

WATERCARE Project – Minutes of the VI° Steering Committee Meeting

Fano & On-line via Microsoft Teams | 17th June 2021

Title	Minutes of the VI° Steering Committee of WATERCARE Project
Date/Time:	17th November 2020 - Time 02:00 PM
Place:	Mediateca Montanari – Piazza Pier Maria Amiani – 61032 Fano & On-line via Microsoft Teams
Subjects:	<ul style="list-style-type: none"> - Welcome - WP's presentations (progress and next steps) - Questions & Answers
Attendees:	<ul style="list-style-type: none"> - LP – CNR-IRBIM (IT): Mauro Marini, Federica Grilli, Elena Manini, Alessandra Campanelli, Elisa Baldrighi, Pierluigi Penna, Fabrizio Moro, Christian Ferrarin, Elia Rosetti, Miguel Carrero (External Assistance); - PP1 – ASET Spa (IT): Marco Romei, Gloria Giacomini, Enrico Esposto Renzoni, Andrea Marinelli; - PP2 – Marche Region (IT): Luigi Bolognini, Sara Giorgetti, Federica Gabrielloni, Milena Brandinelli (ARPAM), Ilaria Montoni (External Assistance); - PP3 – Abruzzo Region (IT): Giovanna Marrama, Ilaria Di Muzio; - PP4 – University of Urbino (IT): Antonella Penna, Silvia Casabianca, Samuela Cappellacci, Fabio Ricci, Nadia Marinchel; - PP5 – Split-Dalmatia County (HR): Martin Bucan, Katarina Suta, Igor Ujevic (External Assistance), Ante Budimir-Bekan (External Assistance); - PP6 – Dubrovnik-Neretva Region (HR): Ivo Duracic, Ivana Kristovic; - PP7 – University of Split (HR): Maja Krzelj, Marin Ordulj, Nikola Bejo, Mateja Baranovic; - PP9 – Croatian Waters (HR): Marija Sikoronja, Ivana Čagalj; - PP10- Istrian University of Applied Sciences (HR): Vedrana Spada - IT-HR JS: Marin Miletic

Absences	/////
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VI° Steering Committee Meeting of WATERCARE Project was held both in presence and in on-line modality on 17th June 2021 as the large part of Italian PPs met in Fano, while all other PPs joined the meeting via Microsoft Teams. This was due to the persisting COVID-19 emergency and rules to be applied for travelling abroad, if not strictly necessary.

The “attendance list” of the meeting was filled-in by the Lead partner collecting both signatures of participants in Fano and the names of those ones who attended on line and can be found in the attached file, named “VI STC Meeting_ Attendance list_ WATERCARE_17062021”. Representatives from all partners joined the VI STC meeting and there were no absences.

All the presentations prepared by WP Leaders and partners (which are mentioned beneath) shall be considered as attachments to this document too. (Also, PPTs, Attendance list and Minutes will be uploaded in WATERCARE cloud).

Welcome & Project Overview

As WATERCARE Project Manager, Mr. Mauro Marini made a brief launch of meeting highlighting that significant progress have been made in the closing semester both at project and specific partner level. First of all, during the hours before this meeting, the Small-Scale Infrastructure foreseen at the project pilot site (Arzilla Stream – Fano) have been launched into operation officially. It represents a fundamental step to complete the project and so, to reach expected results. Also, it is a tangible output of the project.

Then, equipments for performing samplings have been installed with success in all WATERCARE target sites (Pescara, Rasa, Cetina and Neretva rivers) and they are ready to work during the bathing season 2021. Therefore, analysis of collected data will be possible during next months.

Last, WATERCARE dissemination is also proceeding well. The project is subject of both generic and technical articles, both in paper and on-line version and also, it has been presented during the VI EUSAIR Annual Forum – FAIC Side Event.

Mr. Marini thanked all WATERCARE project partners' teams for all efforts done up to now and for their engagement in ensuring a good project implementation. Only six months are missing before the project end, therefore next months should be focused not only on the conclusion of all project activities but also on the finalization of all foreseen outputs and deliverables release.

WPs presentations

Work Package 1 - Project management and coordination of activities

WATERCARE_VI STC Meeting_WP1_LP-CNR-IRBIM

Elia Rosetti started his presentation sharing with the partnership the state of the art of the project major modifications: project duration extension and partnership change as well as which are the current and next administrative steps to comply with.

Concerning Act. 1.3 – Steering and Monitoring, it was reminded that Minutes (and all annexes) of previous STC Meetings have been uploaded in the WATERCARE cloud and that considering the project duration extension, project STC meetings have been increased. The seventh STC Meeting (last one) will be in Dubrovnik in Autumn.

In the framework of Act. 1.4 – Financial Management different points were treated. First of all, PPs were informed on the final submission of Progress Report 4, while due to the priority of major modification, the submission of the related 4th Application for reimbursement has been postponed (but by the end of June it will be submitted, as well).

Then, LP reminded to all WP Leaders and PPs to properly contribute to the drafting phase of the Project Progress Reports and to pay attention to all instructions/suggestions provided in this PPT. Related to the Progress Reports and considering that we are closing the fifth reporting period out of six, LP pointed out that it is time to draft deliverables foreseen in AF. This is true in particular

for those ones that can be presented in final version, but it should also be for those ones which are composed by more than one Target Value and where some of TVs have already achieved by the end of June 2021... in that case, deliverable in intermediate version should be presented.

A focus on PR3 reimbursement was made and it was reminded that for those PPs whose advance payment was not entirely recovered within the AfR3 due to a PR3 certified amount lower than the advance payment, the recovering of the AP will be completed in the AfR4.

This meeting has been also the occasion for showing main dates and main steps for a proper reporting activity of period 5. Like previous times, at the end of the reporting period 5, the template to use for drafting the Activity report 5 will be sent by the LP, in this case Mr. Rosetti reminded again to all PPs to be very precise when they report target groups as double counting of TGs between partners and among reporting periods must be avoided. The same is for proofs demonstrating to have actually reached TGs, a list of proofs already sent to all PPs in November 2019 has been re-shown as well as the level already achieved (up to RP4) per each TG category.

Then, it was also recommended to constantly check IT-HR website as new useful factsheets and information can be published by IT-HR Programme Authorities.

Concerning the level of expenditures, certified expenditures (PR1+PR2+PR3+PR4) and RP5 foreseen expenditures were also analyzed both at project level (it has been reached the 54% in comparison with the spending forecast) and at PP level, also highlighting large differences between partners, from those ones that are almost in line with the AF spending forecast to those ones that did not reached the 35% of expenditures within December 2021. It was also underlined that a specific request for clarification in the last PR4, focused on project financial delays, was made by the IT-HR JS; therefore, all PPs have been informed that our project is monitored by the Programme for its low financial performance.

Linked to what above, it was reminded the De-commitment rule by which it is required that each PP should spend at least the 80% of the own budget in order to not be considered "Under risk" and that this rule applies per each Reporting period.

Some days before the meeting, a budget tool for a minor budget modification was sent to PPs and during the VI STC it was reminded to send the filled-in budget asap.

Last, it was reminded to PPs the rule by which thematic equipment can be purchased not later than 6 months before the project end and so, invoices' date can be accepted up to 30th June 2021.

Work Package 2 - Communication activities

WATERCARE_VI STC Meeting_WP2_PP6-DNR

WP2 leader Ivana Kristović talked about on-going Communication & Dissemination activities and missing PPs contributions to project deliverables. First of all, Ivana explained WP2 status by now and especially in Activity 2.2:

- D 2.2.1 – WATERCARE Campaign on media. Initiatives will be promoted by PPs through media, mainly TV, press agencies and specialised web portals. (T.V.: 10; DATE: 30.06.2021). – 80% (at least one by PP);
- D 2.2.2 – Publication in selected journals and conferences. Dissemination of project outputs and results at international level through participation and publication in well-respected journals and conferences (at national, ITHR and EU level). (T.V.: 10; DATE: 30.06.2021). – 40% (at least one by PP) – METRIS + SPLIT UNIVERSITY + CNR IRBIM + CROATIAN WATERS;
- D 2.2.3 – Project leaflets. Each PP will be in charge of printing 100 copies of WATERCARE leaflets in English and in original PP language. Translation in Italian (LP), and Croatian (WP2 leader) will be provided. (T.V.: 2000; DATE: 31.01.2019 and 31.05.2021). – First set COMPLETE (180 per PP);
- D 2.2.4 – Project roll-up. Each PP hosting a WATERCARE event will purchase a roll-up that will be design by WP2 leader at the beginning of the project. (T.V.: 6; DATE: 31.01.2019). – 4/6 (5/6 including ANCONA);
- D 2.2.5 – WATERCARE Newsletter. A newsletter will be distributed 4 times. Newsletter will be sent out electronically to key stakeholders and will contain WATERCARE achievements. The main

language will be English, but translation in Italian (LP) and Croatian (WP2 leader) will be provided to reach target groups at all levels. (T.V.: 12; DATE: 30.06.2021). – Second Newsletter COMPLETE (2/4, third NEWSLETTER September 2021.);

- D 2.2.6 – Project gadgets. Gadgets will be distributed from WATERCARE PPs to target groups for publicity purposes. - 80 per PP – Remaining gadgets will be done for Ancona and Dubrovnik Public events.

Afterwards, Ivana sectioned 2.2. Activity into every Deliverable necessary and PPs obligations within it and showed previous success and remaining duties. All specialized press deliverables were presented (CNR, METRIS, CW and SPLIT UNIVERSITY) and other PPs have been, once again, reminded that by the end of the project contributions to this deliverable should be done by every PP.

All media publications were shown.

Then, leaflets were done (first set) and PPs were instructed:

- 1 SET OF LEAFLETS ARE DONE - TV 2000, PRINT 180 PER PARTNER
- 2ND SET OF LEAFLETS AT THE END OF THE PROJECT – TV 200, PRINT 20 PER PARTNER.

After leaflets, Ivana showed the status of roll up deliverable - 4/6 roll ups ---- 5/6 including Ancona. And remaining sixth roll up in Dubrovnik.

Then, since the Newsletter was done (second version) Ivana sent it to all partnership and instructed them to:

1. Newsletter done and distributed electronically to Stakeholders;
2. Newsletter done, needs to be sent by each PP to their Stakeholders via e-mail (proof of sending this to be sent to me in 15 days);
3. Newsletter in September 2021.
4. Newsletter November/December 2021.

Afterwards, it was said that the gadgets needed to be done (TV 800) – 80 per partner but since more than 500 gadgets were already done they can be finished with the 2 public events in Fano and Dubrovnik.

For the Activity 2.3. – Deliverables 1,2,3,4,5,6 – Ivana showed that Interreg Italy Croatia WATERCARE site was administrated, Deliverables uploaded:

<https://www.italy-croatia.eu/web/watercare> , Facebook site – Administrated, news uploaded <https://www.facebook.com/Project-Watercare-359794938002048>

Institutional website – missing only CNR.

Mid-term Communication Report is completed and Final Communication Report is coming.

Regarding Activity 2.4. – Deliverables 1,2,3,4,5 – we are missing only 1 public event in Dubrovnik (November 2021.) and 1 Participation to IT-HR/EU public events TV 2 - ½: WATERCARE applied for a conference in Dubrovnik in September 2021 and our abstract was accepted so that is the remaining deliverable to be done.

For the new Activity 2.5.:

- D.2.5.1 - Conversation on practices and methods for sustainable marine eco-system (TV:1; DATE: 31/12/2021). WATERCARE will organize a joint conference with ECOMAP, ADSWIM and ASTERIS (proposed date in September);

- D.2.5.2 - Conference to address state of the art of the new innovative solutions (TV:1; DATE: 31/12/2021). WATERCARE will organize a Conference with Croatian and Italian students in October.

After defining these activities, DNR showed Target groups value by know and finished its presentation.

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

WATERCARE_VI STC Meeting_WP3_LP-CNR-IRBIM_Ferrarin (ISMAR)

WATERCARE_VI STC Meeting_WP3_PP3-ABRUZZO

WATERCARE_VI STC Meeting_WP3_PP5-SDC

WATERCARE_VI STC Meeting_WP3_PP6-DNR

C. Ferrarin, CNR-ISMAR, provided a seminar entitled “Numerical modelling for investigating circulation and transport dynamics in coastal seas”. The seminar focused on the hydrodynamic and transport modelling in the coastal seas with several examples of modelling applications in the Adriatic Sea and the use of numerical results for managing pollution and bathing issues. Specifically, he presented the results of the Forecast Operational Model (FOM) developed in the framework of the WATERCARE project for simulating the water quality in several Italian and Croatian coastal areas.

Ms. Giovanna Marrama (Abruzzo Region) made an intervention focused on the Equipment installation at the WATERCARE target site: Pescara River. This case study will allow to have the knowledge of the interactions between the river-sea system and the assessment of the impact of microbiological environmental contamination in bathing waters by resulting from abundant rainfall introduced into the local drainage network and into the sea.

The monitoring plan identified 4 monitoring points along the river course of the Pescara River and 9 monitoring points near the river mouth, where sampling will be carried out along five transects: at the mouth, at 200, 400, 600 and 1000 m from the coast.

It has been completed the installation of the Automatic Sampler and the equipment required in area managed by ACA (Acquedottistica District Company) in an insulated and ventilated box, located close to the north quay along the Pescara River. All links with the data logger have been carried out in the field. All the equipment has been connected and tested: it was carried out successfully test sampling with 14 bottles. The field tests and the verification of the functionality of the data transfer system took place in collaboration with CNR-IRBIM. The simulation for the remote start of the automatic sampler and verification of its functionality have taken place on 28th May 2021.

In the next few days, it will begin the analysis during normal weather conditions, in order to the defined calendar, and then, during and after the heavy rain event. The results of the microbiological analyzes will be acquired and available to prepare the predictive model of alert.

Mr. Martin Bucan (Split-Dalmatia County) made an intervention focused on the Equipment installation at the WATERCARE target site: Cetina River. After finishing public procurement for sampling equipment, SDC waited for PP6-DNR to finish procurement for installation of equipment and PP9-CW for sampling.

The equipment, two automatic measuring stations, was installed at two locations on Cetina river. The activities will concern the carrying out of a monitoring of the waters of the Cetina river in order to be able to implement the model of diffusion of microbial pollutants, in relation to the quality of bathing water. In addition to measure basic climatological data, the equipment will also perform automatic water sampling of the Cetina river in extreme hydrological conditions.

At one station, some water parameters will be automatically analyzed by measuring probes already installed at the station (salinity, water temperature, redox, pH, conductivity, turbidity, dissolved oxygen), other parameters will be analyzed in the laboratory (BOD5, KPKMn, ammonium, total nitrogen, total phosphorus, *E. coli* and intestinal enterococci).

The second measuring station will not have a measuring probe for measuring salinity, water temperature, redox potential, pH, conductivity, turbidity, dissolved oxygen; therefore, these indicators will be measured using a portable multiparameter probe, designed for operations in seawater, equipped with temperature sensors, conductivity, turbidity, salinity, and dissolved oxygen.

Mr. Ivo Đuračić (Dubrovnik-Neretva Region) made an intervention focused on the Equipment installation at the WATERCARE target site: Neretva River, and on the overall Equipment installation at Croatian sites. Public procurement was conducted for the equipment installation and training service for all 3 Croatian pilot sites. Contracted company was Primotronic L.t.d., who sell an equipment. At Neretva River pilot site, they used an existing building for putting in the equipment. They prepared the building and installed equipment and everything worked

properly. After installation of equipment, they trained users - Institute of public health Dubrovnik-Neretva County.

The 27th May 2021 the Weather testing was done. Preliminary results suggested low concentration of bacteria in samples at the end of the 24-hour cycle.

Work Package 4 - WATERCARE Pilot realization

WATERCARE_VI STC Meeting_WP4_PP1-ASET

WATERCARE_VI STC Meeting_WP4_LP-CNR-IRBIM_Penna

WATERCARE_VI STC Meeting_WP4_PP4-UNIURB

During the VI steering committee meeting session, ASET presented the start-up and commissioning of the Pilot Project. Therefore, the construction of the reservoir for waste water and the relevant new interconnecting waste water sewers can be considered as concluded.

ASET showed the physical progress of the works providing also the detailed plan of the foreseen activities: the concrete works and the laying of the sewer system have a percentage of completion equal to 100%.

Additional information on the Activity 4.3 - Feasibility studies to implement innovative solutions in the WATERCARE sites – were provided. Aset informed PPs that in the month of June the public tender for the redaction of guideline for Feasibility studies had been assigned.

Moreover, further explanation about GUIDELINES for Feasibility Study were provided in terms of Guideline scope and Guideline deliverable list.

Aset provided additional explanation about a recent “Request for information” sent to all PPs involved in carrying out of their own feasibility study about solutions to mitigate the pollution of the bathing water due to waste water discharges.

UNIURB presented the results of the sampling carried out in the Arzilla River.

CNR IRBIM presented the works for the installation of the 2nd sampling station called “Arzilla Monte”.

Work Package 5 - Smart system to support governance decision processes in Water Management of Adriatic basin

WATERCARE_VI STC Meeting_WP5_LP-CNR-IRBIM_Penna

WATERCARE_VI STC Meeting_WP5_LP-CNR-IRBIM_Ferrarin (ISMAR)

WATERCARE_VI STC Meeting_WP5_PP2-MARCHE

Pierluigi Penna presented how will matching table for Alert tool will be created that will have a correspondence between general event and actors who receive the notification through a communication table. Example of two notification channels was shown, an e-mail and Telegram channel. Plan is to finish tests this activity by the end of June.

Christian Ferrarin presented current progresses with model validation. Model validation was performed in all sites with different parameters (in accordance with the available data sets). The parameters used in the validation procedures were: hydrodynamic (water levels), physicochemical (water temperature and salinity) and microbial concentration. For hydrodynamic assessment validation was done for Pescara, Cetina and Neretva sites and comparison between the model and observation was quite good. For physicochemical assessment validation was done for Fana, Raša and Pescara sites and results were quite good expect for Raša were there were some problems with sampling of salinity. For microbial assessment validation was done for Fano and Raša sites and results were quite good.

Luigi Bolognini gave overview of the current EU, Italian and Marche region legislation concerning water policy. Difference between EU and Italian legislation lies in the limit values for microbial concentration relating to a single sample for bathing water. Afterwards, cognitive framework and bathing water management measures were presented. When developing conceptual methodology and pressures/impact description it's necessary to take into account not just the

climate change and atmospheric events but also infrastructure breakdowns and continuous critical issues. Objectives to be achieved by Alert Tool are to set up an effective data collection system and predict the reaction of each site to meteoric events.

Martin Bucan started his presentation with an overview of WP5 objective and goals. After that, Bucan gave new delivery dates for WP 5 activities. Mr. Bucan also talked about meeting held with external experts and task that partners will have to complete for successful realization of the project. SDC proposed creating plates with QR codes for beaches around pilot sites Neretva, Cetina and Raša that would lead to joint WATERCARE server and Croatian national server for sea quality, which would increase project visibility. Mr. Bucan had a meeting with technical support from IZOR institute about prerequisites needed to finish final public procurement and proposed organizing a meeting with rest of WP5 about it. Conclusions of meeting of Croatian partners concerning Activities 4.3 and 5.3 were also presented.

Final conclusions and next steps

At the end of the meeting, Mr. Marini thanked all project partners' representatives who joined the meeting, also hurrying up everyone for last efforts to be made for completing the project during next six months.

Last, it has been agreed to hold the VII STC Meeting/Final event during the second week of November, hopefully in presence in Dubrovnik (hosted by PP6-DNR). Further details will be defined next months.