WATERCARE Project –

Minutes of the II° Steering Committee Meeting

Pula | 26th – 27th June 2019

Title	**Minutes of the II° Steering Committee of WATERCARE Project**
Date/Time:	**26th – 27th June 2019 - Time 2:00 PM**
Place:	METRIS Research Centre, Zagrebačka 30, Pula MMC Barban, Barban 1, Barban
Subjects:	**1st day Pula** Welcoming WP1 – Project management WP2 – Communication Activities WP3 – Implementation and Monitoring of the WATERCARE Water Quality Integrated System (WQIS) WP4 – WATERCARE Pilot realization Wrap up, discussion, main conclusions **2nd day Pula and Barban** METRIS Research Centre laboratory tour Meeting with Policy Makers Press Conference Trip to location Uvala Blaz and Discussion about the study area activities
Attendees:	LP CNR-IRBIM (Mauro Marini, Federica Grilli, Alessandra Campanelli, Elena Manini, Pierluigi Penna, Fabrizio Moro, Christian Ferrarin); CNR-IRBIM external assistance (Miguel Carrero, Elia Rosetti) PP 1 ASET (Enrico Esposto Renzoni, Andrea Marinelli, Gloria Giacomini) PP 2 MARCHE (Luigi Bolognini) PP 3 ABRUZZO (Luca Iagnemma, Giovanna Marrama, Roberto Ricci) PP 4 UNIURB (Antonella Penna, Silvia Casabianca) PP 5 SDC (Martin Bućan, Katarina Šuta, Matas Josip, Tomislav Opačak) PP 6 DNR (Ivo Đuračić, Ivana Kristović)

	PP7 UNIST (Maja Krželj, Marin Ordulj) PP8 METRIS (Daglas Koraca, Vedrana Špada, Matija Štimac, Andrea Vareško, Tea Gobo, Tea Zubin Ferri, Josipa Bilić) PP9 CW (Marija Šikoronja)
Absences	//////////////

II° Steering Committee Meeting of WATERCARE Project was held at the premises of METRIS Research Centre, Zagrebačka 30, Pula and MMC Barban, Barban 1, Barban with visit to Study Area River Raša and Uvala Blaz.

The attendance list of the meeting signed by the participants can be found in the files attached named '*2nd STC Meeting_Attendance list_WATERCARE_1st day*, *2nd STC Meeting_Attendance list_WATERCARE_social dinner and 2nd STC Meeting_Attendance list_WATERCARE_2nd day '.* All the presentations prepared by the partners (which are mentioned beneath) shall be considered attachments to this document too.

26th June 2019

Welcome

Water management solutions for reducing microbial environment impact in coastal areas – WATERCARE. Dr. Mauro Marini, CNR-IRBIM, WATERCARE project Leader, and Dr. Daglas Koraca, METRIS Research Centre, PP8 (host) welcomed all PPs and wished fruitful 2nd STC meeting.

WPs presentations

Work Package 1 - Project management and coordination of activities

WATERCARE_II STC Meeting_WP1

Rosetti (CNR-IRBIM – LP) started his presentation with an overview of the WP1 activities. He presented all WP1 activities and deliverables, their status, final delivery dates and due delivery dates and in particular, he highlighted that all Start-up activities (Act. 1.1) have been implemented and concluded within the Period 1.
During the presentation each PP provided the originally signed pages of the Partnership agreement, thus a PA copy signed by all PPs has been delivered to each of them at the end of the meeting. Then, Act. 1.1 deliverables have been briefly showed and explained to PPs (D.1.1.2; D.1.1.3).

Concerning Act. 1.2, Rosetti made the same as above illustrating deliverable released (D.1.2.1) and explaining what "Risk and Quality management Processes" mean.

In relation to Act. 1.3, Cross-border working groups have been identified (D.1.3.1), while it has been underlined that the setting-up of the project advisory group is a project mandatory activity (D1.3.2) and all partners should have to try to reach interested third parties and then provide signed Declaration of support or (if stakeholder will not sign the DoS) probative documentation showing attempts to obtain support. It is also specified that partners should try to involve AG members located where the event/meeting is organized, BUT if those members need to travel, their expenses can be covered under the "External expertise and services" budget line.
Six STC meetings are foreseen to be held during the overall project implementation. This in Pula is the 2nd STC meeting, therefore remain other 4 STC meeting to organize and the next one is agreed to be held in Pescara (Italy) in November 2019 as the hosting PP will be PP3-ABRUZZO.

After that, Rosetti continued with financial management overview (act. 1.4). First information provided to the partnership was about the Advance payment request (on-going) and the amount each PP is entitled to receive. Then, as the RP1 is concluding, main dates and instructions useful for the reporting activity have been provided:

- Reporting Period: 1st January 2019 – 30th June 2019
- Upload of Activity Report, Staff reports and financial information (including supporting documents) into SIU by each PP: 10th July 2019 (Croatian PPs) and 31st July 2019 (Italian PPs)
- FLC Annexes uploaded into SIU: 10th September 2019 (inform your FLC about this deadline)
- PR1 submission by LP: 30th September 2019

Rosetti also pointed out that programme template for Activity Report had been slightly changed, so LP will send new WATERCARE Activity Report templates to all partners. He also pointed out that Activity Reports must be sent to LP before uploading it in SIU.
PPs have been informed that IT-HR Authorities are sending SIU credentials to each PP through 2 different e-mails, but they have to monitor the receipt of these ones in order to start as soon as possible the reporting activity.

Last points discussed were on the level of expenditures that each PP foresees to reach for the Period 1 (quite all will probably report less than foreseen in AF, so Carrero (CNR-IRBIM) specified that it is important to report all expenditures in order to avoid the project de-commitment) and the selection & validation (for Italian PPs) or the assignment (for Croatian PPs) of the respective FLC. It has been highlighted that FLC is essential in order to obtain the certification of reported expenditures and consequently, the reimbursement of funds.

Work Package 2 - Communication activities
WATERCARE_II STC Meeting_WP2

Ivana Kristović – WEB/SOCIAL MANAGER – DNR held PPT about Communication process and progress where she talked about:
1. Opening for presentation was description of main visibility logo, Brand Manual as key document for visibility and it is noted that everyone must read Brand Manual. It is said that Project logo + Reference to EU co-financing must be included in every material.
2. Afterwards, Ivana Kristović talked about all material that has to contain main visibility: Communication plan/strategy, Newsletter, Leaflets, Roll up, Poster, Gadgets, Institutional webpage, Facebook, Interreg webpage as well as all promo material, news etc.
3. On the next slide it has been said that Communication plan was sent in draft version to all PP communication responsible as well to LP
4. Leaflets were discussed – It has been said that the leaflets will be done in two sets: first set of leaflets (1800, 180 per PP – 90 in English and 90 in original language) will contain general information about the project and the second set (200, 20 per PP – 10 in English and 10 in original language) will be done by PP6 also at the end of project lifetime. Lead partner will ensure Italian translation.
5. Next we talked about design of the roll up. Since the roll up was made somewhat quickly for meeting in Pula we made a deal to design another one with photos of pilot sites for other meetings to come

6. Poster was just mentioned – It is done and accepted.
7. Afterwards we talked about gadgets – Gadgets will be produced by every PP as they wish, but anyway every gadget has to contain visibility of a project and there should be around 80 gadgets per PP.
8. Next slide – Institutional webpage – Ivana pointed out that every PP must have WATERCARE section or a 'subsite' on their institutional website and that page must include: Every PP and LP, Logo, Project description, Project duration, Project partners and Budget
9. Facebook page has been created and PP6 is administrating it, we asked everyone to like and share posts and page to increase visibility
10. About Interreg webpage Ivana highlighted that we send news via JS officer until now since we still didn't have password for it
11. Publicity – It has been said that every PP MUST send all publicity they have from their regions and cities and all publicities they have been included in

Q and A: METRIS wanted to know what they can do if they don't have enough budget for leaflets in second period – SINERGIA representatives answered about budget corrections and relocations.

Work Package 3 - Implementation and monitoring of the WATERCARE Water Quality Integrated System (WQIS)

WATERCARE_II STC Meeting_WP3 – UNIURB
WATERCARE_II STC Meeting_WP3 – CNR-IRBIM
WATERCARE_II STC Meeting_WP3 – CNR-ISMAR

CNR staff has created a platform for data sharing among the personnel involved in the project. The cloud can be reached at https://cloud.irbim.an.ismar.cnr.it. Access requires authentication (username and password), CNR staff have already registered several users and we are waiting to receive a list of new users to add. New credentials must be requested via e-mail to fabrizio.moro@cnr.it or fabrizio.moro@irbim.cnr.it with the subject Watercare Cloud: Request new user and reporting name, surname and mail address in the body.
CNR staff will install two monitoring stations, one after the ARU floodway, near the mouth of the Arzilla stream (Downstream real-time Water Monitoring System) and the other about 500 meters upstream (Upstream real-time Water Monitoring System). In addition to the CNR real-time monitoring stations, the water level and precipitation data from the hydro-meteo monitoring station (owned by the Civil Protection Agency) installed near the S.M Arzilla village will be taken.
The Real-time Water Monitoring system was described and it consists of a weather station (air temperature, barometric pressure, lightning count and average distance, precipitation, relative humidity,

solar radiation,tilt, wind direction and wind speed), an automatic water sampler, a multiparametric probe (temperature, salinity, DO) and a water level sensor. All data from devices are managed by a datalogger and sent to the CNR-IRBIM land station using a 4G router.
All devices manuals are in the cloud (path: https://cloud.irbim.an.ismar.cnr.it/index.php/apps/files/?dir=/Research%20Projects/2019/WaterCare/Public/WaterCare/WP3/Equipment&fileid=3124).
The Real-time Water Monitoring system records data every 10 minutes. When a trigger threshold is exceeded, the alert system is activated: The automatic water sampler automatic starts taking water samples, an alert message (e-mail and/or telegram message) is sent to all technical site manager and to staff that takes care of sampling at sea.
All project partners have to identify the trigger event/condition (The Floodway event is used on the Fano site).
CNR-IRBIM land station consists of a server with all applications necessary for data acquisition, storage, processing and presentation.
A specific software named LoggerNET will manage the real-time data acquisition from the monitoring stations. CNR staff is developing a procedures (scripts and interfaces) for the acquisition of manual monitoring data such as chemical and microbiological analysis data, ancillary data.
CNR staff is working on the development of the centralized database (based on MySQL RDBMS) which must contain the automatic and manual monitoring data collected from all project sites. The interoperability will be guaranteed by the use of NERC International Vocabulary to represent parameters and measurement units of values stored. Moreover, the staff is developing ad hoc scripts to check and to upload the site data into the db.
The Forecast Operational Model (FOM) can be generated directly using the data saved in the database. CNR-IRBIM provide all necessary scripts to other project partners. The data will be shared with all partner data provider.

During the meeting in Pula, Christian Ferrarin (LP) described the application of the numerical model of the coastal waters (FOM) to pilot site of the Fano-Arzilla. In order to facilitate the collection of needed data for each of the 4 target sites, a step-by-step procedure to implement the model was presented to all PPs and is here reported:

1. Collection of detailed coastline containing coastline with islands and all features (coastal defences, harbour, pier, ...). The coastline should consider a large area for simulating hydrodynamics on a domain with boundaries far from the site of investigation.
2. Creation of the unstrucutred mesh of the numerical model using the software Gmsh (http://gmsh.info/).
3. Collection of bathymetric data as: points: lon, lat, depth, raster matrix.
4. Interpolation of the bathymetric data on the unstructured mesh.
5. Collection of boundary and forcing information regarding:

a) Open sea hydrodynamics (sea level, velocity, temperature and salinity)
b) Meteorological data (air temperature, solar radiation, relative humidity, cloud cover, mean sea level pressure, wind speed and direction).
c) River discharge.
d) Bacterial concentration at source.

6. Simulation of hydrodynamic and bacteria dispersion.
7. Collection of observations for validating the numerical model results (sea temperature and salinity profiles or time series, sea level, current velocity, bacteria concentration at sea).
8. Validation of the model.

Antonella Penna from UniUrb introduced the activities of sampling at Arzilla sampling site (Fano) describing the grid, the frequency and number of sampling at seaside, and at riverine mouth at floodway point of Arzilla. It was also illustrated the list of microbial, chemical, biological and environmental analyses using different methodologies both in situ and in laboratory. In particular, a CTD probe will measure in realtime in situ different water parameters, such as T, S, pH, dissolved oxygen, chlorophyll a, redox and conductibility, while other chemical (nutrients), biological (BOD5 and COD) and microbial will be determined in laboratory. The sampling frequency has been adapted to the hydrodynamic features of Fano pilot site. The sampling frequency has been determined by raining overflow events from June to September 2019. A first sampling activity was already carried out on 18 june 2019 at Fano site.
Here, two tables illustrating the analysis on riverine and sea waters have been included:
Data from microbial, chemical and environmental analyses will be downloaded in the CNR cloud in the appropriate folders accessible to all Project partners.

TABLE 1. List of environmental parameters to be measured in riverine waters at Arzilla station. Data will be collected for the WQS development in WP3 activities.

Parameters	**Methods and location**
Ammonium -NH_4 (µM)	chemical – spectrofluorimetric in laboratory
Nitrates -NO_3 (µM)	chemical – spectrofluorimetric in laboratory
BOD_5 (mg/L)	chemical in laboratory
COD (mg/L)	chemical in laboratory
Salinity	CTD in situ in continuum
Temperature (°C)	CTD in situ in continuum
Redox (mV)	CTD in situ
pH	CTD in situ
Conductibility (mS/cm)	CTD in situ in continuum
Turbidity (NTU)	CTD in situ in continuum
Dissolved O_2 (% sat; mg/L)	CTD in situ in continuum

Organisation name
Contact person
Address
Telephone number
email@
email@pec
www.italy-croatia.eu/watercare

Chlorophyll a (µg/L)	CTD in situ; chemical – spectrofluorimetric in laboratory
Coliform bacteria (UFC/100 ml)	biological in laboratory

TABLE 2. List of environmental parameters to be measured in seawater at Arzilla station.
Data will be collected for the WQS development in WP3 activities.

Parameters	**Methods and location**
Nitrates -NO_3 (µM)	chemical –spectrofluorimetric in laboratory
Ammonium -NH_4 (µM)	chemical –spectrofluorimetric in laboratory
Salinity	CTD in situ
Temperature (°C)	CTD in situ
Redox (mV)	CTD in situ
pH	CTD in situ
Conductibility (mS/cm)	CTD in situ
Dissolved O_2 (% sat; mg/L)	CTD in situ
Chlorophyll a (µg/L)	CTD in situ; chemical – spectrofluorimetric in laboratory
Coliform bacteria (UFC/100 ml)	biological in laboratory

These Tables will be downloaded on the cloud open to all users of the project.

Work Package 4 - WATERCARE Pilot realization

WATERCARE_II STC Meeting_WP4

- Resume of the project content: target of the project, current situation and design solution analysis;
- Summary of the project works;
- Update of the Project Flow-Chart: design works closed after the detail design approval;
- Construction Flow-Chart analysis: start in June 2019 and by July 2020;
- Current status of the Job: Invitation To Tender for Procurement and Construction contract issued, Invitation To Tender for Unexploded Ordnance clearance of construction site issued, Land Acquisition contract signed;

- Next steps: Unexploded Ordnance Clearance works start planned in September 2019, Construction Works start planned by the end of September 2019 (after Clearance works);
- Support to samplers installation (WP3): authorization obtained, purchase of insulated box in progress, installation by the end of August 2019

Q&A, final conclusions and next steps

All partners involved in the discussion. Next project meeting: 3rd week of November in Pescara (IT).

Mauro Marini gave final conclusions:

WATERCARE: "Water management solutions for reducing microbial environment impact in coastal areas"
Short summary of the first 6 months:
WP1

- Subsidy Contract registration to MA, done
- Completed the Partnership Agreement, done
- Next step: Advance payment request

WP2

- started the communication, dissemination materials prepared and distributed according to plan, also visibility is providing on regular basis by each PP

WP3

- implementations of the instrumentations for sampling
- implementation the bathymetric data in front of Arzilla mouth
- Implementation of the DB structure
- started the sampling: in 18 June, next sampling in 10 July and in end of august with new installation of box (insulated and cabled);
- implementation of the mathematical simulation
- own cloud is active

WP4
Infrastructure of pilot realizations:

- approval of the Executive project, done
- Invitation to Tender for Procurement and Construction, in progress

First day closure and Joint Photo was made (attached photo (9)).

27th March 2019

Visit to METRIS Research Centre & Barban Municipality - Rasa River

Vedrana Špada and Josipa Bilić guided METRIS Research Centre laboratory tour for All participants with accent on available equipment and methods which will be used for WP3 and WP4 activity implementation.

Bus Transport from Pula to Barban and back to Pula for All participants was organized to get to Meeting with Policy Makers.
Dalibor Paus, the Major of Barban Municipality gave warm Welcoming in Multimedia Centre of Barban and together with Dr. Daglas Koraca and Dr. Mauro Marini had press conference.

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Short discussion was made about the Study Area of River Raša and Uvala Blaz about WP3 and WP4 activities and then all participants went to a Trip to visit location Uvala Blaz with press. After they had Light lunch in Rakalj. Closure and joint photo was made on Pilot Site (see D.2.4.2 document).