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Executive Summary

This final requirements report (D 3.2) presents the results of Work Package 3 (WP3) of WaterInnEU, which aimed at assessing knowledge gaps and information needs of actors involved in river basin management (RBM) throughout Europe. The assessment provides insights and recommendations for the design and selection of *functionalities* and *services* to be taken up by the virtual *Market Place* of WaterInnEU.

Two key recommendations have been formulated based on the consultation process within WP3. The first key recommendation is (1) Offering pre-screened suitable products for River Basin Management (RBM) in a practical format through a Product Specification Sheet (PSS). In view of abundance of available information and products for river basin management (RBM), presenting a selection of innovative and outstanding products, indicating all relevant information at first sight, facilitates and improves the work of practitioners and clearly fills a market niche.

The second key recommendation is (2) Offering matchmaking services to facilitate the selection and application of products. Matchmaking services should be directed at river basin managers and product supplier or consultants, fostering the dialogue between those actors. A selection of offers ranging from facilitating matchmaking on the virtual Market Place through various functionalities to hosting events, such as trainings or webinars, are suggested.

The needs assessment of the river basin managers conducted within this work package clearly shows that strengthening the network of river basin managers and related relevant stakeholders throughout Europe is of utmost importance. Facilitating the exchange of practitioners in this field will enhance the efficiency and sustainability of river basin management across borders.

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1. Introduction

This assessment of market requirements within WP3 of WaterInnEU provides insights and recommendations for the design and selection of *functionalities* and *services* to be delivered by the virtual *Market Place* of WaterInnEU. In this project, *products* have been defined as instruments for river basin management which support the implementation of the WFD, such as protocols, models, other software tools, hardware, technologies and methodologies.

The overall assessment is based on a consultation process comprising two phases.

Phase 1 (M1-M7) encompassed the identification of user needs from actors involved in river basin management throughout Europe. Information needs, preferences and challenges in selecting and applying existing products were assessed through an online survey. Preliminary results regarding user requirements and corresponding recommendations for potential functionalities of the marketplace were presented and analysed in the draft requirements report (D 3.1)¹.

Based on this assessment, direct consultations through telephone interviews with river basin managers or so called end users², working at different levels in different European regions, were conducted in **Phase 2** (M7-16).

This final report summarizes the results obtained during phases 1 and 2 of the assessment, resulting in concrete user requirements for functionalities and services from the virtual *Market Place*.

Section 2 briefly summarizes the methodology of the consultation process. An analysis of the results obtained from the overall consultation process follows in section 3. Based on this analysis, the requirements were translated into a number of concrete functionalities and accompanying services for the virtual *Market Place* in section 4, including concrete criteria for the selection of products. Section 5 concludes with a summary of the innovative approach of the new virtual *Market Place* and provides an insight into the perspectives for its long-term sustainability beyond the scope of this project.

¹ The drafts requirements report is available for download here:

http://ddd.uab.cat/pub/estudis/2015/143239/641821_D3.1_-_Draft_requirements_report.pdf

² Within WaterInnEU **end users** are those parties actively involved in the day to day planning and management of river basins, i.e. river basin managers at different levels that are potential users of the virtual *Market Place*.

2. Consultation methodology

The consultation methodology described in this section briefly summarizes **phase 1³ and elaborates in more detail on the methodology used in phase 2** of the consultation process. Phase 1 consisted of three stages: **(1)** Identification of potential end users, **(2)** Survey conduction and **(3)** Survey analysis. A total of 49 completed online surveys were submitted in the period from June to October 2015. Responses to the survey were obtained from a representative sample of all European regions. Table 1 gives an overview of statistics on the survey conduction.

Table 1: Statistics of survey conduction

Statistics on survey conduction (state of 21/09/2015):	
Category	Number
Total responses	219
Incomplete responses	137
Surveys submitted	49
Contact details provided for further project-related issues	76 (e-mail) / 60 (telephone) / 60 (address)

The online survey aimed at identifying preferences and information needs of potential end users of the virtual *Market Place* on the one hand and on challenges in selecting and applying products for river basin management on the other hand. Results of the survey were analysed qualitatively following the guiding questions previously formulated for the development of the survey (Table 2).

³ For a detailed description of the methodology of phase 1 please see the Draft requirements report D3.1.

Table 2: Guiding Questions of online survey

Guiding Questions		Respective Objectives WP3
1	What is the state of knowledge regarding the existence and use of products and projects for the work on River Basin Management Plans within the stakeholder landscape in the European Union?	What are preferences and information needs of the stakeholders?
2	Which products are used for the work on River Basin Management Plans (direct or indirect)?	
3	Which additional products and services are required ?	
4	What are possible reasons for the non-use of available products and the failure of dissemination initiatives?	What are challenges in selecting and applying existing products?
5	What is required to improve the knowledge and use of products?	

In phase 2, 22 follow-up telephone interviews with selected river basin managers working at international, national and basin levels in different European countries were conducted. The aim of these interviews was to explore more specific aspects of the survey results obtained in phase 1 and to discuss more precisely how these user requirements should translate into the design and selection of useful functionalities and products to be delivered by the virtual *Market Place* of WaterInnEU. Annex I presents an overview of conducted follow-up interviews in the second phase of the consultation process.

Besides the discussion, validation and specification of the survey results obtained in phase 1, the interviews of phase 2 provided valuable insights into the work of river basin managers at various levels and in different European countries, especially on their approach to selecting and applying products and their supply chains. The interviews further provided a framework for discussion of functionalities and services as well as for the design of the virtual Market Place, based on recommendations already obtained from phase 1 of the consultation process⁴.

⁴ In D3.1, first recommendations on possible functionalities of the virtual *Market Place* were formulated.

The guiding questions developed for the conduction of the interviews are presented in table 4:

Table 3: Content of the follow-up interviews

How does the procurement of products look like in your organization and where are incomplete or missing information in this process?
What functionalities are desirable for a new virtual marketplace ? - Presentation and feedback of the foreseen service offered by WaterInnEU Topics that were discussed:
Which additional services are required, which may be offered via an online market place Topics that were discussed:

The complete set of guiding questions for the telephone interviews is presented in Annex II. Based on the analysis of the overall consultation process and the resulting definition of user requirements, a number of concrete functionalities and accompanying services to be incorporated in and offered through the virtual *Market Place* can be suggested.

3. Consultation results analysis

The consultation process within WP3 lasted 16 months (months 1 to 17 of the project). The results of this process will be presented and analysed in the following paragraphs.

3.1. User profile

Most of the potential end users interviewed during this consultation process work in regional governmental organisations, national governmental organisations and river basin organisations. A number of industry representatives, an interest group and a consultancy were also interviewed. Interviewees represent in total 51 European river basins.

The results of the consultation process are presented and analysed in the following subchapters. They were clustered according to two main topics: challenges met by actors involved in RBM with respect to selection and application of products (Section 3.2) and additional requirements of potential end users of the WaterInnEU virtual *Market Place* for the selection and application of products in RBM (Section 3.3). These requirements include information needs, useful functionalities for an online platform, and matchmaking services that could be offered accompanying the product portfolio presented on the *Market Place*.

3.2 Challenges for the selection and application of products

The consultation results clearly show some key challenges in selecting and applying existing products:

Limited access to products

Access to certain products is determined by their price, as licenses for some products are quite costly (e.g. GIS-licenses). According to interviewees, a lack of budget for procurement is prevailing in many organisations and institutions which is why cost effectiveness is one of the main criteria for the selection of products.

Another critical aspect is that the costs of using a product are often hard to estimate and not indicated in full detail. Furthermore, high costs for products decelerate selection processes within many river basin organisations.

While the overall costs of certain products are one important criterion, other factors are similarly important. Getting access to 'third party' models and data developed by contractors or academia for government is not always possible. Third party intellectual property rights generally prevent these from being adopted more widely.

An important challenge for river basin managers is the lack of free licences for non-commercial use of certain products. Respondents agree that open source data, information and products are most attractive to use. Using open source products allows an easy interchange with other offices and public administrations. Some well-working products developed e.g. by universities need to be made available but a lack of funds to support this impedes the promotion of new products.

Missing guidance for complex products

In general, the complexity of certain products forms an important obstacle. Additionally, missing documentation or training material for complex products make quick familiarisation with new products more difficult. Based on the responses it can be assumed that in many cases the information provided about a product is neither correct nor complete. This results in quite a lot of uncertainties in the selection and application of products. The interviews confirmed that a decisive factor in the selection of products is the comprehensiveness and reliability of information provided regarding its use.

In many cases, it is very time consuming to get familiar with using new products. Therefore, efficient **support for product application** to ease and accelerate this process is crucial for river

basin managers. Many interviewees highlight that trial and error of products is not possible due to time but also money constraints.

Guidance on how to combine different products is scarce on the market and, according to river basin managers, reduces the willingness to test innovative approaches.

Missing information on relevance regarding WFD

Many practitioners perceive that the identification of information on how a certain product and its outcomes comply with the WFD, and how the assessed data and information can be brought into the adequate reporting format, is a major challenge. Interviewees further criticise that product developer are often not aware of requirements of the WFD and therefore do not align product performance to requirements of the directive.

Regarding soft measures, many RBM prefer developing their own tailor-made solutions based on the CIS guidance papers that offer a broad scale of information. However, river basin managers point out that the adaptation of products to national or regional circumstances is often a great challenge.

Missing decision support on selection of products

Out of the huge offer of similar products, selecting adequate products can be difficult. Some respondents, on the other hand, see the wide range of options as an advantage for effective work. The selection of adequate products requires a certain amount of knowledge, experience and time. Models need to be applied at an adequate and relevant scale according to the purpose and type of parameters (e.g. for nutrients the relevant scale is river basin, while for organic substances the relevant scale is water body). The risk of applying overlapping products for different environmental functions, such as for the WFD and for biodiversity targets within one basin, might lead to additional work for river basin managers.

Narrow field of application

According to respondents, certain products work well on large scale but do not apply to small catchments, because the results would be less accurate. Examples of where the size of the catchment matters are models for pressures and impacts, such as the evaluation of diffuse pollution, Pegasus or Moneris. Missing information about the suitable scale of application represents a considerable risk for practitioners.

3.3 Requirements for the selection and application of products

The consultation process further aimed at identifying information needs and functionalities missing on platforms as well as further required services which would ease the selection and application of products for river basin management.

3.3.1 Information needs

The survey results show that information on compatibility with legacy systems, followed by the need for information regarding evidence of compliance with certain standards and interoperable connection to other systems are highly required. Another important type of information which should be made readily available is advice on how to combine different products. The interview results confirm these information needs and specify that this information should be made available in the product presentation at first sight.

The consultation process further showed that a widely missing option is to be able to contact experts, consultants or service providers directly. This means that the provision of contact information to relevant actors is a functionality required by many respondents.

3.3.2 Functionalities

One of the main additional functionalities required by end users in order to select products for river basin management is **case studies** of successful deployment of products for RBM.

While some survey respondents require an **overview on what products are available on the market** others stress that a well elaborated **list of selected products**, ideally provided by the European Commission (EC) and in direct link with EU prerogatives, would ease the selection process of adequate products. The interview results broaden this requirement: many interviewees state that, considering the overload of information to deal with in the field of RBM, a thorough list of selected innovative products that are relevant for addressing the requirements of the WFD might ease and accelerate the selection processes.

Attention should be paid to an **easy illustration of contents** that limits the research efforts.

The consultation results clearly show that an intelligent **search function** is of utmost importance for the end user. This would allow an increase in the efficiency of the search and thus reduce its corresponding time expenditure.

Selected and presented products should ideally be low in costs for both procurement and application and should not require an intensive training to be adopted. Also, it is important for many practitioners that products have been tested successfully and that contact details are provided.

The survey results show that more instructions regarding the application of products are required on information platforms. This, together with **training materials or tutorials** available on platforms, would ease the application of products. Furthermore, direct contact to and support from developers and modellers can be formulated as a need of potential end users. Missing information on the compatibility of certain products with legacy systems also seems to complicate the application of products. Another need which has been identified is the indication of possibilities to combine different products in support of an integrated perspective (e.g. integrated model for linkage between surface waters and groundwater). The analysis shows that river basin managers are increasingly opening up towards new issues such as climate change and droughts. As a result the need to address these topics is increasing throughout all European regions.

Social media, such as LinkedIn, are being widely used to exchange information. However, most interviewees indicated that they do not use social media for work related purposes. The main reason that was indicated several times is that it is difficult to distinguish between expert and non-experts in social media.

Case Studies have been described by many interviewees as a central and practical learning product needed to understand implementation of products in a better way. The majority of interviewed persons suggested that case studies should be presented in the form of fact sheets, briefly illustrating the most important information.

Asking about who should provide case studies, it has been stressed that in order to obtain objective opinions on products, it would ideally be the user of the product, such as river basin managers, who would provide the information, rather than product developer using case studies for promotional purposes.

Many potential end users stressed the fact that the effort to adapt a product to specific regional circumstances is high, which limits the transferability of case study practices.

The interviews were used to specify on the desired content of case studies. The most important elements that a case study should comprise are:

- Information on characteristics of the case study basin, including a map of the area and a description of the initial situation
- Constraints, opportunities and lessons learned during implementation period

- Technical information on costs, input requirements and required licenses
- Interviews with products users
- Fitness for purpose/practicality and critical points

It was stated various times that instead of a lot of text, more schemes and graphical illustrations are desired.

Interviewees were asked how an **e-learning** function on the *Market Place* could support with the selection (and application) of products. It was stated that webinars are generally a suitable tool to support easy and interactive learning and enable practitioners to quickly adopt a new product.

Interviewees recommended that modules of the e-learning should be relatively short, allowing for a quick snapshot on what a product is about. Learning material that allows for an intermitted use and offers multiple entry points would take into account the limited time resources of users.

3.3.3 Services

After completing the first consultation phase, matchmaking events have been defined and within the project will take place as events – virtual or face-to-face – for training, brokerage and information exchange between different actors such as product developers and river basin managers (and potentially trade associations, supply chain intermediaries and policy actors). Matchmaking services of WaterInnEU are services for end users. Generally, almost all interviewees confirmed that matchmaking events, both virtual but especially face-to-face meetings would be an interesting service provided by WaterInnEU. Face-to-face meetings offer a platform for information exchange between international experts, allowing the comparison on different management approaches within European river basins. This has been perceived by interviewees as a significant advantage over virtual meetings.

The analysis of the replies reveals that each event should have a clear focus on a certain topic or purpose, for example the presentation of one or more products for a certain topic. The relevance of the product to the WFD should be made clear. Matchmaking events in the format of trainings seem to be especially attractive for end users, whereas the possibility of networking has been described as particularly positive. However, a few interviewees see online meetings as a more suitable format for information exchange. Limited time, personnel and financial resources make the attendance in face-to-face meetings less attractive.

Some interviewees though prefer tailor-made assistance in improving existing mechanisms rather than general matchmaking events.

The results have shown that the procurement of products for river basin management in the EU typically lies in the hands of national governmental organisations whereas external experts and river basin managers at local level are mostly consulted within this process. Thus, in terms of who should be involved in matchmaking events, responses show that product suppliers and river basin managers, especially on ministerial level, are the key actors. It was further suggested to include public actors that are involved in the WFD. Including policy actors was not seen as a priority.

Results further show that not only events at an international level (such as EU working group meetings) but also small scale or regional meetings, on implemented authority levels are needed.

Relevant topics for matchmaking events are illustrated in the following (see table 5):

Table 4: Possible topics for matchmaking events

<ul style="list-style-type: none">• Success control of measures with regard to the WFD• Public relations• Socio-economic management• GIS products and data management• Planning procedures• Public participation• Topics in implementation level: fish migration issues, agriculture, hazardous substances• Cost benefit analysis of measures• Capturing progress of measures• Transboundary management• Financial planning• Marine issues related to the WFD
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The **discussion forum** was seen as key element of the virtual *Market Place* by most of the interviewees. A quick and informal exchange between practitioners regarding products and management strategies is in great demand.

It was stressed various times, that an exchange of information is specifically important in transboundary basins, mainly on the issue of how to report on national level about international cooperation.

One obstacle is the language issue. Some interviewees confirmed that experts at the basin level would not necessarily use a forum in English. Another important indication is that a well-functioning forum should have a moderator to pass on comments and questions to appropriate people, to bring out repeated issues and communicate via other means if necessary (twitter, newsletter).

Interviewees confirmed that a platform to publish **service requests** on the one hand and **offerings** regarding products for river basin management on the other hand is in great demand.

4. Recommendations

Recommendations previously formulated in the Draft Requirements Report (D3.1) have been reviewed and validated during phase 2 of the consultation process, based on the valuable insights gained during the interviews. This Final Requirements Report therefore presents more recommendations based on the overall consultation process. Besides asking potential end users involved in RBM about their knowledge, barriers and needs with respect to products and platforms, they were also given the chance to formulate and discuss their own recommendations regarding offerings and functionalities, design and structure as well as quality and quantity of information that should be provided by a virtual *Market Place*.

4.1 General recommendations

A key challenge which needs to be taken into account is the often abstract management framework set by governmental organisations. Correspondingly, the selection of products should be application-oriented, which means mainly “handy products for daily work”, with a focus on the practical work of river basin managers. This way, the strategic process of river basin management can be brought in line with the needs of everyday environmental management at the local level. At the same time, the platform should have a focus on the integration of preferably open source products, affordable products or products with free licences for non-commercial use.

Moreover, the analysis shows that the virtual *Market Place* should fill a market gap by providing a good overview on a number of carefully selected products of different types, covering different topics. Mainly, the virtual *Market Place* should indicate clearly how products are useful to fulfil WFD requirements and provide additional services to ease and enhance the matchmaking between river basin managers and suppliers of products. These additional services should facilitate the selection and application process of products and contribute to building up the network of river basin managers, consultants and product suppliers.

A simple and intuitive **menu navigation** is requested by many end users. A clear advantage would be the option to select different user interface languages. This could enhance the use of the virtual *Market Place*. Altogether, the need for a **simple and focussed** rather than overly comprehensive platform becomes clear from the analysis of the survey results. Even though some interviewees suggested that further development of currently used products would be desirable and resource-efficient, there is also interest in getting information on new and innovative products, and in establishing more networks across Europe, especially in regions sharing transboundary river basins. Taking into account the enormous number of products available for RBM, the purpose of a virtual *Market Place* such as WaterInnEU should be to make evaluation easier and to reduce the time and effort needed to determine if a new product is worth investigating.

According to the results of the overall consultation process, key elements of the virtual *Market Place* should be:

Table 5: Recommended key elements of the virtual *Market Place*

1. Offering a number of pre-screened suitable products, presented in a practical format through a Product Specification Sheet (including practical case studies and contact information)
2. Offering accompanying matchmaking services to facilitate selection and application of these products, such as for instance matchmaking events and e-learning

The following two subchapters elaborate on these two major recommendations.

4.2 Offering pre-screened suitable products for RBM in a practical format through a Product Specification Sheet (PSS)

A core function of the virtual *Market Place* should be to offer a number of pre-screened suitable products, presented in a practical format such as a **Product Specification Sheet (PSS)**. A PSS

should specify the basic conditions that would help end users in the selection and application of products. Based on needs formulated by potential end users in phase 1 of the consultation process, a draft version was compiled which has been discussed subsequently in the interviews (phase 2). A final version of the PSS template, which will be integrated into the virtual *Market Place*, was then drafted (see Annex III). Some of the key categories are:

- Product description
- Application & target markets (what the product is used for, where and by whom)
- Competitive advantages (the unique selling point of the product)
- Costs (for example, license costs, costs for implementation and development of the product)
- Case Studies (links to potentially available Case Study of successful application)
- E-learning
- WFD objective(s)
- Issue (the water management subject addressed by the product)
- Type of input requirements
- Potential to combine this product with other products
- Contact details

The PSS makes important features and the innovative advantage of products visible at a glance, facilitating decision-making in selecting new products in support of the preparation of the river basin management plans. Consultation results show that other platforms in the domain do not address this specific need of linking presented products to the requirements of the WFD, but rather cover a broad range of products related to different topics. Highlighting the relevance of products regarding the requirements of the WFD would be an essential new service that is needed by potential end users.

Linking available **case studies** of the successful application of products in the PSS is crucial according to end users. Case studies should ideally be provided by experienced river basin managers providing a confident source of information and practical insights. For newly developed products, case studies could also be provided by product developers, but these should at least involve the first product users. A comparison of advantages and disadvantages of a product to assess the realistic performance of a product would increase credibility.

It should be taken into account that, due to the relatively high pressure of compliance, river basin managers and consultancies are risk averse and often reluctant to trial new innovative products. Tight timeframes within a delivery schedule to assess and trial new products are the reason why proven and tested products are used preferably. Very good track records are needed that could be

indicated within case studies to foster the use of new innovative products. Regarding the format of case studies, they need to be adapted to the requirements of the specific product presented. Given the fact that access to the right data often is the determining factor of which product can be used, case studies need to explain clearly what data is needed (i.e. what is sufficiently good quality of data) and how to obtain it. Case Studies should therefore comprise the following elements:

- Quick summaries
- Track record of use of the product
- Example outputs
- Availability – both of the product itself and crucially of the data needed to make the product work or information about how to get hold of that data
- Any costs need to be made clear upfront

An **advanced search function** including a keyword search, enabling the browsing through the different categories of the PSS and other contents, should be integrated as a central functionality of the virtual *Market Place*, allowing for a quick and easy information search. The search-engine should allow end users to search in different languages and receive results in the selected language (if existing) and in English. Additionally, the integration of a quick translation function, e.g. of keywords, could be considered.

4.3 Offering matchmaking services to facilitate the selection and application of products

The overall service function of the virtual *Market Place* is to offer an **entry point for both the supply and the demand** sides regarding products for river basin management. Further-reaching assistance like funded trials, trainings and active modeller support could be an offer by product developers, external service providers or consultants to be promoted by the virtual *Market Place*.

Table 7 shows possible service support that could be provided by WaterInnEU.

Table 6: Overview of potential Matchmaking Services

Management Steps	Service Support by WaterInnEU
(1) Product Identification and Integration	Support in selection of products according to specific needs

(2) Project Planning / Application	Assistance in mapping out next steps for testing and validating a selected product
(3) Access to Finance	Assistance in identifying possible sources of funding for demonstration projects
(4) Supply Chain Partnerships	Introduction to potential suppliers with the capability of serving the end user

Training and brokerage events for the presentation and explanation of innovative products, where the supply chain meets decision makers and river basin managers, are a good mechanism to support and ease the selection and application of products. These events could be virtual (e.g. e-pitch event) or face-to face. The analysis of the consultation process indicates that matchmaking events should focus on a specific topic or a specific type of product in order to increase relevance for participants.

Another functionality which appears to be of paramount importance to potential end users is the provision of **E-learning modules**, such as **(online) training to support the application of products** presented on the virtual *Market Place*. This could have the form of online tutorials including interactive videos, and download material, such as worksheets for the products. It is important to take different management approaches into account, adapted to different types of products, topics and already existing learning material. The consultation process clearly shows that E-learning is of high demand by end users as it forms an efficient didactical support of product application.

The possibility to **consult experts** through the platform is a functionality that was often requested by survey respondents and interviewees. The interaction between experts and end users should be promoted directly in the form of a **forum for information exchange**. It should be well-structured and could for instance include sub-forums for different topics, as well as national-sub-forums, according to user needs.

Complementary, a **help desk** could create an added value for the platform covering all types of technical user requirements assisting for example with uploading information onto the virtual *Market Place*.

Another recommendation is to integrate an **alert functionality** to inform end users of the virtual *Market Place* about new products or events, according to different topics of interests. Moreover,

information about new offers and events should be promoted by integrating an **events calendar** to the virtual *Market Place*. The virtual *Market Place* should also provide a place for end users to publish **service requests and offerings**. This functionality would enhance the quick exchange and matchmaking between river basin managers and service providers.

Additionally, other relevant platforms in the field of river basin management should be presented and linked on the virtual *Market Place* in order to strengthen the knowledge network of river basin managers within Europe. Suggestions of links to information platforms and portals provided by survey respondents and interviewees should be complemented by relevant portals identified by the project partners of WaterInnEU throughout the project. Please see Annex IV for list of identified related portals.

5. Conclusion

Overall, many respondents stress the fact that the innovation of the virtual *Market Place* should consist in simplicity and flexibility, showing that there is a demand for a simple and new platform. It seems essential to adopt the user's perspective with the intention of understanding real demands when developing the functionalities of the virtual *Market Place*.

WaterInnEU's virtual *Market Place* should present a selection of innovative products which are relevant to potential end users involved in RBM. The functionalities and services recommended in this report are meant to lower possible inhibitions of end users to adopt these new products. Of particular importance is the ability to exchange experiences of implementing the WFD, raising awareness of products that are missing to meet these requirements.

It is highly desirable that a good mix of consultants, government representatives and scientists are active on the virtual *Market Place* in order to gather a broad spectrum of knowledge and to enable an intensive exchange of expertise. Hence, an adequate dissemination and promotion strategy for the new virtual *Market Place* is essential.

WaterInnEU is already cooperating with other platforms and organisations and should further focus on strengthening the network of river basin managers and related relevant stakeholders throughout Europe in order to guarantee sustainability of activities within this project. The aim should be to build up a network of people and experiences on different issues. The virtual *Market Place* is not only about making products available, but should be there to help to link people. Keeping up this network, however, is a continuous process that should be continued beyond the end of the project to ensure long-term sustainability.

Acronyms

EC	European Commission
EU	European Union
CIS	Common Implementation Strategy
PSS	Product Specification Sheet
RBM	River Basin Management
RBMP	River Basin Management Plan
WFD	Water Framework Directive

Annex I – List of follow-up interviews

Nr.	Country	Date of consultation	Form of interview
1	Germany	14/04/2016	Telephone Interview
2	Germany	18/04/2016	Telephone Interview
3	Germany	27/04/2016	Telephone Interview
4	Germany	04/05/2016	Written submission of follow-up questions
5	Germany	23/05/2016	Telephone Interview
6	Germany	25/05/2016	Telephone Interview
7	Estonia	27/05/2016	Telephone Interview
8	UK	31/05/2016	Telephone Interview
9	Estonia	06/06/2016	Telephone Interview
10	UK	06/06/2016	Telephone Interview
11	Romania	07/06/2016	Written submission of follow-up questions
12	Belgium	07/06/2016	Telephone Interview
13	Belgium	09/06/2016	Telephone Interview
14	Italy	09/06/2016	Telephone Interview
15	UK	10/06/2016	Telephone Interview
16	UK	13/06/2016	Telephone Interview
17	Netherlands	21/06/2016	Telephone Interview
18	Spain	28/06/2016	Telephone Interview
19	Hungary	04/07/2016	Telephone Interview
20	Poland	06/07/2016	Telephone Interview
21	France	07/07//2016	Telephone Interview
22	Estonia	11/07/2016	Telephone Interview

23	Germany	11/07/2016	Written submission of follow-up questions
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Annex II – Guiding questions of follow-up interviews

Aims of the Follow-up Interviews:

- (1) Discussion and reflection, validation and specification of survey results
- (2) Getting insights into the work of river basin managers, their approach in selecting and applying products and their supply chain
- (3) Validating and discussion of for the design of the virtual Market Place

Content of the Interview:

- How does the **procurement of products** (tools for river basin management, such as protocols, models, other software tools, hardware products, technologies, methodologies etc.) looks like in your organization and where are **incomplete or missing information** in this process?
- What **functionalities** are desirable for a new virtual marketplace? - Presentation of the foreseen service offers by WaterInnEU
- Which additional **services** are required, which may be offered via an online market place?

Selection process of products for RBM

How is the selection of products for river basin management taking place in your organisation / institution?

Who is supporting you with the selection of products?

Requirements of information and functionalities for the selection of products

Where are difficulties for the selection of products for river basin managers?

[Reference to the question of the survey: How are you compensating for insufficient or incomplete information for supporting the selection of products and for river basin management?]

What kind of additional support services would you need in order to support you with the selection of products for river basin management?

Pool of additional questions regarding “2. Information and services for the selection of products”⁵

(1) Evidence of compliance of a product with certain standards

Which standards should be considered?

(2) Case studies of successful deployment of products for river basin management

- What format should case studies have?
 - Text based information
 - Video material
 - Interviews with former user of product?
 - Combination of different elements: _____
 - Other

- What content should a Case Study have? (Information on selection of products, successful application, monitoring and evaluation, lessons learned)

- What purposes / learning effects do you expect from Case Studies?

- Who should / can provide Case Studies?

⁵ Questions have been selected according to corresponding survey results.

(3) Need for an interoperable connection to other systems

- Do you require information on interoperability possibilities
 - In general/Overview?
 - For a certain product? [PSS]
- Information on interoperability requirements
 - In general/Overview?
 - For a certain product? [PSS]

(4) Need of information regarding funding opportunities

- Do you require information on sources of funding for demonstration projects?
 - Links
 - Information material
 - Case Studies
 - Help desk

Comments

Would the Product Specification Sheet (PSS) offer most relevant information necessary for the selection of products?⁶

Which categories are useful?

What information /category is missing?

Comments:

⁶ PSS has been sent and described to the interviewee in advance of the interview.

How could an e-learning function on the Market Place support you with the selection (and application) of products?

Matchmaking Services

(a) Matchmaking Events [Event for training, brokerage and information exchange]

Matchmaking services are services for end users that include the following categories:

- (1) Product Identification and Integration** → Support in selection of products according to specific needs
- (2) Project Planning / Application** → Assistance in mapping out next steps for testing and validating a selected product
- (3) Access to Finance** → Sources of funding for demonstration projects
- (4) Supply Chain Partnerships** → Introduction to potential suppliers with the capability of serving the end user

Do you think matchmaking events for developer, supplier of products and river basin managers (and potentially trade associations, supply chain intermediaries, policy actors) make sense?

Would you attend matchmaking events in order to exchange information or make contacts?

What would be interesting topics to discuss on meetings with other River Basin Managers?

(b) Other functionalities / matchmaking Services

Discussion Forum

- *Would you use a discussion forum on a new marketplace?*
- *What would you use the discussion forum for?*
- *What features would it have to provide?*

Social Media

- *Would you use social media to obtain information on products for river basin management?*
- *Which social media platform do you prefer for your work?*

Alerting System

- *Would you like to get informed by the system about new products, service offerings, requests, and/or events directly via e-mail?*
- *What would you use the alerting system for?*

Service Requests and Offerings

- *Would you like to use a system for publishing your service requests and/or offerings so that suppliers can find them and get in touch?*
- *What would you use such a system for?*
- *What features would it have to provide?*

Do you have any further remarks or comments?

Annex III – Product Specification Sheet (PSS) Template

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*	<ul style="list-style-type: none"> • Commercially available • Looking for first markets • Looking for development partners • Awaiting product validation/certification 		
	FREE TEXT	The status quo of product development, (if appropriate, please use standard TRL definitions)	

Field name	Pre-defined terms for drop down selection or Text	Field Description	Answers
License / copyright*	<ul style="list-style-type: none"> • Public domain • Free and open source • Proprietary • Other 		
	FREE TEXT	Details of accessibility criteria	
Costs*	<ul style="list-style-type: none"> • Free • < EUR 5000 • EUR 5000-10,000 • EUR 10,000-25,000 • EUR 25,000 to 50,000 • >EUR 50,000 • On request 		
	FREE TEXT	Please give cost details in the free text box - For example, licence costs, costs for implementation and development of the product.	
Category*	<ul style="list-style-type: none"> • Policy brief • Best practice guidance • Technology (hardware) • Software tools • Dataset • Methodology • Standard • Other 	The type of product	

Field name	Pre-defined terms for drop down selection or Text	Field Description	Answers
Type of Software	<ul style="list-style-type: none"> • Monitoring and measuring • Data processing • Hydrological modelling • GIS and remote sensing • Participation, decision making, role playing games • Socio-economic analysis • Other software tools 		
Type of Hardware	<ul style="list-style-type: none"> • Instrumentation & control • Biological or chemical treatment • Water supply and wastewater • Irrigation and drainage • Other hardware 		
Case studies	LINKS + FREE TEXT	<p>Case studies, best practice examples and lessons learned from the application of the product</p> <p>Please use FREE TEXT to give a brief description of what each link provides.</p>	
E-learning, tutorials and supporting material	LINKS + FREE TEXT	<p>E-learning, tutorials and/or other supporting material available for the product</p> <p>Please use FREE TEXT to give a brief description of what each link provides.</p>	

Field name	Pre-defined terms for drop down selection or Text	Field Description	Answers
WFD objective(s)*	<ul style="list-style-type: none"> • 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 • Financial management • Intercalibration • Monitoring and reporting • Modelling and prediction • Reference conditions • Infrastructure planning • Other 	WFD objective(s) that the product can help to implement	
Issue*	<ul style="list-style-type: none"> • Ecological or chemical status • Floods and droughts • Climate change and energy • Ecosystem services • Urban areas • Water conservation and recycling • Other 	The water management subject addressed by the product	

Field name	Pre-defined terms for drop down selection or Text	Field Description	Answers
Relevant water bodies*	<ul style="list-style-type: none"> • Rivers • Lakes • Artificial and heavily modified waterbodies • Coastal and transitional waters • Groundwater • Wetlands • Protected areas • Rain and precipitation • Other 		
Target user group*	<ul style="list-style-type: none"> • Research organisation • Supplier • Industry consultants • Utility • Asset owner • Trade associations • Government (and associated bodies) – policy • Government (and associated bodies) – practitioners • Regulator • Campaigning organisation or charity • Funding and investment • Training provider • Water user representative • Networking organisation • Other 		
Type of input requirements	FREE TEXT	Requirements for product implementation in terms of knowledge, data and technology	

Field name	Pre-defined terms for drop down selection or Text	Field Description	Answers
Type of output	FREE TEXT	The outcomes of product implementation - For example, analysed and prepared data qualitative data of stakeholder dialogues, model visualisation, alerts etc.	
Potential to combine this tool with other tools	FREE TEXT	Compatibility with other products - For example, products in support of better integration e.g. an integrated model for linkage between surface waters and groundwater or climate models; software tools etc.	
Supported legacy systems	FREE TEXT	Existing (data-) systems the product can be used with	
Supported standards	FREE TEXT	International and/or national standards the product is compatible with	
Standard Category	<ul style="list-style-type: none"> • Data discovery (metadata/catalogues) • Data encoding • Data visualization • Data Downloading • Sensor data • Processes and models • Other 		
Version of the product	FREE TEXT	Version or publication date of the product	
Project name	Add existing project or Add new project	The name of the project in which the product was developed	
Project & promotional material about the product	LINKS + FREE TEXT	Any leaflets, factsheet etc. associated with the product. Please use FREE TEXT to give a brief description of what each link provides.	

Field name	Pre-defined terms for drop down selection or Text	Field Description	Answers
Organisation / Institution*	Add existing organisation or Add new organisation	The name of the product's developer organisation	
Contact details*	LINK + FREE TEXT	<ul style="list-style-type: none"> - Name, company/institute, job title - E-mail, telephone, country etc. <p>Please use FREE TEXT to give a brief description of what each link provides.</p>	
Comments	FREE TEXT	<p>If you have had experience of using this product, please add your comments here:</p> <ul style="list-style-type: none"> - What did you use the product for? - What worked well? - What could be improved and how? 	

*Mandatory fields

Annex IV – List of related Portals

Portal	Link
Aquaknow	http://www.aquaknow.net/
CUAHSI-HIS	http://his.cuahsi.org/index.html
Datahub	http://datahub.io/
EEA Water Centre	http://www.eea.europa.eu/themes/water/dc
EIONET	http://www.eionet.europa.eu/
EIP Water	http://www.eip-water.eu/
EU Open Data Portal	https://open-data.europa.eu/en/data
European Floods Portal	http://floods.jrc.ec.europa.eu/
EUROSTAT Open Data Portal	http://ec.europa.eu/eurostat
European Water Community (EWC)	http://europeanwatercommunity.eu/
GEOSS	http://ec.europa.eu/research/environment/index_en.cfm?section=geo&pg=geoss
INSPIRE Geoportal	http://inspire-geoportal.ec.europa.eu/
SWITCH-ON	http://www.water-switch-on.eu/
WaterWindow	http://waterwindow.org/
WISE	http://water.europa.eu/
WISE-RTD	http://www.wise-rtd.info/en