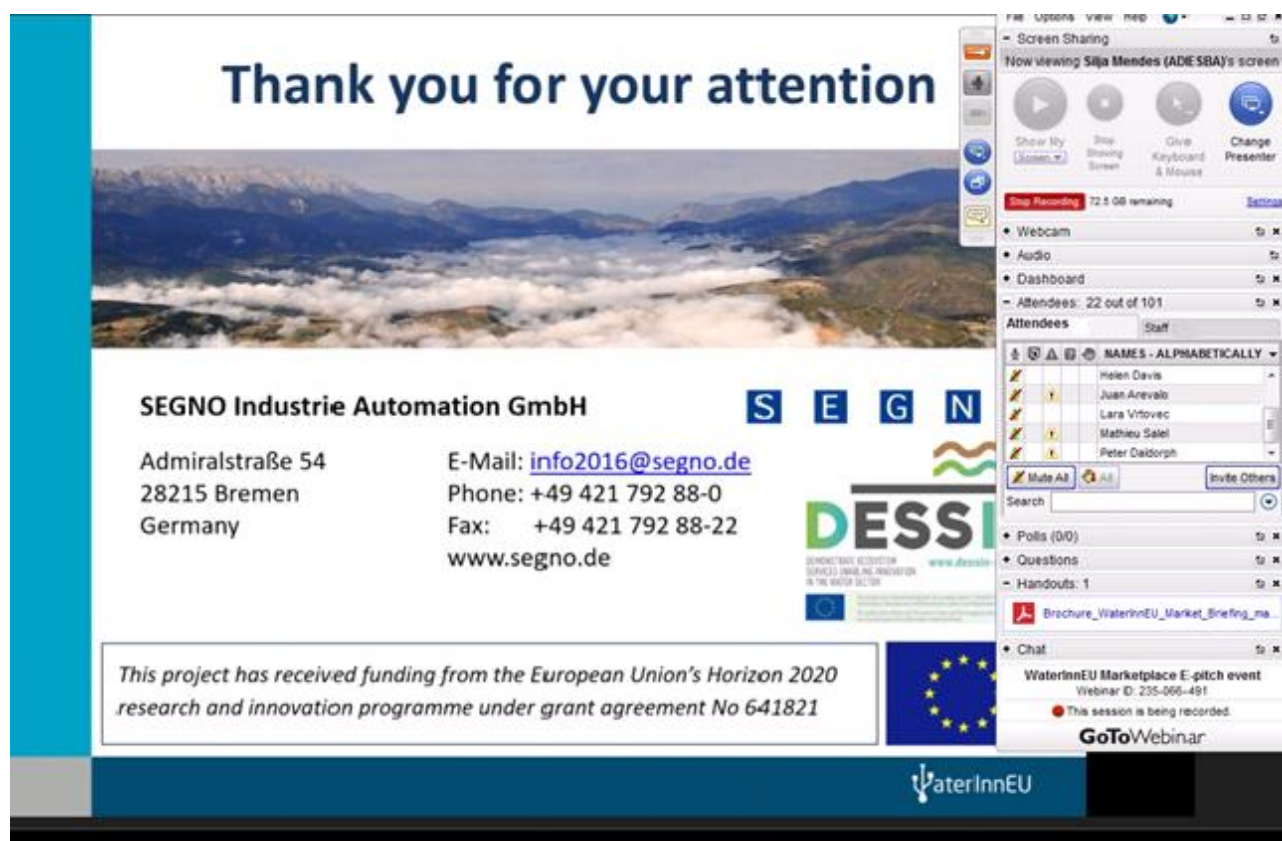

Figure 10: Screenshot of the E-pitching event

3. Presentation of the project, and more specifically the Marketplace Platform and its products and services at appropriate **conferences and seminars**. The Project Partners have all played an active role in promoting the platform wherever possible. A full list of all events attended will be prepared as Deliverable 4.3 Communication Actions Compendium and submitted at the end of the project.

   It can be pointed out that there has been a gradual increase in traffic of both the WaterInnEU portal and the marketplace throughout the project, and most of the peaks occur after an important event (such as the stakeholders meetings, big conferences or the e-pitching event).

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Figure 11: Presentation of WaterInnEU by the GWP at the World Water Day, Sofia (Bulgaria), March 22nd 2016.

4. The dissemination of the objectives of the project and the involvement of the interested parties has also been done through ***two main international stakeholders meetings***, held in the two river basins participating in the project: Scheldt and Maritsa.

The first stakeholder workshop was held in Antwerp (Belgium) in July 1st 2015, see Figure 12, and consisted of an exchange of experiences among stakeholders of the two study areas, both transboundary, the Scheldt and Maritsa River Basins. The main objective was to identify in depth the main problems when harmonizing their Basin Management Plans (River Basin Management Plans) and their adaptation to the WFD (Water Framework Directive). The stakeholders from the two river basins explained, first their work and challenges and then worked together in small working groups. They all agreed on the need for efficient, successful and widely accepted and approved tools. Additionally, their comments have been helpful in the design of the WaterInnEU Marketplace. (More information on the activities and outcomes of this meeting is available in DL 8.2 Scheldt virtual marketplace experiment report).

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Figure 12: Stakeholders and WaterInnEU members working in a splinter session. Antwerp (Belgium), July 1st 2015.

The second stakeholder meeting was held in Plovdiv in September 2016 and was focused on dissemination of information on selected products considered most relevant to the audience of river basin managers from the Maritsa and Scheldt regions. Selected products were presented by the WaterInnEU team and this generated a number of expressions of interest, mainly on REFRAN and ADESBA, both which were followed up with one on one conversations as explained in Section 5 below. (More information on the activities and outcomes of this meeting is available in DL 8.1 Maritza virtual marketplace experiment report).

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Figure 13: The 2nd WaterInnEU stakeholders meeting. Plovdiv (Bulgaria), September 20th 2016.

5. **One to one conversations** with individual contacts.

In addition to the one-to-many communication channels adopted, the Consortium Partners have used their individual networks and know-how where appropriate to target specific organisations or individuals with potential interest in the Marketplace and specific products. This also includes following up on individual Expressions of Interest received via the Marketplace, or as a result of presentations at events (including the E-pitch) and the second stakeholders meeting in Bulgaria. Each product has been allocated an Account Manager from within the Consortium and these individuals have taken the lead on following up on direct enquiries relating to these.

Additionally, measures have been taken to expand the Marketplace supply, particularly aimed at research centres and at research, development and innovation activities, mainly through personal contact or by attending different relevant conferences and seminaries, as will be described in Deliverable 4.3 Communication actions compendium.

Additional marketing activities will continue to be undertaken for the duration of the project, including additional Market Briefings promoting new products posted on the Marketplace, and a further E- pitch event which is planned for January 2017.

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1.3. Task 4.2 Provision of support services to interested parties

The aim of this task is twofold: to provide specific support to selected companies which had expressed interest in specific products or services promoted via the Marketplace, and to assist in the successful application and marketing of the identified innovations. It has involved developing a range of support activities for both product owners and potential end users that would help to bridge the gap between the development and implementation of new products.

Services for product owners

An initial matrix of support services has been developed in a way that it can be implemented and maintained long-term by the WaterInnEU Platform.
The support provided to the different companies covers three levels of services (table below):
> Level 1 – is open to all product innovators that join the platform
> Level 2 – is open to selected products which are believed to merit more targeted dissemination and some development support (e.g. case studies)
> Level 3 – is primarily aimed at new technologies and ICT models which require a greater degree of investment by product owners, and therefore a greater emphasis on business planning and communication.

Level 1 Platform based services	Level 2 Dissemination/Brokering – Task 4.1	Level 3 Commercial Support – Task 4.2
All companies	**Type 1 and 2**	**Type 3 and 4**
On line product directory (searchable)	Newsletters/promotional targeted mailshots via key third parties and Intermediaries, e.g. national water partnerships	Outline Strategic Plan (aspirations of partners, key target markets, etc)
Product of the month/promotions	One to one introductions – suppliers, end users or third party intermediaries	Work with 'owners' to identify options for exploitation – defining market translation needs.
Themed discussion fora	Preparation of 'Teasers' and case studies (and promotional material)	Review of value proposition/business model
Automatic notifications/preferences	Signposting to other third party services – IPR advice, business planning support, test houses etc.	Preparation of marketing/communication plan
Expression of interest button	Promotion of PSS by Partners via ppt at events and conferences	Defining the need of E learning materials (Link to WP7)
		Technical Advice on OGC compliance (Link to WP5)
		E pitch event /showcase webinars/online videos
		Support in preparation of materials for E pitch
		Market Competitions
		Signposting to sources of finance/grants.

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These services were then mapped against the first tranche of products on the Marketplace in order to identify where it was considered that the Consortium could best add value, given the resources available. (Note that delivery of E-learning materials was undertaken within WP7).

The 'Level 3' companies were then classified into 4 types in order to define which type of services would best meet their needs:

  Type 1: Product fully developed by public institution but not 'rolled out'.
  Type 2: Product co-developed but with no commercial sponsor to take it to market
  Type 3: Product developed but no commercial sales beyond first field demonstrations
  Type 4: Commercial party with developed product and sales revenue looking to accelerate 'roll out'

As a result, the following services were offered to product owners, and have since been/are being implemented. It became evident that project owners felt that they would benefit from support in articulating their value proposition and developing a polished and succinct sales pitch, and these were the mostly commonly valued services. In addition, each of the product owners have benefited from the support of the WaterInnEU Account Managers in terms of quality control of the materials developed for the Marketplace and communications, and liaison with potentially interested parties. (Please check annexes for more information on these products).

Product	Level	Services delivered
ADESBA Real Time Control (RTC) The ADESBA RTC system is an innovative fully-automated system to minimize combined sewer overflow (CSO) and enables communication between single CSO facilities with the aim to utilize the total storage capacity, thus facilitating a reduction in water pollution.	2 and 3	Support in preparation of PSS Product of the month Marketing materials, including newsletters, targeted mail shots, Presentation on behalf of project owner at Maritsa stakeholder meeting Support in preparation of E-Pitch presentation
ASR-Coastal (Aquifer Storage & Recovery) ASR - Coastal is an innovative technology to safeguard a sustainable fresh water supply in coastal areas. The idea behind ASR - Coastal is to infiltrate freshwater surpluses like e.g. rainwater and surface water during rather wet periods in the deeper subsurface via multiple partially penetrating wells (MPPW) for shallow recovery when it is needed.	2 and 3	Support in preparation of PSS Marketing materials, including newsletters, targeted mail shots, Support in preparation of E-Pitch presentation
AQUASURVEY The AQUASURVEY supports users through all the necessary steps to collect geographical data in the framework of a field survey campaign: from the design of the survey to the concrete collection of data using mobile devices, and integrates the data collected in GIS or statistical software applications. The main added value is that this process does not necessarily need an Internet connection - the app includes offline options to overcome Internet connection problems during field campaign.	2 and 3	Support in preparation of PSS Marketing materials, including newsletters, targeted mail shots, E-learning materials Market competition Opportunity to present at Maritsa stakeholder meeting
GUIDOS GuidosToolbox (Graphical User Interface for the Description of image Objects and their Shapes) contains a wide variety of	2	Support in preparation of PSS Marketing materials E-learning materials

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generic raster image processing routines, including related free software such as GDAL (to process geospatial data and to export them as raster image overlays in Google Earth), and FWTools (pre/post-process and visualize any raster or vector data). GuidosToolbox also includes MSPA (Morphological Spatial Pattern Analysis), a customized sequence of mathematical morphological operators targeted at the description of the geometry and connectivity of the image components.		
REFRAN REFRAN-CV software allows processing time series of data from ground meteorological stations (precipitation data), in order to generate spatially-explicit products (return period maps) based on the L-moments statistics. This is of particular interest in the case of datasets where the time series lengths are heterogeneous as this is usually the case in developing countries.	2	Support in preparation of PSS Marketing materials E-learning materials
WEISS WEISS is a software that incorporates both point and diffuse emission sources and essentially consists of three modules. The first module deals with the spatial distribution of the emissions. The second represents all relevant routes transporting the emissions, including direct discharges, the sewer system and runoff. The third is an analytical module. It enables consulting, analyzing and reporting the calculations for specific spatial entities in terms of maps and tables in every node of the transport route.	2 and 3	Support in preparation of PSS Marketing materials, including newsletters, targeted mail shots Support in preparation of E-Pitch presentation Work with 'owners' to identify options for exploitation Presentation on behalf of project owner at Maritsa stakeholder meeting E-learning materials Support in preparation of case study
ARCH A guide to the management of lagoons and estuaries: how to identify and evaluate important pressures on the lagoon/estuary; what should be considered when starting up the management process; and what should be included in that process. It emphasizes the importance of stakeholder participation in the management process.	2	Support in preparation of PSS Marketing materials, including newsletters, targeted mail shots Development of two supportive case studies 'Snapshot' written and printed for Maritsa stakeholder meeting
LAGOONS Coastal Lagoons in Europe: Integrated Water Resource Strategies is a published book which sets out the pan-European management challenges of lagoons and coastal zones, seen from the context of three perspectives: governance, environment and modelling. The book is based on the premise that successful management of coastal lagoons is dependent not only on scientific information but also on the governance systems in which this knowledge is used, in other words on the successful interaction between science, policy and stakeholders (including the local population).	2	Support in preparation of PSS Marketing materials, including newsletters, targeted mail shots, 'Snapshot' written and printed for Maritsa stakeholder meeting

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Services to end users

The support delivered to the product innovators, is being accompanied by additional services aimed at facilitating introductions with potential end users and third party support organisations (consultants). This has consisted of incorporating several innovative design features into the platform, such as the automatic matchmaking and alerts services (see WP6 deliverables), and matchmaking events described above, including the Stakeholder meeting in Plovdiv and the E-Pitch event.

It is anticipated that further individual support will be provided to these companies/organisations in the coming months, once the initial introductions have been brokered via the individual Account Managers. It is anticipated that the type of support provided will be in line with that offered as Level 3 for the product innovators.

The provision of support services is an ongoing activity that it is foreseen to have more impact in the coming months as both the project and the platform gains traction and awareness amongst the relevant supply chains.

1.4.   Conclusions and recommendations

Work Package 4 has been successful in starting to address the main recommendations provided by stakeholders involved in RBM (Work Package 3), and in developing and testing the WaterInnEU strategic objective described above. A number of key results and insights have been generated:

- Considerable resources are needed to translate project outputs into useful products. This includes time and expertise in screening for suitable products and finding the right individuals (owners) with which to engage, as well as subsequent support for product owners in extracting and articulating the most important information effectively.
- To this end it is strongly recommended that new EU funded projects are invited to put their outputs on to the marketplace with a twofold purpose: to encourage projects to produce tangible outputs; and to support traffic to the platform and therefore contribute to its sustainability.
- A significant amount of communication and dissemination has been conducted under Task 4.1, with a focus on targeting a relevant (rather than very large) audience. Although the full impact of these activities is still being evaluated, early evidence suggests that this approach is effective: despite promotion of a relatively limited number of products to date, interest in the platform and products has been strong.
- This is demonstrated by the first E-pitch, for which more than 20 individuals registered to hear concise pitches by four selected products.
- Results to date back up the WaterInnEU strategic approach in which high quality, pre-screened products which are disseminated to a targeted audience alongside **active** support to enhance and maintain communication between owners and end users.
- The Account Manager role (currently carried out by WaterInnEU team members) is key to maintaining the success of this communication, and requires an individual who understands both the technology and its potential application, and the needs of the end user.
- Interest from the less mature markets (such as the Eastern European countries) has been good, suggesting that this approach might be valued highly where there has been less support for the uptake of new technologies to date.

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In conclusion interest in the platform, the available products and the services provided so far has been positive. These activities (service offerings in particular) are foreseen to continue until the end of the project and the insights described here will therefore be further refined and validated over the next few months.

Bibliography

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Global Landscapes Forum : http://www.landscapes.org/interested-innovations-support-river-basin-management/ [Date: 01.11.16]

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Annexes

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ANNEX 1. MARKET BRIEFING BROCHURE

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REFRAN - Processing Time Series of Meteorological Stations Data

Joint Research Centre

REFRAN-CV software allows time series of data from ground meteorological stations (precipitation data) to be processed, in order to generate spatially-explicit products (return period maps) based on the L-moments statistics. This tool and the associated products at local and regional scale can be used in the development planning process and, concretely, to prepare investment in multi-purpose (irrigation, flood and drought prevention, environment protection) hydraulic infrastructure. The L-moments have the advantage of being less susceptible to the presence of outliers and performing better with smaller sample sizes. This is of particular interest for datasets in which the time series lengths are heterogeneous.

Stage of commercial development: Looking for first markets

License/copyright: Free and open source

For more information please see the complete Product Specification Sheet in our Market Place or contact WaterInnEU partner andrea.leone@randbee.es.

WaterInnEU Market Briefing Autumn 2016

The newly launched WaterInnEU Marketplace platform is a match making hub that has been established to accelerate the market translation of products and services of specific relevance to River Basin Management. The Marketplace directly supports innovations that have been previously funded by the EU, but have yet to achieve market adoption. Its role is to raise awareness amongst River Basin Managers and their supply chains regarding the availability of potentially relevant new products, and to facilitate introductions with their owners.

We are pleased to introduce our first cohort below, including a description of the main characteristics and the state of development of each one. WaterInnEU is also able to provide support to end users or third party intermediaries interested in embedding specific products within their existing RBM services.

If any of these products and/or associated services are of interest to you, please contact the named individual for further information. In the meantime we welcome your feedback on our Marketplace so that we can improve our future service to you.
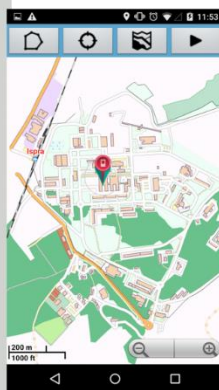
AquaSurvey

DG JRC - European Commission

AquaSurvey supports users through all the necessary steps to collect geographical data within the framework of a field survey campaign: from the design of the survey, through the concrete collection of data using mobile devices, to integration of the data in GIS or statistical software applications. The tool has been specifically customized for the water sector, and can be used with simple hand-held devices in rural areas, even where there is no internet connection (via offline options). The straightforward but effect workflow allows the survey to be conducted by non-experts, potentially enabling increased coverage with reduced costs.

Stage of commercial development: Beta version

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Aquasurvey is free and open source. The beta design is currently being tested, with an improved prototype expected by the end of 2016. Anyone interested in trialling the product or for more information please see the complete Product Specification Sheet in our Market Place or contact WaterInnEU partner andrea.leone@randbee.es.

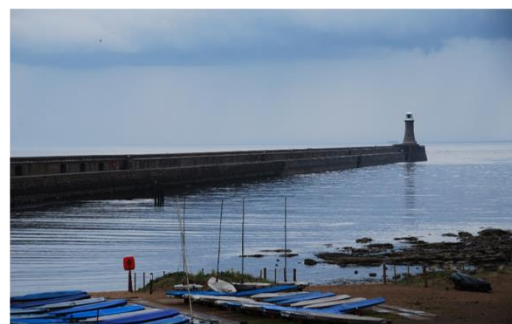## A Guide for the Coastal Lagoon Manager

ARCH Project

A high level guide which provides an introduction to the importance of coastal zone management, and sets out a practical management process that helps to deal with the complexity associated with multiple uses of coastal areas. The process places particular emphasis on the importance of stakeholder participation and includes: describing the current state of the lagoon/estuary; conducting a series of participatory workshops to discuss present status and future vision; and developing a roadmap that determines how to reach the desired future.

The guide is particularly suitable for regions that have had little experience in stakeholder consultation and sustainable integrated resource management.

Stage of commercial development: Commercially available

License/copyright: Public domain

For more information please see the complete Product Specification Sheet in our Market Place or contact WaterInnEU partner juliet.kauffmann@orioninnovation.co.uk.

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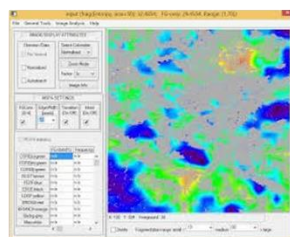
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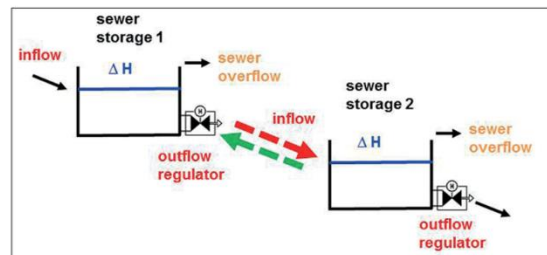## ADESBA - Real Time Control (RTC)

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Stage of commercial development: Commercially available

License/copyright: Proprietary

For more information please see the complete Product Specification Sheet in our Market Place or contact WaterInnEU partner semmling@adelphi.de.

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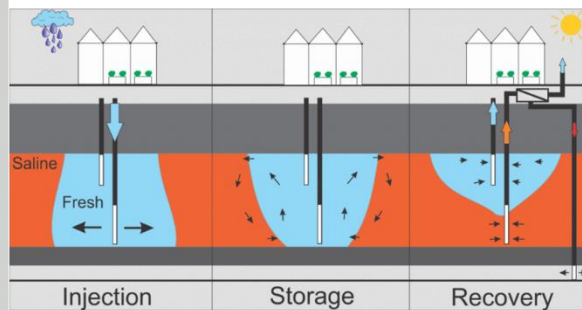## ASR-Coastal (Aquifer Storage & Recovery in coastal, brackish-saline aquifers)

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Stage of commercial development: Commercially available

License/copyright: Proprietary

For more information please see the complete Product Specification Sheet in our Market Place or contact WaterInnEU partner semmling@adelphi.de.

WEISS - Water Emission Inventory planning Support System

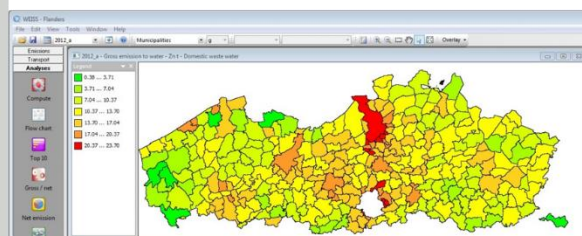**VITO - Flemish Institute for Technological Research**

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WEISS software enables measurement and analysis of both point and diffuse emission sources and subsequent transportation of pollution to surface waters. There are three modules: the first deals with the spatial distribution of the emissions; the second represents all relevant transport routes, including direct discharges, the sewer system and runoff; and the third enables full analysis of the results, including user friendly visual outputs (maps and tables) for specific spatial entities at every node of the transport route. The software can also be used to store and compare results over many years, and to create and model scenarios as part of decision support exercises.

Stage of commercial development: Commercially available

License/copyright: Proprietary

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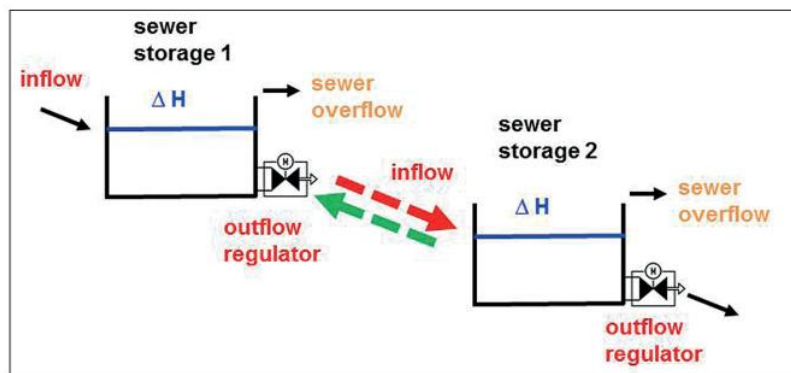
ANNEX 2. E-PITCH PROMOTION PRESS RELEASE

Are you interested in new innovations to support River Basin Management?
Join the WaterInnEU Marketplace E-Pitch Event – November 2nd 2016

Next November 2nd 2016 the European project WaterInnEU (Applying European market leadership to river basin networks and spreading of innovation on water ICT models, tools and data), coordinated by CREAF, will organize its 1st *Marketplace E-Pitch Event.* It can be followed on-line and will be a good opportunity for putting in touch different actors in the river basin management. The *WaterInnEU Marketplace* (to be launched at the end of October) is a match making hub that has been established to accelerate the market translation of products and services of specific relevance to River Basin Management. The Marketplace directly supports innovations from across Europe that have been previously funded by the EU, but have yet to achieve market adoption. Its role is to raise awareness amongst River Basin Managers, their supply chains and stakeholders regarding the availability of potentially relevant new products, and to facilitate introductions with their owners. The available products include a combination of commercially available products and services, developers seeking collaborators for market deployment, and open source models.

Are you interested in new innovations and would like to hear from the product owners themselves? Then join the next **Marketplace E-Pitch Event on November 2nd 2016 at 14h CET**. In a 1 hour session, short presentations will be made by a first cohort of product developers from our platform in a web based event which gives you the opportunity to ask questions and receive answers directly from the product developers themselves:

ADESBA Real Time Control (RTC) – A fully automated real time control system which minimizes combined sewer overflow using accurate communication between single CSO facilities that ensures effective use of the total existing storage capacity of the system and therefore facilitates a reduction in the volume of overflow. The pre-configured control system represents a step forward in terms of practical and rapid implementation of sewer network control. **Stage of development:** Commercially available. **Product Owner: SEGNO Industrie Automation GmbH**
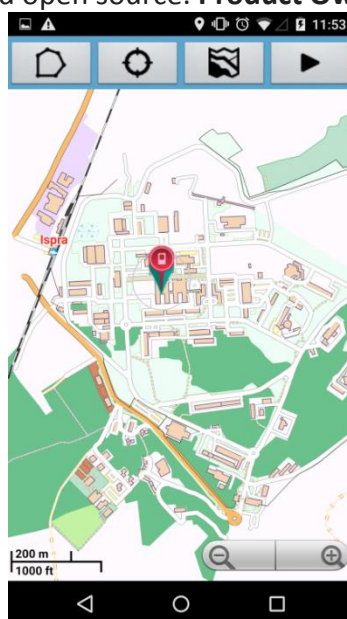

ADESBA minimizes combined sewer overflow. Source: SEGNO.

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ASR-Coastal (Aquifer Storage & Recovery) - An innovative ASR technology which helps safeguard a year round sustainable fresh water supply in coastal areas. ASR enables freshwater surpluses (rainwater, surface runoff etc.) that arise during wet periods to be filtered and stored in underground wells, and pumped back to the surface during dry periods. Combining the filtration system with a specialised RO desalination technology increases recovery of freshwater from 29% to 100% and also reduces the risk of salt water intrusion and subsidence. **Stage of development:** Commercially available. **Product Owner: KWR Watercycle Research Institute**
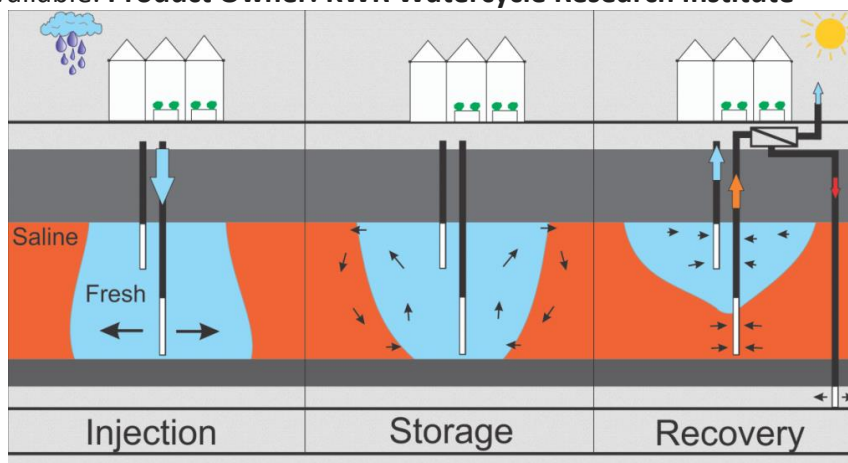
ASR-Coastal helps safeguard a year round fresh water supply in coastal areas. Source: KWR.

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AquaSurvey helps collecting data in field survey campaigns. Source: JRC.

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WEISS software enables measurement and analysis of point and diffuse water emission sources. Source: VITO.

If you would like to attend, please register now to secure your place through the [*WaterInnEU E-pitch registration form*](#)*, and feel free to share this information.*

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ANNEX 4. MARKET BRIEFING NEWSLETTER

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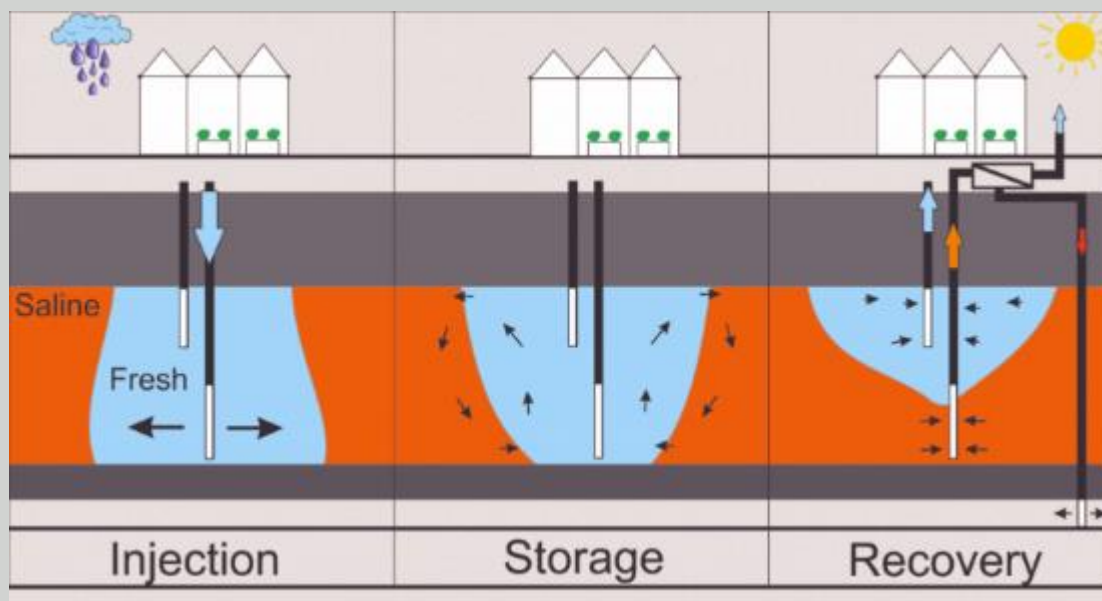

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Stage of commercial development: Commercially available

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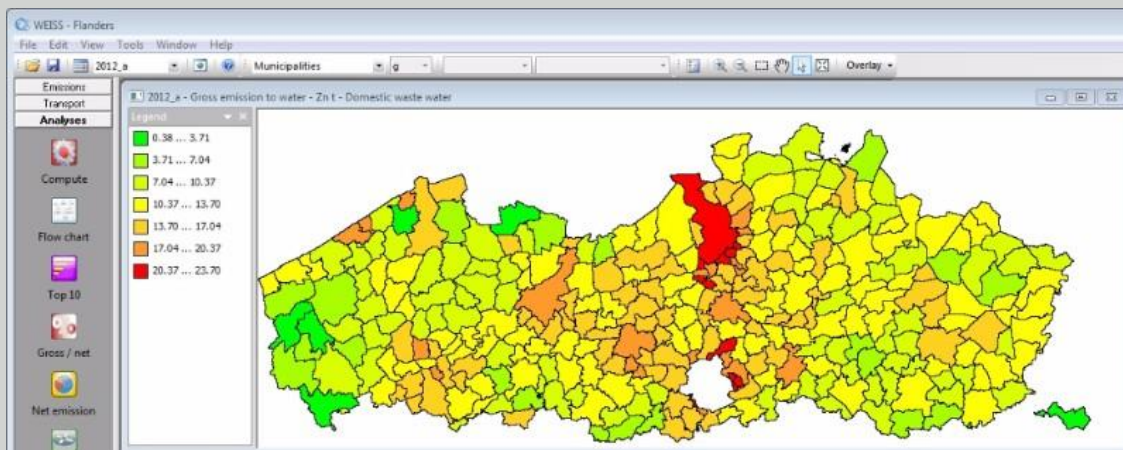
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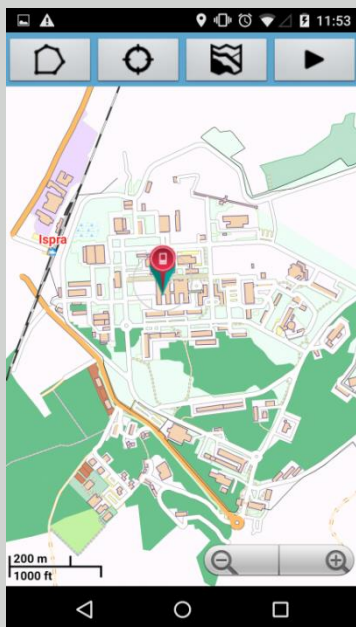### VITO - Flemish Institute for Technological Research

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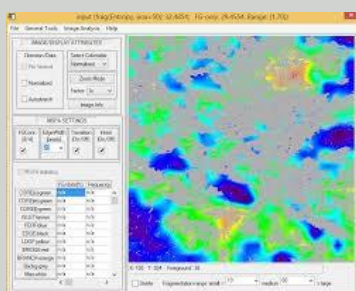
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Stage of commercial development: Commercially

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Stage of commercial development: Looking for first markets

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A Guide for the Coastal Lagoon Manager

ARCH Project

A high level guide which provides an introduction to the importance of coastal zone management, and sets out a practical management process that helps to deal with the complexity associated with multiple uses of coastal areas. The process places particular emphasis on the importance of stakeholder participation and includes: describing the current state of the lagoon/estuary; conducting a series of participatory workshops to discuss present status and future vision; and developing a roadmap that determines how to reach the desired future.

The guide is particularly suitable for regions that have had little experience in stakeholder consultation and sustainable integrated resource management.

Stage of commercial development: Commercially available

License/copyright: Public domain

For more information please see the complete Product Specification Sheet in our Market Place or contact WaterInnEU partner juliet.kauffmann@orioninnovation.co.uk.

Coastal Lagoons in Europe: Integrated Water Resource Strategies

LAGOONS Project

A published book which sets out the management challenges of lagoons and coastal zones, seen from the context of three perspectives: governance, environment and modelling. The book is based on the premise

H2020 Project Nr: 641821. Project start date: 01 Mar 2015
Acronym: **WaterInnEU**
Project title: **Applying European market leadership to river basin networks and spreading of innovation on water ICT models, tools and data**
Theme: WATER-4a-2014. Water Innovation: Boosting its value for Europe

that successful management of coastal lagoons is dependent not only on scientific information but also on the governance systems in which this knowledge is used. It describes a unique approach to establishing good dialogue between all stakeholders (including the local population) and creating realistic and lasting strategic management.

The results and insights from the four case studies areas are readily transferrable to a wide range of coastal regions within Europe. The book is available in paper format from IWA publishing, or free online at http://wio.iwaponline.com/content/ppiwawio/14/9781780406299.full.pdf.

Stage of commercial development: Commercially available

License/copyright: Public domain

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Theme: WATER-4a-2014. Water Innovation: Boosting its value for Europe

Join the Marketplace E-Pitch Event – November 2nd 2016!

In a 1 hour E-pitch, the developers of <u>**WEISS, ASR, AquaSurvey and ADESBA**</u> will be giving concise presentations on their products and services and outlining the potential for collaboration with partners and early customers. If you are interested in these innovations, please join us on **November 2nd 2016 at 14h CET** to learn more. There will be the opportunity to ask questions in real time, which will be answered directly by the presenters. If you would like to attend, please register now through the <u>WaterInnEU E-Pitch Registration Form</u>, and feel free to distribute this invitation amongst your colleagues.

MailChimp

H2020 Project Nr: 641821. Project start date: 01 Mar 2015
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ANNEX 5. SOME EXAMPLES OF PRODUCT SPECIFICATION SHEETS (PSS)

GA number: 641821

Published on *Marketplace* (https://wie.dev.52north.org)

ADESBA - Real Time Control

Product Owner :	SEGNO Industrie Automation GmbH
Category :	Software Products
Stage of Commercial Development:	commercially available

The ADESBA RTC system is an innovative fully-automated system to minimize combined sewer overflow (CSO) and enables communication between single CSO facilities with the aim to utilize the total storage capacity. Thus, the RTC can facilitate a reduction in water pollution by decreasing the volume of overflow. The water levels are measured at all CSO storage facilities and a request from a higher to lower sewer storage would be sent if the water level is rising and the higher storage facility wants to drain the water to the lower one. The lower one analyses the request and sends back a signal of approval or denial.
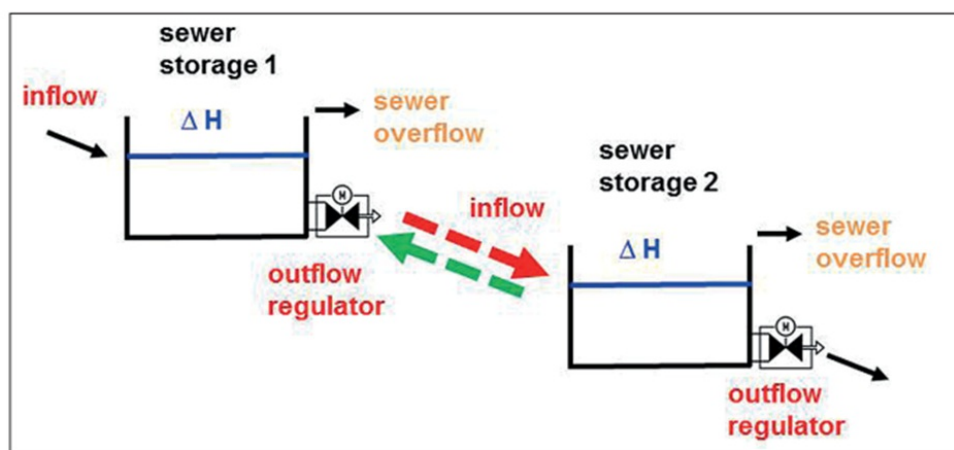

Figure 4: ADESBA RTC concept © SEGNO, Christian Niclas

Application & Target Markets :
The technology is a commercial product, targeted at water user representatives, research organisations, industry consultants, government, and training providers.

Competitive Advantages :
This is an innovative technology solution that represents great value for the optimization of volume utilization. The pre-configured control system represents a step forward in terms of practical and rapid implementation of sewer network control.

Details :

License / Copyright:	Proprietary
Costs :	On request
Costinfo :	Cost varies between EUR 10,000-50,000. The license model is dependent on the connected sewer buildings. The license extension can be done by individual building licenses or package licenses.
Type of Software:	Data processing
Type of Hardware:	Instrumentation & control
Case Studies :	Demo site activity in the Emscher region (Germany) within the DESSIN project Demo site Website of Emscher (Germany) Case study (September 2015)
E-learning, Tutorials and Supporting Material :	ADESBA-Planer is available free of cost upon request from Segno. More information
WFD Objectives :	Setting objectives, Selecting measures, Data processing (spatial or geographical), Planning process, Intercalibration, Monitoring and reporting, Modelling and prediction, Infrastructure planning
Issue :	Floods and droughts, Ecosystem services, Urban areas and Water conservation and recycling.
Relevant Water Bodies:	Rivers, Lakes, Artificial and heavily modified waterbodies and Rain and precipitation.
Target User Group:	Research organisation, Supplier, Industry consultants, Trade associations, Government (and associated bodies) - policy, Government (and associated bodies) - practitioners, Funding and investment, Training provider, Water user representative and Networking organisation.

Type of Input requirements :	It requires of basic technical knowledge of hydraulics, data management, operation of controls.
Type of Output :	■ ADESBA_Planer presents data in the form of a readable XML file available to all modern systems, this way planners and operators can exchange their data base easily; ■ Measurements and control of water discharges and volumes with the aim to reduce water discharges
Potential to combine this product with other products :	Product is compatible with: - Special purpose SIMBA block to enable the algorithm to be tested on a simulation basis and in the SIMBA model and to be implemented in rapidly programmable controllers - Technologies related to the minimization of the combined sewers overflow.
Supported Legacy Systems :	It can be used in calculation or simulation systems or in its own computing environment, Windows PC.

Supported Standards

Standard Category :	■ Data Downloading ■ Data Encoding ■ Data Visualization ■ Sensor Data

Version :	2012
Project :	Dessin
Project & Promotional Material About the Product :	■ DESSIN poster on the Emscher demo site ■ ADESBA product website

Contact Details : Christian Niclas
Managing Director
E-mail: christian.niclas@segno.de
Tel.: +49 (0) 421 79288 37

Vasco de Freitas
Sales Manager
E-mail: vasco.defreitas@segno.de
Tel.: +49 (0) 421 79288 39

Partners

This project has received funding from the European Union's Horizon 2020 research and innovation programm under grant agreement No G41821.

www.waterinneu.org

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GA number: 641821

Published on *Marketplace* (https://wie.dev.52north.org)

ARCH - A Guide for the Coastal Lagoon Manager

Product Owner :	ARCH Project
Category :	Best Practice Guidance
Stage of Commercial Development:	commercially available

Stage of Commercial Development Info: The guide is complete and freely available from the project website.
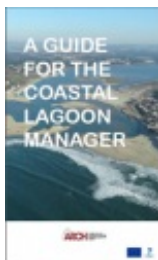
A guide to the management of lagoons and estuaries: how to identify and evaluate important pressures on the lagoon/estuary; what should be considered when starting up the management process; and what should be included in that process. It emphasizes the importance of stakeholder participation in the management process, and the recommendations given are based on results from the EU research project ARCH. The guide is intended for coastal lagoon and estuary managers including planners and authorities (at a national, regional and local level) as well as the private sector.

The guide covers the management process prior to implementation of measures on the lagoon/estuary, i.e. it does not include how to manage the lagoons/estuaries itself.

Application & Target Markets :

This high level guide (20 pages) is intended for coastal lagoon and estuary managers including planners and authorities (at national, regional and local levels) as well as the private sector.

It is intended to inspire a successful participatory approach and is particularly suitable for those areas that have little experience in stakeholder consultation and sustainable integrated resource management. The aim is to provide a clear overview and to engage people in preparing an effective process.

More detailed information (130 pages), including a range of templates, is available as an Arch Project deliverable, 'Handbook European Lagoon Management'.

Competitive Advantages :

The guide provides a straightforward, practical approach that outlines the key activities needed to ensure successful lagoon/estuary management through the participation of all stakeholders.

Details :

License / Copyright:	Public domain
License Info :	Freely available from project website and listed on http://www.wise-rtd.info
Costs :	For free
Case Studies :	10 case studies illustrating implementation of the ARCH process during the lifetime of the project. Ongoing use of the ARCH methodology: case study from the Norfolk Broads
WFD Objectives :	Setting objectives, Pressures and impacts, Public participation, Planning process
Issue :	Ecological or chemical status, Climate change and energy and Ecosystem services.
Relevant Water Bodies:	Coastal and transitional waters.
Target User Group:	Industry consultants, Utility, Asset owner, Government (and associated bodies) - practitioners, Campaigning organisation or charity, Water user representative and Networking organisation.
Version :	October 2015
Project :	ARCH

Project & Promotional Material About the Product :	■ ARCH home page and project outputs
Contact Details :	Amy Marie Patrin Oen, Norwegian Geotechnical Institute (NGI), amy.oen@ngi.no, Tel +47 997 97 685.

Partners

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WaterInnEU

GA number: 641821

Published on *Marketplace* (https://wie.dev.52north.org)

ASR-Coastal (Aquifer Storage & Recovery in coastal, brackish-saline aquifers)

|	
Product Owner :	KWR Watercycle Research Institute
Category :	Technology (hardware)
Stage of Commercial Development:	commercially available

Stage of Commercial Development Info: TRL 8 System complete and qualified

ASR - Coastal is an innovative technology to safeguard a sustainable fresh water supply in coastal areas. The idea behind ASR - Coastal is to infiltrate freshwater surpluses like e.g. rainwater and surface water during rather wet periods in the deeper subsurface via multiple partially penetrating wells (MPPW) for shallow recovery when it is needed. Optionally, intruding brackish-saline water can be intercepted and used as additional freshwater resource upon desalination. This method of injection and recovery makes it possible to satisfy the seasonal supply-demand, and meanwhile counteracts both salt water intrusion and subsidence.
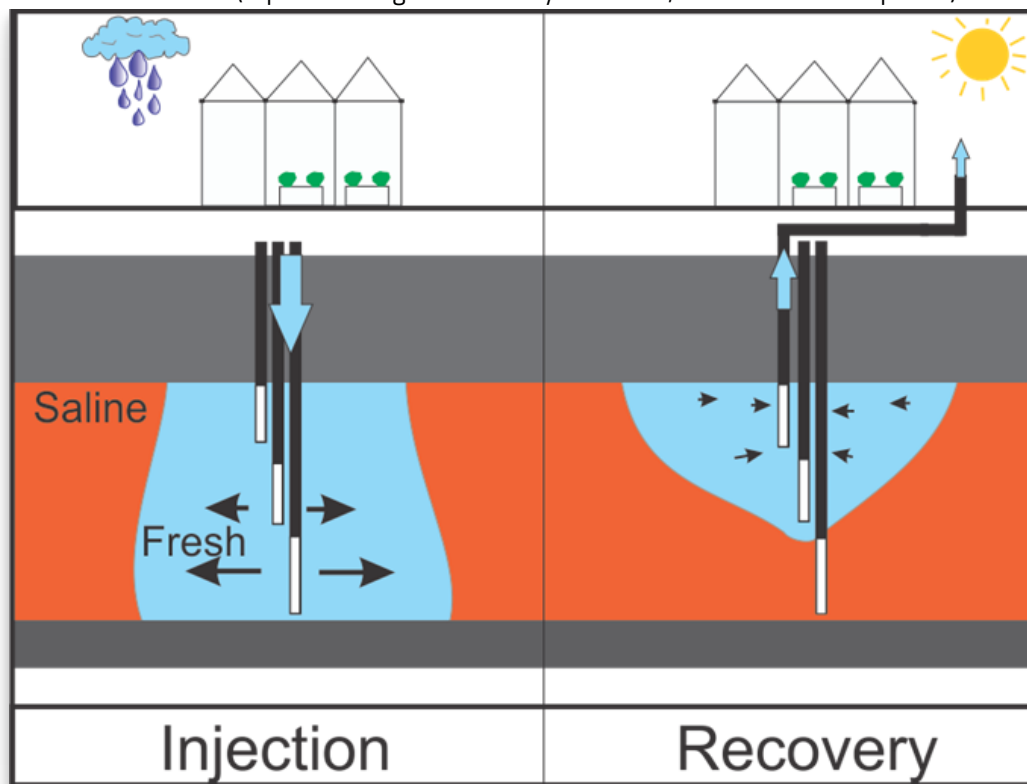
Application & Target Markets :

The technology is a commercial product, suitable for both small-scale and regional application of aquifer storage and recovery (ASR) in (confined) brackish to saline coastal aquifers. At the moment, it is primarily used for greenhouse horticulture.

Competitive Advantages :

This is an innovative solution that significantly increases the recovery efficiency of freshwater compared to conventional fully penetrating wells or (single) partially penetrating wells in brackish to saline aquifers, deemed unsuitable for freshwater storage because of the combined impacts of upconing, mixing and drifting.

This provides the means to maintain a reliable freshwater supply for agricultural production in times of water demand (if needed in combination with reverse osmosis (RO)) with a relatively constant water quality. Currently, freshwater is solely stored in aboveground basins and supplemented with brackish water reverse osmosis (BWRO) if needed, which depletes and/or salinizes the groundwater reservoirs, and increases both salt water intrusion and subsidence.

Details :

License / Copyright:	Proprietary
License Info :	Public Domain and Commercial
Costs :	EUR > 50,000
Costinfo :	On request
Type of Hardware:	Instrumentation & control

ASR-Coastal (Aquifer Storage & Recovery in coastal, brackish-saline aquifers)

Case Studies :	The Westland reference site (Demo site within the DESSIN project) How Subsurface Water Technologies can Provide Robust, Effective, and Cost-Efficient Solutions for Freshwater Management How multiple partially penetrating wells improve the freshwater recovery of coastal aquifer storage and recovery (ASR) systems Reactive transport impacts on recovered freshwater quality during multiple partially penetrating wells in a brackish aquifyer SubSol - Subsurface Water Solutions - reference sites
WFD Objectives :	Setting objectives, Selecting measures, Pressures and impacts, Planning process, Modelling and prediction, Infrastructure planning
Issue :	Climate change and energy, Ecosystem services, Urban areas and Water conservation and recycling.
Relevant Water Bodies:	Coastal and transitional waters, Groundwater, Wetlands, Rain and precipitation and Other.
Relevant Water Bodies Info:	Fresh surface waters (influx), Coastal (brackish to saline) groundwater (reservoir)
Target User Group:	Research organisation, Industry consultants, Government (and associated bodies) - policy, Regulator, Funding and investment, Training provider, Water user representative and Other.
Target User Group Info:	End-users (e.g. (horticultural) farmers)
Type of Input requirements :	The technology requires basic understanding of groundwater flow, the influence of density differences, pumping, aquifer hydraulics, (geo)hydrology, water engineering, (geo)chemical monitoring, etc.

ASR-Coastal (Aquifer Storage & Recovery in coastal, brackish-saline aquifers)

Type of Output :	Positive impacts are: better use of fresh precipitation / surface waters (less transport to sea), limited saltwater intrusion, limited subsidence because of reduction in use of RO (mining of groundwater (if not replenished)), reduced aquifer/soil salinization, better productivity of the crops as a result of improved quality control, reduced (or prevented) overall shortages of freshwater, reduction in area required for aboveground storage (allowing for alternative land uses), less costs concerning desalination by e.g. reverse osmosis, reduced flood risks during extreme rainfall events (delayed discharge via subsurface), better water resource management, improved seasonal coverage of freshwater supply and demand.
Potential to combine this product with other products :	This technology can be combined with desalinization techniques such as reverse osmosis (RO), or e.g. in combination with water harvesting systems like green roofs.
Supported Legacy Systems :	ASR automated controlling unit (BE-De Lier)

Supported Standards

Standard Category :	■ Processes and Models

Version :	2011
Project & Promotional Material About the Product :	■ Poster: Optimizing small- to medium-scale aquifer storage and recovery (ASR) in coastal aquifers for irrigation water supply ■ Waterbuffer Showcase, which can be visited on working days on request.
Organisation/Institution :	KWR Watercycle Research Institute

Contact Details : Koen Zuurbier, KWR

koen.zuurbier@kwrwater.nl.

Tel: +31 30 6069666

Partners

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www.waterinneu.org

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GA number: 641821

Published on *Marketplace* (https://wie.dev.52north.org)

LAGOONS - Coastal Lagoons in Europe: Integrated Water Resource Strategies

Product Owner :	IWA Publishing / LAGOONS Project
Category :	Best Practice Guidance
Stage of Commercial Development:	commercially available

Stage of Commercial Development Info:

The published book can be purchased from IWA publishing. A free online version is available at http://wio.iwaponline.com/content/ppiwawio/14/9781780406

Coastal Lagoons in Europe: Integrated Water Resource Strategies is a published book which sets out the pan-European management challenges of lagoons and coastal zones, seen from the context of three perspectives: governance, environment and modelling. The book is based on the premise that successful management of coastal lagoons is dependent not only on scientific information but also on the governance systems in which this knowledge is used, in other words on the successful interaction between science, policy and stakeholders (including the local population). It also seeks to address the issues surrounding climate change related 'events' and provides decision-support methodologies for a coordinated approach to the Water Framework and Marine Strategy Directives. There are 21 chapters which include comprehensive information on: 1. Best practice in integrated water resource management (combining freshwater and marine environment) and involving the science, policy and land use communities. 2. Results from four detailed case studies which illustrate practical experiences from implementation of the methodologies: Ria de Aveiro coastal lagoon (Portugal); Mar Menor coastal lagoon (Spain); Tyligulskyi coastal lagoon (Ukraine); and Vistula coastal lagoon (Poland/Russia). Possible impacts on drainage basins and lagoons are introduced through integrated climate change, socio-economic and environmental change scenarios, developed through a multi-disciplinary process and using contributions from inland and maritime communities. The results include the potential for linkage between catchment and lagoon models (using SWIM and other models), and the effectiveness of using of qualitative models to bring together science based knowledge with stakeholder participatory processes. 3. Key recommendations for management of coastal lagoons.

Ria de Aveiro ©H. Queiroga

Application & Target Markets :

The book is primarily aimed at regional or national water management authorities who are trying to implement the Water Framework Directive and/or climate change policies, but is also very relevant to land use stakeholders and scientists.

The introduction contains clear guidelines on the content and target audience for each of the 21 chapters.

The final chapter (21) provides an overview of the key issues that should be considered in the management of coastal lagoons. It emphasizes the need to create an integrated vision for all European coastal areas including drainage areas and to improve transboundary collaboration and coordination. This chapter is thus particularly recommended for decision makers and managers.

Competitive Advantages :

Coastal Lagoons in Europe: Integrated Water Resource Strategies describes a unique approach in establishing good dialogue between all stakeholders and therefore accurate representation of all communities involved. This opens the opportunity for realistic and lasting strategic management. The results and insights from the four case studies areas are readily transferrable to a wide range of coastal regions within Europe.

Details :

License / Copyright:	Public domain
License Info :	Freely available from http://wio.iwaponline.com/content/ppiwawio/14/9781780406 and listed on http://www.wise-rtd.info
Costs :	For free
Costinfo :	Costs available at http://wio.iwaponline.com/content/14/9781780406299). A free E-book can be obtained from http://wio.iwaponline.com/content/ppiwawio/14/9781780406
Case Studies :	Four detailed case studies are available on the LAGOONS project website.

WFD Objectives :	Setting objectives, Selecting measures, Socio-economic analysis, Characterization of water bodies (including mapping), Pressures and impacts, Public participation, Data processing (spatial or geographical), Planning process, Modelling and prediction, Reference conditions, Infrastructure planning
Issue :	Ecological or chemical status, Floods and droughts, Climate change and energy, Ecosystem services and Water conservation and recycling.
Relevant Water Bodies:	Rivers, Coastal and transitional waters, Wetlands and Rain and precipitation.
Target User Group:	Research organisation, Industry consultants, Government (and associated bodies) - policy, Government (and associated bodies) - practitioners, Regulator and Water user representative.
Version :	15 July 2015
Project :	LAGOONS
Project & Promotional Material About the Product :	- Free online version - IWA Publishing - LAGOONS project homepage - Lagoons under the microscope - futuris - An integrated Pan-European perspective on coastal Lagoons management through a mosaic-DPSIR approach.
Organisation/Institution :	Campus Universitário de Santiago, University of Aveiro
Contact Details :	A Ana Lillebø, Department of Biology & CESAM, Campus Universitário de Santiago, University of Aveiro, 3810-193 Aveiro	PORTUGAL, Tel:+351 234 370 790, lillebo@ua.pt .

Partners

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www.waterinneu.org

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