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

Deliverable D4.5
Report on uptake of water-related innovations by end-users

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1 Introduction

This report provides a summary of the achievements resulting from the brokering activities carried out under Task 4.1; the supply services delivered under Task 4.2; and the communication actions under Task 4.3. Together, these activities sought to catalyse the Marketplace by actively supporting the development of more refined propositions from the innovators, and subsequently raising awareness of these amongst key stakeholders and end users. Where appropriate, support was also provided in the brokering of introductions between relevant parties, and facilitation of follow up discussions to encourage uptake of the new innovations.

The key mechanisms employed to achieve these outcomes were:

- The Marketplace itself – providing a user friendly platform with relevant details for each of the pre-screened innovations together with supporting functionality.
- Stakeholder Meetings – bringing together key parties from across the supply chains round the Scheldt and Maritsa basins (the latter including presentation of innovations to young professionals and students)
- Young Professionals Competition – whereby young professionals competed giving ideas and innovations for the Aquasurvey tool.
- Two E-Pitch events – hosted by WaterInnEU in the course of the project at which a select number of innovators presented their propositions to interested parties from across the EU
- Publication of regular newsletters to the community promoting the most recent innovations on the Marketplace, as well as supporting events
- Bespoke one-to-one and one-to-many communications by the individual project partners disseminating information on the Marketplace and individual innovations to their personal networks. This has included communication at relevant conferences and seminars.

These are discussed in more detail below, with the results summarised in Section 7, and subsequent Conclusions presented in Section 8.

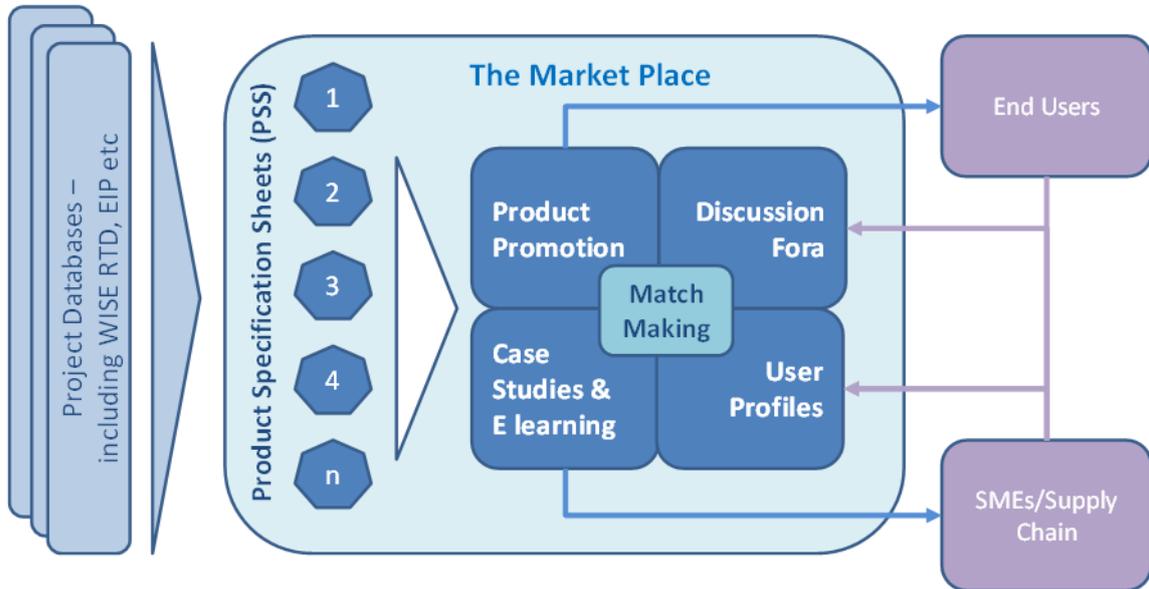
2 The Marketplace

The Marketplace has been designed and developed to provide matchmaking and support services to facilitate product selection and implementation, via a combination of product promotion, automated matching between end users and supply chain providers, one-on-one expert advice, targeted dissemination, training modules, and discussion fora.

Figure 1 presents an overview of the platform, underpinned by the strategic objective of being market led, seeking to identify and pre-screen those products and services that are seen to best match the priority needs of the target market. As described elsewhere (D 6.2 and D 4.4), the services and functionality of the platform were developed on the basis of feedback received via consultation with a cross section of relevant stakeholders and supply chain participants. Some are relatively passive, allowing potentially interested parties to search and interrogate the content at their leisure, whilst other services are more bespoke and ‘hands on’, as and when requested by the audience, e.g. provision of expert advice.

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 events).

Strategic Objective – Market led innovation platform that screens and accelerates the most relevant 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

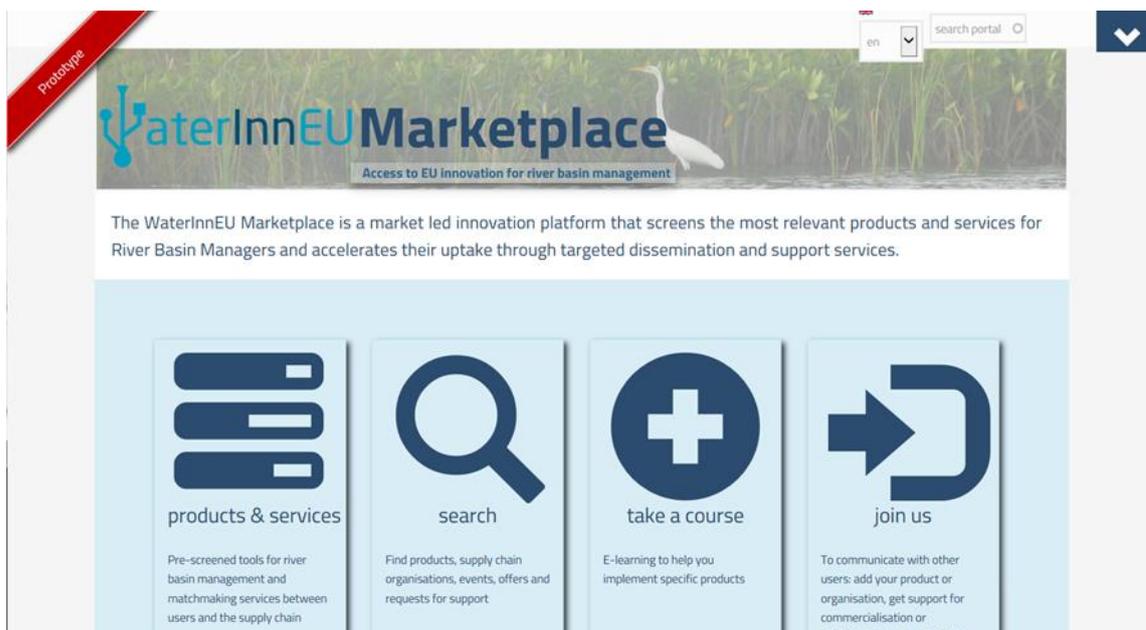


Figure 2: Marketplace prototype

3 Stakeholders meetings

Matchmaking activities have also taken place through **two international stakeholders meetings**, held in the two river basins participating in the project: Scheldt and Maritsa. The case studies were developed to test and guide a number of different actions during the course of the project, specifically from the interoperability experiment, the Marketplace itself and the e-learning. The stakeholders meetings have been important milestones where there has been a lot of interaction, exchange of information and matchmaking. These meetings are further described in D 8.1 and D 8.2. Preliminary interest of stakeholders on some of the tools has been followed-up as described in the 'Results' section below.



Photo 1: Stakeholders interaction at the International seminar on 20 September 2016 in Plovdiv, Bulgaria

Additionally, the Combined Sewer Overflow (CSO) challenge (outcome of the 1st stakeholders meeting) in the city of Brussels has served to test the marketplace and gather user feedback in different stages of development of the platform, thanks to the collaboration of Brussels Environment. Currently, Brussels Environment is studying possibilities of implementation with the owners of ADESBA - a fully automated real time control system which minimizes combined sewer overflow using accurate communication between single CSO facilities.

4 Young Professionals Competition

Dissemination has also occurred through the Young Professionals Competition. E-Learning products developed under WP7 were tested by different users, including youth organisations. The product AQUASURVEY was selected for the Youth Competition because it is an open source free of charge application that can be used to manage field campaigns in a user friendly way. The competition was launched the 17th of July 2016 on the WaterInnEU Website and was promoted on social media (Facebook, LinkedIn and twitter), partner networks, company websites, etc. Additionally, GWP Bulgaria organized e-learning workshop at the University of Architecture, Civil Engineering and Geodesy on 19 September 2016 in Sofia, Bulgaria, where the Youth Professional Competition was presented. The event brought together experts from Bulgaria (GWP Bulgaria), the Netherlands (Young Water Solutions), Slovakia (GWP CEE), Spain (Randbee Consultants), and professors, students and young researchers from the University of Architecture, Civil Engineering and Geodesy. Three proposals were submitted and currently, AQUASURVEY is being used in a WASH project developed by Young Water Solutions in Burkina Faso, contributing to monitor and measure the impact of the project. More detail on this can be found in D 7.4.



Photo 2: Youth Competition held on the 19th of September 2016 in Sofia, Bulgaria

5 The E-Pitching events

The WaterInnEU team has hosted of two online e-pitching events for which a total of eight product owners were selected on the basis of their interest in market promotion and on relevance to WaterInnEU's target audience as identified in WP 3:

- 2nd November 2016: ADESBA, ASR-Coastal, Aquasurvey and WEISS
- 7th February 2017: CORES A1, REFRAN CV, DPR 25 & DPR 60 and SmartWater.

All the presenters were provided with a template for their presentation and provided support in the development of their pack to ensure a consistent high quality of presentations. In addition, a practice run was hosted a week before each event to allow the presenters to familiarise themselves with the software and the process, and for further feedback on improvements to the presentations.

The e pitch events provided 10 mins for each presenter, followed with a short Q&A from participants that was facilitated by the moderator, CREAM.

After the events, all presentations and Q&As were supplied to the third parties who registered for the event, and all were encouraged to contact the presenters directly for further information.

The second E pitch event generated a significantly higher number of registrations than the first, and the resulting questions were more interactive.

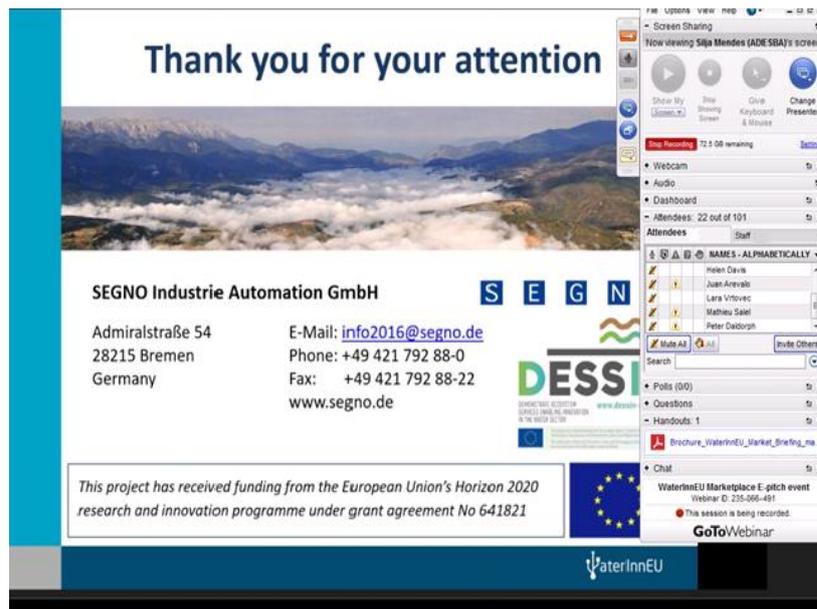


Figure 3: Presentation of ADESBA at the 1st e-pitching event



Figure 4: Presentation of CORES A1 at the 2nd e-pitching event

6 Other communication channels: one to one conversations, conferences and seminars, mailings/publications

The WaterInnEU team has played an active role in promoting the platform wherever possible. A full list of all events attended has been prepared in Deliverable 4.3 Communication Actions Compendium and submitted at the end of the project. These have included press releases, 3 newsletters, publication in social media (LinkedIn, twitter, Facebook) , different webpages (WssTP, GWP, Antea Group, CREAM, CORDIS...) and have widely spread the project by word, either by phone or one to one and one-to-many conversations at different events, meetings and throughout their contact networks (river basin managers, academia, researchers, students, policy makers, consultancy...).

The stakeholders meetings and the e-pitching events have served as brokering events where potential business cases for market introduction of tools have been identified and supply chains promoted.

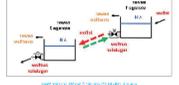


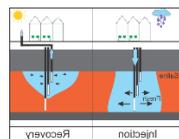
Figure 5: Different communication actions

7 Results

The different channels described above were deployed to actively encourage the interaction between product owners and potentially interested end users and supply chain partners. D4.4 provides a summary of market feedback on each of these channels. What was important for the project was that these were pre-screened, relevant and well-presented propositions, thereby making them more attractive to the market. At the same time, not all the product owners were at the same stage of market readiness. Some were indeed seeking commercial sales/partnerships. However, others were seeking development/demonstration partners to further validate the product, whilst other open source products were seeking to encourage their uptake without any commercial gain.

The following table provides a summary of key outcomes realised by the end of the project:

	Description of the product	Matchmaking activities and results	Introduction mechanism	Contact name
 <p>REFRAN CV</p>	<p>Software that enables time series processing, using precipitation data from ground meteorological stations, to estimate extreme climate events by generating spatially-explicit products, such as return period maps.</p>	<p>Interest indicated by several Maritsa stakeholders: willing to apply REFRAN-CV to hydrological and meteorological services.</p> <p>Concern was expressed by some stakeholders regarding: lack of input data from their side or need to pay to obtain data.</p> <p>REFRAN could still be interesting as it works with auxiliary data (geographical data, rainfall, precipitation, land use, relief etc.) and is capable of calculating with short time series.</p> <p>Angel Markov (Maritsa stakeholder) is interested in sending their distribution data to Randbee (WaterInnEU) to see if it is viable. So far, data available are not adequate to run a simulation.</p>	<p>2nd stakeholders meeting</p> <p>2nd E-Pitch</p>	<p>Cesar Carmona Moreno</p>
 <p>ADESBA</p>	<p>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</p>	<p>Stakeholders from both the Maritsa and the Scheldt River Basins expressed interest in ADESBA during the 2nd stakeholders meeting:</p> <ul style="list-style-type: none"> - Maritsa: Stara Zagora, a Bulgarian town near Plovdiv, is currently planning to set up 17 combined sewers and would be interested in applying ADESBA after this investment in order to ensure effective use of the total existing 	<p>2nd stakeholders meeting</p> <p>1st E-Pitch</p>	<p>Silja Mendes (E-Pitch)</p> <p>Vasco de Freitas (Sales department)</p>

	Description of the product	Matchmaking activities and results	Introduction mechanism	Contact name
	facilitates a reduction in the volume of overflow.	<p>storage capacity of the system. However the main barrier to implement ADESBA in Bulgaria is currently the lack of financing to buy the software as well as the lack of information available in Bulgarian. adelphi (WaterInnEU) will follow up on these issues with GWP and SEGNO (owners of ADESBA) to explore if any opportunity to test the system in the Maritsa River Basin can be found.</p> <ul style="list-style-type: none"> - Scheldt: the city of Brussels currently faces CSO problems. Brussels Environment is therefore interested in applying ADESBA. However, the ADESBA software solution cannot be tested immediately in Brussels as adjustable valves (hardware) need to be installed in the network first. Brussels Environment is considering this and will come back to adelphi and SEGNO in case further cooperation could be explored to solve CSO problem with ADESBA. 		
ASR-Coastal 	<p>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.</p>	<p>Colin Sworder (Integrated Sky Ltd) expressed interest in ASR-Coastal, as he is currently looking for potential partnership as designer and builder of resilient off-grid renewable energy systems to power industrial devices. The owner of ASR-Coastal, KWR is interested, even if there is no immediate opportunity for cooperation to apply Integrated Sky's technology with ASR-Coastal. KWR will follow up with C. Sworder as soon as an opportunity occurs in the future.</p> <p>KWR has developed two other innovative subsurface water solutions (Freshkeeper, Freshmaker) in the framework of the H2020 <u>SUBSQL</u> project and is considering uploading a product specification sheet on each of them on the WaterInnEU marketplace in the near future. adelphi (WaterInnEU) will follow up on this task with KWR.</p>	1st E-pitch	Beatriz de la Loma Gonzalez
Aquasurvey	Supports users through all the necessary steps to collect geographical data within the framework of a field survey	Antea Group (WaterInnEU) is interested in using the software in commercial projects where field surveys are required. A project leader has already followed the e-learning and is ready to use it as soon as there is an	2nd stakeholders meeting	Bart De Vos

	Description of the product	Matchmaking activities and results	Introduction mechanism	Contact name
	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.	opportunity. Following the Young Professionals Competition, AQUASURVEY is being used in a WASH project developed by Young Water Solutions in Burkina Faso.	1st E-Pitch Young Professionals Competition	
WEISS 	A software package that enables measurement and analysis of both point and diffuse emission sources and subsequent transportation of pollution to surface waters.	Maritsa stakeholders showed interest in the WEISS software but the product has finally not been taken up due to lack of funding for its implementation.	2nd stakeholders meeting 1st E-Pitch	Guy Engelen

8 Conclusions and recommendations

WaterInnEU sought to address the lack of market translation of research outcomes in the water management market from a different point of view, by offering an innovative and market led solution. Decision making in the field of water needs to rely on trustworthy information but also on the latest technological developments. The project has addressed these issues, and initial market feedback has been positive.

Key insights include the following

- Results show that dynamic activities, such as the e-pitching events or the stakeholders meetings are more effective in terms of engaging and encouraging supply chain interaction than passive ones. This has proven the value of provision of 'hands on' support services, specifically in the development of attractive propositions, and provision of downstream facilitation/brokering support to ensure continued dialogue beyond an initial interaction.
- The level of engagement was particularly strong from the young professional segment of the market, and geographically from central and eastern Europe.
- The majority of these activities have taken place towards the end of the project, once the Marketplace platform was online and the market consultation to inform the development of appropriate functionality and services was complete. As a result, there has been less than six months to validate the effectiveness and impact of the full complement of products and services offered. Inevitably, market uptake of new and innovative products and services will take time, allowing for ongoing dialogue and provision of data between the key parties. There have been relatively few 'quick wins'.
- Nonetheless, a progressive market validation can be seen through indicators such as increased visits to the platform and the significant increase in attendees at the second e-pitch event. In addition, the nature and quality of questioning at the second event also indicated a relevant and engaged audience with potential interest in the products, even if there were no direct follow ups.
- At the same time, all the product owners have received good market exposure, and in many instances useful and relevant market feedback to inform their next stage of product development. Feedback has indicated that they have strongly appreciated the support provided by WaterInnEU (see D4.4).

Consortium members are aware that investments in the water sector are long-term decisions, beyond the scope of a two year project. Therefore, it must be pointed out that efforts by the consortium will go on even beyond the end of the project to ensure that promising matchmaking processes are successful. Additional efforts include further dissemination of the outcomes, as well as securing an appropriate partner to keep the platform operational. These actions are described more in detail in the Exploitation Plan (D4.4).