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

***Deliverable D 7.1***

***Draft tutorials and multimedia products***

Version 3.1

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## 1. Introduction

According to the DOA work package 7 has to deal with the creation of multimedia products, tutorials and participative e-learning platforms and the development of activities aimed to facilitate and increase the use of the marketplace.

It will also consider the possibility to conduct competitions and youth involvement measures.

The specific objectives of this WP are:

- To promote multi-directional learning among the project partners, entities and actors.
- To raise awareness and promote a bottom-up approach within the business community and market actors for identifying opportunities and supporting their implementation processes.
- To improve the interactions between the user and practitioner community, the society and ICT business WaterInnEU and market community.

The WP includes 5 different tasks and 3 deliverables. The planning is the following:

Task	WP	WP title	Task	Month																								Start	End	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
7	1	E-learning	Raw material production																											
7	2		Multimedia products																											
7	3		Tutorials																											
7	4		Skills exchange and mentoring																											
7	5		Competitions and youth involvement																											

This report concern the description of the deliverable “D 7.1 Draft tutorials and multimedia products” to be submitted at month 18<sup>th</sup>.

This deliverable includes drafts tutorial and multimedia material concerning a series of products selected by the consortium through a process of screening the EU funded innovative solutions relevant to water basin management to be promoted by the WaterInnEU project. The deliverable describes also the process to select the products undertaken by WP7 with the other members of the consortium. This deliverable in then constituted by this report and by the tutorials and the multimedia material annexed.

## 2. Selection of the products to be promoted by WaterInnEU

The first task of WP7, task 7.1, foresaw the analysis of the material produced from the outcomes of the other WPs of the project and in particular of WP4, WP5 and WP6 to prepare the information on which the e-learning material will be based. Other Open Educational Resources (OER) material were examined and used as reference for structuring the e-learning and the multimedia material.

In order to select the products to be promoted by the WaterInnEU market place and that were the object of the e-learning material the following steps were carried out:

- Establishing a baseline of products, this activity consisted in collecting all the material prepared in previous deliverable for data collection such as 2.1 Data availability report, Water companies and solutions report.
- Carry out a first screening of the products of the EU funded projects available. Different criteria were used to cut out a first number of products from the available list such as:
  - Obsolescence,
  - Innovation,
  - Availability of concrete products as results of the projects,
  - Openness of the products (open source were preferred),
  - The existence of a team still able to support the products,
  - The relevance with the topics of WaterInnEU (EU WFD, etc.),
  - Wider applicability, products that could address only a specific issue in a specific geographic place were not considered,
  - Availability of information about the project.
- Once the first pre-screening was carried out, a deeper project analysis took place. This activity consisted in analysis of all the projects of the database established in the previous mentioned reports. The projects were grouped in the following clusters according to thematic (Annex 1):
  - Flood
  - Droughts
  - Agriculture and Irrigation

- GIS& Earth Observation related projects
- River Management, Ecosystem& Restoration
- Water Quality

In annex 1, the complete list of projects analysed are listed.

- Definition of the selection procedure and criteria, this activity consisted in defining together with the consortium the most relevant criteria for the selection process for the WaterInnEU market place. In addition to the other criteria above listed, other criteria were added for this deeper analysis such as:
  - Marketability,
  - Attractiveness for existing SMEs,
  - Attractiveness for the river basin case studies of WaterInnEU,
  - Willingness from the consortium of the project developing the product to collaborate with WaterInnEU,
  - Balance of products for different topics.
- Based on these long list, thanks to the de a short list of products was drafted (Annex 2). Out of this last list some of these products were selected to be the subject of the work of the e-learning. In the following paragraphs, they will be presented.

### **3. Task 7.3 Draft Tutorials and multimedia products**

#### **3.1.1. The draft material for the e-learning and tutorials**

The e-learning courses and the multimedia products were designed in order to comply with the objectives of the project and of this specific Work Package.

The information and data gathered in previous WPs were to develop training materials in order to carry out an e-learning course. The course will have also to contribute to a worldwide dissemination of EU funded activities in the water sector and promote the use of relevant international water standards.

The final list of e-learning courses that will be produced and included in the e-learning platform of the WaterInnEU Marketplace are the following:

- **Aquasurvey**
- **REFRAN-CV**
- **Impact Toolbox**



- **Guidos Toolbox**
- **Weiss**
- **ASR and SUBSOL**
- **Skill exchange and mentoring**, in addition, another tutorial will be included for the specific task 7.4 of the WP7, concerning skills exchange and mentoring.

For this specific deliverable, ADESBA and ASR will not be included because the contact with the DESSIN consortium (responsible for the development of both products) was defined too late, and not enough material was available. In addition, most of the material for the two project is in German and when available it will require time for translation that was not foreseen in the work package. Finally, in total the number of e-learning courses with tutorials will be 8.

The e-learning tutorial will include presentations, videos, documents, manuals, references etc.

In the next paragraphs. As the e-learning platform will be ready only at the end of the project as foreseen, in this deliverable the e-learning tutorials are presented in this document and all the material is available at this link:

[http://www.waterinneu.org/deliverables/E\\_learning\\_WaterInnEU.zip](http://www.waterinneu.org/deliverables/E_learning_WaterInnEU.zip)

This is a temporary repository for this draft version of the e-learning material, the final version will be integrated to the WaterInnEU marketplace platform. This next future integration is explained in corresponding Deliverable

[http://ddd.uab.cat/pub/worpaper/2016/148387/641821\\_D6.1\\_-](http://ddd.uab.cat/pub/worpaper/2016/148387/641821_D6.1_-)

[\\_First virtual Market Place report.pdf](#)

In the next paragraphs an overview of the e-learning tutorial will be given.

### **3.1.2. Aquasurvey**

AQUASURVEY is a software to manage field campaigns for data collection. AQUASURVEY supports users through all the necessary steps to carry out field data campaigns such as: the design of the survey, the management of the field operators, the collection of data using mobile devices, and the integration of data collected in GIS or statistical software. This process does not need an Internet connection during data collection. In fact, the mobile app

includes several offline options to overcome Internet connection problems or absence during the implementation of field campaigns.

This tool allows to monitor and geo-reference ongoing survey, and to integrate data collected by different surveyors. It can also produce customised graphs and statistics, which can provide an overview of collected datasets through automatic reporting.

The AQUASURVEY consists of two components: one desktop component for designing the survey, assigning the work to surveyors and managing results; and a mobile app for Android devices for carrying out the actual data collection in the field.

AQUASURVEY is an open-source application, developed with European Union funding, and is free of charge.

The e-learning course is structure as follows:

- The introduction to the course
- A theoretical presentation on how to design field surveys with questionnaires with elements of statistics (this is optional)
- A presentation on how to use the different components of the software to accompany the video tutorials
- A detailed manual for reference
- 7 video tutorials:
  1. An intro to the software
  2. Desktop component – settings
  3. Desktop component – managing users
  4. Desktop component – creating surveys
  5. Desktop component – deploying surveys
  6. Mobile app – data collection
  7. Desktop component - reporting and exporting results

### **3.1.3. REFRAN-CV**

REFRAN-CV is a software to process time series of data from ground meteorological stations (precipitation or temperature data), 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. L-moments statistics are used to estimate the probability distribution function of precipitation data. 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 in the case of datasets where the time series lengths are heterogeneous as this is usually the case in developing countries.

REFRAN-CV is an open-source application, developed with European Union funding, and is free of charge.

The e-learning course is structure as follows:

- This introduction to the course
- A theoretical presentation on the L-moments statistics (this is optional)
- A presentation on how to use REFRAN-CV
- A detailed manual for reference
- 2 video tutorials including:
  1. How to install the software
  2. The use of the REFRAN-CV software for a case study in Venezuela

#### **3.1.4. Impact Toolbox**

IMPACT Toolbox offers a combination of remote sensing, photo interpretation and processing technologies in a portable and stand-alone GIS environment, allowing non specialist users to easily accomplish all necessary pre-processing steps while giving a fast and user-friendly environment for visual editing and map validation. No installation or virtual machines are required. IMPACT offers:

- Quick Data Visualization
- Map Visualization & Editing
- Ground Truth Collection
- Batch Processing Modules

IMPACT Toolbox is an open-source application, developed with European Union funding, and is free of charge.

The e-learning course is structure as follows:

- The introduction to the course

- A PDF as quick introduction to the main features of IMPACT Toolbox
- 2 theoretical presentations on classification
- An Impact tool classification presentation
- A specific presentation on how processing Sentinel2 data through Impact
- An Impact toolbox user guide

### **3.1.5. GuidosToolbox**

GuidosToolbox (Graphical User Interface for the Description of image Objects and their Shapes) contains a wide variety of 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). All tools are based on geometric principles and can thus be applied at any scale and to any kind of raster 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. MSPA features and application examples are described on the MSPA-website (<http://forest.jrc.ec.europa.eu/download/software/guidos/>).

GuidosToolbox is an open-source application, developed with European Union funding, and is free of charge.

The e-learning course is structure as follows:

- The introduction to the course
- An introduction to GUIDOS GWS1\_Introduction.ppt
- A theoretical presentation on MSPA (Morphological Spatial Pattern Analysis) GWS2\_MSPA.ppt
- A presentation on GUIDOS' features GWS3\_Features.ppt
- A presentation on GUIDOS' examples GWS4\_Examples.ppt
- 2 video tutorial including:
  - o Overview of GUIDOS
  - o The use of the GUIDOS software
- A video presentations in two parts
- A detailed manual for reference

- Relevant publications on GUIDOS
- Sample data and instructions to illustrate using these tools

### **3.1.6. WEISS**

WEISS is a Life+ project co-financed by the European Commission. WEISS or the Water Emissions Inventory is a planning Support System aimed at reducing the pollution of water bodies.

The WEISS software operates at a high geographical resolution (1 ha grid) and integrates all relevant emission sources (both diffuse and point), all transport routes, and a planning support module. It also enables the assessment of various technical and policy measures aimed at reducing the pollution loads in the water bodies.

For more information about the WEISS software <http://weiss.vmm.be/documents>

This e-learning course is about the WEISS DEMO version.

Structure of e-learning course

The material is ready but is not available at the moment as we are awaiting approval from the consortium that developed WEISS. The material will be included in the deliverable D7.2 "Tutorials and multimedia software".

- The introduction to the course.
- Theoretical presentation about the theory behind WEISS and how it works.
- A presentation on how to use the different components of the software to accompany the video tutorials
- 4 video Tutorials:
  1. Filling an empty WEISS system with emission sources
  2. Adding a diffuse source
  3. Adding the year 2012 in WEISS and importing the list of E-PRTR point sources of 2012 and adding new estimations
  4. Analysis of WEISS calculations: computation and viewing results.

### **3.1.7. ASR and SUBSOL**

Coastal areas are the most productive and economically dominant regions of the world. The high water demand in these regions, however, puts tremendous pressure on their freshwater resources and ecosystems. This leads to problems like seasonal water shortage, saltwater intrusion, and disappearance of wetlands.

Building on national, regional and European research and innovation programs, in the past five years, a set of innovative, practical concepts have been developed for protection, enlargement and utilization of freshwater resources in coastal areas. These subsurface water solutions (SWS) combine innovations in water well design and configuration, allowing for advanced groundwater management, and maximum control over freshwater resources. SWS have been successfully piloted by public-private partnerships. These full-scale pilots have demonstrated SWS capacity to support sustainable freshwater supply in coastal areas, energy reduction, food production, and financial savings.

SUBSOL targets a market breakthrough of SWS as robust answers to freshwater resources challenges in coastal areas, by demonstration, market replication, standardization and commercialisation. The route to market includes business cases, market scans and capacity building in selected regions in Europe (Mediterranean, Northwestern Europe) and worldwide (USA, Brazil, China, Vietnam). SUBSOL will share experiences and outcomes with stakeholder groups through an online platform that will be linked to existing networks, including EIP-Water.

The SUBSOL consortium combines knowledge providers, technology SMEs, consultants, and end-users from across Europe. Our ambition is to introduce a new way of thinking in terms of water resources management, promoting the sustainable development of coastal areas worldwide. This will stimulate economic growth and will create market opportunities and jobs for the European industry and SMEs.

The material is ready but is not available at the moment as we are awaiting approval from the consortium that developed ASR and SUBSOL. The material will included in the deliverable D7.2 “Tutorials and multimedia software”.

E-learning structure DRAFT:

- 1- Video introduction to issue and solutions supplied by SUBSOL technologies (check the “video\_draft” document annexed)
- 2- Presentation ppt about the explanation of the SUBSOL technologies. For instance the difference between the three technologies, the theory and the research behind, etc.

In particular the VIDEO introduction, which is the main product of this work will be organised as follows.

Duration =3-4 min

Style: video scribing for example

<https://www.youtube.com/watch?v=msnOHuPep9I&feature=youtu.be>

### 1-Sketch

Where do we use freshwater?

World average: 70% agriculture, 20% industry, 10% domestic use

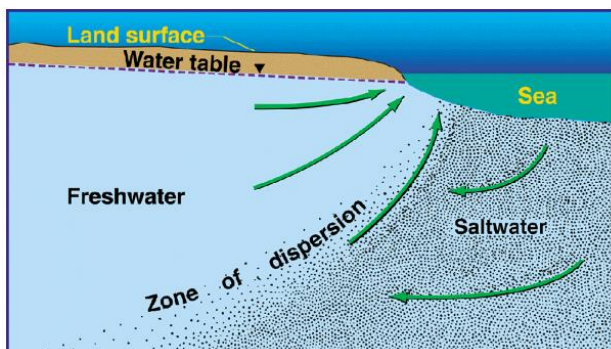
and where does the water we use come from?

2/3 ground water, 1/3 lakes, rivers and other sources

### 2-Sketch

Almost the 80% of the people in the world live in coastal areas and they use groundwater to live. But what happens to the groundwater next to the sea?

### 3-Sketch



Drawing a sketch like this.

Under natural conditions, the seaward movement of freshwater prevents saltwater from encroaching coastal aquifers, and the interface between freshwater and saltwater is maintained near the coast or far below the surface. This interface is actually a diffuse zone in which freshwater and saltwater mix, and is referred to as the zone of dispersion (or

transition zone). Groundwater pumping can reduce freshwater flow towards coastal discharge areas and cause saltwater to move towards the freshwater zones of the aquifer. Saltwater intrusion decreases freshwater storage in the aquifers, and, in extreme cases, can cause the impossibility of using supply wells.

#### 4-Sketch

Saltwater intrusion occurs because of different reasons, including (showing with a sketch):

- climate change
- no freshwater recharge
- extreme pumping

#### 5-Sketch

All this has a serious consequence for all of us because we have:

- less freshwater,
- the crops cannot grow well,
- ecosystem damaged.

#### 6- Sketch

SUBSOL partners have developed a set of practical tools and concepts that have the ability to solve all these issues.

A sketch showing the solutions for all these issues:

- less freshwater -> how SUBSOL helps increasing freshwater and avoiding salty water intrusion with the pumping system.
- the crops cannot grow well -> how SUBSOL helps crops growing (no salty water, fertilized water...)
- ecosystems damages > how SUBSOL helps reducing impact on ecosystems (secondary effect)

### **3.1.8. Skill exchange and mentoring – task 7.4**

In the framework of task 7.4 a set of tools have been analysed that allow for companies, researchers, decision makers, public and private users and stakeholders at various levels to share knowledge and exchange ideas.



The list of tools were first identified through an informal survey at water sector level amongst water practitioners. This survey was complemented with a list of the most used internet website not oriented to a specific sector. Almost all of them (a part OpenIdeo) are European Union solutions. We added also OpenIdeo because is widely used in European projects.

The results are two group of tools:

- The water sector skill exchange and mentoring tools:
  - o [www.aquaknow.net](http://www.aquaknow.net)
  - o <http://aquaspe.com/>
  - o <https://www.viawater.nl/>
  - o <http://www.emwis.org/>
- Platforms that are not specific for the water sector but can also be used for that:
  - o <http://openideo.com/>
  - o <http://www.climate-kic.org/>

The platforms can only be grouped in commercial and institutional. Institutional platforms are free of charge and sometimes based on open source software while subscription and use of commercial platforms are paying. Below the list:

Institutional (free):

- o [www.aquaknow.net](http://www.aquaknow.net)
- o <https://www.viawater.nl/>
- o <http://www.emwis.org/>

Commercial (paying):

- o <http://openideo.com/>
- o <http://www.climate-kic.org/>
- o <http://aquaspe.com/>

In this e-learning tutorials the different features of these platforms will be illustrated with some videos on their use or promotional video explaining why they are useful.

There is a section for each one of the platform mentioned.

#### **4. Conclusion**

This deliverable was organised in different phases. First of all the identification of the products to be supported through the e-learning. Then the design of the e-learning support together with the consortium and the developers of the products. Finally the implementation

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of the courses and tutorials. 7 e-learning courses have been defined and another one will be added in the next deliverable “ADESBA” as still the support to this product is not defined. All the tutorials presented are available at: [http://www.waterinneu.org/deliverables/E\\_learning\\_WaterInnEU.zip](http://www.waterinneu.org/deliverables/E_learning_WaterInnEU.zip) the final version will be integrated to the WaterInnEU marketplace platform. This is draft version and some of the material could not be presented for this deliverable because the consortium and the developers of those products did not give their approval on time. In any case these materials will be included in the deliverable D7.2.

## **Annex 1: List of projects analysed in the process to select products as subject of the e-learning platform of WaterInnEU**

### List of Flood related projects:

- 1) CORFU (<http://www.corfu7.eu/> )
- 2) EWATERCYCLE (<http://www.ewatercycle.nl/> )
- 3) RAIN (<http://rain-project.eu/> )
- 4) FLOODFREQ ([http://www.cost.eu/COST\\_Actions/essem/ES0901](http://www.cost.eu/COST_Actions/essem/ES0901) )
- 5) FLOODSITE (<http://www.floodsite.net/default.htm> )
- 6) LISFLOOD (<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/lisflood-distributed-water-balance-and-flood-simulation-model-revised-user-manual-2013> )
- 7) REFRAN-CV (<http://www.aquaknow.net/es/links/regional-frequency-analysis-climate-variables-refran-cv-software-final-version> )
- 8) WESENSE (<http://wesenseit.eu/> )

### List of Drought related projects:

- 1) ACER ([http://climate-adapt.eea.europa.eu/projects1?ace\\_project\\_id=3103](http://climate-adapt.eea.europa.eu/projects1?ace_project_id=3103) )
- 2) AQUADAPT ([http://cordis.europa.eu/project/rcn/60444\\_en.html](http://cordis.europa.eu/project/rcn/60444_en.html) )
- 3) AQUASTRESS (<http://www.aquastress.net/> )
- 4) CLIMB (<http://www.climb-fp7.eu/home/home.php> ) also ClimateChange-related!
- 5) DESSIN (<https://dessin-project.eu/> )
- 6) DROUGHT RSPI (<http://www.eu-drought.org/> )
- 7) EDO (<http://edo.jrc.ec.europa.eu/edov2/php/index.php?id=1000> )
- 8) GLOWASIS (<http://glowasis.eu/> )
- 9) XEROCHORE (<http://www.feem-project.net/xerochore/> )

### List of Agriculture and Irrigation related projects:

- 1) CLIVAGRI (<http://www.cost734.eu/> )
- 2) ERMITAGE (<http://ermitage.cs.man.ac.uk/> )
- 3) EURO AGRIWAT (<http://www.cost-es1106.eu/> )
- 4) EFFIDRIP (<http://effidrip.eu/> )
- 5) MEDWATER (<http://www.medwater.de/> )
- 6) Meteorological Application for Agriculture (<http://agromet-cost.bo.ibimet.cnr.it/> )
- 7) N TOOLBOX (<http://research.ncl.ac.uk/nefg/ntoolbox/page.php?page=1> )

- 8) SOILEROSION (<http://soilerosion.net/cost634/> )
- 9) PHOSFARM (<http://www.phosfarm.eu/> )
- 10)WATER4ALL (<http://www.wise-rtd.info/en/info/handbook-best-practice-reduce-agricultural-impacts-groundwater-quality> )
- 11)WATERBEE (<http://waterbee.iris.cat> )

List of GIS& Earth Observation related projects:

- 1) Propagation of Uncertainties (<http://cost731.bafg.de/servlet/is/9691/?lang=en> )
- 2) GIS4EU (<http://www.gis4eu.eu/default.asp?l=1> )
- 3) UAS (<http://www.cost-uas.net/index.php?id=23> )
- 4) RADAR (<http://www.smhi.se/cost717/> )
- 5) ENVIROGRIDS (<http://www.envirogrids.net/> )
- 6) EUROGEOSS (<http://www.eurogeoss.eu/about/default.aspx> )
- 7) AQUASURVEY (<http://www.aquaknow.net/en/aquasurvey-software> )
- 8) EUROLANDSCAPE ([http://cordis.europa.eu/project/rcn/64613\\_en.html](http://cordis.europa.eu/project/rcn/64613_en.html) )
- 9) FRESHMON (<http://www.freshmon.eu> )
- 10)GNSS4SWEC (<http://gnss4swec.knmi.nl/> )
- 11)INFORM (<http://www.copernicus-inform.eu/> )
- 12)IMPACT (<https://ec.europa.eu/jrc/en/publication/impact-portable-gis-toolbox-image-processing-and-land-cover-mapping> )
- 13)GUIDOS Tools box (<https://ec.europa.eu/jrc/en/publication/impact-portable-gis-toolbox-image-processing-and-land-cover-mapping>)

List of River Management, Ecosystem& Restoration related projects:

- 1) ASR (<https://dessin-project.eu/?p=2078>)
- 2) HARMONICOP (<http://www.harmonicop.uni-osnabrueck.de/index.php> )
- 3) IDOR ([http://cordis.europa.eu/project/rcn/89607\\_en.html](http://cordis.europa.eu/project/rcn/89607_en.html) )
- 4) ISFREM ([http://cordis.europa.eu/project/rcn/82914\\_en.html](http://cordis.europa.eu/project/rcn/82914_en.html) )
- 5) MARS (<http://www.mars-project.eu/> )
- 6) FLOBAR2 (<http://www.geog.cam.ac.uk/research/projects/flobar2/aims/> )
- 7) REFORM (<http://www.reformrivers.eu/about> )
- 8) RESTORE (<http://www.ecrr.org/> )
- 9) RISKBASE ([http://cordis.europa.eu/project/rcn/80081\\_en.html](http://cordis.europa.eu/project/rcn/80081_en.html) )
- 10)STAR (<http://www.eu-star.at/frameset.htm> )

11) TRABOREMA ([http://www.cordis.europa.eu/result/rcn/51706\\_en.html](http://www.cordis.europa.eu/result/rcn/51706_en.html) )

List of Water Quality related projects:

- 1) ADESBA (<https://dessin-project.eu/?wpdmpro=ms7-dessin-spezifikation-adesba-rtc> )
- 2) AQUA (<http://www.acqwa.ch/> ) ALSO RELATED TO CLIMATE CHANGE
- 3) BIOSCROBE ([http://cordis.europa.eu/project/rcn/103211\\_en.html](http://cordis.europa.eu/project/rcn/103211_en.html) )
- 4) ADVOCATE (<http://www.theadvocateproject.eu/> )
- 5) QUALIWATER (<http://www.iamz.ciheam.org/qualiwater/> )
- 6) TEMPQSIM ([http://cordis.europa.eu/project/rcn/64772\\_en.html](http://cordis.europa.eu/project/rcn/64772_en.html) )
- 7) INCA  
(<http://www.reading.ac.uk/geographyandenvironmentalscience/research/INCA/> )
- 8) MODELKEY (<http://www.modelkey.org/> )
- 9) M3 (<http://www.life-m3.eu/index.php?id=9625> )
- 10) AQUAWARN (<http://www.aquawarn.com/> )
- 11) CAPANDWFD (<http://ecologic.eu/node/1369> )
- 12) CHARM ([http://www2.dmu.dk/1\\_Viden/2\\_Miljoe-tilstand/3\\_vand/4\\_Charm/charm\\_main.htm](http://www2.dmu.dk/1_Viden/2_Miljoe-tilstand/3_vand/4_Charm/charm_main.htm) )
- 13) CYANOCOST (<http://cyanocost.com/> )
- 14) DIGITALDELTA (<http://www.digitaldelta.nu/en/> )
- 15) EFFINET (<http://effinet.eu/> )
- 16) EFI+ (<http://efi-plus.boku.ac.at/> )
- 17) EMERGE ([http://www.mountain-lakes.org/emerge/more/index.html#more\\_index](http://www.mountain-lakes.org/emerge/more/index.html#more_index) )
- 18) EMWIS (<http://www.emwis.net/> )
- 19) EUROHARP (<http://www.wise-rtd.info/en> )
- 20) FOOTPRINT (<http://sitem.herts.ac.uk/aeru/footprint/index.htm> )
- 21) GENESIS  
([http://www.bioforsk.no/ikbViewer/page/prosjekt/hovedtema?p\\_dimension\\_id=16858&p\\_menu\\_id=16904&p\\_sub\\_id=16859&p\\_dim2=16860](http://www.bioforsk.no/ikbViewer/page/prosjekt/hovedtema?p_dimension_id=16858&p_menu_id=16904&p_sub_id=16859&p_dim2=16860) )
- 22) HARMONQUA (<http://harmoniqua.wur.nl/> )
- 23) L4CW (<http://www.l4cw.eu/> )
- 24) Lagoons (<http://lagoons.biologiaatua.net/> )
- 25) MODELKEY (<http://www.modelkey.org/> )

- 26) NEPTUNE ([http://www.eu-neptune.org/project\\_summary/index\\_EN](http://www.eu-neptune.org/project_summary/index_EN) )
- 27) OPTIWFA (<http://www.opti-vfa.eu/> )
- 28) PegaseOpera ([http://www.aquapole.ulg.ac.be/index\\_old.php?pg=3007](http://www.aquapole.ulg.ac.be/index_old.php?pg=3007) )
- 29) SOCOPSE (<http://www.socopse.se/2.3d9ff17111f6fef70e9800048665.html> )
- 30) Welcome (<https://publicwiki.deltares.nl/display/IMSW/The+Welcome+Project> )
- 31) Wetwin (<http://www.wetwin.eu/index.html> )
- 32) Weiss (<http://weiss.vmm.be/> )

### Annex 2: short list of projects selected.

PSS	Product	License	Notes	Other	Further contact	Provisional decision	email contact	Answer
			Software available - new methods on ecological status (through fish index) + basic software	Manuals, protocols, indicator definition and a Water Management in the European Chemical Industry	ANTEA		1. <a href="mailto:techie@groupwise.loko.ac.at">techie@groupwise.loko.ac.at</a> 2. <a href="mailto:trac@techema.be">trac@techema.be</a>	(Project ended in 2009) but we can upload the tool ourselves and try to ask them to complete.  No, they say that their tools are for industries so not relevant for us.
			Not completed yet(2016) project aimed at improved water efficiencies through the use of novel ICT transitions to the Urban Water Services of tomorrow	WSDOM aims at integrating and demonstrating innovative ICT systems and services for efficient water use and reuse.	CREAF ANTEA		1. <a href="mailto:lls.vmm@keldoull.youmail@water.ac.uk">lls.vmm@keldoull.youmail@water.ac.uk</a> 1. <a href="mailto:jrd@tusc.rzesz.pl">jrd@tusc.rzesz.pl</a>	Reminded on 07/03/2016
			Not completed yet(2015)		CREAF		1. <a href="mailto:elena.duce@uppolonia.it">elena.duce@uppolonia.it</a>	
PSS	Product monitoring and evaluation tool	License open access	Case studies for water resource management. All about droughts in Europe. WAGS6 and documentation, tools, data and methodologies at a european level (insurance, insurance, agriculture)	Other Case studies for water resource management.	Further contact ACELPHI	Provisional decision	1	Answer
	Product backup solution to be checked	License open access	repository of technical documentation and software very complete Too difficult to learn - Docs and Software software for extreme event analysis without detailed data not completed yet (2016), could have a strong potential but how about exploitation? open source?	Other List of exploitable tools but a bit later (GFP) Complex, difficult to learn.	Further contact ANTEA RANDBEE RANDBEE RANDBEE	Provisional decision		Answer Reminded on 07/03/2016 OK OK OK - two products
			guidance for policy makers and their floodplain forests OK but to be completed in 2017	Other guidance for policy makers and their floodplain forests OK but to be completed in 2017	Further contact ORION ACELPHI	Provisional decision		Answer Done OK
			ready to go for specific regions including island of Crete. Very for the EUVFD - mapping riparian zones	Other ready to go for specific regions including island of Crete. Very for the EUVFD - mapping riparian zones	Further contact RANDBEE	Provisional decision	1	Answer OK
PSS	Product to be further checked	License open source	List of maps of freshwater biodiversity training material for CBS applied to their basin management	Other List of maps of freshwater biodiversity training material for CBS applied to their basin management	Further contact ORION	Provisional decision		Answer Done - discuss Freshwater Information Platform
			GIS data collection app for Android and iOS software. Data version	Other <a href="https://www.unige.ch/igis/fr/en/management/">https://www.unige.ch/igis/fr/en/management/</a>	Further contact RANDBEE	Provisional decision	1	Answer OK
			remote sensing, photo interpretation and processing technologies in a portable and stand-alone GIS environment	Other remote sensing, photo interpretation and processing technologies in a portable and stand-alone GIS environment	Further contact RANDBEE	Provisional decision	1	Answer OK
PSS	Product to be further checked	License not clear	Docs and Software	Other <a href="http://www.indica.nl/">http://www.indica.nl/</a>	Further contact ANTEA	Provisional decision		Answer They are still developing the tool but when they finish it they will be happy to do so. The problem is that they don't have a deadline yet.