General Assembly and Steering Committee minutes

M18

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Deliverable N°7.3	General Assembly and Steering Committee minutes
Related Work Package	7
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Abstract	This document provides a detailed list of the general assembly and steering committee minutes of the project DWC

Dissemination level of the document

X	PU	Public
	PP	Restricted to other programme participants
	RE	Restricted to a group specified by the consortium
	CO	Confidential, only for members of the consortium

Versioning and contribution history

Version*	Date	Modified by	Modification reasons
S	2020.11.28	Nicolas Caradot	Final version for submission

* The version convention of the deliverables is described in the Project Management Handbook (D7.1). *D* for draft, *R* for draft following internal review, *S* for submitted to the EC (under external review) and *V* for approved by the EC. Note that previous version to *V* are draft since they are not yet approved by the EC.

Table of content

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1. Presentation of the goal and work flow of the main project meetings

1.1. General Assembly

1.1.1. Entity and role

The General Assembly (GA) is the full consortium meeting and the governing body of the project serving as the ultimate decision board. It consists of one person per partner with the authority of making decisions on behalf of their institution in presence of representatives of the European Commission. The GA is responsible for the management of the project and takes strategic decisions regarding changes and corrective actions in the work plan, budget and consortium.

1.1.2. Work flow

The GA is gathered once a year, i.e. four times during the project duration. The GA meetings are organized by the coordinator and the local city partners. All partners are joining the meeting and the EC project officers and the Expert Advisory Board are invited. The meeting is chaired by the coordinator, who is also in charge of the redaction of the agenda and minutes.

The main goals of the meeting are to

- Describe the actual project progress
- Present the work plan for the coming year
- Foster the communication and exchange between the partners
- Validate changes and corrective actions in work plan, budget and consortium
- Review the arising innovation opportunities

GA meetings are usually organized over 2 days, including a plenary GA meeting, parallel WP meetings and a Steering Committee meeting.

1.2. Steering Committee

1.2.1. Entity and role

The Steering Committee is the executive board of the project. It is composed of the WP leaders and is responsible for the coordination of the project activities, the monitoring of project progress and the high quality of the achieved work. The Steering Committee reports the project progress to the General Assembly.

1.2.2. Work flow

Steering Committee meetings convene on monthly basis via conference calls and twice a year face to face (10 calls + 2 face-to-face meetings annually). The meetings are chaired by the coordinator, also in charge of the agenda and minutes. The main objectives of the meetings are to

- Share the current project progress and status within the work packages
- Present the project work plan for the next three months (Action Plan)
- Report on the status of deliverable, milestones and risks
- Identify and manage links and dependencies between the WPs
- Identify and manage issues regarding knowledge management, intellectual property rights and other issues that might impact project success

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- Validate budget allocations proposed by the coordinator according to technical and financial progress reports

The project management software Trello has been implemented for the coordination of work package and task progress. The tool is used during the steering committee meetings to monitor and discuss the ongoing activities. A Trello list has been created for each WP and a Trello card for each subtask (or several if needed). In each card, a text field and a checklist with the activities that are planned for the next weeks/months describe the tasks and their progress (Figure). For each activity, the leader and the deadline are indicated. It is also possible to write comments on a specific task or attach documents.

Every month, the WP leaders update the information of each card:

- Describe the tasks progress with few sentences
- Update the action plan checklist with new activities

After the SC meeting, the coordinator prints the cards in pdf format in order to document and share the progress and ongoing actions with the consortium. The document is saved on the file sharing platform as Minutes of the Steering Committee meeting, too.

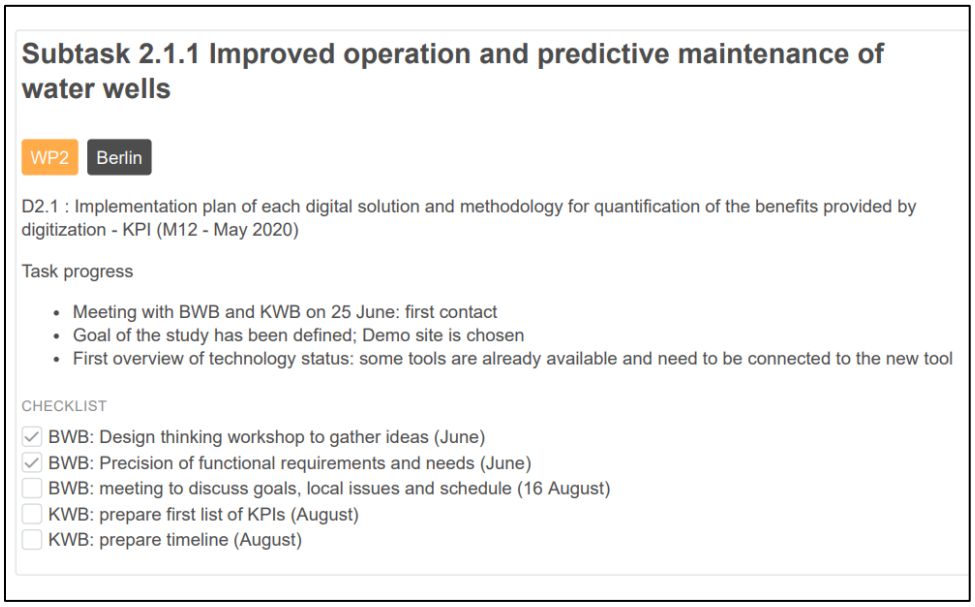

Figure 1: Example of Trello card: first part indicate the related deliverable with deadline; second part is the task progress since the last Steering Committee meeting; third part is the action plan checklist

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2. List of minutes

Type	Date	Content
GA 1	17.09.2019	No formal minutes – introduction to the project and presentations. Agenda is shared as minutes.
GA 2	05.10.2020	Summary of the meeting and decisions
SC 1	12.06.2019	Summary of the meeting
SC 2	25.07.2019	Trello document
SC 3	23.08.2019	Trello document
SC 4	07.11.2019	Trello document
SC 5	17.12.2019	No formal minutes; online Trello has been updated
SC 6	18.02.2020	Trello document
SC 7	07.04.2020	Trello document
SC 8	19.05.2020	Trello document
SC 9	26.06.2020	Trello document
SC 10	01.09.2020	Trello document
SC 11	15.10.2020	Minutes of a management workshop

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Monday, 16th September			
Pre-event			
19:00 - …	Welcome dinner		*Van Loon Restaurant Boat*
Tuesday, 17th September			
General Assembly			
09:30 - 09:40	Welcome message by host and coordinator	10'	Regina (BWB) & Edith (KWB)
09:40 - 10:00	Project overview	20'	Nico
10:00 - 10:30	Short introduction of the team	1' pitch	Partner x 24
10:30 - 11:00	DWC cities: challenge and expectations	5' pitch	City leader x 5
11:00 - 11:15	**Coffee break**		
11:15 - 12:30	DWC digital solutions: what are our innovations?	3' pitch	Tech providers x 15
12:30 - 13:30	**Lunch break**		
13:30 - 14:15	Cybersecurity and interoperability # DWC approach # Exchange on data requirement	30'+15'	Mehdi (Sintef) & Hella
14:15 - 15:00	Communication strategy # logo, visual identity and website # discussion with the consortium	30'+15'	Cedric (Arctik)
15:00 - 15:15	**Coffee break**		
15:15 - 16:00	Management # Procedures, roles, financial aspects # Discussion with the consortium	30'+15'	Hella & Nico
16:00 - 16:15	Feedback from External Advisory Board	15'	EAB
16:15 - 16:30	Digital game and summary	15'	Hella & Nico
17:00 - 18:30	Technical Tour: Pumping station Berlin V	90'	BWB
19:00 - …	**Dinner**		*Markthallenrestaurant*
Wednesday, 18th September			
Community of Practices			
08:00 - 10:00	CoP breakfast # presentation of CoP concept and guidance # first exchange on CoP topics and organisation		Manuel (Icatalist) City partners WP leaders
10:00 - 10:30	**Coffee break // Start of day 2**		
Work package meetings			
10:30 - 13:00	WP meetings in parallel sessions		WP team
13:00 - 14:00	**Lunch break**		
14:00 - 14:15	ICT governance and policy	15'	Ulf (Ecologic)
14:15 - 14:30	Market uptake: transfer and exploitation	15'	Alexandre (Strane)
14:30 - 15:00	Discussion on inter-WP collaborations	30'	WP leaders
15:00 - 15:30	**Coffee break // End of General assembly**		
15:30 - 17:00	Steering Committee Meeting		WP leaders only

DWC General Assembly #2
Virtual meeting

Minutes

05-06 October 2020

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Agenda

Monday, 05th October			
Work Package meetings			
09:00 - 12:00	Work Package meetings 1, 2 and 3		WP leaders
General Assembly			
13:30 - 14:00	**Opening of day 1 - set up and coffee**	30 min	/
14:00 - 14:10	Welcome message by KWB director	10 min	Jochen
14:10 - 14:15	Welcome message by EASME - European Commission	5 min	Sotirios
14:15 - 14:25	Short overview: where are we after 18 months?	10 min	Nico
14:25 - 14:40	DW2020: collaboration with our sister projects > focus F4W	15 min	Sonia Sauve
14:40 - 14:50	**Virtual break**	10 min	/
14:50 - 15:50	WP2 Solutions for system performance	10 min	Pascale
	City pitch: Berlin	10 min	Alex
	City pitch: Milan	10 min	Marco
	City pitch: Copenhagen	10 min	Sten
	City pitch: Sofia	10 min	Valentina
	Transferability survey	10 min	/
15:50 - 16:10	**Virtual break**	15 min	/
16:10 - 16:40	WP4 Cybersecurity and interoperability	30 min	Rita-Audun
16:40 - 16:55	WP5 CoP and market uptake	15 min	Alain-Gerardo-Manuel
16:55 - 17:10	WP6 Communication	15 min	Anna
17:10 - 17:30	Administration and periodical report	30 min	Tobias-Hella
	Closing of day 1		/

Tuesday, 06th October			
08:30 - 09:00	**Opening of day 2 - set up and coffee**	30 min	/
09:00 - 10:15	WP1 Solutions for health protection	15 min	Francesco
	Solution pitch: ALERT system	15 min	Dan
	Solution pitch: Early warning system bathing water	15 min	Wolfgang
	Solution pitch: Early warning for reuse	15 min	Susanna-Francesco
	Solution pitch: Match making and drone	15 min	Adriano-Claudio
10:15 - 10:45	**Virtual break**	30 min	/
10:45 - 11:30	WP3 Solutions for public involvement	15 min	Ulf
	Solution pitch: AR for groundwater visualization	15 min	Stephan
	Solution pitch: Serious game	15 min	Francesco
11:30 - 11:45	Feedback from External Advisory Board	15 min	EAB
11:45 - 12:00	Summary and Closing of General Assembly	15 min	Nico-Hella

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Presentation

All presentations of the meetings are available on the cloud

Link consortium

Link EAB

SLIDO survey

The software SLIDO has been used to foster interaction during the meeting. All answers to the survey are available on the cloud. The feedback is very useful to assess the transferability and potential of market replicability of solutions as well as to support the preparation of the plan for exploitation (WP5)

Link consortium

Link EAB

Summary of the satisfaction survey

At the end of day 2, we run a survey to assess the satisfaction of the consortium regarding the meeting and the project progresses. Results are highly interesting to improve the management and communication of the project. You can find the entire results in the link provided in the previous section; we provide here a short summary of the feedback and our propositions for improvements.

First of all, 90% of the consortium were satisfied or very satisfied by the meeting. This is a great achievement and we are truly happy that the meeting fitted the expectation of the team. 80% of the team considered that the structure and duration were appropriate. From your comments we can derive the following recommendations that will be applied for future meetings

- 2 days program is a good structure
- Avoid having a full day: 1/2 day is more effective and less heavy
- Need more short breaks or one larger break between the sessions
- Need to make sure to keep the schedule
- Need to plan more time for results presentations instead of very short pitches and show more of the teams involved

81% of the consortium were highly satisfied with the moderation of the event and 90% of the consortium considered that they received the right information for the preparation and organization of the meeting. 93% of the colleagues agree that SLIDO is a good idea to foster interaction in such meetings.

Regarding the project itself, 90% of the consortium are satisfied or very satisfied with the project progress and 85% are satisfied with internal communication. To improve the knowledge transfer and facilitate interactions within the consortium, we plan the following improvements

- In order to provide regular short information on project activities and progress, we will prepare and share with the team a newsletter every four months (3 times a year)
- To foster the interactions with our EAB, we will plan regular EAB meetings with the coordinator. Goal of these meetings will be to
    - Share information on project's progress and results

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- Identify concrete measures to disseminate DWC outcomes within the networks of the EAB members
- Find new ways to connect DWC with the professional activities of the EAB

Other interesting suggestions have been made

- Need more collaborative work and interactions during the meetings
  - More time for discussion at GA and COP
  - Parallel sessions in sub groups
  - Joint activities on mind app
  - Use collaborative tools such as MURAL or MIRO
  - Share presentations in advance for preparation and save time for discussion on the results and interactions with the team
- Rooms for socializing: virtual icebreakers with random groups

Thanks again for the great and extensive feedback; we will make sure to learn from your experience and advises to make our future meetings even more comfortable and efficient.

Feedback from External Advisory Board (EAB)

During a dedicated session on day 2, we asked our EAB to provide us a short feedback on the 2 following topics

- What are the top 2 solutions/topics that have a great potential and you would like to hear about at the next GA or during the project?
- How can you connect DWC with your network and professional initiatives? Any idea on how to foster DWC communication and dissemination?

Rebekah Eggers (IBM) indicated that digital solutions are relevant, especially in this pandemic period. COP are also tackling fundamental challenges in this field by connecting end users with innovators. The DW2020 initiative with the sister projects is highly relevant since each project is bringing pieces of solutions on the market. The collaboration within DW2020 can accelerate the digital transformation and facilitate the uptake. Some issues remain to be tackled such as training, usability and governance; it is crucial to consider these aspects to ensure the successful deployment of the solutions and their adoption in daily work. The case studies of Paris and Milan also show a great example by developing open source tools and common standard using the FIWARE architecture. This is a prerequisite to connect solutions from the water field with other sectors such as smart city and smart homes. Rebekah suggested to support DWC dissemination by different means for example by linking DWC with IBM speaking engagement in 2021 or inviting DWC to participate to Call for code, an annual challenge organized by IBM where DWC solutions could be represented.

Kari Elisabeth Fagernaes (EurEau) underlined also the relevance of DW2020 and the sister projects. It is crucial to look beyond the boundary of each project and to work together on the added-value of digital solutions. The acceptance of the solutions by the stakeholders is a major issue and DWC needs to focus on this matter in order to gain the trust of potential end users. Another key topic is the transformation of ideas into competitive solutions available on the market. How do we market these products? How do we get further private funding? These are key questions to be addressed in the exploitation activities of DWC. Kari was particularly interested by the presented early warning system

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solutions and is looking forward to the next meetings to learn more about their accuracy, relevance and potential for the water sector.

Katharine Cross (IWA) also supported the idea of DW2020 and the sister projects as a great way to promote the outcomes of the projects and bring DWC solutions on the market. She finds the matchmaking tool highly relevant, as a solution to link stakeholders of the water and agricultural fields and empower the reuse of wastewater for agricultural irrigation. Other solutions have a great potential, especially for the management of sewer networks in the Asian context such as sensors to track illicit connection, tools for efficient sewer cleaning and low-cost sensors for real-time CSO identification. Katharine mentioned the activities of IWA and her role within the IWA digital water programme. The program is running numerous initiatives that could be relevant to promote DWC: podcast, interview, source magazine, webinar series.

The other members of the EAB were not able to join the session but provided some inputs by email and are looking forward the future meetings.

Christian Ziemer (SIEMENS) mentioned that our digital solutions, in particular the ones developed in WP1 to address public health issues, could be integrated into the digitalization activities of the German Water Partnership GWP, German Water Association DWA and European Water Association EWA. We will discuss in our next meeting on how we can foster can create new links between our projects and this key national German initiatives.

Eva Martinez Diaz (Aqualia) underlined the relevant of many DWC solutions, in particular the smart sensor to tackle illicit connections but also the sensors to identify CSO spills or measure E.Coli concentrations.

David Kay (Aberystwyth University) was unfortunately not able to join the meeting. He had to support and assist a sampling campaign into UK bathing water on the same days. We hope that the sampling campaigns went well and look forward to catch up soon.

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DWC Minutes

1st Steering Committee Meeting

12.06.2019 2-6pm

Place

- Arctic offices, Technopolis group, Avenue de Tervueren 188A, 1150 Woluwe-Saint-Pierre, Belgium

Participants

- Nicolas Caradot, Hella Schwarzmüller, Pascale Rouault, Mathias Riechel (KWB)
- Cédric Hananel (Arctik)
- Alexandre Bredimas, Nathalie Vallee (Strane)
- Mehdi Ahmadi, Rita Ugarelli (SINTEF)
- Ulf Stein (ECOLOGIC)
- Alfredo Pizza (CAP), Marika Fantoni (UNIVPM)

Editor

- Nicolas Caradot, Pascale Rouault, Hella Schwarzmüller

Agenda

- Nico: Management structure: roles and procedures; consortium organization
- Hella: Contractual situation and payment mechanisms
- WP leaders: Presentation of each WP action plan for next trimester

Management structure

Nico gave a short presentation of the management structure of the project as well as main roles and procedures (details in the presentation).

Coordination

KWB is coordinator of the project.

Hella is the administrative and financial coordinator. Her main roles are to

- Act as contact point between European Commission and consortium
- Handle administrative and financial communications with the beneficiaries and the EC

- Coordinate financial management and distribution of payments to the beneficiaries
- Gather financial content of periodical reports

Nico is the scientific coordinator. His main roles are to

- Lead the project activities
- Monitor the successful implementation of the work plan
- Consolidate project's deliverables and maintain Quality Assurance
- Gather technical content of periodical reports

General Assembly (GA)

The General Assembly is composed of all partners and the External Advisory Board (EAB). It is planned to meet 5 times during the project. The StC has decided to reduce the frequency of meeting to 4 meetings during the project duration, i.e. one meeting each year. The first GA will be held in Berlin on 17 and 18 September 2019. The schedule and location of the next meetings will be decide soon. This event over 2 days will include

- Plenary session with all partners,
- Technical tour and dinner
- First CoP meeting
- Task and WP meetings
- StC meeting.

Steering Committee (StC)

The StC is composed of the Work Package (WP) leaders and thematic managers. The StC has decided to meet on a monthly basis for a short update via videoconference and twice a year in person (once during the GA and another meeting). The main roles of the StC are the following:

- Share the current project progress and status within the work packages
- Present the project work plan for the next three months (Action Plan)
- Report on the status of deliverable, milestones and risks
- Identify and manage links and dependencies between the WPs
- Identify and manage issues regarding knowledge management, intellectual property rights and other issues that might impact project success
- Validate budget allocations proposed by the coordinator according to technical and financial progress

The StC has decided to allocate a deputy WP leader in case the WP leader is not available.

N°	WP name	Partner	WP leader	Deputy
1	Improved decision making for human health protection	UNIVPM	Francesco Fatone	Anna Laura Eusebi
2	Maximized performance and return on investments of water infrastructures	KWB	Mathias Riechel	Pascale Rouault
3	Innovative modes of ICT governance, policy and public involvement	ECOLOGIC	Ulf Stein	Doris Knoblauch

4	Interoperable and secure flow of information	SINTEF	Mehdi Ahmadi	Rita Ugarelli
5	Transfer and exploitation of DWC solutions	STRANE	Alexandre Bredimas	Nathalie Vallee
6	Communication and dissemination	ARCTIK	Cedric Hananel	Adrien Jahier
7	Project management	KWB	Hella Schwarzmüller > admin/finance Nicolas Caradot > scientific	Nicolas Caradot Hella Schwarzmüller

WP team

The WP teams are composed of the WP leaders, task leaders, city contacts and partners.

Leaders are assigned to each subtask and are in charge of

- Implementing the work plan
- Preparing the deliverables and milestones in the planned schedule

City contacts have been named to facilitate the local communication with the case study partners. They act as primary contact for any request related to the case study.

Contractual situation

The Grant Agreement (contract between the Coordinator, the Beneficiaries and the European Commission) has been signed by all partners.

The Consortium Agreement has been prepared by KWB and will be sent to all partners for review and signature by the end of the month. The Consortium Agreement is an agreement within the consortium partners and doesn't involve the EC. It contains information such as the governance of the project, the number of meetings and the Intellectual Property management.

The Non-Disclosure Agreement (NDA) with the External Advisory Board has been prepared by KWB and will be sent to the board for signature by the end of the month.

Financial plan, reporting and payment procedures

The pre-finance payment from the EC was received by KWB and will be forwarded to the beneficiaries as soon as Consortium Agreement has been signed.

Financial statements are due to the EC in M18, M30 and M42. They have to be filled individually by each partner and to be submitted to the coordinator. Once all statements have been sent, the coordinator submits to the EC followed by balance payments.

For internal reporting, KWB proposed that payment should be done in instalments coupled to short financial reports due every six months (together with the technical report) including costs occurred during the last six months and a forecast for the next six months to allocate payments. A template is to be provided together with the Project Management Handbook. The first internal report would be due in November 2019.

No validation was received because of objections based on the grant agreement saying in article 21.7 that "The coordinator must distribute the payments between the beneficiaries without unjustified delay". The issue shall be sorted out between KWB and legal departments of e.g. SINTEF and universities before sending a draft which is likely to be rejected.

The DESCA model consortium agreement (with elucidations) states towards 7.3.2 payment schedule that:

In order to enhance governance, instalments can be embedded in the payment scheme: 4 models of instalments are presented here. They can be applied separately or in combination, and should be effectuated towards each Party individually. In any case partners should always receive enough contribution to be able to carry out their work as foreseen without having to do advance payments themselves.
a. in amounts to cover the realisation of the next deliverable -not necessary covering the whole actual planning period
b. amounts to cover the planned work for the next X months
c. amounts to cover YY% of the actual planning period
d. including a retention of ZZ% ; which will be paid out at acceptance of all related deliverables.
By consequence of implementing instalments all money will be retained until payment is due governed by the Payment Schedule

WP presentations

Each WP leader has presented briefly the goal of the WP and the action plan for the next 3 months, including the first activities, partners involved, meetings and deliverables (see presentation).

The next sections present briefly the first actions (detailed are to be found in the presentation) and the questions asked during the meeting.

WP1 Health protection: plan June – September 2019

In Milan, UNIVPM will lead the baseline assessment of the Milan Peschiera demo site and start the collection of data required for the development of the Early Warning System for water reuse. CAP will purchase additional sensors to complete the monitoring network. FLUIDION will install the ALERT system for bacterial measurement at the Peschiera site and CAP will draft a first monitoring plan for laboratory analysis.

In Berlin, KWB will install the ALERT system for bacterial measurement at the WWTP.

In Paris, SIAAP will start collecting the relevant data for the Early Warning System for bathing water. SIAAP will define 2 measurement sites and will install 2 ALERT systems for bacterial measurement in the river.

Several meetings are planned in Milan, Paris and Berlin to prepare the monitoring plans.

WP2 Performance and ROI: plan June – September 2019

All tasks are related to the development and demonstration of digital solutions to improve the performance and ROI of water infrastructures. During the summer period, KWB will organize meetings with the subtask leaders to discuss the development needs, the implementation plan of the solutions and the KPI to measure the achievements in term of performance and ROI.

In Berlin, BWB will precise the functional requirements and needs for the mobile application for water well management (software application for data collection and preventive maintenance of water wells). BWB will organize a meeting to discuss the developments with VRAGMENTS, KWB and SINTEF.

In Berlin, BWB will select a catchment for the test of the DTS (P4UW) and KANDO solutions to track illicit connections. BWB will organise a meeting to discuss the monitoring concept with KANDO and P4UW:

In Sofia, SV will select a catchment for the test of Xpection for smart sewer cleaning. IPEK will organise a meeting with SV and KWB to discuss the implementation plan.

In Berlin and Sofia, ICRA will organise a meeting to discuss the development and test of the T-sensors for CSO measurement with KWB, ADC, BWB and SV. BWB will select a catchment in Berlin and SV in Sofia.

In Copenhagen, BIOFOS will define the expectations and goals of the new model for sewer flow forecast. BIOFOS will lead discussion with DHI to define data requirements and prepare the installation of flow sensors.

In Milan, UNIVPM will organize a first meeting to discuss tech development and select the pilot sites for the test of the new drone for water stress monitoring.

#

Question Alexandre: we deploy many solutions in WP2: how will we measure the performance and ROI achieved? In particular how do we measure ROI?

For each solution deployed in WP2, we will define a set of KPIs to measure the benefits provided in term of performance and ROI. Performance will be assessed regarding the quality of service provided by the urban water system: e.g. the reduction of environmental impact, the protection against flood events, the resilience of the infrastructures to climate changes or the efficient use of resources. Regarding ROI, we need to define with the utilities how we want to express the benefits provided in term of costs: CAPEX reduction, OPEX reduction, Life Cycle Analysis, etc. The KPIs should be able to measure the current performance of the system (status quo) and the improvement of performance obtained through the deployment of the digital solution. The definition of the KPI will be led by KWB in concertation with the subtask teams. Some solutions can lead to cost reduction with the same performance whereas other solutions can lead to performance improvement with the same costs.

Question Alexandre: How do we assess the influence of the local context (technical, social, climate, etc.) on the performance of the digital solutions? In other words, how do we assess the transferability of the solutions in other contexts and which data do we need?

The key issue of transferability will be addressed by 3 means:

- Parallel tests in several case studies of selected solutions
- Establishment of CoP with the 5 cities to discuss transferability and barriers for implementation
- Desk study in WP5 conducted by KWB to assess the influence of the local context on the success of the digital solutions

WP3: ICT governance, policy and public involvement: plan June – September 2019

ECOL will start the guiding protocol for the ICT governance assessment with a meta-analysis of academic and grey literature and the analysis of experiences, initiatives and past projects. Interviews with the EAB members and city partners will be conducted in September and October.

#

Question Nico: how general is the ICT governance assessment?

The guiding protocol for the ICT governance assessment is a governance assessment framework. It includes a series of open questions to “guide” the exploration of (contextual) factors influencing the uptake of ICT technologies in the water sector. It will focus on particular sub-national and national level, as well as considering the role of European and international factors

WP4: Cybersecurity and interoperability: plan June – September 2019

SINTEF is leading the WP.

KWB will organize a meeting with SINTEF to design the roadmap for baseline evaluation. This roadmap includes risk assessment process, vulnerability assessment, existing cyber-physical risk reduction measures and the interoperability of existing IT/IoT systems.

KWB and SINTEF will prepare a series of meeting (or link with CoP) to evaluate the current cybersecurity situation of the city partners.

SINTEF will start mapping the relevant terminologies with respect to the existing ontologies consortia. SINTEF will launch the development of the semantic interoperability middleware and organize a meeting with KWB-BWB to discuss its implementation in Berlin.

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Remark Pascale: this action requires many meetings and involvement of the city partners, it might be relevant to coordinate it together with other activities (e.g. WP3 governance framework, WP5 CoP)

WP5: Market uptake: plan June – September 2019

STRANE, as WP leader, will organize a meeting to clarify the WP organization in order to set up a clear activity sheet, clarify tasks interactions (timing, content) and assign clear responsibilities.

ICATALIST will start defining the goals of the CoP and draft a practical guidance document with instructions on setting up, operating & sustaining a Local CoP for city leaders.

ECOL will start the assessment of the market for digital water solutions with literature review and interviews feeding into a Quadruple-helix brief.

#

Remark Rita: we have experience in STOPIT with the establishment of CoP so we can forward our deliverable.

Remark Alexandre: we need to define a KPI to assess the success of the CoP

WP6: Communication and dissemination: plan June – September 2019

ARCTIK will work further on the logo and visual identity of DWC. The visual identity applies to all materials (PowerPoint & word templates, flyers if necessary) throughout the project to give a consistent and coherent image.

ARCTIK organizes a meeting with KWB, SINTEF and ECOLOGIC (task force assigned by the StC) to discuss the final version of the logo.

ARCTIK organizes a meeting with KWB to discuss the website development. We need to define how we want to communicate: as project or company. The website must be innovative: we are a digital project, so should be also our website. Objective is to have a first version of the website (online mockup?) to be presented and discussed at the GA in September.

ARCTIK already created a twitter account for the project (@digitalwater_eu); it might be administrated by ARCTIK and KWB. ARCTIK will precise further the use of the account as part of the communication and dissemination strategy

WP7: Management: plan June – September 2019

KWB already drafted a first version of the Project Management Handbook. The Project Management Handbook is a short deliverable aiming at providing a clear framework for the management of the project, defining the management structure, procedures, key roles and

responsibilities, guiding the project participants through all aspects of the project's management. The document will be internally reviewed by Francesco and sent to all partners afterwards.

KWB prepares a list of amendments (modification from the Grant Agreement) to be validated during the GA in September. We already have several amendment needs in WP5 and additional amendments indicated by some partners during the signature phase (ICATALIST, ARCTIK).

Agenda SC Meeting #2

Labels

WP7

Description

Agenda of SC Meeting #2
25.07.2019

Checklist

- [ ] Introduction to Trello and pdf. for consortium
- [ ] Consortium Agreement
- [ ] Logo selection
- [ ] General Assembly: agenda
- [ ] Set up next meeting
- [ ] Define reviewers for deliverables
- [ ] ##########
- [ ] Presentation of progress and action plans 15' x 6 = 1h30

Admin issue

Labels

WP7

Description

- Cloud solution: the SC proposes to start with Nextcloud as file sharing and cloud solution. Important is to validate the solution with the security advisory board and check the versioning of files. The access to Nextcloud will be sent very soon.
- Consortium Agreement: update are in discussion before signatures.

Checklist

- [ ] Michael: checks backup on KWB server + syncrho with server
- [ ] Nico: validate use of next cloud with security advisory board
- [ ] Nico: define rules of use of the cloud (internal KWB allocation of files between server and cloud)
- [ ] #
- [ ] Nico: send email consortium with minutes SC + cloud access + high quality logo + city pictures
- [ ] #
- [ ] Hella: Create list reviewers for deliverables on the cloud
- [ ] Hella: Finalize signature CA
- [ ] Hella: Prepare amendments Arctik and ICA
- [ ] Nico: Check Project Management Handbook: 1. Internal payment procedure, 2. Trello, 3. NextCLoud

Press conference

Labels

WP7 Berlin

Description

A press conference is organised on September 5th in Berlin to introduce the project to the press and local stakeholders. The first local CoP meeting will be organised after the press conference

Checklist

- [ ] Wolfgang prepares exposition FLUIDION
- [ ] Nico: Prepare general presentation DWC (Regina will present)
- [ ] ARCTIK: preparation of banners: rolls up and X stand

General Assembly

Labels

WP7 Berlin

Description

The GA will be held in Berlin on 17 and 18 September

Checklist

- [x] Find and confirm location
- [x] Prepare list participants
- [x] Find dinner location day 1
- [x] Send agenda with hotel information before end of the month
- [ ] Hella: prepare template for presentations + send email to partners
- [ ] Hella: ask Edith for reception Rathaus
- [ ] Hella: Check costs: who pays what ?
- [ ] Book catering day 1 mid august
- [ ] Check dinner Markthalle
- [ ] Check catering food truck day 2
- [ ] Prepare game Kahoot

Subtask 1.1.1 Baseline assessment of demo sites and data collection

Members

AE A FF

Labels

WP1 Milan

Description

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

Baseline assessment concerning operating demo site
Data collection to integrate existing sensors/analyzers for treated water and bathing water quality monitoring

Checklist

- [x] CAP: Provide precise information on the operating WWTP-demosite features, as reference point for subtask activities implementation (July) @alfredopizza2
- [x] UNIVPM: Collection of existing data and technical features (August)
- [x] UNIVPM: allocate post-doc and PhD candidate @francescofatone
- [ ] UNIVPM: Collect and analyse available data from microbial indicators and more than 120 toxic and emerging compounds in Peschiera WWTP (July)
- [ ] CAP-FLUIDION: Definition of data flow protocol (August)
- [ ] UNIVPM: analyse existing data and technical features (August)
- [ ] ISS: provide technical docs about work of European boards
- [ ] ISS-CAP: provide data available concerning the ongoing sanitation safety plan (e.g. the risk matrix) and the analytical data about non-conventional and emerging contaminants

Attachments

OWN CLOUD CAP

No preview available

Subtask 1.1.1 Installation and technical requirements of new sensors

Members A FF

Labels WP1 Milan

Description

Conduct analysis on technical requirements and specifications of new sensors/analyzers to be installed (TOC, pH, temperature, conductivity, redox potential, UV transmission)

Integration of FLUID's ALERT DS1 in operating demo sites

Checklist

- [x] CAP-FLUID-UNIVPM: Videoconference scheduling DS1 testing activities at Peschiera WWTP (June-July)
- [x] CAP-FLUID: Evaluation of features of new online sensor/analyzers to be purchased (August)
- [x] FLUIDION: Scheduling test activities (July)
- [ ] UNIVPM-CAP-UNIMI-ISS: Preparation of monitoring plan for Milan case study (June 18)
- [ ] FLUIDION: Define installation requirements for FLUIDION (July)
- [ ] CAP: Analyze suppliers offers (August)
- [ ] CAP-FLUID: DEFINITION of COLLABORATION AND PARTNERSHIP AGREEMENT No. 20190293
- [ ] CAP: Testing of ALERT LAB and ALERT SYSTEM technology for reuse water monitoring in Milano (September-October)

Subtask 1.1.1 Lab analysis plan

Members

AE A FF

Labels

WP1 Milan

Description

Draft first version of lab analysis for monitoring plan

Checklist

- [ ] UNIVPM: Define monitoring plan in order to evaluate applicability accuracy, precision, resolution and sensitivity for measurement of water quality parameters (August)
- [ ] CAP: Define monitoring plan for comparison of FLUID's ALERT DS1 with existing bacteria analyzer in WWTP- demo site (August)

Subtask 1.1.2 Improving ALERT system

Members

A FF

Labels

WP1 Berlin Milan Paris

Description

Discussion on possible development of current protocols of ALERT system with FLUIDION
UNIVPM,
CAP,
SIAAP,
KWB

Checklist

- [ ] UNIVPM: Remote meeting (20-30 July)

Subtask 1.1.3 Test of the ALERT technology in Berlin and Paris

Members FF NC

Labels WP1 Berlin Paris

Description

Installation of on-line Sensors in Milan, Paris and Berlin

- Draft installation requirements
- Draft installation requirements
- Define sensors location
- Design implementation plan
- Install current version of ALERT System

Checklist

- [ ] KWB-BWB-FLUID: Preparation of monitoring plan for Berlin case study (June)
- [ ] SIAAP-FLUID: Preparation of monitoring plan for Paris case study (July)

Subtask 1.2.2. System description and data collection for an EWS for urban bathing quality

Members Labels

FF WP1 Paris

Description

Data collection and summer field measurement campaign

Checklist

- [ ] SIAAP: Contact all local partners for data transmission (until September)
- [ ] SIAAP: Prepare data repository (until September)
- [ ] SIAAP: Selection of local site in the Marne and Seine rivers and stormwater outfalls (until September)
- [ ] SIAAP: Set up and follow up the campaign (until September)
- [ ] SIAAP: Meeting with the relevant local actors to present the DWC project and to get additional funding (June and July)
- [ ] SIAAP: Discussion with Regional Health Agency (August)
- [ ] SIAAP: PhD these working plan preparation (August)

Strategy for deliverable D2.1 Implementation plan

Labels

WP2

Description

D2.1 : Implementation plan of each digital solution and methodology for quantification of the benefits provided by digitization - KPI (M12 - May 2020)

One section for each demo with the following structure:

- description of goals
- description of study site, local issues and current practice
- technology description
- role of partners
- where, when and how will technology be tested
- data management plan
- KPI: evaluation of the benefits vs. state of the art

Checklist

- [ ] WP leader: template for the report (September 2019)
- [ ] Task leaders: 1st draft of subsections 1-4 (Nov. 2019)
- [ ] WP leader: review of subsections 1-4 (January 2020)
- [ ] Task leaders: draft of all subsections (February 2020)
- [ ] WP leader + WP team: review (March 2020)
- [ ] Task leaders: final version of all subsections (April 2020)
- [ ] Coordinator: Final version of harmonized and formatted deliverable (May 2020)

Subtask 2.1.1 Improved operation and predictive maintenance of water wells

Labels

WP2 Berlin

Description

Goal: Development of a software application or webpage to be run on mobile devices of water well operators to i) support efficient data collection, ii) make well data available on-site and iii) enable preventive maintenance (Demo in Berlin)

Task progress:

- Goal of the study: defined and clear
- Demo site: defined
- technology status: Some tools already exists, some have to be developed, all - needs to be harmonized
- next steps: prepare timeline and draft KPIs until September
- Meetings: Meeting with BWB and KWB on 25 June, Meeting with BWB, KWB and VRAG planned for 16 August

Checklist

- [x] BWB: Design thinking workshop to gather ideas (June)
- [x] BWB: Precision of functional requirements and needs (June)
- [ ] BWB: meeting with KWB and VRAG to discuss goals, local issues, status of the technology and schedule (16 August)
- [ ] BWB: clarify role of SINTEF
- [ ] BWB: rough time line for first 12-18 months
- [ ] BWB, VRAG, SINTEF, KWB: start discussion on KPIs

Subtask 2.1.2 Identification of illicit connections in the stormwater network

Labels

WP2 Berlin

Description

Goal: Identification of illicit connections in the stormwater network via a two step monitoring approach consisting of i) hotspot screening via conductivity and multi-parameter sensors and ii) Distributed Temperature Sensing (DTS) for selected hotspots (Demo in Berlin)

Task progress:

- Goal of the study: main goal is defined, other possbile side effects (detection of stormwater inflow to foul sewers) will be discussed later
- Demo site: BWB proposed a catchment (lake Fennsee), characterstics (sewer length, etc.) to be specified and communicated to partners, site visit with partners planned for 19 September
- technology status: EC and DTS technologies exist, EC sensors have to be bought, DTS equipment to be provided by CAP, little known about KANDO technology
- next steps: prepare timeline and draft KPIs until September, site visit
- Meetings: TelCo meeting with BWB, P4UW and KWB on 19 July, exchange with KANDO planned for first half og August

Checklist

- [x] BWB: Analyse and prioritise catchments (June-August)
- [x] BWB: first meeting with BWB, P4UW and KWB to discuss goals, local issues, status of the technology and schedule (July)
- [ ] Meeting with KANDO to discuss goals, status of technology and data transmission issues (1st half of August)
- [ ] BWB: gather and provide information on the study site (area, inhabitants, sewer length, land-use) and technical requirements (ATEX certification).
- [ ] BWB: prepare rough time line for first 12-18 months
- [ ] BWB: organise site visit on 19 September with P4UW, KANDO and CAP, if possible; ask CAP if they are preared to provide equipment
- [ ] BWB, KANDO, P4UW: precise sensor locations, number of sensors, technical specifications, hard ware requirements, data formats and data transmission -> monitoring start in Summer 2020
- [ ] BWB, P4UW, KANDO, KWB: start discussion on KPIs for WP meeting in September

Subtask 2.1.3 Advanced sewer cleaning with smart combination of HD camera and cleaning

Labels

WP2 Sofia

Description

Goal: Demonstration of video nozzle technology to combine sewer inspection and cleaning in a catchment with 10 km main sewers and known blockages (Demo in Sofia)

Task progress:

- Goal of the study: defined
- Demo site: SV has a priority list of sewers to be cleaned regularly, a detailed plan will be prepared in January 2020
- technology status: cleaning and inspection technique is ready, necessary information about the cleaning trucks has been provided by SV, installation and demo planned for June-Sept. 2020
- next steps: prepare timeline and draft KPIs until September
- Meetings: TelCo meeting with SV and IPEK on 19 July

Checklist

- [ ] SV: Select catchment for demonstration based on experience on blockages in Sofia and local issues (July) --> selection of specific pipes postponed, priority pipes are already known, cleaning and inspection plan for 2020 will be prepared in January 2020; T2.1.3 will be integrated in annual cleaning program
- [x] KWB: first meeting with SV, KWB and IPEK to discuss goals, local issues, status of the technology and schedule (July)
- [ ] specifications on demo: approx. 10 km of priority pipes that will be cleaned anyway in 2020, preferably of diameter 500 - 1000 mm; demo period: June-Sep. 2020; IPEK will provide equipment and technician for first days of demo; SV will conduct the demo then throughout the summer.
- [ ] IPEK: rough time line for first 12-18 months
- [ ] IPEK, SV, KWB: start discussion on KPIs for WP meeting in September

Subtask 2.2.1 Smart sensors and analytics for real-time stormwater management

Labels

WP2 Berlin Sofia

Description

Goal: Deployment of a network of low-cost temperature sensors to monitor occurrence and duration of CSO (Demo in Sofia and Berlin) to support real-time CSO alert and model calibration

Task progress:

- Goal of the study: main goal is defined (CSO monitoring, in Sofia also during dry-weather, e.g. in case of blockages), other possbile side effects will be discussed when demo site is selected
- Demo site Berlin: BWB proposed two catchments, Chb I is preferred option (little studied, major CSOs, potential for improvement, number of CSO structures corresponds to planned number of sensors)
  Demo site Sofia: not only one catchment but probably different CSO structures distributed in the city
- technology status: two versions: online and offline sensors, the offline sensors are ready, online sensors are under development (together with IOTSENS), further exchange about ATEX certification of offline sensors and BWB/SV requirements needed
- next steps: prepare timeline and draft KPIs until September
- Meetings: TelCo meeting with ICRA, IOTSENS, SV, BWB and KWB on 23 July

Checklist

- [x] ICRA: first meeting with SV, BWB, IOTSENS and KWB to discuss goals, local issues, status of the technology and schedule (23 July)
- [ ] BWB: Selection of catchment for demo in Berlin based on data on CSO and flooding occurence and model availability (until GA in September)
- [ ] SV: Selection of catchment for demo in Sofia based on data on CSO (until GA in September)
- [ ] ICRA: rough time line for first 12-18 months
- [ ] ICRA, IOTSENS, BWB, SV, KWB: start discussion on KPIs for WP meeting in September
- [ ] ICRA: Start developing the implementation plan with technical and operational requirements (e.g. ATEX-certification), hard ware requirements, data formats, and sensor locations (September)

Subtask 2.2.2 Improved machine learning WWTP inflow forecast

Labels

WP2 Copenhagen

Description

Goal: Development of a machine learning model for forecasting WWTP inflow based on sewer flow measurements, rainfall radars and a numerical weather model (Demo in Copenhaqen)

Two other related tasks to be demonstrated in Copenhagen:

- Task 2.2.3: DSS for real-time control of WWTP operations and in sewer-retention
- Task 2.2.4: Web-based prototype platform for decision support at city scale

Task progress:

- Goal of the study: in general defined, needs precision
- Demo sites: to be specified
- technology status: to be discussed
- next steps: prepare timeline and draft KPIs until September
- Meetings: TelCo meeting with BIOFOS and DHI on 26 July, meeting with all Copenhagen partners planned for August

Checklist

- [ ] BIOFOS: first TelCo meeting with DHI and KWB to discuss goals, local issues, status of the technology and schedule (26 July)
- [ ] Meeting with Copenhagen partners in August
- [ ] BIOFOS: Start developing the implementation plan (September)
- [ ] BIOFOS: rough time line for first 12-18 months

Subtask 2.2.5 Measurement of soil-plant-atmosphere variables using active unmanned aerial vehicle

Labels

WP2 Milan

Description

Goal: Demonstration and validation of a monitoring drone equipped with remote sensors for water stress

Task progress:

- Goal of the study: defined
- Demo site: defined
- technology status: some sensors already there, others under development
- next steps: prepare timeline and draft KPIs until September
- Meetings: Meeting between all Milan partners in June, TelCo meeting with CAP, UNIVPM, UNIMI and KWB on 26 July

Checklist

- [x] First skype meeting with partners in May 2019: get to know each other
- [x] Physical meeting in Milan on 18 June 2019: precise objectives, visit study site
- [ ] TelCo planned for 26 July

Subtask 2.2.6 Match making ICT tool between water demand for irrigation and safe water availability

Labels

WP2 Milan

Description

Goals: Development of an interoperable match-making ICT platform to link water demand for irrigation and safe water availability and quality (DS5); Development of efficient irrigation schemes and WWTP operation strategies based on data from (T2.2.5) and crop / evaporation models

Task progress:

- Goal of the study: defined
- Demo site: defined
- technology status: to be discussed
- next steps: prepare timeline and draft KPIs until September
- Meetings: Meeting between all Milan partners in June, TelCo meeting with CAP, UNIVPM, UNIMI and KWB on 26 July

Checklist

- [x] First skype meeting with partners in May 2019: get to know each other
- [x] Physical meeting in Milan on 18 June 2019: precise objectives, visit study site
- [ ] TelCo planned for 26 July

Subtask 3.1.1 Guiding protocol

Labels

WP3

Description

D3.1 : Guiding protocol for the ICT governance assessment (M6 - November)

The “guiding protocol” for the ICT governance assessment

- is a governance assessment framework.
- series of open questions to “guide” the exploration of (contextual) factors influencing the uptake of ICT technologies in the water sector,
  -focus on particular sub-national and national level, as well as considering the role of European and international factors
  -applied to three case-studies (Task 3.2.1) and will inform Task 3.1.2 and 3.1.3

Checklist

- [x] Rapid meta-analysis of academic and grey literature (July)
- [ ] Stocktaking of experiences from relevant initiatives, including past and on-going projects (August)
- [ ] Send draft version to the coordinator for review (deadline 31.08)
- [ ] Review draft version by Nico (1 week of September)
- [ ] Consultation of the EAB, consortium members, and external city experts (e.g. practitioners, scientists, policy makers, businesses) (September - October)

Subtask 4.1.1 Relevant Baseline evaluation of current systems

Labels

WP4

Description

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

T4.1 Structured factsheets of key information • Baseline situation in utilities regarding DWC solutions • Implemented sensors, models and systems • Data exchanges protocols • Cybersecurity measures

Design a roadmap for baseline evaluation covering also T4.1.2: Areas to focus:
Risk assessment process
Vulnerability assessment
Existing cyber-physical risk reduction measures
Interoperability of existing IT/IoT systems
Possible used ontology
Metadata used

Design the series of meeting for evaluating the current situation in each utility in collaboration with WP5
One responsible per utility
Telco to decide for each case between KWB, SINTEF and the utility:
F2F meetings
Telco meetings

Checklist

- [ ] KWB: organise first meeting KWB-SINTEF to design roadmap in August
- [ ] KWB-SINTEF: design and send questionaire

4.3.1 Definition of semantic interoperability design requirements

Labels

WP4

Description

Mapping relevant terminologies with respect to the existing ontologies consortia
Mapping relevant terminologies with respect to the metadata in T4.1

Checklist

- [ ] SINTEF: Literature review and identification of gaps (June-July)
- [ ] SINTEF: Summarizing the lessons learnt regarding the metadata with respect to the ontology (August)
- [ ] SINTEF: Possible meeting for presenting the first outcome of the design requirements (August-September)

4.3.2 Development of the semantic interoperability middleware

Labels

WP4

Description

Identification of system mediation and matchmaking based on 4.3.1 and 4.1 results

Checklist

- [ ] SINTEF: Development of a microservice architecture
- [ ] SINTEF: Definition of distributed modules requirements

Task 5.1 CoP

Members Labels

MB WP5

Description

D5.1 Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (M6 - November)

Action 1: Description of the aims and profiles of the different [local] CoPs
Action 2: Production of a practical guidance document

Checklist

- [ ] ICA: prepare agenda for GA CoP meeting with objective of the meeting (July 26)
- [ ] Alex: Write objectives with Hella + stakeholders mapping + send invitation to meeting
- [ ] Nico: Proposition of method: Scrum idea discussion with ICATALIST for ideas
- [ ] Regina: check BWB participants for GA and project CoP during the GA

Subtask 5.2.1 Assessment of the market for digital water solutions

Labels

WP5

Description

D5.3 : Quadruple helix brief on market opportunities (M7 - December)

Assessment of the market for digital water solutions

Checklist

- [ ] ECOL: Literature review
- [ ] ECOL: Interviews feeding into a Quadruple-helix brief

Task 5.3 WP organisation and content of exploitation plan

Labels

WP5

Description

D5.1 Plan for exploitation of DWC results (M6 - November)

Clarify the WP organisation (September)

- Set up a clear activity sheet
- Clarify tasks interactions (timing, content)
- Assign clear responsibilities
- Prepare an amendment on WP5

Prepare a table of content for the exploitation plan (December)

- List all topics to be included in the Plan for Exploitation
- Clarify all inputs required from every partner

Checklist

- [ ] STRANE: Clarify WP organisation and roles (September)
- [ ] STRANE: Prepare table of content (December)

Task 5.3 Facilitating the market entry of DWC solutions

Labels

WP5

Description

D5.1 Plan for exploitation of DWC results (M6 - November)

Analyse the technologies and find relevant combinations
Select innovations with a potential to spinoff

Checklist

- [ ] STRANE-KWB: Map comprehensively all innovations (September)
- [ ] STRANE: List comprehensively the technologies composing these innovations (September)
- [ ] STRANE: Contact non-SME partners to check their interest in creating spinoffs (May 2020)
- [ ] STRANE: Collect information on their innovations (May 2020)

Subtask 6.1.2 Logo & visual identity

Labels

WP6

Description

D6.1 : Logo and visual identity development (3 - August)

Outreach material tailored for different targets

Progress: logo is almost finalized but need some small improvement to differ from project Ibathwater. Ideas:

- turn the half circle to do a D
- add a building block in logo; maybe difficult
  Last input from BWB on 25.07

Checklist

- [x] ARCTIK: new verison of logo (mid July)
- [x] Validation with task force SINTEF, KWB, ECOL
- [x] ARCTIK: Presentation at SC + validation + last colors and details modifications needed
- [x] ARCTIK-KWB: online meeting about the graphic charter and templates: PowerPoint, Minutes, Invitation GA, Deliverables and rollup (first week of August)
- [x] ARCTIK-task force: first graphic charter August 8
- [ ] Consortium vote for logo until August 14
- [ ] ARCTIK: final graphic charter and templates August 28
- [ ] ARCTIK: Preparation of horizontal banner: with multiple logos and visual elements; deadline 28 August

Subtask 6.1.3 Website

Labels

WP6

Description

D6.2 : Setup of DWC website (M4 - September)

T6.1.3 simple website focusing on solutions

Checklist

- [x] ARCTIK: temporary website will be put online in the upcoming days (before the 15th of July)
- [x] ARCTIK: online meeting with task force about the wireframes of the website - Internal validation (August 8)
- [ ] ARCTIK: graphic designer works on mock-ups and layouts for the new website (Summer)
- [ ] Ask photos to city leaders
- [ ] ARCTIK: presentation of the project website at the GA of DWC - external validation with members of the consortium (Middle of September)
- [ ] ARCTIK: final website is put online (End of September)

Attachments

Wireframes site 2.0.pdf

No preview available

Subtask 6.1.1 Communication and dissemination strategy

Labels

WP6

Description

D6.3 : Communication and dissemination strategy for DWC project (M6 - November)

T6.1.1, M6 with updates on M18 and M30
Communication and dissemination strategy for DWC project

Agenda SC Meeting #3

WP7

Agenda of SC Meeting #3
23.08.2019

CHECKLIST

CHECKLIST

- [ ] Use of the cloud: minutes, pictures and material
- [ ] Define reviewers for deliverables
- [ ] General Assembly: agenda and roles
- [ ] Consortium Agreement and payment
- [ ] Set up next meeting
- [ ] ##########
- [ ] Presentation of progress and action plans 15' x 6 = 1h30

Admin issue

WP7

Progress

- Cloud solution: the access to Nextcloud has been given to the partners; the SAB gave feedback on security issue; following their input, additional backup has been ordered to increase security
- The new logo has been selected with a vote
- Consortium Agreement: 3rd version circled, half of partners agreed.
  To proceed with payment, signatures for draft proposed. 1 partner objected, still in discussion whether general or just not possible for them.
  Final version still has high priority.

CHECKLIST

- [x] Nico: define rules of use of the cloud (internal KWB allocation of files between server and cloud)
- [x] Nico: validate use of next cloud with security advisory board
- [x] Michael: checks backup on KWB server + synchro with server + feedback advisor
- [ ] #
- [x] Nico: send email consortium with cloud access + ask high quality logo + ask city pictures
- [ ] #
- [x] Nico: Check Project Management Handbook: 1. Internal payment procedure, 2. Trello, 3. NextCLoud
- [x] Hella: Create list reviewers for deliverables on the cloud
- [ ] Hella: Finalize signature CA
- [ ] Hella: Prepare amendments Arctik and ICA > mail Sotirios for info and confirmation to partners
- [x] Hella: create new mailing list for SC info (only technical partners)
- [ ] Hella: Upload deliverable WP6 before end of the month

Press conference

WP7 Berlin

A press conference is organised on September 5th in Berlin to introduce the project to the press and local stakeholders. The first local CoP meeting will be organised after the press conference

Task progress

- the banners will be printed in Berlin; one week is needed for the X banner 2x3 > deadline max 27 August
- video demo: Dan sends material for ALERT demo; Wolgang prepares video webcam and show; check with Regina for sewer solution

CHECKLIST

CHECKLIST

- [ ] Nico: Prepare general presentation DWC (Regina will present)
- [ ] Nico: prepare videos for sewers for TV > check Regina if needed
- [ ] Nico: get video with wave animation and logo
- [ ] ARCTIK: preparation of banners: rolls up and X stand
- [ ] Wolfgang: prepares exposition FLUIDION + movie with webcam
- [ ] Dan sends rollup and portable system for showcase
- [ ] Idea for picture with local stakeholders (banners + maybe object?)

General Assembly

WP7 Berlin

The GA will be held in Berlin on 17 and 18 September

Task progress

- Presentations asked for, deadline 5th September to check & harmonize if needed
- 3 out of 8 EAB members confirmed participation (&NDA)

CHECKLIST

- [x] Hella: prepare template for presentations + send email to partners with doodle participation
- [x] Hella: Check costs: who pays what ?
- [x] Nico: feedback dinner Markthalle 16/08
- [x] Hella: check possibility of tour on day 1 + Unterwelt
- [ ] Hella: book dinner day 1 (1 Schiff, 2 Defne)
- [ ] Hella: overview costs and order catering and location + forward to Bodo for order + check flexibility on number of people
- [ ] Bodo: Book catering day 1 mid august
- [ ] Nico: Prepare game Kahoot
- [ ] Hella: Collect presentations pitch + tech provider + cities
- [ ] Hella, Nico, Manuel: Plan CoP breakfast and send invitation

Subtask 1.1.1 Baseline assessment of demo sites and data collection

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

Task progress

- critically analyse existing water quality, treatment performances, energy, and carbon footprint data
- critically analyse microcontaminants and risk analyses in progress
- study and consider updated EU docs on water reuse regulation (provided by ISS)
- design DWC-appropriate monitoring campaign

CHECKLIST

- [x] CAP: Provide precise information on the operating WWTP-demosite features, as reference point for subtask activities implementation (July) @alfredopizza2
- [x] UNIVPM: Collection of existing data and technical features (August)
- [x] UNIVPM: allocate post-doc and PhD candidate @francescofatone
- [ ] UNIVPM: Collect and analyse available data from microbial indicators and more than 120 toxic and emerging compounds in Peschiera WWTP (July)
- [ ] CAP-FLUIDION: Definition of data flow protocol (August)
- [ ] UNIVPM: analyse existing data and technical features (August)
- [ ] ISS: provide technical docs about work of European boards
- [ ] ISS-CAP: provide data available concerning the ongoing sanitation safety plan (e.g. the risk matrix) and the analytical data about non-conventional and emerging contaminants
- [ ] CAP: provide existing energy audit data

Subtask 1.1.1 Installation and technical requirements of new sensors

WP1 Milan

Conduct analysis on technical requirements and specifications of new sensors/analyzers to be installed (TOC, pH, temperature, conductivity, redox potential, UV transmission)
Integration of FLUID's ALERT DS1 in operating demo sites

Task progress

- agree on best installation sites and period
- agree on terms of collaboration (NDA etc) and technical requirements
- installation
- operation
- validation

CHECKLIST

- [x] CAP-FLUID-UNIVPM: Videoconference scheduling DS1 testing activities at Peschiera WWTP (June-July)
- [x] CAP-FLUID: Evaluation of features of new online sensor/analyzers to be purchased (August)
- [x] FLUIDION: Scheduling test activities (July)
- [x] FLUIDION: Define installation requirements for FLUIDION (July)
- [x] CAP-FLUID: DEFINITION of COLLABORATION AND PARTNERSHIP AGREEMENT No. 20190293
- [ ] CAP: Testing of ALERT LAB and ALERT SYSTEM technology for reuse water monitoring in Milano (September-October)
- [ ] FLUID: Provides information on sensor uncertainty (September)
- [ ] CAP: Analyze suppliers offers (August)

Subtask 1.1.1 Lab analysis plan

WP1 Milan

Draft first version of lab analysis for monitoring plan

Task progress

- monitoring for ALERT validation and optimization
- monitoring for early warning

CHECKLIST

- [ ] UNIVPM: Define monitoring plan in order to evaluate applicability accuracy, precision, resolution and sensitivity for measurement of water quality parameters (August)
- [ ] CAP: Define monitoring plan for comparison of FLUID's ALERT DS1 with existing bacteria analyzer in WWTP-demo site (August)

Subtask 1.1.2 Improving ALERT system

WP1 Berlin Milan Paris

Discussion on possible development of current protocols of ALERT system with FLUIDION
UNIVPM,
CAP,
SIAAP,
KWB

Task progress

- xxx
- yyy

CHECKLIST

- [x] UNIVPM: Remote meeting (22 Aug)
- [ ] CAP: comment and discuss the FLUIDION Agreement (Aug)

Subtask 1.1.3 Test of the ALERT technology in Berlin and Paris

WP1 Berlin Paris

Installation of on-line Sensors in Milan, Paris and Berlin

Task progress

- Agreement signed
- Plan preparation for Paris and Berlin
- Monitoring started in Paris and Berlin; gathering data

CHECKLIST

- [x] KWB-BWB-FLUID: Preparation of monitoring plan for Berlin case study (June)
- [x] SIAAP-FLUID: Preparation of monitoring plan for Paris case study (July)
- [ ] CAP-FLUID: Preparation of monitoring plan for Milan case study (September)

Subtask 1.2.2. System description and data collection for an EWS for urban bathing quality

WP1 Paris

D1.2 Early warning and improved decision support for health protection in water reuse and bathing water - 1st version (M18)

Data collection and summer field measurement campaign

Task progress

- xxx
- yyy

CHECKLIST

- [ ] SIAAP: Contact all local partners for data transmission (until September)
- [ ] SIAAP: Prepare data repository (until September)
- [ ] SIAAP: Selection of local site in the Marne and Seine rivers and stormwater outfalls (until September)
- [ ] SIAAP: Set up and follow up the campaign (until September)
- [ ] SIAAP: Meeting with the relevant local actors to present the DWC project and to get additional funding (June and July)
- [ ] SIAAP: Discussion with Regional Health Agency (August)
- [ ] SIAAP: PhD these working plan preparation (August)

Strategy for deliverable D2.1 Implementation plan

WP2

D2.1 : Implementation plan of each digital solution and methodology for quantification of the benefits provided by digitization - KPI (M12 - May 2020)

One section for each demo with the following structure:

- description of goals
- description of study site, local issues and current practice
- technology description
- role of partners
- where, when and how will technology be tested
- data management plan
- KPI: evaluation of the benefits vs. state of the art

---

goals of WP2 meeting (Sept, 19):

- have a common understanding of the WP2 activities and goals
- discuss the implementation plan of each task / solution -> D2.1
- discuss the KPIs for measuring performance and return on investment

CHECKLIST

- [ ] WP leader: template for the report (September 2019)
- [ ] Task leaders: 1st draft of subsections 1-4 (Nov. 2019)
- [ ] WP leader: review of subsections 1-4 (January 2020)
- [ ] Task leaders: draft of all subsections (February 2020)
- [ ] WP leader + WP team: review (March 2020)
- [ ] Task leaders: final version of all subsections (April 2020)
- [ ] Coordinator: Final version of harmonized and formatted deliverable (May 2020)

Subtask 2.1.1 + 2.3.2: Well maintenance app + condition and rehab planning

WP2 Berlin

Goals:

- Development of a software application or webpage to be run on mobile devices of water well operators to i) support efficient data collection, ii) make well data available on-site and iii) enable preventive maintenance (T2.1.1, Demo in Berlin)
- Develop data-based algorithms for strategic rehabilitation of wells (T2.3.2)

Task progress:

- Meeting with BWB, VRAGMENTS and KWB on 16 August
  - first contact between partners
  - description of current situation / deficits
  - precision of expectations
  - discussion of roles

CHECKLIST

- [x] BWB: Design thinking workshop to gather ideas (June)
- [x] BWB: Precision of functional requirements and needs (June)
- [x] BWB: meeting with KWB and VRAG to discuss goals, local issues, status of the technology and schedule (16 August)
- [ ] BWB: clarify role of SINTEF
- [ ] BWB: rough time line for first 12-18 months (Sept 2019)
- [ ] BWB, VRAG, SINTEF, KWB: start discussion on KPIs (Sept 2019)
- [ ] BWB: start developing the implementation plan (November 2019)

Subtask 2.1.2 Identification of illicit connections in the stormwater network

WP2 Berlin

Goal: Identification of illicit connections in the stormwater network via a two step monitoring approach consisting of i) hotspot screening via conductivity and multi-parameter sensors and ii) Distributed Temperature Sensing (DTS) for selected hotspots (Demo in Berlin)

Task progress:

- Goal of the study: main goal is defined, other possbile side effects (detection of stormwater inflow to foul sewers) will be discussed later
- Demo site: BWB proposed a catchment (lake Fennsee), characteristics (sewer length, etc.) were specified and communicated to partners
- site visit with partners planned for 19 September
- technology status: EC sensors have to be bought, DTS equipment to be provided by CAP, little known about KANDO technology

CHECKLIST

- [x] BWB: Analyse and prioritise catchments (June-August)
- [x] BWB: first meeting with BWB, P4UW and KWB to discuss goals, local issues, status of the technology and schedule (July)
- [x] BWB: gather and provide information on the study site (area, inhabitants, sewer length, land-use) and technical requirements (ATEX certification).
- [x] BWB: organise site visit on 19 September with P4UW, KANDO and CAP, if possible; ask CAP if they are preared to provide equipment
- [ ] BWB, KWB: TelCo-meeting with KANDO to discuss goals, status of technology and data transmission issues (10 September)
- [ ] BWB: prepare rough time line for first 12-18 months (Sept 2019)
- [ ] BWB, P4UW, KANDO, KWB: start discussion on KPIs (Sept 2019)
- [ ] Site visit with partners (19 September 19)
- [ ] BWB: start developing the implementation plan (November 2019)
- [ ] BWB, KANDO, P4UW: monitoring start in Summer 2020

Subtask 2.1.3 Advanced sewer cleaning and inspection

WP2 Sofia

Goal: Demonstration of video nozzle technology to combine sewer inspection and cleaning in a catchment with 10 km main sewers and known blockages (Demo in Sofia)

Task progress:

- no progress reported since July meeting
- July status: goals defined, detailed inspection / cleaning list will be prepared in January 2020, technology is ready, necessary information for the installation exchanged, installation and demo planned for June-Sept. 2020

CHECKLIST

- [x] KWB: first meeting with SV, KWB and IPEK to discuss goals, local issues, status of the technology and schedule (July)
- [ ] IPEK: rough time line for first 12-18 months (Sept 2019)
- [ ] IPEK, SV, KWB: start discussion on KPIs (Sept 2019)
- [ ] IPEK: start developing the implementation plan (November 2019)
- [ ] SV: define cleaning and inspection plan for 2020 (January 2020)
- [ ] SV: specify 10 km of priority pipes for demo (preferably of diameter 500 - 1000 mm)
- [ ] IPEK: provide equipment and technician -> training (Spring 2020)
- [ ] SV: conduct demo (June-Sept. 2020)
- [ ] Next TelCo: 29 November 2019

Subtask 2.2.1 + 2.3.1: Smart CSO sensors and analytics for real-time stormwater management

WP2 Berlin Sofia

Goal: Deployment of a network of low-cost temperature sensors to monitor occurrence and duration of CSO (Demo in Sofia and Berlin) to support real-time CSO alert and model calibration

---

Task progress:

- discussion on Berlin demo site intensified: one of the two eventual demo catchments probably not suitable due to construction activities
- other progress on Sofia demo site / technology development, etc. reported since July meeting:
  - Sofia demo site: CSO structures to be defined
  - Technology status: online and offline sensors, online sensors are under development, start of demo depends on the online sensors

CHECKLIST

- [x] ICRA: first meeting with SV, BWB, IOTSENS and KWB to discuss goals, local issues, status of the technology and schedule (23 July)
- [ ] BWB: Selection of catchment for demo in Berlin based on data on CSO and flooding occurence and model availability (until GA in September)
- [ ] SV: Selection of catchment for demo in Sofia based on data on CSO (until GA in September)
- [ ] ICRA: rough time line for first 12-18 months (Sept 2019)
- [ ] ICRA, IOTSENS, BWB, SV, KWB: start discussion on KPIs (Sept 2019)
- [ ] ICRA: start developing the implementation plan (November 2019)
- [ ] Next TelCo: 21 November 2019

Subtask 2.2.2 + 2.2.3 + 2.2.4: WWTP inflow forecast + DSS for sewer and WWTP management + visualisation platform

WP2 Copenhagen

Goals:

- Development of a machine learning model for forecasting WWTP inflow based on sewer flow measurements, rainfall radars and a numerical weather model (Demo in Copenhaqen)
- DSS for real-time control of WWTP operations and in sewer-retention
- Web-based prototype platform for decision support at city scale

---

Task progress:

- Goal of the study: in general defined, needs precision
- Demo site: catchment defined (central of the three sewer catchments in Copenhagen)
- technology status: to be discussed (technology provider DHI could not participate in last task TelCo meeting)

CHECKLIST

- [x] BIOFOS: first TelCo meeting with DHI and KWB to discuss goals, local issues, status of the technology and schedule (26 July)
- [x] Meeting with Copenhagen partners in August
- [ ] BIOFOS, DHI: rough time line for first 12-18 months (Sept 2019)
- [ ] BIOFOS, DHI: start discussion on KPIs (Sept 2019)
- [ ] BIOFOS, DHI: Start developing the implementation plan (November 2019)

Subtask 2.2.5 + 2.2.6: Water stress monitoring + match making tool for water reuse

WP2 Milan

Goals:

- Demonstration and validation of a monitoring drone equipped with remote sensors for water stress
- Development of an interoperable match-making ICT platform to link water demand for irrigation and safe water availability and quality
- Development of efficient irrigation schemes and WWTP operation strategies based on data from (T2.2.5) and crop / evaporation models

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Task progress:

- Demo site: defined, very close to the WWTP
- technology status: some sensors already there, others under development
- issues: drone demo maybe not possible due to vicinity to airport, idea: test drone in another location and other sensors in designated demo site

CHECKLIST

- [x] First skype meeting with partners in May 2019: get to know each other
- [x] Physical meeting in Milan on 18 June 2019: precise objectives, visit study site
- [x] TelCo on 26 Jluy
- [ ] UNIVPM, CAP, UNIMI: rough time line for first 12-18 months (Sept 2019)
- [ ] UNIVPM, CAP, UNIMI: start discussion on KPIs (Sept 2019)
- [ ] UNIVPM, CAP, UNIMI: Start developing the implementation plan (November 2019)
- [ ] UNIVPM: monitoring next season (May - Sept. 2020)
- [ ] Next TelCo: 27 November 2019

Subtask 3.1.1 Guiding protocol

WP3

D3.1 : Guiding protocol for the ICT governance assessment (M6 - November)

The “guiding protocol” for the ICT governance assessment

- is a governance assessment framework.
- series of open questions to “guide” the exploration of (contextual) factors influencing the uptake of ICT technologies in the water sector,
  -focus on particular sub-national and national level, as well as considering the role of European and international factors
  -applied to three case-studies (Task 3.2.1) and will inform Task 3.1.2 and 3.1.3

Task progress

- Weekly internal meetings at Ecologic to discuss the progress
- Timelime for commenting the initial draft agreed with Nicoclas

CHECKLIST

- [x] Rapid meta-analysis of academic and grey literature (July)
- [ ] Ecologic: Stocktaking of experiences from relevant initiatives, including past and on-going projects (August)
- [ ] Ecologic: Send draft version to the coordinator for review (deadline 2.09.)
- [ ] Nicolas: Review of the initial draft (1 week of September)
- [ ] KWB, Ecologic:: Telco to discuss the initial draft (12.09)
- [ ] Consultation of the EAB, consortium members, and external city experts (e.g. practitioners, scientists, policy makers, businesses) (September - October)

Subtask 3.1.2 Screening of Digital, Data and Water Policies

WP3

D3.2: Policy matrix (M12)

Delivers a cursory overview on:

- ICT policies related to EU legislation as well as to those addressed in the five case studies.
  -Key issues from the different countries' perspectives enables the refinement of the methodological design.

This task is closely linked to the work in the CoP in WP5. The results are compiled into a DWC policy matrix to allow for easy access.

Task progress

- No progress; just started

Subtask 4.1.1 Relevant Baseline evaluation of current systems

WP4

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

T4.1 Structured factsheets of key information • Baseline situation in utilities regarding DWC solutions • Implemented sensors, models and systems • Data exchanges protocols • Cybersecurity measures

Task progress

- 20th August: Telco SINTEF-KWB to prepare presentation of approach for GA
- First strategy has been defined to collect relevant information for the deliverable

CHECKLIST

- [x] KWB: organise first meeting KWB-SINTEF to design roadmap in August
- [ ] KWB: Prepare contact list with specialists and task partners to be invited to the meetings
- [ ] SINTEF-KWB: design questionaire and present at GA
- [ ] KWB-SINTEF: Send questionaire and work on answers with tech providers and utilities
- [ ] KWB-SINTEF: present and discuss approach (At GA)
- [ ] KWB-SINTEF: 1st GoToMeeting with utilities & tech providers: presentation of data requirements and communication protocols from tech providers to utilities (End of September)
- [ ] KWB-SINTEF: 2nd GoToMeeting with utilities & tech providers: presentation of interface utilities - tech providers and how risk assessment is done at utility level (October)

Subtask 4.1.2 Description of semantic models in use in the target domain

WP4

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

Schematic description of interoperability of existing systems
including existing or user-defined semantic models of understanding the produced data and the used ontology and the applied (ad-hoc) data exchange protocols in the utilities

Task progress

- (see task 4.1.1)

CHECKLISTE

- [x] August: KWB-SINTEF: Discuss approach
- [ ] August/ September: SINTEF-KWB: Design questionaire/ factsheet to map the existing system and connect the applied digital solutions to this system
- [ ] September/ October: SINTEF-KWB: Meet utilities and get their feedback
- [ ] November/ December: SINTEF-KWB: Include information in factsheets
- [ ] Spring 2020: SINTEF-KWB: Evaluate factsheets and prepare deliverable

4.3.1 Definition of semantic interoperability design requirements

WP4

D4.4: Semantic interoperability design requirements (M18)

Mapping relevant terminologies with respect to the existing ontologies and to the metadata in T4.1

Task progress

- xxx
- yyy

CHECKLIST

- [x] SINTEF: Literature review and identification of gaps (June-July)
- [ ] Internal Sintef meeting about the preparation of a plan
- [ ] SINTEF: Summarizing the lessons learnt regarding the metadata with respect to the ontology (August)
- [ ] SINTEF: Possible meeting for presenting the first outcome of the design requirements (August-September)

4.3.2 Development of the semantic interoperability middleware

WP4

D4.6: Semantic interoperable middleware - 1st version (M18)

Identification of system mediation and matchmaking based on 4.3.1 and 4.1 results

Task progress

- xxx
- yyy

CHECKLIST

- [ ] SINTEF: Internal meeting on available middlewares met in Brussels
- [ ] SINTEF: Development of a microservice architecture
- [ ] SINTEF: Definition of distributed modules requirements

Task 5.1 Local CoP

WP5

MS5.1 Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (M6 - November)

Task progress

- DWC Berlin has been defined as frontrunner local CoP.
- Guidelines for the initial meeting of DWC Berlin (September, 5th) have been prepared. Feedback to be compiled after the meeting. Results from World Cafe exercise (KOM) also to be used for the elaboration of the practical guidance document.

Notes: ICA is responsible of this document (in DoA it is written that STRANE is the responsible partner)

CHECKLIST

- [x] Nico: Proposition of method: Scrum idea discussion with ICATALIST for ideas
- [x] Hella: plan meeting with BWB for meeting organization
- [x] Alex: Write objectives with Hella + stakeholders mapping + send invitation to meeting
- [x] ICA: Prepare guidance for local CoP with agenda to be sent to BWB (August 23)
- [ ] ICA-BWB: Organise Telcon to close agenda for Berlin DWC initial meeting

Task 5.1 Intra-project CoP

WP5

MS5.1 Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (M6 - November)

Task progress

- ICATALIST prepared guidance with agenda and moderation for GA
- First topics have been identified for intraproject CoP: cybersecurity, ICT governance and transferability

CHECKLIST

- [x] Nico: check if present TU survey at CoP (invite Andrea ?)
- [x] ICA: Prepare guidelines for World Cafe exercise at KO meeting (August 23)
- [ ] Regina: check BWB participants for GA and project CoP during the GA
- [ ] ICA: incorporate feedback from partners to the draft guidelines for the World Café exercise (September)
- [ ] ICA: Define topics with WP leaders
- [ ] ICA: Send agenda and guideline to participants

Subtask 5.2.1 Assessment of the market for digital water solutions

WP5

D5.3 : Quadruple helix brief on market opportunities (M7 - December)
Assessment of the market for digital water solutions

Task progress

- xxx
- yyy

CHECKLIST

- [ ] ECOL: Literature review
- [ ] ECOL: Interviews feeding into a Quadruple-helix brief

Task 5.3 Facilitating the market entry of DWC solutions

WP5

D5.1: Plan for exploitation of DWC results (M6)

Innovative solutions from H2020 projects and other funding schemes often do not easily find their way to the market. In T5.3 DWC addresses this challenge by focusing on ensuring transferability and replicability (T5.3.1) and business planning for fast market entry (T5.3.3).

DWC will prepare the market entry of new spin-offs with targeted dissemination activities (see T6.2 and T6.3) to raise awareness amongst relevant end-users by giving selected (non-confidential) information from the business plan, e.g. return-on-investment perspectives, benefits against competitors and to give potential customers the possibility to learn about the solutions directly from the DWC utility end-user (peer-to-peer knowledge exchange).

Task progress

- xxx
- yyy

CHECKLIST

- [x] STRANE: Analysis of DWC 17 technologies based on the Cities Activities files sent by Nicolas.
- [ ] STRANE: Organise TelCo with WP partners to prepare meetings at the General Assembly in Berlin
- [ ] STRANE: Prepare the folders on the cloud platform to gather documents related to DWC Digital Solutions that should be sent to technology providers in order to get the necessary information to prepare the mapping (September)
- [ ] STRANE: List comprehensively the technologies composing these innovations (September)
- [ ] STRANE-KWB: Map comprehensively all innovations (September)
- [ ] STRANE: Contact non-SME partners to check their interest in creating spinoffs (May 2020)
- [ ] STRANE: Collect information on their innovations (May 2020)

Task 5.3 WP organisation and content of exploitation plan

WP5

D5.1 Plan for exploitation of DWC results (M6 - November)

Clarify the WP organisation (September)

- Set up a clear activity sheet
- Clarify tasks interactions (timing, content)
- Assign clear responsibilities
- Prepare an amendment on WP5

Prepare a table of content for the exploitation plan (December)

- List all topics to be included in the Plan for Exploitation
- Clarify all inputs required from every partner

Task progress

- xxx
- yyy

CHECKLIST

- [ ] STRANE: Clarify WP organisation and roles (September)
- [ ] STRANE: Prepare table of content (December)

Subtask 6.1.2 Logo & visual identity

WP6

D6.1 : Logo and visual identity development with templates (M3)

Task progress

- Progress: finalization of the logo
- Graphic charter & templates have been validated by the SC

CHECKLIST

CHECKLIST

- [x] ARCTIK: new verison of logo (mid July)
- [x] Validation with task force SINTEF, KWB, ECOL
- [x] ARCTIK: Presentation at SC + validation + last colors and details modifications needed
- [x] ARCTIK-KWB: online meeting about the graphic charter and templates: PowerPoint, Minutes, Invitation GA, Deliverables and rollup (first week of August)
- [x] ARCTIK-task force: first graphic charter August 8
- [x] Consortium vote for logo until August 14
- [x] Nico: get logo from partners
- [ ] ARCTIK: final graphic charter and templates August 28
- [ ] ARCTIK delivers report by Thursday 29; Hella uploads on portal
- [ ] ARCTIK: Preparation of horizontal banner: with multiple logos and visual elements
- [ ] ARCTIK: Prepare animation water with logo > example website

Subtask 6.1.3 Website

WP6

Goal

D6.2 : Setup of DWC website (M4 - September)

Task progress

- wireframes for the website 2.0

CHECKLIST

- [x] ARCTIK: temporary website will be put online in the upcoming days (before the 15th of July)
- [x] ARCTIK: online meeting with task force about the wireframes of the website - Internal validation (August 8)
- [ ] ARCTIK: graphic designer works on mock-ups and layouts for the new website (Summer)
- [ ] Nicolas: ask photos to city leaders
- [ ] ARCTIK: presentation of the project website at the GA of DWC - external validation with members of the consortium (Middle of September)
- [ ] ARCTIK: final website is put online (End of September)

Subtask 6.1.1 Communication and dissemination strategy

WP6

D6.3 : Communication and dissemination strategy for DWC project (M6 - November)

T6.1.1, M6 with updates on M18 and M30
Communication and dissemination strategy for DWC project

Task progress

- /

CHECKLIST

CHECKLIST

- [ ] ARCTIK: provide guidance on use of twitter (hashtag, @, frequency)

Subtask 1.1.1 Set-up of a monitoring network for safe water reuse (M1-M18)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (Nov 2020)

CAP: first draft of practical manual (D1.1) (Mar 2020)

CAP: final version of practical manual (D1.1) (Nov 2020)

UNIVPM: MS 1.1: Successful integration of online sensors >> online sensors deliver valid and robust data (Nov 2020)

Task progress

- Ongoing discussion with ISS to co-design the monitoring plan
- Installation and troubleshooting of ALERT LAB in Line 2 (before bio. before and after UV) and Line 1 (before bio, before and after peracetic acid)
- Parallel lab measurement to check measurement accuracy
- Ongoing procurement and installation of TOC meter and sensors for pH, conductivity, temperature, ORP, UV transmission, ammonia nitrogen, nitrate nitrogen
- Verification of available data and sensors at the WWTP

CHECKLIST

- [x] CAP: Installation and troubleshooting of ALERT in Line 1 (before and after peracetic acid) (August)
- [x] CAP: Installation and troubleshooting of ALERT in Line 2 (before bio, before UV and after UV) (August)
- [x] CAP-FLUIDION: more than 19 x 3 samples analyzed in Line 2 (September)
- [x] UNIVPM: Literature study on applicability, accuracy, precision, resolution and sensitivity (October)
- [x] CAP-UNIVPM: meeting with coordinator in Milano (October)
- [ ] CAP: Finalize troubleshooting of ALERT Lab (November)
- [ ] CAP: Installation of pH, conductivity, temperature, ORP, UV transmission, ammonia nitrogen, nitrate nitrogen (December)
- [ ] CAP: Procurement of TOC meter (December)
- [ ] CAP: Verification of data from BACMON or BACTOSENSE (December)
- [ ] CAP-FLUIDION: Finalize lab analyses in Line 1 (December)
- [ ] CAP to UNIVPM: Provide all technical sheets of sensors (December)
- [ ] ISS to UNIVPM: Send clear data requirement for monitoring plan to be validated (November)
- [ ] UNIVPM to CAP: Send requirements for calculation of accuracy, precision, resolution and sensitivity > from literature (December)
- [ ] UNIVPM: Assess the current monitoring plan in compliance with the ISS requirements (November)

Subtask 1.1.2 Improvement of E. Coli and Enterococci automatic measurement of the ALERT system (M1-M12)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

This task focuses only on the product development by FLUIDION

Task progress

- Tests are going on in Milan (1.1.1) and Paris+Berlin (1.1.3)
- No progress linked to product development for the moment.

CHECKLIST

- [ ] FLUIDION: calibration and validation of ALERT system (Dec 2019)
- [ ] FLUIDION: new product development implementing single-use cartridges (Jun 2020)
- [ ] FLUIDION: provide an easy to use product and secure data interface (Jun 2020)

Subtask 1.1.3 Test of Alert tech on multiple bathing water matrices (M1-M18)

WP1 Berlin Milan Paris

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

MS 1.2: New ALERT available >> system successfully tested on 2 sites (M18)

Installation of 2 ALERT in Paris, 2 ALERT in Berlin and 1 ALERT in Milan. Once available the new product version will be deployed and tested

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Task progress

- ALERT system have been installed in Milan (WWTP), Berlin (WWTP and river) and Paris (river)
- Parallel lab analysis have been taken in each site to test measurement accuracy

CHECKLIST

- [x] CAP: Installation of current ALERT LAB in Milan (August)
- [x] SIAAP: installation of 2 ALERT SYSTEM in Paris (August)
- [x] KWB: Installation of 2 ALERT SYSTEM in Berlin (August)
- [x] CAP-SIAAP-KWB: Parallel measurements with standard methods in progress
- [ ] FLUIDION: Personnel training and share of documents for test in Milan (November)
- [ ] UNIVPM: Organise meeting to discuss return on experience and method for uncertainty analysis with Berlin, Paris and FLUIDION (December)
- [ ] UNIVPM: Analysis of uncertainty, repeatability and accuracy assessment using ALERT data (January)
- [ ] FLUIDION: Verification of calibration curve with different water matrices (January)

Subtask 1.2.1 Improved decision making for water reuse (M9-M36)

WP1 Milan

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water

Water Quality Integrated Platform will be realized in Milan. Water reuse risk management plan including QMRA and QCRA will be carried out to deliver a Sanitation Safety Plan

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Task progress

- Selected pathogen indicators to perform QMRA
- Ongoing literature research to evaluate expected UV performances and log removals

CHECKLIST

- [x] ISS to UNIVPM: send table about literature data to start structuring QMRA
- [x] UNIVPM: provide literature data to ISS for structuring QMRA
- [ ] ISS: feedback to UNIVPM about provided literature data (November)
- [ ] UNIVPM: data analytics to detect events from on-line available data (January)
- [ ] UNIVPM (support ISS): continuous multi-parameter soft sensors design for early warning (March 2020)

Subtask 1.2.2 System description and data collection for an Early Warning System for urban bathing water quality (M1-M16)

WP1 Berlin Paris

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water

Bathing Sanitation Master Plan will be upgraded in Paris to set up EWS for bathing water quality

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Task progress

- Finalized sampling campaign in Seine and Marne
- Gathered data from SIAAP partners

CHECKLIST

- [x] SIAAP: bacteriology, physical and chemical parameters measurements in Seine and Marne
- [ ] SIAAP and KWB: define the interactions between the two organizations with regard to the development of the early warning system (December 2019)
- [ ] KWB: give recommendations on needed data for the bathing water quality model (Dec 2019)
- [ ] SU: start numerical simulation with PROSE model (Feb 2020)

Subtask 1.2.3 Establish an open-source forecasting model for EWS (M1-M36)

WP1 Paris

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water
MS 1.3: Launch of Early warning for bathing water quality and water reuse >> warning system accessible from remote location (M30)

A forecasting model will be set up for EWS

Task progress

- A first meeting has been hold in October in Paris between KWB and SIAAP to discuss the development of the model

CHECKLIST

- [ ] SIAAP and KWB: organize the cooperation for model assessment (Dec 2019)
- [ ] SIAAP: performance requested in accordance with local sanitary authorities (Jan 2020)
- [ ] SIAAP: Definition of performance and frequency of forecasting (Jun 2020)

Substask 1.3.1 WebGIS integration and upgrading (M18-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

WebGIS Acque di Lombardia will be upgraded with EWS to localize effluent wastewater in line with quality standards for water reuse

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Task progress

- No progress update needed at the moment, as the task will start on November 2020

CHECKLIST

- [ ] ISS: supervision and verification of correct EW signals implementation (Jun 2020)
- [ ] CAP: integrate WebGIS and subcontract PLATFORM NET licence provider (November 2020)
- [ ] UNIMI: verification of soil and agricultural data in WebGIS (Jan 2021)
- [ ] Integration of WebGIS Acque di Lombardia with EWS (May 2021)
- [ ] Select WWTPs in Milan metropolitan area suitables for water reuse (May 2021)

Subtask 1.3.2 Local stakeholder training and engagement (M28-M42)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

Local stakeholder involved in the water reuse chain will be trained. Decisons and planning concerning water reuse in peri-urban areas will be discussed

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Task progress

- No progress update needed at the moment, as the task will start in September 2021

CHECKLIST

- [ ] UNIMI: define benefits on sustainable agriculure (Oct 2021)
- [ ] UNIVPM: define benefits on sustainable wastewater treatments (Oct 2021)
- [ ] CAP: Organize stakeholder training (Nov 2021)
- [ ] ISS: Organize risk-related sessions and co-approval pathways explaination (Nov 2021)
- [ ] CAP: plan and program territorial investiments for water reuse (Jan 2022)

Subtask 1.3.3 Visualization of long-term conclusive information to the end-users (M24-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

2 mobile-friendly websites will be developed to visualize EWS and validated information on treated wastewater and bathing water safety

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Task progress

- No progress update needed at the moment, as the task will start in June 2021

CHECKLIST

- [ ] CAP and UNIMI:Decide contents to be communicated to the end-users (Ago 2021)
- [ ] UNIVPM: deliver the first version of the mobile-friendly website (Jan 2022)
- [ ] SIAAP: subcontract the solution development (June 2021)
- [ ] UNIVPM: Development of a mobile-friendly website in Milan to geo-localize sensors and visualize validated information (May 2021)
- [ ] SIAAP: Development of a mobile-friendly website in Paris to inform stakeholdes and decision makers on water quality (May 2021)

Strategy for deliverable D2.1 Implementation plan

WP2

D2.1 : Implementation plan of each digital solution and methodology for quantification of the benefits provided by digitization - KPI (M12 - May 2020)

One section for each demo with the following structure:

- Problem definition and goals
- Study site, local issues and current practice
- Technology description
- Where, when and how will technology be tested
- Role of partners
- Key performance indicators

CHECKLIST

- [x] WP leader: template for the report (September 2019)
- [x] WP leader: send KPI list summarised after WP2 meeting in Berlin (Oct 2019)
- [ ] Task leaders: 1st draft of subsections 1-4 (Nov. 2019)
- [ ] WP leader: review of subsections 1-4 (January 2020)
- [ ] Task leaders: draft of all subsections (February 2020)
- [ ] WP leader + WP team: review (March 2020)
- [ ] Task leaders: final version of all subsections (April 2020)
- [ ] Coordinator: Final version of harmonized and formatted deliverable (May 2020)

Subtask 2.1.1 + 2.3.2: Well maintenance app + condition and rehab planning

WP2 Berlin

Goals:

- Development of a software application or webpage to be run on mobile devices of water well operators to i) support efficient data collection, ii) make well data available on-site and iii) enable preventive maintenance (T2.1.1, Demo in Berlin)
- Develop data-based algorithms for strategic rehabilitation of wells (T2.3.2)

Task progress:

- The needs and requirements for digital solutions have been documented
- Task meetings between BWB, VRAG and KWB to specify use case, etc. have been organised
- First draft KPI have been proposed but still need to be refined

CHECKLIST

- [x] BWB: clarify role of SINTEF
- [x] BWB: rough time line for first 12-18 months (Sept 2019)
- [x] BWB, VRAG, SINTEF, KWB: start discussion on KPIs (Sept 2019)
- [x] BWB: use case fine specification (Oct. 2019)
- [x] BWB: data requirements for mobile app (Oct. 2019)
- [ ] BWB: first chapters of implementation plan D2.1 (November 2019)
- [ ] BWB: adaptation of KPI table / list (November 2019)
- [ ] BWB: define data to be exchanged with authorities (Dec. 2019)
- [ ] VRAGMENTS, BWB: interface definition (Jan. 2020)
- [ ] BWB: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] VRAGMENTS, BWB: first prototype of mobile app (March 2020)
- [ ] VRAGEMENTS, BWB: strategic planning tool (July 2020)
- [ ] BWB, KWB: exchange on data analysis (predictive maintenance + rehab planning) (Q1 2020)
- [ ] BWB, KWB: Discussion of data analysis tool for well maintenance (= regeneration) and rehabilitation (Dez. 2019 - Jan. 2020)

Subtask 2.1.2 Identification of illicit connections in the stormwater network

WP2 Berlin

Goal: Identification of illicit connections in the stormwater network via a two step monitoring approach consisting of i) hotspot screening via conductivity and multi-parameter sensors and ii) Distributed Temperature Sensing (DTS) for selected hotspots (Demo in Berlin)

Task progress:

- Exchange with all partners on role, contribution and expectations
- The site has been selected and visited by all partners: catchment "Fennsee" (area: 2.2 km², 27.000 inhabitants, sewer lenght: 39 km, 3 stormwater effluents to the lake)
- First draft KPI have been proposed, need to be refined
- To be discussed: technical requirement definition (ATEX)
- Next TelCo: 15 November 2019, 10:00

CHECKLIST

- [x] BWB, KWB: TelCo-meeting with KANDO to discuss goals, status of technology and data transmission issues (10 September)
- [x] BWB: prepare rough time line for first 12-18 months (Sept 2019)
- [x] BWB, P4UW, KANDO, KWB: start discussion on KPIs (Sept 2019)
- [x] Site visit with partners (19 September 19)
- [x] BWB: technical requirement definition (ATEX) (Sept. / Oct. 2019)
- [ ] BWB: provide information / data of the network, preferably as GIS (Oct. 2019)
- [ ] KANDO: discussion of data transfer with BWB (Oct. / Nov. 2019)
- [ ] BWB: first chapters of implementation plan D2.1 (November 2019)
- [ ] BWB: adaptation of KPI table / list (November 2019)
- [ ] BWB: Order equipment (Nov. 2019 - Feb. 2020)
- [ ] BWB: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] BWB, KANDO: sensor installation (April 2020)
- [ ] BWB, KANDO, P4UW: monitoring start in Summer 2020

Subtask 2.1.3 Advanced sewer cleaning and inspection

WP2 Sofia

Goal: Demonstration of video nozzle technology to combine sewer inspection and cleaning in a catchment with 10 km main sewers and known blockages (Demo in Sofia)

Task progress:

- Technical information on cleaning trucks and nozzles have been exchanged
- First draft KPIs have been proposed
- Currently under discussion: switch of task lead and workload from IPEK to SV
- Next TelCo: 29 November 2019, 10:00

CHECKLIST

- [x] IPEK: rough time line for first 12-18 months (Sept 2019)
- [x] IPEK, SV, KWB: start discussion on KPIs (Sept 2019)
- [ ] IPEK, SV: first chapters of implementation plan D2.1 (November 2019)
- [ ] SV/IPEK: adaptation of KPI table / list (November 2019)
- [ ] SV: define cleaning and inspection plan for 2020 (January 2020)
- [ ] SV: specify 10 km of priority pipes for demo (preferably of diameter 500 - 1000 mm)
- [ ] SV: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] IPEK: provide equipment and technician -> training (Spring 2020)
- [ ] SV: conduct demo (June-Sept. 2020)

Subtask 2.2.1 + 2.3.1: Smart CSO sensors and analytics for real-time stormwater management

WP2 Berlin Sofia

Goal: Deployment of a network of low-cost temperature sensors to monitor occurrence and duration of CSO (Demo in Sofia and Berlin) to support real-time CSO alert and model calibration

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Task progress:

- Sofia: Discussion between SV and ICRA regarding selection of CSO structures for monitoring (CSO structures will be distributed in the city), but no data on CSO structures sent yet; internal meeting on the 11th of November; then continue exchange with ICRA
- Berlin: study site selected (Wilmersdorf), required information on CSO structures (levels, width, location) and ATEX requirements exchanged with ICRA
- Technology: online sensors under development
- First draft KPI have been proposed
- Next TelCo: 21 November 2019, 10:00

CHECKLIST

- [x] ICRA: rough time line for first 12-18 months (Sept 2019)
- [x] ICRA, IOTSENS, BWB, SV, KWB: start discussion on KPIs (Sept 2019)
- [x] BWB: Selection of catchment for demo in Berlin based on data on CSO and flooding occurence and model availability (until GA in September)
- [x] SV: Selection of catchment for demo in Sofia based on data on CSO (until GA in September)
- [ ] SV, ICRA: monitoring points in Sofia selected (November 2019)
- [ ] BWB, ICRA: monitoring points in Berlin selected (November 2019)
- [ ] ICRA: first chapters of implementation plan D2.1 (November 2019)
- [ ] ICRA: adaptation of KPI table / list (November 2019)
- [ ] ICRA: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] ICRA: online sensors developed / constructed (Jan. 2020)
- [ ] ICRA, SV, BWB: sensors installed in Sofia and Berlin (May 2020)
- [ ] ICRA, SV, BWB: sensors in operation in Sofia and Berlin (June 2020)

Subtask 2.2.2 + 2.2.3 + 2.2.4: WWTP inflow forecast + DSS for sewer and WWTP management + visualisation platform

WP2 Copenhagen

Goals:

- Development of a machine learning model for forecasting WWTP inflow based on sewer flow measurements, rainfall radars and a numerical weather model (Demo in Copenhaqen)
- DSS for real-time control of WWTP operations and in sewer-retention
- Web-based prototype platform for decision support at city scale

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Task progress:

- The catchment has been selected: Damhusåens (75 km², 85% combined sewer, 3 utilities, 350,000 PE, treated WW: 30 million m³/yr, bypass / CSO: 1.5 - 3 million m³/yr)
- No active work yet, still in organisation phase
- First draft KPI have been proposed, need to be refined
- Next TelCo: 19 November 2019, 10:00

CHECKLIST

- [x] BIOFOS, DHI: rough time line for first 12-18 months (Sept 2019)
- [x] BIOFOS, DHI: start discussion on KPIs (Sept 2019)
- [ ] DHI, BIOFOS: first chapters of implementation plan D2.1 (November 2019)
- [ ] DHI, BIOFOS: adaptation of KPI table / list (November 2019)
- [ ] DHI, BIOFOS: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] DHI, BIOFOS / inflow forecast: start software development (November 2019)
- [ ] DHI, BIOFOS / inflow forecast: finish data collection (May 2020)
- [ ] DHI, BIOFOS / inflow forecast: finish software development (November 2020)
- [ ] DHI, BIOFOS / inflow forecast: start provision of online version (Nov. 2020)
- [ ] DHI, BIOFOS / inflow forecast: finish provision of online version (May 2021)
- [ ] DHI, BIOFOS / DSS: start development of operation scenarios and quantification of uncertainties (Oct. 2019)
- [ ] DHI, BIOFOS / DSS: finish development of operation scenarios (May 2020)
- [ ] DHI, BIOFOS / DSS: finish quantification of uncertainties (Novemver 2020)
- [ ] DHI, BIOFOS / DSS: start development (July 2020)
- [ ] DHI, BIOFOS / DSS: finish development (May 2021)
- [ ] DHI, BIOFOS / DSS: start ofline and online demonstration (November 2021)
- [ ] DHI, BIOFOS / DSS: finish ofline and online demonstration (May 2022)
- [ ] DHI, BIOFOS / visualisation platform: start software development (Jan. 2020)
- [ ] DHI, BIOFOS / visualisation platform: design and data preparation finished (May 2020)
- [ ] DHI, BIOFOS / visualisation platform: finsh software development (May 2021)
- [ ] DHI, BIOFOS / visualisation platform: start test and incremental improvement (Jan. 2021)
- [ ] DHI, BIOFOS / visualisation platform: finish test and incremental improvement (Nov. 2021)

Subtask 2.2.5 + 2.2.6: Water stress monitoring + match making tool for safe water reuse

WP2 Milan

Goals:

- Demonstration and validation of a monitoring drone equipped with remote sensors for water stress
- Development of an interoperable match-making ICT platform to link water demand for irrigation and safe water availability and quality
- Development of efficient irrigation schemes and WWTP operation strategies based on data from (T2.2.5) and crop / evaporation models

---

Task progress:

- Sensor development: multi-spectral cameras for drone are already available (UNIVPM), ground sensors / weather station need to be selected and purchased (UNIMI)
- Flight permission for drone is still pending; if permission refused camera will be mounted to a pole; drone mounted sensors will be tested anyways at an area of the Uni
- a possible workflow of ICT tools has been designed with some preliminary wireframe
- The API and model design started for match-making between farmers and WWTP plant
- The KPI have not been adapted from proposal phase, need to be refined
- Next TelCo: 27 November 2019, 10:00

CHECKLIST

- [x] UNIVPM, CAP, UNIMI: rough time line for first 12-18 months (Sept 2019)
- [x] UNIVPM, CAP, UNIMI: start discussion on KPIs (Sept 2019)
- [x] Design alternatives for remote sensing data acquisition (Oct. 2019)
- [x] Design a workflow of ICT tools with preliminary wireframe (Nov. 2019)
- [ ] CAP, UNIVPM: adaptation of KPI table / list (November 2019)
- [ ] CAP, UNIVPM: first chapters of implementation plan D2.1 (November 2019)
- [ ] CAP, UNIVPM: define user requirements for match-making tool (Dec. 2019)
- [ ] UNIMI: monitoring design completed, sensors selected and purchased (Nov. 2019 - March 2020)
- [ ] UNIVPM, CAP: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] UNIMI: sensor installation and calibration (March / April 2020)
- [ ] UNIVPM: data acquisition by drone/pole mounted sensor (April - Sept. 2020)
- [ ] UNIVPM, UNIMI: monitoring with ground sensors (May - Sept. 2020)
- [ ] UNIVPM, UNIMI: 1st release of match-making tool (backend + web-app) (Nov. 2020)
- [ ] CAP: test of match-making tool (start in Dec. 2020)
- [ ] UNIVPM, UNIMI: 2nd release of match-making tool (Nov. 2021)
- [ ] UNIVPM, UNIMI: final release of match-making tool (May 2022)

Subtask 3.1.1 Guiding protocol

WP3

D3.1 : Guiding protocol for the ICT governance assessment (M6 - November)

The “guiding protocol” for the ICT governance assessment

- is a governance assessment framework.
- series of open questions to “guide” the exploration of (contextual) factors influencing the uptake of ICT technologies in the water sector,
  -focus on particular sub-national and national level, as well as considering the role of European and international factors
  -applied to three case-studies (Task 3.2.1) and will inform Task 3.1.2 and 3.1.3

Task progress

- Preparation and review of the initial daft of the Guiding Protocol
- Telco with KWB to discuss the initial draft (12.09)
- Final draft was send to reviewer (IRSTEA) (Nov 11)
- Initial analysis of the Governance Framework in Milan

CHECKLIST

- [ ] Telco on final draft review with IRSTEA (Nov 17)
- [ ] Reviewed final draft will be send to lead (KWB) (22 November)

Subtask 3.1.2 Screening of Digital, Data and Water Policies

WP3

D3.2: Policy matrix (M12)

Delivers a cursory overview on:

- ICT policies related to EU legislation as well as to those addressed in the five case studies.
  -Key issues from the different countries' perspectives enables the refinement of the methodological design.

This task is closely linked to the work in the CoP in WP5. The results are
compiled into a DWC policy matrix to allow for easy access.

Task progress

- First draft on the policy analysis matrix has been prepared
- Discussion of potential overlaps with WP5 work (18.09 and follow-up)

TO DO LIST

- [ ] Initial analysis of the policy settings in the Milan case. Test of the policy matrix in the italian case
- [ ] Case study analysis related to EU and national legislation (Nov-Jan)

Subtask 3.2.2 Development of three ICT solutions for increasing public involvement

WP3

3 digital communication solutions (Apps) will be developed and deployed: (1) in Berlin an Augmented Reality (AR) mobile application
(2) in Milan a serious game to raise awareness and engage public
(3) in Paris a mobile application to communicate bathing water contamination risks

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Task progress

- Just started

TO DO LIST

- [ ] Setting up a joint telco to discuss the development of the solutions (Mid Nov)

Task 4.1. Establishing the context

WP4

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

T4.1.1: Relevant Baseline evaluation of current systems- Structured factsheets of key information • Baseline situation in utilities regarding DWC solutions • Implemented sensors, models and systems Cybersecurity measures
T4.1.2: Description of semantic models in use in the target domain - description of interoperability of existing IT/IoT systems - data exchange protocols

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Task progress

- 1st round of questionnaire sent to the utilities and tech providers; feedback expected by the end of November
- SINTEF is working on the second round of the questionnaire, this time with more detailed and technical questions

CHECKLIST

- [x] KWB: organise first meeting KWB-SINTEF to design roadmap in August
- [x] KWB: Prepare contact list with specialists and task partners to be invited to the meetings
- [x] SINTEF-KWB: design questionaire and present at GA
- [x] KWB-SINTEF: Send questionaire and work on answers with tech providers and utilities
- [x] KWB-SINTEF: present and discuss approach (At GA)
- [ ] SINTEF: Extract information and analyse inputs of questionnaire + send second wave of questionnaire (December)
- [ ] KWB-SINTEF: 1st GoToMeeting with utilities & tech providers: presentation of data requirements and communication protocols from tech providers to utilities (February)
- [ ] KWB-SINTEF: 2nd GoToMeeting with utilities & tech providers: presentation of interface utilities - tech providers and how risk assessment is done at utility level (March)
- [ ] KWB-SINTEF: Design of travels to utilities with relevant resources to define the needs and requirements linked to cybersecurity (output of CoP meeting in Berlin).
- [ ] KWB-SINTEF: Extracting information from the meetings and questionnaires

4.2.1: Strategic and tactical risk analysis based on RIDB

WP4

STOP-IT risk Identification DataBase (RIDB) is adapted and enhanced for bathing water and water reuse and current risk criteria used in DWC cities (T4.1).

Task progress

- Rita Ugarelli is leading this activity. SINTEF will engage, from the 1st of January 2020 on, by utilities and Tech providers after extracting and using the relevant information from T4.1.

CHECKLIST

- [ ] CoP with utilities / Tech providers in 2020 for discussion on their risk management process identified in 4.1 (March)
- [ ] Adaptation and generalization of the risk event identified in above activity (May)

4.3.1 Definition of semantic interoperability design requirements

WP4

D4.4: Semantic interoperability design requirements (M18)

Mapping relevant terminologies with respect to the existing ontologies and to the metadata in T4.1
Developing the semantic matching design requirements for alignment of the upper-level ontologies

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Task progress

- Literature review and map various existing ontologies has started

CHECKLIST

- [x] Internal Sintef meeting about the preparation of a plan
- [x] SINTEF: Literature review and audit of current existing ontologies
- [ ] SINTEF: Extracting feedback from the questionnaires in T4.1 (1st round). Identifying gaps of current existing ontologies and the outcomes of T4.1
- [ ] SINTEF: Summarizing the lessons learnt regarding the metadata with respect to the ontology
- [ ] SINTEF: Extracting information from the 2nd round of questionnaires in T4.1
- [ ] SINTEF: Possible meeting for presenting the first outcome of the design requirements
- [ ] SINTEF: Create architectural design document; Define interfaces for facilitating M2M matching

4.3.2: DWC reference ontology

WP4

Developing DWC reference ontology based on the findings of T4.1 and the outcomes of T4.3.1 by using OWL. Evaluation, validation and verification by utilities

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Task progress

- No progress so far

CHECKLIST

- [ ] Coding the ontology in OWL (2020)
- [ ] Check link and synergies with FIWARE4WATER project
- [ ] Checking the alignment with other developed and existing ontologies
- [ ] 1st delivery of the ontology
- [ ] Verification and validation by the utility partners

4.3.3 Development of the semantic interoperability middleware

WP4

D4.6: Semantic interoperable middleware - 1st version (M18)

Identification of system mediation and matchmaking based on 4.3.1 and 4.1 results

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Task progress

- We are waiting for the outcomes of T4.1 for the launch of the development of the middleware.
- In addition, the design requirements of the middleware is being discussed internally in SINTEF in T4.3.1

CHECKLIST

- [x] SINTEF: Internal meeting on available middlewares met in Brussels
- [x] SINTEF: Internal discussion about the structure and architecture
- [ ] SINTEF: Development of a microservice architecture (November 2020)
- [ ] SINTEF: Definition of distributed modules requirements (???)

Task 5.1 Local CoP (MS5.1)

WP4 WP5

MS5.1 Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (M6 - November)

Task progress

- Guidelines to support initial meeting of DWC Berlin have been prepared. These will be reviewed with feedback from BWB.
- World Café exercise in KoM. A report has been produced and sent around to all participants.
- Telcos with all cities to discuss initial meetings in each city/follow-up activities are being organised between 12-22 November.
- Report with insights from World Café exercise

CHECKLIST

- [ ] Schedule telcos with Cities to support initial meetings of Local CoPs (November)
- [ ] Draft the practical guidance document providing generic instructions on setting up, operating and sustaining a CoP (MS5.1) (November)

Task 5.1 Intra-project CoP

WP5

This CoP focuses on cross-fertilization, mutual learning and knowledge exchange between the utilities. It will take up internal discussions and achievements within WPs1-2-3-4 and from the local CoPs to address common issues of both physical (e.g. performance topic) and digital (e.g. best practices for interoperability and cybersecurity) worlds.

Task progress

- First activity of IP-CoP was Berlin World Café. The report with results from this exercise is finished, including identification of specific topics for IP-CoP discussion.
- Next IP CoP will be organised as part of the next GA in Sept/Oct 2020
- The information collected from World Café exercise (tables 2 and 3) will be used for the identification of key topics for IP-CoP.

CHECKLIST

Subtask 5.2.1 Assessment of the market for digital water solutions

WP5

D5.3 : Quadruple helix brief on market opportunities (M7 - December)
Assessment of the market for digital water solutions

Task progress

- Literature review is going on
- ECOLOGIC is running interview for the preparation of this deliverable

CHECKLIST

- [ ] STRANE: Organise meeting with ECOL and KWB (November)
- [ ] ECOL: Interviews feeding into a Quadruple-helix brief (???)
- [ ] ECOL: Delivers first version of the deliverable (Beginning December)

Task 5.3 Facilitating the market entry of DWC solutions

WP5

D5.1: Plan for exploitation of DWC results (M6)

Innovative solutions from H2020 projects and other funding schemes often do not easily find their way to the market. In T5.3 DWC addresses this challenge by focusing on ensuring transferability and replicability (T5.3.1) and business planning for fast market entry (T5.3.3).

DWC will prepare the market entry of new spin-offs with targeted dissemination activities (see T6.2 and T6.3) to raise awareness amongst relevant end-users by giving selected (non-confidential) information from the business plan, e.g. return-on-investment perspectives, benefits against competitors and to give potential customers the possibility to learn about the solutions directly from the DWC utility end-user (peer-to-peer knowledge exchange).

Task progress

- Prepare the folders on the cloud platform to gather documents related to DWC Digital Solutions that should be sent to technology providers in order to get the necessary information to prepare the mapping (September)
- List comprehensively the technologies composing these innovations (September)
- Review and prepare proposed amendements of the Grant Agreement (September)
- Organise presentations for the General Assembly in Berlin (September)

CHECKLIST

- [ ] STRANE: First digital solutions analysis of Technology Providers > GA and cit activities + discussions with tech providers in WP3 (October/November)
- [ ] STRANE: Annotated Table of content - Milestone MS5.1 (November)
- [ ] STRANE: Contact non-SME partners to check their interest in creating spinoffs (May 2020)

Task 5.3 WP organisation and content of exploitation plan

WP5

D5.1 Plan for exploitation of DWC results (M6 - November)

Clarify the WP organisation (September)

- Set up a clear activity sheet
- Clarify tasks interactions (timing, content)
- Assign clear responsibilities
- Prepare an amendment on WP5

Prepare a table of content for the exploitation plan (December)

- List all topics to be included in the Plan for Exploitation
- Clarify all inputs required from every partner

Task progress

- Amendments have been discussed with WP5 team
- Hella sent a final version for validation before sending the amendment to the project officer

CHECKLIST

- [x] STRANE: Clarify WP organisation and roles (September)
- [ ] STRANE: Prepare table of content as milestones (December)

Subtask 6.1.2 Logo & visual identity

WP6

D6.1 : Logo and visual identity development with templates (M3)

Task progress

- Task is finalized; visual identity and logo are delivered

CHECKLIST

CHECKLIST

- [x] ARCTIK: final graphic charter and templates August 28
- [x] ARCTIK delivers report by Thursday 29; Hella uploads on portal
- [x] ARCTIK: Preparation of horizontal banner: with multiple logos and visual elements
- [x] ARCTIK: Prepare animation water with logo > example website

Subtask 6.1.3 Website

WP6

Goal

D6.2 : Setup of DWC website (M4 - September)

Task progress

- The website 2.0 is now online (7th of November, 2019)

CHECKLIST

- [x] ARCTIK: presentation of the project website at the GA of DWC - external validation with members of the consortium (Middle of September)
- [x] ARCTIK: official submission of the website to the EC with a report (End of September) - delivery 25
- [x] ARCTIK: Construction of website + test writing for all sections based on vignette presented at the GA (3rd week of October) - first version of the website with only list of digital solutions (no detail page for each solution)
- [ ] ARCTIK: Writing text for each solution (November) > Discussion with KWB and STRANE > Validation and correction by tech providers (December) > Online version of description of each 15 digital solution (End of the year)

Subtask 6.1.1 Communication and dissemination strategy

WP6

D6.3 : Communication and dissemination strategy for DWC project (M6 - November)

T6.1.1, M6 with updates on M18 and M30
Communication and dissemination strategy for DWC project

Task progress

- ARCTIK has prepared a first version of the communication strategy deliverable by October 31

CHECKLIST

- [ ] KWB (Pascale): Review of the deliverable by November 15

Agenda SC Meeting

WP7

Agenda of SC Meeting
18.02.2020

CHECKLIST

CHECKLIST

- [ ] List of deliverables + reviewers > https://cloud.digital-water.city/index.php/f/3251
- [ ] Next events > https://cloud.digital-water.city/index.php/f/60472
- [ ] Survey interim technical report > feedback from 12/24 partners
- [ ] Set up next meeting end of March - beginning April 31/03 - 07/04
- [ ] ##########
- [ ] Presentation of progress and action plans 15' x 6 = 1h30

Subtask 1.1.1 Set-up of a monitoring network for safe water reuse (M1-M18)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (Nov 2020)

CAP: first draft of practical manual (D1.1) (March (moved) to May 2020)

CAP: final version of practical manual (D1.1) (Nov 2020)

UNIVPM: MS 1.1: Successful integration of online sensors >> online sensors deliver valid and robust data (Nov 2020)

Task progress

- Acquired data from lab analyses and sensors at the effluent (Jan 2020)
- Acquired data from Alert Lab (Jan 2020)
- Comparative evaluations on online and offline data with microbial contamination
- Alert System installation and cross-validation with Alert Lab and CAP laboratory measurements
- Progressed discussion with ISS to co-design the monitoring plan (Jan 2020)

CHECKLIST

- [x] CAP: Finalize troubleshooting of ALERT Lab (November)
- [x] CAP: Procurement of TOC meter (February)
- [x] CAP-FLUIDION: Finalize lab analyses in Line 1 (December)
- [x] ISS to CAP: Send first general data requirement for monitoring plan to be validated (Jan 2020)
- [x] UNIVPM to CAP: Send requirements for calculation of accuracy, precision, resolution and sensitivity > from literature (December)
- [x] FLUIDION-CAP: choice of the most suitable installation point of the Alert System in Peschiera Borromeo WWTP (Jan 2020)
- [x] CAP: Send sensors measurements of the effluent
- [x] UNIVPM: plan meeting Milan-Paris-Berlin for FLUIDION data analysis
- [x] CAP-FLUIDION: Finalized sampling campaign with mobile Alert Lab (Dec 2019)
- [x] UNIVPM: Acquired NH4, TSS, NO3, PO4 sensor/meters data at the effluent
- [x] Internal (Paris, Berlin) meeting about data analyses and validation (Feb 2020)
- [x] CAP: Alert System installation (Jan 2020)
- [x] UNIVPM: investigation on possible correlations with online and offline data with microbial contamination (Feb 2020)
- [x] ISS-CAP-UNIVPM: physical meeting for discussion to co-design the monitoring plan (Jan 2020)
- [ ] CAP: installation of TOC meter (Feb/March 2020)
- [ ] CAP: Installation of pH, conductivity, temperature, ORP, UV transmission, ammonia nitrogen, nitrate nitrogen (February)
- [ ] CAP to UNIVPM: Provide all technical sheets of sensors (February)
- [ ] ISS: Assess the preliminar monitoring plan requirements (March 2020)
- [ ] CAP: ALERT System start-up and troubleshooting (March 2020)
- [ ] CAP: ALERT System routinary use (May 2020)
- [ ] UNIVPM / CAP /FLUID: ALERT System data validation

Subtask 1.1.2 Improvement of E. Coli and Enterococci automatic measurement of the ALERT system (M1-M12)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

This task focuses only on the product development by FLUIDION

Task progress

- FLUIDION visit to Peschiera Borromeo WWTP to assess field conditions for Alert System
- Test of Alert System against Alert Lab and standard lab analyses in Milan
- First concerns and suggestions about product usability provided by CAP operational personnel

CHECKLIST

- [ ] CAP to FLUIDION: provide feedback for Alert System usability in Peschiera Borromeo WWTP (Mar 2020)
- [ ] FLUIDION: First phase of validation of Alert System against Alert Lab and standard analyses in Milan (March 2020)
- [ ] FLUIDION: Alert System results validation (Apr 2020)
- [ ] FLUIDION: calibration of Alert System against standard analyses in Milan (Apr 2020)
- [ ] FLUIDION: provide an easy to use product and secure data interface (Jun 2020)
- [ ] FLUIDION: new product development implementing single-use cartridges (Jun 2020)
- [x] CAP-FLUIDION: finalize ALERT mobile measurement campaign
- [x] FLUIDION: visit to Peschiera Borromeo (Jan 2020)

Subtask 1.1.3 Test of Alert tech on multiple bathing water matrices (M1-M18)

WP1 Berlin Milan Paris

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

MS 1.2: New ALERT available >> system successfully tested on 2 sites (M18)

Installation of 2 ALERT in Paris, 2 ALERT in Berlin and 1 ALERT in Milan. Once available the new product version will be deployed and tested

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Task progress

- Share interim conclusion on evaluation of Alert data accuracy on different water matrices
- Parallel measurements with laboratory analyses
- Installation of Alert System in Milan
- First feedback from CAP about product usability

CHECKLIST

- [x] UNIVPM: Organise meeting to discuss return on experience and method for uncertainty analysis with Berlin, Paris and FLUIDION (December)
- [x] FLUIDION: Personnel training and share of documents for test in Milan (November)
- [x] UNIVPM: Analysis of uncertainty and accuracy using ALERT data (January)
- [x] Fixed Alert System installed in Milan (Jan 2020)
- [x] UNIVPM: organize meeting to compare results from Paris and Berlin (Feb 2020)
- [ ] FLUIDION: Enhancement of calibration curve with different water matrices (Mar 2020)
- [ ] FLUIDION: Verification of Alert results against standard methods (Mar 2020)
- [ ] FLUIDION: collect information about operative personnel feedback (Apr 2020)
- [ ] UNIVPM: comments on methods and statistical elaboration presented by FLUID in the meeting Feb 2020 (March2020)

Subtask 1.2.1 Improved decision making for water reuse (M9-M36)

WP1 Milan

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water

Water Quality Integrated Platform will be realized in Milan. Water reuse risk management plan including QMRA and QCRA will be carried out to deliver a Sanitation Safety Plan

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Task progress

- Modeling of Peschiera WWTP processes in Python is almost completed
- Compilation of a check-list for the risk matrix assessment had the first feedback from CAP

CHECKLIST

- [x] ISS: feedback to UNIVPM about provided literature data (November)
- [x] UNIVPM: literature review about log reduction in WWTPs to be provided to ISS
- [ ] ISS: define requirements for Risk Matrix assessment (Feb 2020)
- [ ] UNIVPM: provide assumptions to Risk Matrix elaborated by ISS (March 2020)
- [ ] UNIVPM (support ISS): continuous multi-parameter soft sensors design for early warning (March 2020)
- [ ] UNIVPM: data analytics to detect events from on-line available data (Apr 2020)
- [ ] UNIVPM: calibrated modeling of Peschiera WWTP to support early warning system (???)

Subtask 1.2.2-3 Early Warning System for bathing water quality (M1-M30)

WP1 Paris

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water
MS 1.3: Launch of Early warning for bathing water quality and water reuse >> warning system accessible from remote location (M30)

Task progress

- SIAAP prepared an overview of available data: site, parameter, resolution
- SIAAP prepared a cooperation agreement to be signed with KWB for data exchange
- a meeting has been hold between SIAAP, SU and KWB to discuss the data preparation for the EWS and modelling activities in Paris.
- The partners are working on propositions regarding the database format, structure and ontology used. A meeting is planned to define the final structure and share the data processing activities between the partners

CHECKLIST

- [x] SIAAP and KWB: define the interactions between the two organizations with regard to the development of the early warning system (December 2019)
- [x] KWB: give recommendations on needed data for the bathing water quality model (Dec 2019)
- [ ] SU: start numerical simulation with PROSE model (Feb 2020)
- [ ] KWB-SIAAP-SU: prepare proposition for database format and ontology (Feb 2020)
- [ ] KWB-SIAAP: data cleaning and preparation (flow, quality and rain) in the common database (February - March 2020)
- [ ] SIAAP: define the performance requested in accordance with local sanitary authorities (Feb 2020)

Substask 1.3.1 WebGIS integration and upgrading (M18-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

WebGIS Acque di Lombardia will be upgraded with EWS to localize effluent wastewater in line with quality standards for water reuse

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Task progress

- Task starts in November 2020

CHECKLIST

- [ ] ISS: supervision and verification of correct EW signals implementation (Jun 2020)
- [ ] CAP: integrate WebGIS and subcontract PLATFORM NET licence provider (November 2020)
- [ ] UNIMI: verification of soil and agricultural data in WebGIS (Jan 2021)
- [ ] Integration of WebGIS Acque di Lombardia with EWS (May 2021)
- [ ] Select WWTPs in Milan metropolitan area suitables for water reuse (May 2021)

Subtask 1.3.2 Local stakeholder training and engagement (M28-M42)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

Local stakeholder involved in the water reuse chain will be trained. Decisons and planning concerning water reuse in peri-urban areas will be discussed

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Task progress

- Task starts in 2021

CHECKLIST

- [ ] UNIMI: define benefits on sustainable agriculure (Oct 2021)
- [ ] UNIVPM: define benefits on sustainable wastewater treatments (Oct 2021)
- [ ] CAP: Organize stakeholder training (Nov 2021)
- [ ] ISS: Organize risk-related sessions and co-approval pathways explaination (Nov 2021)
- [ ] CAP: plan and program territorial investiments for water reuse (Jan 2022)

Subtask 1.3.3 Visualization of long-term conclusive information to the end-users (M24-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

2 mobile-friendly websites will be developed to visualize EWS and validated information on treated wastewater and bathing water safety

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Task progress

- No progress update needed at the moment, as the task will start in June 2021

CHECKLIST

- [ ] CAP and UNIMI:Decide contents to be communicated to the end-users (Ago 2021)
- [ ] UNIVPM: deliver the first version of the mobile-friendly website (Jan 2022)
- [ ] SIAAP: subcontract the solution development (June 2021)
- [ ] UNIVPM: Development of a mobile-friendly website in Milan to geo-localize sensors and visualize validated information (May 2021)
- [ ] SIAAP: Development of a mobile-friendly website in Paris to inform stakeholdes and decision makers on water quality (May 2021)

Strategy for deliverable D2.1 Implementation plan

WP2

D2.1 : Implementation plan of each digital solution and methodology for quantification of the benefits provided by digitization - KPI (M12 - May 2020)

One section for each demo with the following structure:

- Problem definition and goals
- Study site, local issues and current practice
- Technology description
- Where, when and how will technology be tested
- Role of partners
- Key performance indicators

CHECKLIST

- [x] WP leader: template for the report (September 2019)
- [x] WP leader: send KPI list summarised after WP2 meeting in Berlin (Oct 2019)
- [x] Task leaders: 1st draft of subsections 1-4 (Nov. 2019)
- [x] WP leader: review of subsections 1-4 (January 2020)
- [ ] Task leaders: draft of all subsections (February 2020)
- [ ] WP leader + WP team: review (March 2020)
- [ ] Task leaders: final version of all subsections (April 2020)
- [ ] Coordinator: Final version of harmonized and formatted deliverable (May 2020)

Subtask 2.1.1 + 2.3.2: Well maintenance app + condition and rehab planning

WP2 Berlin

Goals:

- Development of a software application or webpage to be run on mobile devices of water well operators to i) support efficient data collection, ii) make well data available on-site and iii) enable preventive maintenance (T2.1.1, Demo in Berlin)
- Develop data-based algorithms for strategic rehabilitation of wells (T2.3.2)

Task progress:

- Tool #1: on-site maintenance app:
  - requirements of utility defined
  - tool currently under development
- Tool #2: app for strategic rehab planning:
  - approach and available data to be discussed
  - official start: Nov. 2020
- draft implementation plan and KPI update still pending (BWB)
- last task meeting: 24 January 2020, minutes on cloud

CHECKLIST

- [ ] BWB: first chapters of implementation plan D2.1 (November 2019)
- [ ] BWB: adaptation of KPI table / list (November 2019)
- [x] BWB: define data to be exchanged with authorities (Dec. 2019)
- [x] VRAGMENTS, BWB: interface definition (Jan. 2020)
- [ ] BWB: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] BWB: organise meeting with KWB (+ maybe Vragments) to exchange on goals and availabe data for rehab planning app (Q1 2020)
- [ ] VRAGMENTS, BWB: first prototype of mobile app (March 2020, see ppt at GA)
- [ ] VRAGEMENTS, BWB: strategic planning tool (July 2020, see ppt at GA)

Subtask 2.1.2 Identification of illicit connections in the stormwater network

WP2 Berlin

Goal: Identification of illicit connections in the stormwater network via a two step monitoring approach consisting of i) hotspot screening via conductivity and multi-parameter sensors and ii) Distributed Temperature Sensing (DTS) for selected hotspots (Demo in Berlin)

Task progress:

- Data on studied network was provided by BWB
- ATEX requirements are clear, all KANDO sensors / units fulfills requirement
- number of sensors: approx. 5 (BWB) + 6 (KANDO)
- Data transfer: KANDO will use GSM technique (mobile telecommunication network); BWB will use LORAWAN were possible or manual data collection; BWB and KANDO organise data transmission for their respective sensors
- Purchase of BWB sensors is currently organised
- KANDO sensors are there, it is currently discussed internally which type will be used (Feb. 2020)
- issue with DTS: CAP can not provide equipment; new solution (under discussion): rental of equipment from Pecher but details to be clarified
- KPI precised: measurement of detection efficiency and value-for-money, compared to reference situation (CCTV inspections)
- draft implementation plan still pending (BWB)
- Last TelCo: 5 Feb. 2020, minutes on cloud

CHECKLIST

- [x] BWB: provide information / data of the network, preferably as GIS (Oct. 2019)
- [x] KANDO: discussion of data transfer with BWB (Oct. / Nov. 2019)
- [x] BWB: first chapters of implementation plan D2.1 (November 2019)
- [x] BWB: adaptation of KPI table / list (November 2019)
- [x] BWB: Order equipment (Nov. 2019 - Feb. 2020)
- [ ] BWB: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] P4UW, BWB, KWB: organise alternative DTS equipment (March 2020)
- [ ] BWB, KANDO: discuss location of sensors and details of monitoring campaign (Feb. / March 2020)
- [ ] BWB, KANDO: sensor installation (April - May 2020)
- [ ] BWB, KANDO, P4UW: monitoring start in Summer 2020

Subtask 2.1.3 Advanced sewer cleaning and inspection

WP2 Sofia

Goal: Demonstration of video nozzle technology to combine sewer inspection and cleaning in a catchment with 10 km main sewers and known blockages (Demo in Sofia)

Task progress:

- task responsibilities are reorganized: SV is new task leader, BWB will participate in the demo, because they already have the technical device
- technical training and transport of device to Sofia is planned for 17-20 March 2020, demo start planned for April / May 2020 (10 km pipes)
- BWB has conducted interview on experience with the technology with operational team and has provided information to SV
- BWB will conduct demo in May / June 2020
- draft implementation plan and final KPI still pending (SV)
- last TelCo: 11 Feb. 2020, minutes on cloud

CHECKLIST

- [ ] IPEK, SV: first chapters of implementation plan D2.1 (November 2019)
- [ ] SV/IPEK: adaptation of KPI table / list (November 2019)
- [x] SV: define cleaning and inspection plan for 2020 (January 2020)
- [ ] SV: specify 10 km of priority pipes for demo (preferably of diameter 500 - 1000 mm)
- [x] BWB: interview XPECTION operator and provide info to SV (Jan. 2020)
- [ ] BWB: contribution to the implementation plan D2.1 (study site, current practice, who-when-how) --> Feb. 2020
- [ ] SV: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] IPEK: provide equipment and technician to SV -> training (March 2020)
- [ ] SV: conduct demo (~April-June 2020)
- [ ] BWB: conduct demo (May-June 2020)

Subtask 2.2.1 + 2.3.1: Smart CSO sensors and analytics for real-time stormwater management

WP2 Berlin Sofia

Goal: Deployment of a network of low-cost temperature sensors to monitor occurrence and duration of CSO (Demo in Sofia and Berlin) to support real-time CSO alert and model calibration

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Task progress:

- Berlin: data on study site and CSO structures provided by BWB, ATEX requirements are clear and can be fulfilled, data transmission for online sensors via LORAWAN
- Sofia: monitoring points to be specified, data transmission preferably with SCADA
- KPI: indicators refined; two KPIs for the performance (CSO frequency and duration) and two for the assessment of ROI (CAPEX and OPEX); reference are existing water level measurements (in Berlin) and citizen information / survey data (Sofia); a 5th KPI will be used to assess improvement of model calibration
- offline sensors are ready
- online sensors are under further development, first 10 sensors will be available Feb./March 2020; the other 10 sensors will latest be available May 2020
- monitoring starts in the period of April-June 2020 -> depends on sensor development, to be discussed
- site visits with ICRA in Sofia and Berlin first half of Feb. 2020

CHECKLIST

- [x] SV, ICRA: monitoring points in Sofia selected (November 2019)
- [x] BWB, ICRA: monitoring points in Berlin selected (November 2019)
- [x] ICRA: first chapters of implementation plan D2.1 (November 2019)
- [x] ICRA: adaptation of KPI table / list (November 2019)
- [x] ICRA: site visit prior to the installation in Berlin and Sofia (~ Feb. 2020)
- [ ] ICRA: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] ICRA: online sensors developed / constructed (first 10 sensors in March 2020, others in May 2020)
- [ ] ICRA, SV, BWB: sensors installed in Sofia and Berlin (April - June 2020)
- [ ] ICRA, SV, BWB: sensors in operation in Sofia and Berlin (June 2020)

Subtask 2.2.2 + 2.2.3 + 2.2.4: WWTP inflow forecast + DSS for sewer and WWTP management + visualisation platform

WP2 Copenhagen

Goals:

- Development of a machine learning model for forecasting WWTP inflow based on sewer flow measurements, rainfall radars and a numerical weather model (Demo in Copenhaqen)
- DSS for real-time control of WWTP operations and in sewer-retention
- Web-based prototype platform for decision support at city scale

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Task progress:

- input data for flow forecasting (T2.2.2) are currently organised (radar rain data, numerical weather predictions) --> exchange with Danish Meterological Institute
- exchange on installed sensors, additional sensor installations and available equipment with network operator (SOFOR) running
- KPI have been refined
- Initial plan a bit delayed, e.g. operation scenarios finished in June 2020
- Last meeting: 31 Jan. 2020 in Copenhagen (KWB, BIOFOS, DHI)

CHECKLIST

- [x] BIOFOS, DHI: rough time line for first 12-18 months (Sept 2019)
- [x] BIOFOS, DHI: start discussion on KPIs (Sept 2019)
- [x] DHI, BIOFOS: first chapters of implementation plan D2.1 (November 2019)
- [x] DHI, BIOFOS: adaptation of KPI table / list (November 2019)
- [ ] DHI, BIOFOS: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] BIOFOS: hydraulic model delivered to DHI (March 2020)
- [ ] DHI: data for ML model collected (April 2020)
- [ ] BIOFOS: sensors installed and operational (June 2020)
- [ ] BIOFOS: Workshop with COP (June 2020)
- [ ] DHI: constant metereological data transfer established (August 2020)
- [ ] DHI: ML models set-up and evaluated (March 2021)
- [ ] DHI/BIOFOS: scenarios described (Oct. 2020)
- [ ] DHI/BIOFOS: uncertainties in data and model quantified (Oct. 2020)
- [ ] DHI: DSS ready and scenarios tested (April 2021)
- [ ] DHI: Offline and real-time demo (April 2022)
- [ ] DHI/BIOFOS: Web-Platform ready (Sept. 2021)

Subtask 2.2.5 + 2.2.6: Water stress monitoring + match making tool for safe water reuse

WP2 Milan

Goals:

- Demonstration and validation of a monitoring drone equipped with remote sensors for water stress
- Development of an interoperable match-making ICT platform to link water demand for irrigation and safe water availability and quality
- Development of efficient irrigation schemes and WWTP operation strategies based on data from (T2.2.5) and crop / evaporation models

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Task progress:

- flight permission for drone still pending, answer from authority is expected for Feb. 2020
- ground sensors are currently purchased and expected for beginning of March 2020
- 1st wireframe for match-making tool developed -> to be refined and discussed with stakeholders
- comment from Francesco: consider risk information from WP1
- COP meeting with local stakeholders planned for 1 April 2020 to present ideas on match-making tool and ask for their expectations
- KPI refined, to be discussed: indicator for match-making tracking
- last TelCo: 7 Feb. 2020, minutes on cloud

CHECKLIST

- [x] CAP, UNIVPM: adaptation of KPI table / list (November 2019)
- [x] CAP, UNIVPM: first chapters of implementation plan D2.1 (November 2019)
- [x] CAP: Establish exchange with farmers and organize meetings to i) define end-user needs, ii) check readiness to adapt current practice and iii) discuss how they can benefit from digitization (Jan. 2020)
- [x] UNIMI, CAP: Set-up wireframe for ICT/ match-making tool, to be discussed with end-users (Jan. 2020)
- [ ] UNIVPM, CAP: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] UNIMI: monitoring design completed, sensors selected and purchased (March 2020)
- [ ] UNIMI: sensor installation and calibration (March / April 2020)
- [ ] CAP, UNIVPM: define user requirements for match-making tool (April 2020)
- [ ] UNIVPM: data acquisition by drone/pole mounted sensor (April - Sept. 2020)
- [ ] UNIVPM, UNIMI: monitoring with ground sensors (May - Sept. 2020)
- [ ] UNIVPM, UNIMI: 1st release of match-making tool (backend + web-app) (Nov. 2020)
- [ ] CAP: test of match-making tool (start in Dec. 2020)
- [ ] UNIVPM, UNIMI: 2nd release of match-making tool (Nov. 2021)
- [ ] UNIVPM, UNIMI: final release of match-making tool (May 2022)

Subtask 3.1.1 Guiding protocol

WP3

D3.1 : Guiding protocol for the ICT governance assessment (M6 - November)

The “guiding protocol” for the ICT governance assessment

- is a governance assessment framework.
- series of open questions to “guide” the exploration of (contextual) factors influencing the uptake of ICT technologies in the water sector,
  -focus on particular sub-national and national level, as well as considering the role of European and international factors
  -applied to three case-studies (Task 3.2.1) and will inform Task 3.1.2 and 3.1.3

Task progress

- Waiting for comments of the COM on the finale deliverable - M18

CHECKLIST

- [x] Work on comments from the COM (End of Dec)

Subtask 3.1.2 Screening of Digital, Data and Water Policies (M3-M12)

WP3

D3.2: Policy matrix (M12)

Delivers a cursory overview on:

- ICT policies related to EU legislation as well as to those addressed in the five case studies.
- Key issues from the different countries' perspectives enables the refinement of the methodological design.
- This task is closely linked to the work in the CoP in WP5. The results are compiled into a DWC policy matrix to allow for easy access.

Task progress

- Matrix framework developed
- Matrix framework tested in Milan case

TO DO LIST

- [ ] ECOL: Matrix applyed in Milan, Paris, Berlin, Sofia, Copenhagen. Draft deliverable (March)
- [ ] SINTEF: Adding on cybersecurity aspects (mid Jan - mid March)

Subtask 3.2.1 Case-Study analysis of governance system factors conductive to innovation and uptake of digital solutions (M6–M38)

WP3

D3.4 : Perception, acceptance and use of digital solutions - 1st version [M18]

The objective is to document stakeholder's viewpoints, claims and expectations with regards to water governance and digital solutions based on document screening and expert as well as institutional actor interviews.
This will cover ways to address barriers through framework conditions (societal, legal, administrative, financial etc.) at EU, national, site level and within the developing organisation and different interested parties (e.g. government, private sector incl. financing, and community associations).
In-depth sociological interviews will be conducted in Paris (by IRSTEA), Milan and Berlin (by ECOL)

MS 3.1 Stakeholder Workshop (approx. April - June 2020)

There will be three separate workshops. In January, we should start developing the workshops as the first one is to be held in April in Milan. The other workshops should take place before the summer holidays 2020 (May till mid June). Objectives and target groups (mostly experts) of the workshops need to be defined beforehand.

Task progress

- Initial desk-based background research for Milano
- Compilation of potential interview partners in Milano (Jan)
- Telco with IRSTEA on the methodology of the interviews (Jan)

TO-DO LIST

- [ ] Inital desk-based background research for Berlin (Ecologic) (February)
- [ ] Compilation of potential interview partners in Milano (Ecologic) (February)
- [ ] Compilation of potential interview partners in Paris (IRSTEA) (February)
- [ ] Preparation of the interview questionaire (IRSTEA, Ecologic) (February)
- [ ] Organisation of next stakeholders workshop in Milan, Berlin and Paris; check alignments wit COP; involve Strane, Arctik in next meeting (Feb - March)

Subtask 3.2.2 Development of three ICT solutions for increasing public involvement (M12/15-M38)

WP3

3 digital communication solutions (Apps) will be developed and deployed:
(1) in Berlin an Augmented Reality (AR) mobile application
(2) in Milan a serious game to raise awareness and engage public
(3) in Paris a mobile application to communicate bathing water contamination risks

TO DO LIST

- [x] Setting up a joint telco to discuss the development of the solutions (January)
- [x] Telco with IRSTEA on the methodology of the workshops (Jan)
- [x] Milan: Doris prepares concept note for workshop in April (February 4)
- [ ] Milan: Francesco prepares list of participants for workshop (February 7)
- [ ] Milan: Francesco checks link with CoP Milan with Marco (February 7)
- [ ] ECOL: Meeting with VRAG and BWB to discuss AR app in berlin (February)

Task 4.1. Establishing the context

WP4

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

T4.1.1: Relevant Baseline evaluation of current systems- Structured factsheets of key information • Baseline situation in utilities regarding DWC solutions • Implemented sensors, models and systems Cybersecurity measures
T4.1.2: Description of semantic models in use in the target domain - description of interoperability of existing IT/IoT systems - data exchange protocols

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Task progress

@KWB:
3/5 utilitites and 3/12 utilitites (providers?) responded to questionaire; online meetings postponed/cancelled as SINTEF will visit utilitites for face-to-face meetings;
D4.1 structure developed; HSc to fill first content and exchange with SINTEF & utilitites and tech providers; first draft to be provided latest 2nd week of March.

CHECKLIST

- [x] SINTEF: Extract information and analyse inputs of questionnaire
- [x] SINTEF: Develop the second round of questionnaires
- [ ] KWB - SINTEF: Send second wave of questionnaire (Feb 21st) to utilities + Doodle link to organize a f2f meeting
- [ ] KWB-SINTEF: Send second wave of questionnaire (Feb 21st) to Technology providers+ Doodle link to organize an online meeting
- [ ] KWB-SINTEF: Travels to utilities with relevant resources to define the needs and requirements linked to cybersecurity and interoperability (output of CoP meeting in Berlin).
- [ ] KWB-SINTEF: Extracting information from the meetings and questionnaires
- [ ] KWB-SINTEF: Prepare D4.1 by the end of April

4.2.1: Strategic and tactical risk analysis based on RIDB

WP4

STOP-IT risk Identification DataBase (RIDB) is adapted and enhanced for bathing water and water reuse and current risk criteria used in DWC cities (T4.1).

Task progress

- Development of the Excel file for capturing the risk criteria from the utilities
- Meeting with the utilities in collaboration with T4.1
- Reshaping the criteria captured into the RIDB and/or fault trees

CHECKLIST

- [x] SINTEF: Questionnaires contain relevant questions from utilities with regards to their risk management process
- [ ] Distillation of information + development of new risk paths (???)
- [ ] CoP with utilities / Tech providers in 2020 for discussion on their risk management process identified in 4.1 (March)
- [ ] Adaptation and generalization of the risk event identified in above activity (May)

4.3.1 Definition of semantic interoperability design requirements

WP4

D4.4: Semantic interoperability design requirements (M18)

Mapping relevant terminologies with respect to the existing ontologies and to the metadata in T4.1
Developing the semantic matching design requirements for alignment of the upper-level ontologies

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Task progress

- Literature review done
- Review of other ontology existing done

CHECKLIST

- [x] SINTEF: Extracting feedback from the questionnaires in T4.1 (1st round). Identifying gaps of current existing ontologies and the outcomes of T4.1
- [ ] SINTEF: Second round of questionnaires and meetings with utilities and technology providers in T4.1 and extracting information
- [ ] SINTEF: Summarizing the lessons learnt regarding the metadata with respect to the ontology
- [ ] SINTEF: Possible meeting for presenting the first outcome of the design requirements in april 2020
- [ ] SINTEF: Create architectural design document; Define interfaces for facilitating M2M matching

4.3.2: DWC reference ontology

WP4

Developing DWC reference ontology based on the findings of T4.1 and the outcomes of T4.3.1 by using OWL. Evaluation, validation and verification by utilities

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Task progress

- Gaps already identified with regards to other ontology existing will be covered
- The ontology in OWL will start soon

CHECKLIST

- [ ] Coding the ontology in OWL (2020)
- [ ] Check link and synergies with FIWARE4WATER project
- [ ] Checking the alignment with other developed and existing ontologies
- [ ] 1st delivery of the ontology
- [ ] Verification and validation by the utility partners

4.3.3 Development of the semantic interoperability middleware

WP4

D4.6: Semantic interoperable middleware - 1st version (M18)

Identification of system mediation and matchmaking based on 4.3.1 and 4.1 results. Development of reference ontology and semantic alignment of existing ontologies.

Task progress

- Still waiting for 4.1
- Waiting for 4.3.1 to identify relevant reference ontologies
- Waiting for 41 & 4.3.1 in order as we must know the amount of ontologies before we can provide matching services

CHECKLIST

- [ ] SINTEF: Development of a microservice architecture (November 2020)
- [ ] SINTEF: Definition of distributed modules requirements

Task 5.1 Local CoP (MS5.1)

WP4 WP5

MS5.1 Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (M6 - November)

Task progress

The guidelines on setting up and operating a CoP have been circulated to City Leaders and are stored in the DWC Cloud (in folders for deliverables and WP5/CoP). The milestone was completed in time.
See https://cloud.kompetenz-wasser.de/index.php/s/biCKSeFikdK2Bof

Telcos with most of the DWC cities (Milan, Copenhagen, Paris and Sofia) were organised by KWB and ICA. The dates, key actors and aims for the initial local CoP presentation meeting were discussed. Minutes are kept in the DWC Cloud.

CHECKLIST

- [x] ICA: Schedule telcos with Cities to support initial meetings of Local CoPs (November)
- [x] ICA: Draft the practical guidance document providing generic instructions on setting up, operating and sustaining a CoP (MS5.1) (November)
- [x] ICA: Draft standard invitation email for COP meetings (November)
- [x] SV: Send guidline to communication team and prepare press conference for march (if feasible) (December)
- [ ] SV: Get information on internal Veolia events in 2020 to communicate on the project (December)
- [ ] SV: DWC Sofia during the yearly conference at World Water Day (22nd of March)
- [ ] CAP: Presentation meeting of DWC Milano to be organised with general meeting from WP2 (April 1st 2020). Invitations to be sent out to relevant actors
- [ ] SIAAP: Upload information in DWC cloud about working groups and communities of practice involved in improving water quality in river Seine (before Olympics)
- [ ] BIOFOS: suggest a date for a meeting of DWC linked to existing Integrated Water Management Group of water utilities in Copenhagen region
- [ ] BWB: Waiting for internal meeting BWB - KWB on 18/02

Task 5.1 Intra-project CoP

WP5

This CoP focuses on cross-fertilization, mutual learning and knowledge exchange between the utilities. It will take up internal discussions and achievements within WPs1-2-3-4 and from the local CoPs to address common issues of both physical (e.g. performance topic) and digital (e.g. best practices for interoperability and cybersecurity) worlds.

Task progress

- Next COP during GA in Sofia

CHECKLIST

- [ ] Next IP CoP meeting will be scheduled as part of the next GA meeting in Sofia, October 2020.

Subtask 5.2.1 Assessment of the market for digital water solutions

WP5

D5.3 : Quadruple helix brief on market opportunities (M7 - December)
Assessment of the market for digital water solutions

Task progress

- Interviews have been done and reports have been delivered on time in December

CHECKLIST

- [x] STRANE: Organise meeting with ECOL and KWB (November)
- [x] ECOL: Interviews feeding into a Quadruple-helix brief (???)
- [x] ECOL: Delivers first version of the deliverable (Beginning December)
- [x] ECOL: First version of the report being reviewed

Subtask 5.2.2: Segmentation, appraisal and sizing of target markets for the DWC solutions

WP5

D5.1: Plan for exploitation of DWC results (M18)

In this task, the SMEs involved in DWC will evaluate and compare the attractiveness of different market segments, estimate the size and growth rate of the most relevant ones, and ultimately define the main target group they will address with their DS.

Task progress

Talks with all the SME assigned into the DOA to introduce and give them access to the MAF platform. KANDO & Vragments will be the first two technology providers that will start to use the MAF+ platform and do the exercises.

CHECKLIST

- [ ] Start of MAF+ assessment for Vragments
- [ ] Start of MAF+ assessment for Kando
- [ ] Start of MAF+ assessment for IOTSENS
- [ ] Follow-up discussion with Partners4UrbanWater to define whether they will participate on the exploitation activities
- [ ] NDA between Fluidion and Ecologic signed
- [ ] Start of MAF+ assessment for Fluidion

Task 5.3 Facilitating the market entry of DWC solutions

WP5

D5.1: Plan for exploitation of DWC results (M18)

DWC will prepare the market entry of new spin-offs with targeted dissemination activities (see T6.2 and T6.3) to raise awareness amongst relevant end-users by giving selected (non-confidential) information from the business plan, e.g. return-on-investment perspectives, benefits against competitors and to give potential customers the possibility to learn about the solutions directly from the DWC utility end-user (peer-to-peer knowledge exchange).

Task progress

Clarification of the framework of each DS technologies per cities in order to prepare a more accurate mapping of project results and potential combinaisons. Getting further feedbacks and information from each technologies starting with the Early Warning System (from SIAAP and KWB)

CHECKLIST

- [ ] STRANE/ECOL: Market analysis of DS n°14 (Low-cost temperature sensors for real-time CSO and flooding monitoring) to be discussed with ICRA and IoTSense (20/02/2020)
- [ ] STRANE/ECOL: Market analysis of DS n°11-13 to be discussed with DHI and Biofos (date pending)
- [ ] STRANE: Prepare forms for DS providers to gather up to date information on technological specifications (February / March 2020)
- [ ] STRANE/ECOL: Market analysis of DS n°6 "Serious Game" (February / March 2020)
- [ ] STRANE: WP2 Meeting in Milan (April 2020)
- [ ] STRANE: Contact non-SME partners to check their interest in creating spinoffs (May 2020)

Task 5.3 WP organisation and content of exploitation plan

WP5

D5.1 Plan for exploitation of DWC results (M18 - November)

Clarify the WP organisation (September)

- Set up a clear activity sheet
- Clarify tasks interactions (timing, content, GANTT chart)
- Assign clear responsibilities between KWB, Ecologic and Strane

Prepare a table of content for the exploitation plan (December)

- List all topics to be included in the Plan for Exploitation
- Clarify all inputs required from every partner

Task progress

- Preparation of D5.1 GANTT chart to clarify roles and activity between each partners of the deliverable and define clear mapping of potential results.

CHECKLIST

- [ ] STRANE/ECOLOGIC: set up regular meeting to tune up the plan for exploitation

Subtask 6.1.1 Communication and dissemination strategy

WP6

D6.3 : Communication and dissemination strategy for DWC project (M6 - November)

T6.1.1, M6 with updates on M18 and M30
Communication and dissemination strategy for DWC project

Task progress

- Decision to go back to the calibri font to end all the issues related to the Gill Sans font (templates and visual identity guidelines to be updated)
- Various discussions. To discuss during the streering committee: t-shirts and business cards

CHECKLIST

- [x] KWB (Pascale): Review of the deliverable by November 15
- [ ] ARCTIK: update the templates and visual identity guidelines with the Calibri Font
- [ ] ARCTIK: Discuss project business card and tshirt -> to discuss at the Steering Comittee of the 18.02
- [ ] Discuss preparation first videos

Subtask 6.1.3 Website

WP6

D6.2 : Setup of DWC website (M4 - September)

Task progress

- Homepage: changes on the frontpage (DS and tools icons)
- "Meet the team" page: contact details for each partner and new "advisory board members" section
- DS description: information gathering and collective writing
- Publication of various related events to create a bit of traffic and content

CHECKLIST

- [x] ARCTIK: Writing text for each solution with new structure (13 Janvier) > Review by STRANE and KWB (17 January) > Validation and correction by tech providers (24 January) and ask for review + pictures until 7 February
- [x] ARCTIK: add contact names of partners + add EAB members (December)
- [x] ARCTIK: add the digital solutions icons to the homepage
- [ ] ARCTIK: add pictures for city description, blocks with text and pictures to be bought
- [ ] ARCTIK: Write articles for the deliverables and publish them in the news section + social media repost
- [ ] ARCTIK: Develop the digital solution pages and add the content

Subtask 6.2.3 Social media and videos

WP6

Social media activities and set up

Task progress

- Twitter monitoring ~ concrete activity to start soon
- Social media handles document done - to be published in the communication toolkit (MS27 - May 2020)

CHECKLIST

- [x] Twitter list
- [ ] ARCTIK: update target audience list (February)
- [ ] ARCTIK: Twitter strategy: proactive communication with at least one tweet every week (February)
- [ ] ARCTIK: Publish project related news on the website; at least every 2 weeks (February)
- [ ] Social media handles document (+publish on Nextcloud)
- [ ] Create LinkedIn account
- [ ] Communication toolkit with first materials (MS27 - May 2020)

Agenda SC Meeting

WP7

Agenda of SC Meeting

CHECKLIST

- [ ] List of deliverables + reviewers > https://cloud.digital-water.city/index.php/f/3251
- [ ] Next events > https://cloud.digital-water.city/index.php/f/60472
- [ ] Delay tasks and correction measures
- [ ] COVID extension
- [ ] Synergies with H2020 projects
- [ ] Set up next meeting
- [ ] ##########
- [ ] Presentation of progress and action plans 15' x 6 = 1h30
- [ ] Update communication: target audience, editorial calendar and interviews

Admin issue

WP7

CHECKLIST

- [x] Hella: list updates templates PPT and word (word: style for ref, table and figure)
- [ ] Hella: Submit amendment and proceed with proposed changes: Asap
- [ ] Hella: Email contact list on the cloud instead of outlook

Subtask 1.1.1 Set-up of a monitoring network for safe water reuse (M1-M18)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (Nov 2020)

CAP: first draft of practical manual (D1.1) (March (moved) to May 2020)

CAP: final version of practical manual (D1.1) (Nov 2020)

UNIVPM: MS 1.1: Successful integration of online sensors >> online sensors deliver valid and robust data (Nov 2020)

Task progress

- Ongoing elaboration of the data provided from sensors already installed (e.g. DO; nutrient; conductivity; etc)
- Ongoing collaboration with ISS to co-design the monitoring plan, even on the basis of the structure of the whole Integrated Urban Wastewater and Reuse System
- Activities in Peschiera Borromeo WWTP interrupted due to COVID-19 emergency

CHECKLIST

- [x] CAP to UNIVPM: Provide all technical sheets of sensors already installed and UV lamps (February)
- [x] UNIVPM: sensors data elaboration in programming environments (Feb 2020)
- [x] CAP-ISS: overall monitoring configuration chosen (Feb2020)
- [x] CAP: preliminary analysis to compare Alert Lab and Alert System results (Feb 2020)
- [x] UNIVPM: draft the schematic of the integrated urban wastewater and reuse system (for risk management purposes) (March 2020)
- [x] UNIVPM: preparation of a Draft index for D1.1
- [ ] CAP: complete the installation of pH, conductivity, temperature, ORP, UV transmission, ammonia nitrogen, nitrate nitrogen (postponed to June 2020)
- [ ] CAP: installation of TOC meter (postponed to June 2020)
- [ ] CAP: ALERT System start-up and troubleshooting (postponed to June 2020)
- [ ] CAP: ALERT System routinary use (postponed to June 2020)
- [ ] ISS: Assess the preliminar monitoring plan requirements (postponed to June 2020)
- [ ] UNIVPM: data pattern analysis and evaluation of on-line data (effluent NOx-N; NH4-N; TSS; PO4-P ; DO; conductivity in biofilm second treatment; Qin) (Apr2020)
- [ ] UNIVPM: analyses of real-time energy data (for WP2-WP3) (April 2020)

Subtask 1.1.2 Improvement of E. Coli and Enterococci automatic measurement of the ALERT system (M1-M12)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

This task focuses only on the product development by FLUIDION

Task progress

- Alert System activity interrupted due to COVID-19 emergency
- Ongoing adaptation of the calibration curve according to wastewater quality

CHECKLIST

- [x] FLUIDION: Adjustments of calibration curve to better fit wastewater matrix
- [x] CAP: preliminary analysis to compare Alert Lab and Alert System results (Feb 2020)
- [ ] CAP to FLUIDION: provide feedback for Alert System usability in Peschiera Borromeo WWTP (postponed to June 2020)
- [ ] FLUIDION: First phase of validation of Alert System against Alert Lab and standard analyses in Milan (postponed to June 2020)
- [ ] FLUIDION: Alert System results validation (postponed to July 2020)
- [ ] FLUIDION: calibration of Alert System against standard analyses in Milan (postponed to June 2020)
- [ ] FLUIDION: provide an easy to use product and secure data interface (postponed to Oct 2020)
- [ ] FLUIDION: new product development implementing single-use cartridges (postponed to Oct 2020)

Subtask 1.1.3 Test of Alert tech on multiple bathing water matrices (M1-M18)

WP1 Berlin Milan Paris

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

MS 1.2: New ALERT available >> system successfully tested on 2 sites (M18)

Installation of 2 ALERT in Paris, 2 ALERT in Berlin and 1 ALERT in Milan. Once available the new product version will be deployed and tested

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Task progress

- Calibration curve modified to fit different water matrices (wastewater)
- Measures with Alert System interrupted due to COVID-19 emergency

CHECKLIST

- [x] FLUIDION: Enhancement of calibration curve with different water matrices (Mar 2020)
- [x] UNIVPM: comments on methods and statistical elaboration presented by FLUID in the meeting Feb 2020 (March 2020)
- [ ] FLUIDION: Verification of Alert results against standard methods (postponed to June 2020)
- [ ] FLUIDION: collect information about operative personnel feedback (postponed to June 2020)

Subtask 1.2.1 Improved decision making for water reuse (M9-M36)

WP1 Milan

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water

Water Quality Integrated Platform will be realized in Milan. Water reuse risk management plan including QMRA and QCRA will be carried out to deliver a Sanitation Safety Plan

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Task progress

- Ongoing elaboration of a schematic of integrated urban wastewater and reuse system (UWRS) for the water reuse risk management plan
- Activities related to Peschiera Borromeo measurements interrupted due to COVID-19 emergency

CHECKLIST

- [x] CAP: complete the checklist prepared by ISS for the risk matrix definition (Mar 2020)
- [x] CAP: information on industrial wastewater collected in the sewerage network of treatment line for water reuse shared with ISS (March 2020)
- [x] UNIVPM: ongoing data elaboration in programming environments (R studio and phyton) to support the integrated urban water reuse systems
- [ ] UNIVPM: Organise meeting with KWB to discuss data integration platform and FIWARE (April)
- [ ] UNIVPM: support ISS to design risk assessment in Integrated urban wastewater and reuse systems (Apr 2020)
- [ ] UNIVPM: list the operational problems and conditions (to estimate the risk) that can lead to non-reusable effluent (Apr 2020)
- [ ] UNIVPM: preparation of a Draft index for D1.2 (Apr 2020)
- [ ] ISS: define requirements for Risk Matrix assessment, once defined and agreed the UWRS scheme (May 2020)
- [ ] UNIVPM: provide assumptions to Risk Matrix elaborated by ISS (June 2020)
- [ ] UNIVPM: list of models and simulators, focusing on their needed input and expected output and comparison with data that are available in real Peschiera system (May 2020)
- [ ] UNIVPM (support ISS): continuous multi-parameter soft sensors design for early warning (June 2020)
- [ ] UNIVPM: Soft sensor for risk minimization based on measures that are in place in Peschiera with data mining and pattern recognition (June 2020)
- [ ] UNIVPM: data analytics to detect events from on-line available data (June 2020)
- [ ] FLUIDION: integration of E.Coli on-line measures in the soft sensor (June2020)
- [ ] UNIVPM: calibrated modeling of Peschiera WWTP to support early warning system

Subtask 1.2.2-3 Early Warning System for bathing water quality (M1-M30)

WP1 Paris

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water
MS 1.3: Launch of Early warning for bathing water quality and water reuse >> warning system accessible from remote location (M30)

Task progress

- Ongoing collaboration with the local health authorities
- Files will be organised first in a library and then in a database, following a simplified version of French ontology (sandre code)
- Ongoing data collection, slowed down by COVID-19 emergency

CHECKLIST

- [x] SIAAP: Initial contact with the local health authority (Agence Régionale de la Santé-ARS) for the definition of EWS requirements (Feb 2020)
- [ ] SU: start numerical simulation with PROSE model (Feb 2020)
- [ ] SIAAP: Discussions on the ontologies of French databases with Mr. Moreno (International Office for Water) to find a simplified form of "sandre code" ontology
- [ ] KWB-SIAAP: data cleaning and preparation (flow, quality and rain) in the common database (February - March 2020)
- [ ] SIAAP: Confidentiality letters signed between providers for files collection (postponed due to COVID-19 emergency)
- [ ] SIAAP: training of the Ph.D student Paul Dupain in the use of the Prose model. (April 2020)

Substask 1.3.1 WebGIS integration and upgrading (M18-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

WebGIS Acque di Lombardia will be upgraded with EWS to localize effluent wastewater in line with quality standards for water reuse

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Task progress

- Task starts in November 2020

CHECKLIST

- [ ] ISS: supervision and verification of correct EW signals implementation (Jun 2020)
- [ ] CAP: integrate WebGIS and subcontract PLATFORM NET licence provider (November 2020)
- [ ] UNIMI: verification of soil and agricultural data in WebGIS (Jan 2021)
- [ ] Integration of WebGIS Acque di Lombardia with EWS (May 2021)
- [ ] Select WWTPs in Milan metropolitan area suitables for water reuse (May 2021)

Subtask 1.3.2 Local stakeholder training and engagement (M28-M42)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

Local stakeholder involved in the water reuse chain will be trained. Decisons and planning concerning water reuse in peri-urban areas will be discussed

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Task progress

- Task starts in 2021

CHECKLIST

- [ ] UNIMI: define benefits on sustainable agriculure (Oct 2021)
- [ ] UNIVPM: define benefits on sustainable wastewater treatments (Oct 2021)
- [ ] CAP: Organize stakeholder training (Nov 2021)
- [ ] ISS: Organize risk-related sessions and co-approval pathways explaination (Nov 2021)
- [ ] CAP: plan and program territorial investiments for water reuse (Jan 2022)

Subtask 1.3.3 Visualization of long-term conclusive information to the end-users (M24-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

2 mobile-friendly websites will be developed to visualize EWS and validated information on treated wastewater and bathing water safety

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Task progress

- No progress update needed at the moment, as the task will start in June 2021

CHECKLIST

- [ ] CAP and UNIMI:Decide contents to be communicated to the end-users (Ago 2021)
- [ ] UNIVPM: deliver the first version of the mobile-friendly website (Jan 2022)
- [ ] SIAAP: subcontract the solution development (June 2021)
- [ ] UNIVPM: Development of a mobile-friendly website in Milan to geo-localize sensors and visualize validated information (May 2021)
- [ ] SIAAP: Development of a mobile-friendly website in Paris to inform stakeholdes and decision makers on water quality (May 2021)

Deliverable D2.1: Implementation plan

WP2

D2.1 : Implementation plan of each digital solution and methodology for quantification of the benefits provided by digitization - KPI (M12 - May 2020)

Status:

- all report chapters received as draft versions
- draft chapters are currently under review by WP2 leader and different task partners
- final chapters expected for 30 April for assembling and formatting final deliverable
- most difficult task for deliverable: define suitable KPI
- KPI and transferibility of solutions was a major topic at the WP2 meeting on 2 April 2020

CHECKLIST

- [x] WP leader: template for the report (September 2019)
- [x] WP leader: send KPI list summarised after WP2 meeting in Berlin (Oct 2019)
- [x] Task leaders: 1st draft of subsections 1-4 (Nov. 2019)
- [x] WP leader: review of subsections 1-4 (January 2020)
- [x] Task leaders: draft of all subsections (February 2020)
- [ ] WP leader + WP team: review (14 April 2020)
- [ ] Task leaders: final version of all subsections (30 April 2020)
- [ ] Coordinator: Final version of harmonized and formatted deliverable (May 2020)

Subtask 2.1.1 + 2.3.2: Well maintenance app + condition and rehab planning

WP2 Berlin

Goals:

- Development of a software application or webpage to be run on mobile devices of water well operators to i) support efficient data collection, ii) make well data available on-site and iii) enable preventive maintenance (T2.1.1, Demo in Berlin)
- Develop data-based algorithms for strategic rehabilitation of wells (T2.3.2)

Task progress:

- Tool #1: on-site maintenance app ("well diary"):
    - requirements of utility defined, tool currently under development
    - under discussion: use of cloud solution and user management
    - prototype expected for Oct 2020 -> start of demo
- Tool #2: app for strategic rehab planning:
    - approach and available data to be discussed
    - official start: Nov. 2020
    - KPI still missing

CHECKLIST

- [x] BWB: draft implementation plan D2.1 ready (Feb. 2020)
- [x] BWB: organise meeting with KWB (+ maybe Vragments) to exchange on goals and availabe data for rehab planning app (Q1 2020)
- [x] BWB: requirements for tool #1 defined (Feb. 2020)
- [ ] VRAGMENTS: prototype for tool #1 ready (Oct 2020)
- [ ] BWB, VRAGMENTS: test, KPI assessment and iterative improvement of tool #1 (Nov. 2020 - Oct. 2021)
- [ ] VRAGMENTS, BWB: final version of tool #1 ready for deployment (Oct. 2021)
- [ ] BWB: deployment of tool #1 (Nov. 2021)
- [ ] BWB: requirements for tool #2 defined (Oct. 2020)
- [ ] KWB, VRAGMENTS: first prototype of tool #2 (April 2021)
- [ ] KWB, VRAGMENTS, BWB: tests, KPI assessment and iterative improvement of tool #2 (May 2021 - April 2022)
- [ ] KWB, VRAGMENTS: final version of tool #2 ready for deployment (April 2022)
- [ ] BWB: deployment of tool #1 (May 2022)

Subtask 2.1.2 Identification of illicit connections in the stormwater network

WP2 Berlin

Goal: Identification of illicit connections in the stormwater network via a two step monitoring approach consisting of i) hotspot screening via conductivity and multi-parameter sensors and ii) Distributed Temperature Sensing (DTS) for selected hotspots (Demo in Berlin)

Task progress:

- EC sensors currently purchased, Multi-parameter sensors available
- issue with DTS finally solved: equipment is rented from German consultant Pecher AG
- Sensor installations, originally planned for May 2020, are all postponed for an unknown duration due to COVID-19 -> uncertainty on start of demo
- KPI specified: measurement of detection efficiency and value-for-money, compared to reference situation (mainly CCTV inspections)

CHECKLIST

- [x] BWB: draft implementation plan D2.1 ready (Feb. 2020)
- [x] P4UW, BWB, KWB: organise alternative DTS equipment (March 2020)
- [x] BWB, KANDO: discuss location of sensors and details of monitoring campaign (Feb. / March 2020)
- [ ] BWB, KANDO: sensor installation (April - May 2020)
- [ ] BWB, KANDO, P4UW: monitoring start in Summer 2020

Subtask 2.1.3 Advanced sewer cleaning and inspection

WP2 Sofia

Goal: Demonstration of video nozzle technology to combine sewer inspection and cleaning in a catchment with 10 km main sewers and known blockages (Demo in Sofia)

Task progress:

- implementation plans for Sofia and Berlin ready
- solution is also ready, equipment sent to Sofia by mail (received March 2020)
- training by IPEK in Sofia originally was scheduled for March 2020 -> cancelled
- training in Sofia now planned for 10-15 May, Monitoring in June – Sept. 2020 -> unsure!
- However, demo could easily be postponed to next year without a major risk for the project

CHECKLIST

- [x] IPEK, SV: first chapters of implementation plan D2.1 (November 2019)
- [x] SV/IPEK: adaptation of KPI table / list (November 2019)
- [x] SV: specify 10 km of priority pipes for demo (preferably of diameter 500 - 1000 mm)
- [x] BWB: contribution to the implementation plan D2.1 (study site, current practice, who-when-how) --> Feb. 2020
- [x] SV: draft implementation plan D2.1 ready (Feb. 2020)
- [x] IPEK: provide equipment to SV (March 2020)
- [ ] IPEK, SV: Training in Sofia (May 2020)
- [ ] SV: conduct demo (June-Sept 2020)
- [ ] BWB: conduct demo (May-June 2020)

Subtask 2.2.1 + 2.3.1: Smart CSO sensors and analytics for real-time stormwater management

WP2 Berlin Sofia

Goal: Deployment of a network of low-cost temperature sensors to monitor occurrence and duration of CSO (Demo in Sofia and Berlin) to support real-time CSO alert and model calibration

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Task progress:

- CSO points selected and checked during site visits in Sofia and Berlin in Feb. 2020
- In Sofia there are practical / operational issues for ~5 designated CSO structures to be equipped with online sensors -> to be discussed with utility
- Construction of sensors: offline sensors ready, online sensors still ongoing -> ready by May / June 2020
- Development of platform for data integration / visualisation still ongoing
- Risks: current movement restriction leads to delay in deployment of sensors and in construction and validation of online sensors
- KPI defined

CHECKLIST

- [x] ICRA: draft implementation plan D2.1 ready (Feb. 2020)
- [x] ICRA: online sensors developed / constructed (first 10 sensors in March 2020, others in May 2020)
- [ ] ICRA, SV, BWB: sensors installed in Sofia and Berlin (April - June 2020)
- [ ] ICRA, SV, BWB: sensors in operation in Sofia and Berlin (June 2020)

Subtask 2.2.2 + 2.2.3 + 2.2.4: WWTP inflow forecast + DSS for sewer and WWTP management + visualisation platform

WP2 Copenhagen

Goals:

- Development of a machine learning model for forecasting WWTP inflow based on sewer flow measurements, rainfall radars and a numerical weather model (Demo in Copenhaqen)
- DSS for real-time control of WWTP operations and in sewer-retention
- Web-based prototype platform for decision support at city scale

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Task progress:

- historical data collected
- agreement with sewer network operator on several new sensors (flow, water level) to be installed for training ML model -> sensors still not installed
- ML models currently under preparation
- Deterministic hydraulic model is ready
- KPI established, were thoroughly discussed with WP2 team, especially the wish to include pathogen emissions from WWTP and sewer network

CHECKLIST

- [x] DHI, BIOFOS: draft implementation plan D2.1 ready (Feb. 2020)
- [ ] BIOFOS: hydraulic model delivered to DHI (March 2020)
- [ ] DHI: data for ML model collected (April 2020)
- [ ] BIOFOS: sensors installed and operational (June 2020)
- [ ] BIOFOS: Workshop with COP (June 2020)
- [ ] DHI: constant metereological data transfer established (August 2020)
- [ ] DHI: ML models set-up and evaluated (March 2021)
- [ ] DHI/BIOFOS: scenarios described (Oct. 2020)
- [ ] DHI/BIOFOS: uncertainties in data and model quantified (Oct. 2020)
- [ ] DHI: DSS ready and scenarios tested (April 2021)
- [ ] DHI: Offline and real-time demo (April 2022)
- [ ] DHI/BIOFOS: Web-Platform ready (Sept. 2021)

Subtask 2.2.5 + 2.2.6: Water stress monitoring + match making tool for safe water reuse

WP2 Milan

Goals:

- Demonstration and validation of a monitoring drone equipped with remote sensors for water stress
- Development of an interoperable match-making ICT platform to link water demand for irrigation and safe water availability and quality
- Development of efficient irrigation schemes and WWTP operation strategies based on data from (T2.2.5) and crop / evaporation models

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Task progress:

- ground sensors are there and ready for installation; however, installation is suspended at the moment
- sowing of maize was also planned for March 2020 -> suspended
- COP meeting postponed
- idea: change crop that can be sowed later in spring and start demo in May / June 2020 or postpone activities to next year
- KPI still to be adapted

CHECKLIST

- [x] UNIVPM, CAP: draft implementation plan D2.1 ready (Feb. 2020)
- [x] UNIMI: monitoring design completed, sensors selected and purchased (March 2020)
- [ ] UNIMI: sensor installation and calibration (March / April 2020)
- [ ] CAP, UNIVPM: define user requirements for match-making tool (April 2020)
- [ ] UNIVPM: data acquisition by drone/pole mounted sensor (April - Sept. 2020)
- [ ] UNIVPM, UNIMI: monitoring with ground sensors (May - Sept. 2020)
- [ ] UNIVPM, UNIMI: 1st release of match-making tool (backend + web-app) (Nov. 2020)
- [ ] CAP: test of match-making tool (start in Dec. 2020)
- [ ] UNIVPM, UNIMI: 2nd release of match-making tool (Nov. 2021)
- [ ] UNIVPM, UNIMI: final release of match-making tool (May 2022)

Subtask 3.1.2 Screening of Digital, Data and Water Policies (M3–M12)

WP3

D3.2: Policy matrix (M12)

Delivers a cursory overview on:

- ICT policies related to EU legislation as well as to those addressed in the five case studies.
- Key issues from the different countries' perspectives enables the refinement of the methodological design.
- This task is closely linked to the work in the CoP in WP5. The results are compiled into a DWC policy matrix to allow for easy access.

Task progress

- A draft overview ("Matrix") of smart water policy instruments has been elaborated for Milan, Paris, Berlin, Sofia, Copenhagen. This includes expect judgements on a) the importance of the relevant policy and b) the impact the actual policy has. This judgement is divided into the digitisation of the water sector and the development of context-specific digital solutions.

- Review round on the draft Matrix from Berlin, Paris, Milan. Still waiting for comments from Copenhagen and Sofia.

TO DO LIST

- [x] ECOL: Matrix applied in Milan, Paris, Berlin, Sofia, Copenhagen (Can you precise a bit more?)
- [x] ECOL: Draft deliverable (end of March)
- [ ] SINTEF: Martin is adding on cybersecurity aspects (April)
- [ ] UNIVPM, IRSTEA: Review of the final Policy matrix (D 3.2), meeting might be needed (Mid-May)

Subtask 3.2.1 Perception analysis - interview and workshops (M6–M38)

WP3

D3.4 : Perception, acceptance and use of digital solutions - 1st version [M18]

MS 3.1 Stakeholder Workshop (approx. April - June 2020)

In-depth sociological interviews in Paris (by IRSTEA), Milan and Berlin (by ECOL).
Organisation of three separate workshops before the summer holidays 2020 (May till mid June). Objectives and target groups (mostly experts) of the workshops need to be defined beforehand.

Task progress

Interviews

- First telephone interview conducted in MIlan
- Selection of potential interview partners for upcoming interviews in Milan

Workshops

- Workshops in Milan and Paris are on hold
- Preparation of an Webinar style workshop/CoP in June in Berlin

TO-DO LIST - INTERVIEWS

- [x] Inital desk-based background research for Berlin (Ecologic) (February)
- [x] Compilation of potential interview partners in Milano (Ecologic) (February)
- [x] Compilation of potential interview partners in Paris (IRSTEA) (February)
- [x] Preparation of the interview questionaire (IRSTEA, Ecologic) (February)
- [ ] ECOL: Preselection of potential telephone interview partners in Berlin (Mid April)
- [ ] IRSTEA: Preselection of potential telephone interview partners in Paris (Mid April)

TO-DO LIST - STAKEHOLDER WORKSHOPS

- [x] Milan: Francesco prepares list of participants for workshop (February 7)
- [x] Milan: Francesco checks link with CoP Milan with Marco (February 7)
- [x] ECOL sends proposition of content and method for Milan workshop (March)
- [ ] ECOL: Organisation of next stakeholders workshop in Milan and Paris; involve Strane, Arctik in next meeting (April) ISS could send the invitation for Milan
- [ ] ECOL, BWB, KWB: Preparation telco for the Berlin workshop (07.04.2020)

Subtask 3.2.2 Development of solutions for public involvement (M12-M38)

WP3

This card describes the activities linked to the technical development of the solutions for public involvement: AR in Berlin / visualization in Paris / Game in Milan

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Task progress

- About to start, no activities yet

CHECKLIST - BERLIN > AR APP

- [ ] ECOL: Meeting with VRAG and BWB to discuss AR app in berlin (April)
- [ ] Activity in Milan and Paris ?

CHECKLIST - MILAN > SERIOUS GAME

CHECKLIST - PARIS > APP FOR BATHING WATER QUALITY

Task 4.1. Establishing the context

WP4

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

T4.1.1: Relevant Baseline evaluation of current systems- Structured factsheets of key information • Baseline situation in utilities regarding DWC solutions • Implemented sensors, models and systems Cybersecurity measures
T4.1.2: Description of semantic models in use in the target domain - description of interoperability of existing IT/IoT systems - data exchange protocols

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Task progress

- a 2nd version of questionnaires has been provided by SINTEF and refined (V3) after the first online meeting with CAP (13.03)
- tech providers to be met before utilitites in order to better understand digital solutions to be able to assess interaction with utility systems in discussing baseline with the utilities.
- meetings completed with IoTsens/ ICRA; SV; Vragments, Fluidion, KWB
- open: P4UW, iPek for meeting BWB & SIAAP; DHI for BIOFOS; UNIVPM, UNIMI, ISS for refinement with CAP
- KWB works on D4.1; draft content sent to SINTEF mid february to discuss structure and contents; draft baseline to be sent to SINTEF before Easter; reviewer still to be defined

CHECKLIST

- [ ] KWB: draft D4.1 (before Easter)?
- [ ] KWB-SINTEF: find reviewer (from utilities) for D4.1
- [ ] KWB: set meetings with tech providers & utilities asap; probably after Easter
- [ ] KWB-SINTEF: extract information from questionnaires and add to D4.1 and following tasks

Task 4.2.1: Strategic and tactical risk analysis based on RIDB

WP4

STOP-IT risk Identification DataBase (RIDB) is adapted and enhanced for bathing water and water reuse and current risk criteria used in DWC cities (T4.1).

Task progress

- xxx

CHECKLIST

- [ ] Rita sets up meeting to discuss strategies of WP4 (April)
- [ ] Distillation of information + development of new risk paths (???)
- [ ] CoP with utilities / Tech providers in 2020 for discussion on their risk management process identified in 4.1 (???)
- [ ] Adaptation and generalization of the risk event identified in above activity (May)

Task 4.3.1 Definition of semantic interoperability design requirements

WP4

D4.4: Semantic interoperability design requirements (M18)

Mapping relevant terminologies with respect to the existing ontologies and to the metadata in T4.1
Developing the semantic matching design requirements for alignment of the upper-level ontologies

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Task progress

- xxx

CHECKLIST

- [ ] SINTEF: Summarizing the lessons learnt inthe interviews of 4.1 regarding the metadata with respect to the ontology (???)
- [ ] SINTEF: Create architectural design document; Define interfaces for facilitating M2M matching (???)

Task 4.3.2: DWC reference ontology

WP4

Developing DWC reference ontology based on the findings of T4.1 and the outcomes of T4.3.1 by using OWL. Evaluation, validation and verification by utilities

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Task progress

- Link has been made with ETSI for the development of the SAREF ontology

CHECKLIST

- [ ] Create link with SAREF ontology development by ETSI (European Telecommunications Standards Institute) > Audun
- [ ] Check link and synergies with other projects of the same H2020 call "digital water"

Task 4.3.3 Development of the semantic interoperability middleware

WP4

D4.6: Semantic interoperable middleware - 1st version (M18)

Identification of system mediation and matchmaking based on 4.3.1 and 4.1 results. Development of reference ontology and semantic alignment of existing ontologies.

Task progress

- xxx

CHECKLIST

- [ ] SINTEF: /

Task 5.1 Local CoP

WP4 WP5

Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (MS5.1) - delivered

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Task progress

- Most planned activities have been cancelled or delayed (sine die) due to Covid19 epidemy. ICA intends to organise a round of telcos with all cities when the situation improves and new arrangements can be set.
- Next CoP in berlin will be holdin Juna via videoconference

CHECKLIST

- [ ] SIAAP: Upload information in DWC cloud about working groups and communities of practice involved in improving water quality in river Seine (before Olympics)
- [ ] BWB: Next CoP in preparation (topics: EWS Paris + virus + AR Berlin); support by Arctik for newsletter and mailing

Task 5.1 Intra-project CoP

WP5

This CoP focuses on cross-fertilization, mutual learning and knowledge exchange between the utilities. It will take up internal discussions and achievements within WPs1-2-3-4 and from the local CoPs to address common issues of both physical (e.g. performance topic) and digital (e.g. best practices for interoperability and cybersecurity) worlds.

Task progress

- Next COP during GA in Sofia

CHECKLIST

- [ ] Next IP CoP meeting will be scheduled as part of the next GA meeting in Sofia, October 2020.
- [ ] Nico organizes project COP to discuss on “RTC experience considering modelling uncertainty” and support the definition of the baseline scenario for KPI assessment: how do we assess the benefits of RTC?

Task 5.2 Market analysis and BP > SME providers

WP5

D5.1: Plan for exploitation of DWC results (M18)

In this task, the SMEs involved in DWC will evaluate and compare the attractiveness of different market segments, estimate the size and growth rate of the most relevant ones, and ultimately define the main target group they will address with their DS.

Task progress

- Slow progress in March due to the need for clarification of which DS will be running through tasks 5.2.2 and 5.2.3 (MAF+ assessment). A round of discussions with SME and other partners has been had and a series of follow-ups is now scheduled to present the innovators with a clear timeline towards the end of October.

CHECKLIST

- [ ] Schedule follow-up call with P4UW for second week of April
- [ ] Start of MAF+ assessment for Vragments: already started first exercise
- [ ] Start of MAF+ assessment for Kando; already started first exercises
- [ ] NDA between Fluidion and Ecologic to be signed
- [ ] Start of MAF+ assessment for Fluidion; needs NDA before starting
- [ ] Start of MAF+ assessment for IOTSENS; wait for feedback of collaboration with ICRA

Task 5.3 Market analysis and BP > non-commercial providers

WP5

D5.1: Plan for exploitation of DWC results (M18)

DWC will prepare the market entry of new spin-offs with targeted dissemination activities (see T6.2 and T6.3) to raise awareness amongst relevant end-users by giving selected (non-confidential) information from the business plan, e.g. return-on-investment perspectives, benefits against competitors and to give potential customers the possibility to learn about the solutions directly from the DWC utility end-user (peer-to-peer knowledge exchange).

Task progress

- Building up an online methodology based on Business Model Canvas to analyse Early Stage Technologies from non-commercial partners.
- Capitalize this methodology within the ICT4Water task force on Innovative Business Models

CHECKLIST

- [ ] STRANE: Finalize questionnaire online form for tech providers and share it with WP5 team (April 2020)
- [ ] STRANE: Organise meetings with each non-commercial partners to introduce online forms / Business Models Canvas (April 2020)

General communication tasks

WP6

D6.3 : Communication and dissemination strategy for DWC project (M6 - November)

T6.1.1, M6 with updates on M18 and M30
Communication and dissemination strategy for DWC project

Task progress

- Graphic charter updated with the Calibri font and posted on Nextcloud and the website -> inform the partners
- Templates updated with the new font and less images to reduce the size
- Business card - first draft, to be validated during SC
- IC4Water newsletter - article published; article Mark and Focus submitted
- T-shirt - in progress, first mock-up for validation during SC

CHECKLIST

- [x] Update the templates and visual identity guidelines with the Calibri Font + reduce size of templates word and PPT with image compression (February)
- [x] First proposition of business card (February)
- [x] Prepare text ICT4Water newsletter (Deadline 27/03)
- [x] Prepare design t-shirt black or dark blue with logo, slogan; first draft (March)
- [ ] Validate business card during Steering Committee > SC sends email to Arctik if cards are needed
- [ ] Infographic to show urban water cycle and integration of DWC solutions (to be discussed)

Website

WP6

D6.2 : Setup of DWC website (M4 - September)

Task progress

- Digital solution pages developed
- First deliverables published
- Deliverables made available on the website + social media repost (March)
- Website updated following KWB review by web developer (April)

CHECKLIST

- [x] Develop the digital solution pages and add the content. Web developer is working on it. Pictures are missing for some solutions (March 1st week)
- [x] Nico checks pictures on web platform; Camille buys pictures for website
- [x] Nico shares with consortium and ask to follow linkedIn page + share ambassadors to relay page + dedicated email to EAB with Linkedin and events + ask sister projects for relay
- [x] Publish deliverables on the website + social media repost (March)
- [x] Update website following KWB review by web developper (April)
- [ ] Post for presentation of solutions (April)

Social media and videos

WP6

Social media activities and set up

Communication toolkit with first materials (MS27 - May 2020)

Task progress

- LinkedIn account created -> could everyone follow it?
- Social media accounts list done - check it when you tweet about DWC related topics - posted on Nextcloud
- Editorial calendar - posted on Nextcloud
- Added associate partners in target audience list

CHECKLIST

- [x] Prepare calendar for communication activities on the cloud; same document as target audiences (March)
- [x] Social media handles document: contacts twitter and list of organisation. Link with target audience list (March)
- [x] Create LinkedIn account, interesting to find contacts worldwide (March)
- [x] Share Linkedin pages with group of ambassadors
- [x] Add associate partners in target audience list
- [ ] Prepare interview article with partners; for example, ICRA - IOTSENS with T-sensors for WP2, possibility of replication; FLUIDION (Dan) sensor; water-health nexus with ISS (Luca Lucentini) - UNIVPM (Francesco) (April)
- [ ] Add personnal linkedin and twitter accounts in target audience list
- [ ] Ask partners to improve target audience list (during the april streering committee)
- [ ] Support layout newsletter COP; campaign monitor to send the newsletter: design, contact list (April)
- [ ] Video motion design for project presentation > first ideas (April)
- [ ] Videos on site for local images - Berlin in July 13-14-15 / Sofia October GA / Paris July-August
- [ ] Videos demo solutions digitales and cities at GA

Agenda SC Meeting

WP7

Agenda of SC Meeting

CHECKLIST

- [ ] List of deliverables + reviewers > https://cloud.digital-water.city/index.php/f/3251
- [ ] Next events > https://cloud.digital-water.city/index.php/f/60472
- [ ] Delay tasks and correction measures
- [ ] COVID extension
- [ ] Synergies with H2020 projects
- [ ] Set up next meeting
- [ ] ##########
- [ ] Presentation of progress and action plans 15' x 6 = 1h30
- [ ] Update communication: target audience, editorial calendar and interviews

Admin issue

WP7

CHECKLIST

- [x] Hella: list updates templates PPT and word (word: style for ref, table and figure)
- [x] Hella: Submit amendment and proceed with proposed changes: Asap
- [ ] Hella: Create full email contact list on the cloud instead of outlook + share with consortium

Subtask 1.1.1 Set-up of a monitoring network for safe water reuse (M1-M18)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (Nov 2020)

CAP: first draft of practical manual (D1.1) (March (moved) to July 2020)

CAP: final version of practical manual (D1.1) (Nov 2020)

UNIVPM: MS 1.1: Successful integration of online sensors >> online sensors deliver valid and robust data (Nov 2020)

Task progress

- Better details and full agreement within the Italian Cluster of the Integrated Urban Wastewater and Reuse System superstructure (even considering the data available in CAP)
- First draft schematic integration of the WWTP monitoring system in the IUWRS assessment
- Structure and extended outline of the deliverable D1.1

CHECKLIST

- [x] UNIVPM: data pattern analysis and evaluation of on-line data (effluent NOx-N; NH4-N; TSS; PO4-P ; DO; conductivity in biofilm second treatment; Qin) (Apr2020)
- [x] UNIVPM: analyses of real-time energy data (for WP2-WP3) (April 2020)
- [x] UNIVPM: list online and offline data to feed FIWARE connected app/services (May 2020)
- [ ] ISS: Assess the preliminar monitoring plan requirements (postponed to June 2020)
- [ ] CAP: provide information and data format currently used by the remote control system and by the Control Room (under realization) (May 2020)
- [ ] CAP-UNIVPM: Provide information about mechanism for data ingestion and exchange between CAP Control Room / remote control system and FIWARE platform (May 2020)
- [ ] UNIVPM: prepare an extended outline (included main contents) of Deliverable D1.1 to be shared with CAP (May 2020)
- [ ] CAP: complete the installation of pH, conductivity, temperature, ORP, UV transmission, ammonia nitrogen, nitrate nitrogen (postponed to June 2020)
- [ ] CAP: installation of TOC meter (postponed to June 2020)
- [ ] CAP: ALERT System start-up, troubleshooting and routinary use (postponed to July 2020)
- [x] UNIVPM: organize meeting with CAP, ISS and UNIMI to present the IUWRS superstructure (Apr 2020)
- [x] UNIVPM-ISS: meeting to revise the risk analyses approach concerning the whole IUWRS (Apr 2020)

Subtask 1.1.2 Improvement of E. Coli and Enterococci automatic measurement of the ALERT system (M1-M12)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

> This task focuses only on the product development by FLUIDION

Task progress

- Activities will re-start according to the COVID-19 Phase 2 plan

CHECKLIST

- [ ] CAP to FLUIDION: provide feedback for Alert System usability in Peschiera Borromeo WWTP (postponed to June 2020)

Subtask 1.1.3 Test of Alert tech on multiple bathing water matrices (M1-M18)

WP1 Berlin Milan Paris

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

MS 1.2: New ALERT available >> system successfully tested on 2 sites (M18)

Installation of 2 ALERT in Paris, 2 ALERT in Berlin and 1 ALERT in Milan. Once available the new product version will be deployed and tested

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Task progress

- Activities will re-start according to the COVID-19 Phase 2 plan

CHECKLIST

- [ ] UNIVPM: Organise meeting with Dan and team to discuss the test of ALERT in 2020 (June)
- [ ] FLUIDION: collect information about operative personnel feedback (postponed to June 2020)
- [ ] FLUIDION: Verification of Alert results against standard methods (postponed to July 2020)
- [ ] FLUIDION: Alert System results validation (postponed to Aug 2020)

Subtask 1.2.1 Improved decision making for water reuse (M9-M36)

WP1 Milan

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water

Water Quality Integrated Platform will be realized in Milan. Water reuse risk management plan including QMRA and QCRA will be carried out to deliver a Sanitation Safety Plan

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Task progress

- First complete draft of Risk Matrix for water reuse prepared in Excel and shared among partners (UNIVPM, CAP, UNIMI) for integration
- IUWRS superstructure schematically detailed to include the Early Warinig System and be supported/represented Water Quality Integrated Platform
- data analytics for possible soft sensors to support the early warning system

CHECKLIST

- [x] UNIVPM: Organise meeting with KWB to discuss data integration platform and FIWARE (Apr 2020)
- [x] UNIVPM: list of models and simulators, focusing on their needed input and expected output and comparison with data that are available in real Peschiera system (May 2020)
- [x] UNIVPM: list the operational problems and conditions that can lead to non-reusable effluent (Apr 2020)
- [x] UNIVPM: list online and offline data required for WQIP to feed FIWARE (May 2020)
- [ ] UNIVPM: support ISS to detail risk analyses and management within the Integrated urban wastewater and reuse systems (May 2020)
- [ ] ISS: finally detail the Excel of the Risk Matrix (May 2020)
- [x] UNIVPM: provide assumptions to Risk Matrix elaborated by ISS (June 2020)
- [ ] UNIVPM: preparation of a deliverable outline for D1.2 to support ISS (May 2020)
- [ ] UNIVPM (support ISS): continuous multi-parameter soft sensors design for early warning (June 2020)
- [ ] UNIVPM: data analytics to detect events from on-line available data (July 2020)
- [ ] UNIVPM: Soft sensor for risk minimization based on measures that are in place in Peschiera with data mining and pattern recognition (July 2020)
- [ ] FLUIDION: integration of E.Coli on-line measures in the soft sensor (July 2020)

Subtask 1.2.2-3 Early Warning System for bathing water quality (M1-M30)

WP1 Paris

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water
MS 1.3: Launch of Early warning for bathing water quality and water reuse >> warning system accessible from remote location (M30)

Task progress

- xxx

CHECKLIST

- [x] SIAAP: Discussions on the ontologies of French databases with Mr. Moreno (International Office for Water) to find a simplified form of "sandre code" ontology
- [ ] KWB-SIAAP: follow up data cleaning and preparation (flow, quality and rain) in the common database (April 2020)
- [ ] SIAAP: training of the Ph.D student Paul Dupain in the use of the Prose model. (April 2020)
- [ ] SIAAP: Confidentiality letters signed between providers for files collection (postponed due to COVID-19 emergency)

Substask 1.3.1 WebGIS integration and upgrading (M18-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

WebGIS Acque di Lombardia will be upgraded with EWS to localize effluent wastewater in line with quality standards for water reuse

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Task progress

- Task starts in November 2020

CHECKLIST

- [ ] ISS: supervision and verification of correct EW signals implementation (Jun 2020)

Subtask 1.3.2 Local stakeholder training and engagement (M28-M42)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

Local stakeholder involved in the water reuse chain will be trained. Decisons and planning concerning water reuse in peri-urban areas will be discussed

---

Task progress

- Task starts in 2021

CHECKLIST

Subtask 1.3.3 Visualization of long-term conclusive information to the end-users (M24-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

2 mobile-friendly websites will be developed to visualize EWS and validated information on treated wastewater and bathing water safety

---

Task progress

- Task starts in June 2021

CHECKLIST

- [ ] UNIVPM: /

Deliverable D2.1: Implementation plan

WP2

D2.1 : Implementation plan of each digital solution and methodology for quantification of the benefits provided by digitization - KPI (M12 - May 2020)

Status:

- all report chapters received as final versions, reviewed by WP leader and one WP partner
- final report formatted, adapted and delivered to Nicolas

CHECKLIST

- [x] WP leader: template for the report (September 2019)
- [x] WP leader: send KPI list summarised after WP2 meeting in Berlin (Oct 2019)
- [x] Task leaders: 1st draft of subsections 1-4 (Nov. 2019)
- [x] WP leader: review of subsections 1-4 (January 2020)
- [x] Task leaders: draft of all subsections (February 2020)
- [x] WP leader + WP team: review (14 April 2020)
- [x] Task leaders: final version of all subsections (30 April 2020)
- [x] WP leader: merge, format and review different chapters (May 2020)
- [ ] Coordinator: Final check and submission of harmonized deliverable (May 2020)

Subtask 2.1.1 + 2.3.2: Well maintenance app + condition and rehab planning

WP2 Berlin

Goals:

- Development of a software application or webpage to be run on mobile devices of water well operators to i) support efficient data collection, ii) make well data available on-site and iii) enable preventive maintenance (T2.1.1, Demo in Berlin)
- Develop data-based algorithms for strategic rehabilitation of wells (T2.3.2)

Task progress:

- Tool #1: on-site maintenance app ("well diary"):
  - tool currently under development
  - prototype expected for Oct 2020
  - not affected by covid-19
- Tool #2: app for strategic rehab planning ("well management app"):
  - approach and available data to be discussed
  - official start: Nov. 2020
  - KPI refined

CHECKLIST

- [ ] VRAGMENTS: prototype for tool #1 ready (Oct 2020)
- [ ] BWB, VRAGMENTS: test, KPI assessment and iterative improvement of tool #1 (Nov. 2020 - Oct. 2021)
- [ ] VRAGMENTS, BWB: final version of tool #1 ready for deployment (Oct. 2021)
- [ ] BWB: deployment of tool #1 (Nov. 2021)
- [ ] BWB: requirements for tool #2 defined (Oct. 2020)
- [ ] KWB, VRAGMENTS: first prototype of tool #2 (April 2021)
- [ ] KWB, VRAGMENTS, BWB: tests, KPI assessment and iterative improvement of tool #2 (May 2021 - April 2022)
- [ ] KWB, VRAGMENTS: final version of tool #2 ready for deployment (April 2022)
- [ ] BWB: deployment of tool #1 (May 2022)

Subtask 2.1.2 Identification of illicit connections in the stormwater network

WP2 Berlin

Goal: Identification of illicit connections in the stormwater network via a two step monitoring approach consisting of i) hotspot screening via conductivity and multi-parameter sensors and ii) Distributed Temperature Sensing (DTS) for selected hotspots (Demo in Berlin)

Task progress:

- All work is prepared, partners are ready, but operational work of water utility is reduced to minimum
- sensor installations, originally planned for May 2020, are postponed for an unknown duration
- However, not too critical regarding overall DWC timeline

CHECKLIST

- [ ] BWB, KANDO: sensor installation (April - May 2020)
- [ ] BWB, KANDO, P4UW: monitoring start in Summer 2020

Subtask 2.1.3 Advanced sewer cleaning and inspection

WP2 Sofia

Goal: Demonstration of video nozzle technology to combine sewer inspection and cleaning in a catchment with 10 km main sewers and known blockages (Demo in Sofia)

Task progress:

- Demo was supposed to start now (May/June), but operational work of water utilities in Berlin and Sofia is reduced to minimum, demos are postponed for an unknown duration
- Traning with IPEK in Sofia, scheduled for March and then May, again postponed
- However, delay is not critical regarding overall DWC timeline at the moment; demo could easily be postponed to next year without a major risk for the project

CHECKLIST

- [ ] IPEK, SV: Training in Sofia (May 2020)
- [ ] SV: conduct demo (June-Sept 2020)
- [ ] BWB: conduct demo (May-June 2020)

Subtask 2.2.1 + 2.3.1: Smart CSO sensors and analytics for real-time stormwater management

WP2 Berlin Sofia

Goal: Deployment of a network of low-cost temperature sensors to monitor occurrence and duration of CSO (Demo in Sofia and Berlin) to support real-time CSO alert and model calibration

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Task progress:

- Offline sensors are ready for installation; as soon as ICRA will be allowed to go to office they will send them to Berlin and Sofia together with a manual for installation
- Operators in Berlin and Sofia will independently install the offline sensors, as soon as they are allowed to do field work (Date unknown)
- Online sensors are still under development and turn out a little more costly than planned due to i) use of more robust material, ii) longer cables and iii) more elaborate firmware / software
- Costs need to be reduced by slightly reducing number of sensors or do without the water level sensors

CHECKLIST

- [ ] ICRA, SV, BWB: sensors installed in Sofia and Berlin (April - June 2020)
- [ ] ICRA, SV, BWB: sensors in operation in Sofia and Berlin (June 2020)

Subtask 2.2.2 + 2.2.3 + 2.2.4: WWTP inflow forecast + DSS for sewer and WWTP management + visualisation platform

WP2 Copenhagen

Goals:

- Development of a machine learning model for forecasting WWTP inflow based on sewer flow measurements, rainfall radars and a numerical weather model (Demo in Copenhaqen)
- DSS for real-time control of WWTP operations and in sewer-retention
- Web-based prototype platform for decision support at city scale

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Task progress:

- installation of sensors (9 or 10 additional water level sensors + some flow sensors) and collection of historical data is delayed by ~ 2 months
- Sewer operators, e.g. HOFOR, are not allowed to get external partners in their sewers and premises (also historical data has to be collected physically)
- Now rules are loosened so there is hope that it works soon; contract is signed; as soon as HOFOR is ready, sensors can be installed
- ML models are currently developed and trained with historical sensor data, hydraulic model data and weather forecast data from the met office
- If further data can be get in the period of July to September 2020, ML model, and so flow forecast tool, is probably not affected too much
- minor delay with update of hydraulic model but not critical at the moment
- Decision support system (DS12) depends on flow forecast (ML-) model
- Visualisation tool (DS13) is not affected; data flow, etc. is currently organised and checked between DHI, sewer and wwtp utilities
- Next meeting: 29 June 2020 (TelCo)

CHECKLIST

- [x] BIOFOS: hydraulic model delivered to DHI (March 2020)
- [ ] DHI: data for ML model collected (April 2020)
- [ ] BIOFOS: sensors installed and operational (June 2020)
- [ ] BIOFOS: Workshop with COP (June 2020)
- [ ] DHI: constant metereological data transfer established (August 2020)
- [ ] DHI: ML models set-up and evaluated (March 2021)
- [ ] DHI/BIOFOS: scenarios described (Oct. 2020)
- [ ] DHI/BIOFOS: uncertainties in data and model quantified (Oct. 2020)
- [ ] DHI: DSS ready and scenarios tested (April 2021)
- [ ] DHI: Offline and real-time demo (April 2022)
- [ ] DHI/BIOFOS: Web-Platform ready (Sept. 2021)

Subtask 2.2.5 + 2.2.6: Water stress monitoring + match making tool for safe water reuse

WP2 Milan

Goals:

- Demonstration and validation of a monitoring drone equipped with remote sensors for water stress
- Development of an interoperable match-making ICT platform to link water demand for irrigation and safe water availability and quality
- Development of efficient irrigation schemes and WWTP operation strategies based on data from (T2.2.5) and crop / evaporation models

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Task progress:

T2.2.5 (Water stress monitoring):

- People are turning back to their offices this week
- the company hired for assembling the irrigation system will be contacted this week
- sowing of crops is planned for first half of June, so that monitoring can already start this year
- then a new schedule for the following activities will be defined with the partners

T2.2.6 (Match-making tool):

- first project presentation to the identified stakeholders to be sent via e-mail
- a remote COP meeting will be organized for after the summer
- short task meeting planned for 2nd half of June / 1st half of July (TelCo)

CHECKLIST

- [ ] UNIMI: sensor installation and calibration (March / April 2020)
- [ ] CAP, UNIVPM: define user requirements for match-making tool (April 2020)
- [ ] UNIVPM: data acquisition by drone/pole mounted sensor (April - Sept. 2020)
- [ ] UNIVPM, UNIMI: monitoring with ground sensors (May - Sept. 2020)
- [ ] UNIVPM, UNIMI: 1st release of match-making tool (backend + web-app) (Nov. 2020)
- [ ] CAP: test of match-making tool (start in Dec. 2020)
- [ ] UNIVPM, UNIMI: 2nd release of match-making tool (Nov. 2021)
- [ ] UNIVPM, UNIMI: final release of match-making tool (May 2022)

Subtask 3.1.2 Screening of Digital, Data and Water Policies (M3–M12)

WP3

D3.2: Policy matrix (M12)

Delivers a cursory overview on:

- ICT policies related to EU legislation as well as to those addressed in the five case studies.
- Key issues from the different countries' perspectives enables the refinement of the methodological design.
- This task is closely linked to the work in the CoP in WP5. The results are compiled into a DWC policy matrix to allow for easy access.

Task progress

- The deadline for D 3.1.2 was postponed by 2 months to end of July due to COVID-19 circumstances.
- SINTEF added aspects on cyberscurity
- Ecologic gathered feedback from the utility partners in Milan, Paris, Berlin, Sofia, Copenhagen.

TO DO LIST

- [x] SINTEF: Martin is adding on cybersecurity aspects (April)
- [ ] Compiling a final draft of D3.1.2 on the basis of the comments and inputs from the city partners. (Mid June)
- [ ] UNIVPM, IRSTEA: Review of the final Policy matrix (D 3.2), meeting might be needed (July)

Subtask 3.2.1 Perception analysis - interview and workshops (M6–M38)

WP3

D3.4 : Perception, acceptance and use of digital solutions - 1st version [M18]

MS 3.1 Stakeholder Workshop (approx. April - June 2020)

In-depth sociological interviews in Paris (by IRSTEA), Milan and Berlin (by ECOL).
Organisation of three separate workshops before the summer holidays 2020 (May till mid June). Objectives and target groups (mostly experts) of the workshops need to be defined beforehand.
Stakeholder workshop and interviews have the objective to define the expectations and acceptance for the 3 apps. Interviews are more general also assess the governance structure. Results go to 3.3 (policy) and 3.4 (perception and acceptance of digital solutions).

Task progress

Interviews

- Not started yet

Workshops

- Preparation of the next COP in Berlin

TO-DO LIST - INTERVIEWS

- [ ] ECOL: Preselection of potential telephone interview partners in Berlin and in Milano (End of May)
- [ ] IRSTEA: Preselection of potential telephone interview partners in Paris (End of May)

TO-DO LIST - STAKEHOLDER WORKSHOPS

- [x] ECOL, BWB, KWB: Preparation telco for the Berlin workshop (07.04.2020)
- [x] ECOL: Organisation of next stakeholder workshop during CoP Berlin on June 11th
- [ ] ECOL: Organisation of next stakeholders workshop in Milan and Paris; involve Strane, Arctik in next meeting (April) ISS could send the invitation for Milan

Subtask 3.2.2 Development of solutions for public involvement (M12-M38)

WP3

This card describes the activities linked to the technical development of the solutions for public involvement: AR in Berlin / visualization in Paris / Game in Milan

---

Task progress

- About to start, no activities yet

CHECKLIST - BERLIN > AR APP

- [ ] ECOL: Meeting with VRAG and BWB to discuss AR app in berlin (End of May)

CHECKLIST - MILAN > SERIOUS GAME

- [ ] ECOL: /

CHECKLIST - PARIS > APP FOR BATHING WATER QUALITY

- [ ] ECOL: /

Task 4.1 Establishing the context

WP4

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

T4.1.1: Relevant Baseline evaluation of current systems
T4.1.2: Description of semantic models in use in the target domain - description of interoperability of existing IT/IoT systems - data exchange protocols

---

Task progress

- KWB (Hella) and SINTEF (Audun) are progressing with D4.1 with Rita's "review". Work has to be intensified now to be able to deliver on time. Some delay expected.

CHECKLIST

- [x] KWB: set meetings with tech providers & utilities asap; probably after Easter
- [x] KWB-SINTEF: extract information from questionnaires and add to D4.1 and following tasks
- [x] KWB: draft D4.1 (before Easter)?
- [x] KWB-SINTEF: find reviewer (from utilities) for D4.1

Task 4.2.1 Strategic and tactical risk analysis based on RIDB

WP4

STOP-IT risk Identification DataBase (RIDB) is adapted and enhanced for bathing water and water reuse and current risk criteria used in DWC cities (T4.1).

Task progress

- xxx

CHECKLIST

- [x] SINTEF: Rita sets up meeting to discuss strategies of WP4 (April)

Task 4.3.2 DWC reference ontology

WP4

Developing DWC reference ontology based on the findings of T4.1 and the outcomes of T4.3.1 by using OWL. Evaluation, validation and verification by utilities

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Task progress

- One assumption here is that the SAREF4WATER ontology (currently undergoing official review) will have a major impact on the DWC ontology.
- SINTEF has become a member of the ETSI Technical Committee developing it (completed)
- We are currently reviewing the SAREF4WATER ontology (running)

CHECKLIST

- [x] SINTEF: Create link with SAREF ontology development by ETSI (European Telecommunications Standards Institute) > Audun
- [x] SINTEF: Check link and synergies with other projects of the same H2020 call "digital water"

Task 4.3.1-3 Semantic interoperability middleware

WP4

D4.4: Semantic interoperability design requirements (M18)

Mapping relevant terminologies with respect to the existing ontologies and to the metadata in T4.1. Developing the semantic matching design requirements for alignment of the upper-level ontologies

D4.6: Semantic interoperable middleware - 1st version (M18)

Identification of system mediation and matchmaking based on 4.3.1 and 4.1 results. Development of reference ontology and semantic alignment of existing ontologies.

Task progress

- Have started to map relevant data and metadata from utilities/digital solutions (running, pending input from interviews)
- Have surveyed relevant existing (published) ontologies describing the water domain (completed)
- Have defined an ontology engineering methodology suited for the ontology development in DWC (completed)
- Have identified a set of semantic matching tools that can support the ontology development process (completed)

CHECKLIST

- [ ] Create identity service for secure authorization and authentication.
- [x] Enable JWT-token
- [x] Host AMQT backplane for communication
- [ ] Host a ontology representation as a microservice
- [ ] Create compose for all components required for semantic matching
- [ ] Create bridge between onotology and web-api
- [x] Look into FIWARE components and try to use them standalone
- [ ] See if FIWARE provides any real added value to DWC

Local CoP

WP4 WP5

Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (MS5.1) - delivered

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Task progress

- Currently organizing the next COP Berlin on June 11th
- Next WP meeting to be set up in June with a presentation of the COP experience in Berlin to relaunch the COP in the other cities

CHECKLIST

- [ ] BWB: Next CoP in preparation (topics: EWS Paris + virus + AR Berlin); support by Arctik for newsletter and mailing
- [ ] SIAAP: Upload information in DWC cloud about working groups and communities of practice involved in improving water quality in river Seine (before Olympics)
- [ ] SV: DWC Sofia during the yearly conference at World Water Day (22nd of March); postponed due to COVID
- [ ] BIOFOS: suggest a date for a meeting of DWC linked to existing Integrated Water Management Group of water utilities in Copenhagen region
- [ ] CAP: In Milan CoP is postponed because of coronavirus

Intra-project CoP

WP5

This CoP focuses on cross-fertilization, mutual learning and knowledge exchange between the utilities. It will take up internal discussions and achievements within WPs1-2-3-4 and from the local CoPs to address common issues of both physical (e.g. performance topic) and digital (e.g. best practices for interoperability and cybersecurity) worlds.

Task progress

- No progress

CHECKLIST

- [ ] Next IP CoP meeting will be scheduled as part of the next GA meeting in Sofia, October 2020.
- [ ] Nico organizes project COP to discuss on “RTC experience considering modelling uncertainty” and support the definition of the baseline scenario for KPI assessment: how do we assess the benefits of RTC?

Market analysis and BP > SME providers

WP5

D5.1: Plan for exploitation of DWC results (M18)

In this task, the SMEs involved in DWC will evaluate and compare the attractiveness of different market segments, estimate the size and growth rate of the most relevant ones, and ultimately define the main target group they will address with their DS.

Task progress

- Bilateral calls between Ecologic and KANDO, Vragments, Fluidion and DHI were held in April.
- KANDO has started with the MAF+ assessment for DS9 (Market Segementation exercise is now filled in)
- Vragments will start with the MAF+ assessment for DS7 in late May/early June.
- Ecologic has received a draft NDA from Fluidion. This is under review by the legal team at Ecologic.
- Sten Lindberg from DHI has received an introduction to the MAF+ and instructions on how to access and use the platform. Sten has agreed to follow the plan previously discussed by Alain, Nico and Gerardo (fill in the exercises independently and share the results with DHI's marketing unit). Ecologic will provide ad-hoc support in this case.

CHECKLIST

- [x] Start of MAF+ assessment for Kando; already started first exercises
- [ ] NDA between Fluidion and Ecologic to be signed
- [ ] Start of MAF+ assessment for Fluidion; needs NDA before starting
- [ ] Start of MAF+ assessment for IOTSENS; wait for feedback of collaboration with ICRA
- [ ] Schedule follow-up call with P4UW for end of May
- [ ] Start of MAF+ assessment for Vragments: already started first exercise
- [x] Introduction to MAF+ assessment for DHI

Market analysis and BP > non-commercial providers

WP5

D5.1: Plan for exploitation of DWC results (M18)

Task progress

- Business Models Canvas created. Currently being reviewed by Nicolas and Gerardo.
- ICT4Water (Task force on Business Models): Participation to the questionnaire (2 non-SMEs sections)

Interviews with technological providers

- DHI - (DS 11-13)
- ISS - DS 5.1: Active Unmanned Aerial Vehicle for analysis of irrigation efficiency
- UNIVPM - DS 3: Early Warning System and matchmaking tool for safe water reuse

CHECKLIST

- [x] STRANE: Finalize questionnaire online form for tech providers and share it with WP5 team (April 2020)
- [x] STRANE: Alain prepares canvas and timeline in calendar. Gerardo and Nico do review (April)
- [ ] STRANE: Prepare incentive: email and presentation for MAF+-Canvas. Alain sends first draft (April)
- [ ] STRANE: Organise webinar with all tech providers with ECOL to present the method and added value (April-May 2020 would be good timing)
- [ ] Alain: Update excel gantchart with activities ECOL and STRANE
- [ ] Gerardo: gets information on IPR questionnaire (colleagues will send)
- [ ] Nico: fills BM for ICT4Water group 2 solutions
- [ ] Nico: Gerardo fills BM for AR solutions

General communication tasks

WP6

D6.3 : Communication and dissemination strategy for DWC project (M6 - November)

T6.1.1, M6 with updates on M18 and M30
Communication and dissemination strategy for DWC project

Task progress

- Reminder about business cards and t-shirts was sent April/May to gauge interest --> first round of printing to be arranged
- Infographic --> in progress

CHECKLIST

- [x] Printing of business cards; send reminder
- [x] Final proposition for t-shirt with KWB
- [ ] Infographic to show urban water cycle and integration of DWC solutions (to be discussed)
- [ ] Look into printing options

Website

WP6

D6.2 : Setup of DWC website (M4 - September)

Task progress

- Digital solution pages updated to incorporate KWB feedback (embedded pictures); city pages to be updated with new images

CHECKLIST

- [x] Update website following KWB review: embedded pictures for cities and solutions (April)
- [x] Post for presentation of solutions (April)
- [ ] Update city pages with new images

Social media and videos

WP6

Social media activities and set up

Communication toolkit with first materials (MS27 - May 2020)

Task progress

- Interview articles: first article in progress, for publication in May (DS14/ICRA); next interviews being scheduled (DS1/Fluidion and DS3/ISS and UNIVPM)
- Personal LinkedIn and Twitter to add to target audiences --> in progress, first accounts added
- COP newsletter --> template created and first edition (Berlin) finalised for sendout
- Social media campaign materials --> done, first 3 posts published
- First interview for website conducted, to be published in May

CHECKLIST

- [x] Ask partners to improve target audience list (during the april streering committee)
- [x] Prepare interview article with partners; for example, ICRA - IOTSENS with T-sensors for WP2, possibility of replication; FLUIDION (Dan) sensor; water-health nexus with ISS (Luca Lucentini) - UNIVPM (Francesco) (April)
- [x] Support layout newsletter COP; campaign monitor to send the newsletter: design, contact list (April)
- [x] Materials for the DWC social media campaign
- [x] Next interviews on digital solutions to conduct and draft
- [ ] Add personal Linkedin and Twitter accounts in target audience list
- [ ] Video motion design for project presentation > first ideas (June - building on infographic for animation)
- [ ] Videos on site for local images - Berlin in July 13-14-15 / Sofia October GA / Paris July-August
- [ ] Contacts utilities and organize meeting with communication teams > see link
- [ ] Communications toolkit - to define: which resources to include for public toolkit (website) and partners' toolkit (NextCloud) --> to request feedback during SC May

Subtask 1.1.1 Set-up of a monitoring network for safe water reuse (M1-M18)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (Nov 2020)

CAP: first draft of practical manual (D1.1) (March (moved) to July 2020)

CAP: final version of practical manual (D1.1) (Nov 2020)

UNIVPM: MS 1.1: Successful integration of online sensors >> online sensors deliver valid and robust data (Nov 2020)

Task progress

- The extended outline of the Deliverable D1.1 has been structured by UNIVPM, shared and discussed with CAP.
- CAP provided first general information concerning the main " control room" and related data ingestion
- ALERT system installed at the inlet of the disinfection step on Peschiera line 2
- Tests with ALERT system started

CHECKLIST

- [x] CAP: provide information and data format used by the remote control system and Control Room (May 2020)
- [x] CAP-UNIVPM: information on data ingestion mechanism between CAP Control Room and FIWARE platform (May 2020)
- [x] UNIVPM: prepare an extended outline of D1.1 to be shared with CAP (May 2020)
- [x] CAP: ALERT system installed and first measurements started (June 2020)
- [ ] CAP: ALERT System start-up, troubleshooting and routinary use (postponed to July-Aug 2020)
- [ ] CAP: complete the installation of pH, conductivity, temperature, ORP, UV transmission (postponed to July-Sept 2020)
- [ ] CAP: complete the installation of ammonia nitrogen, nitrate nitrogen (postponed to July-Sept 2020)
- [ ] CAP: installation of TOC meter (postponed to July-Sept 2020)
- [ ] ISS: Assess the preliminar monitoring plan requirements (postponed to June 2020)

Subtask 1.1.2 Improvement of E. Coli and Enterococci automatic measurement of the ALERT system (M1-M12)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

> This task focuses only on the product development by FLUIDION

Task progress

- New prototype of ALERT System in development, first prototype almost functional and assembled (75% electronics, 95% mechanical)
- Single-use cartidges in manufactoring (50%)

CHECKLIST

- [ ] CAP: provide feedback for Alert System usability (postponed to June-July 2020)
- [ ] FLUIDION: First version of the new Alert System (Sept-Oct 2020)
- [ ] FLUIDION: single-use cartridges prototypes (July 2020)

Subtask 1.1.3 Test of Alert tech on multiple bathing water matrices (M1-M18)

WP1 Berlin Milan Paris

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

MS 1.2: New ALERT available >> system successfully tested on 2 sites (M18)

Installation of 2 ALERT in Paris, 2 ALERT in Berlin and 1 ALERT in Milan. Once available the new product version will be deployed and tested

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Task progress

- Test of ALERT System in Peschiera Borromeo WWTP started (inlet to UV disinfection)
- Monitoring campaigns in the urban tributaries of the Seine and Marne planned from mid July to September 2020

CHECKLIST

- [x] UNIVPM: Organise meeting with Dan and team to discuss the test of ALERT in 2020 (June)
- [ ] UNIVPM: organize meeting with FLUIDION and demo team for validation of monitoring campaign and definition of metrics for evaluation of ALERT system performance (July 2020)
- [ ] FLUIDION: collect information about operative personnel feedback (postponed to June-July 2020)
- [ ] FLUIDION: Verification of Alert results against standard methods (postponed to July-Aug 2020)
- [ ] FLUIDION: Alert System results validation (postponed to Aug-Sept 2020)
- [ ] SIAAP: Monitoring campaigns in the urban tributaries (e.g. Yerres, Orge and Morbras) (Jul-Sept 2020)

Subtask 1.2.1 Improved decision making for water reuse (M9-M36)

WP1 Milan

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water

Water Quality Integrated Platform will be realized in Milan. Water reuse risk management plan including QMRA and QCRA will be carried out to deliver a Sanitation Safety Plan

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Task progress

- The Risk Matrix has been further detailed with data from Peschiera Borromeo case study
- The Risk Matrix has been generalized to allow transferability and replicability (superstructure is included)
- Ongoing data analytics (in MatLab and Phyton) for outlier/anomaly detection

CHECKLIST

- [x] UNIVPM: support ISS for risk analyses within the Integrated urban wastewater and reuse systems (May 2020)
- [x] ISS: finally detail the Excel of the Risk Matrix (May 2020)
- [x] UNIVPM: preparation of a deliverable outline for D1.2 to support ISS (May 2020)
- [x] UNIVPM: new personnel employed for data elaboration and statistical analysis (May 2020)
- [x] UNIVPM-ISS: organised meeting to discuss about raw data pre-processing methodology (June 2020)
- [ ] ISS: provide a detailed flow-chart for raw-data preprocessing (June 2020)
- [ ] UNIVPM: data analytics to detect events from on-line available data (July 2020)
- [ ] UNIVPM: Soft sensor for risk minimization based on measures that are in place in Peschiera with data mining and pattern recognition (July-Sept 2020)
- [ ] UNIVPM (support ISS): multi-parameter soft sensors design for early warning (postponed July-Sept 2020)
- [ ] FLUIDION: integration of E.Coli on-line measures in the soft sensor (July 2020)
- [ ] UNIVPM: prepare state of the art and extended outline for D1.2 (July 2020)

Subtask 1.2.2-3 Early Warning System for bathing water quality (M1-M30)

WP1 Paris

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water
MS 1.3: Launch of Early warning for bathing water quality and water reuse >> warning system accessible from remote location (M30)

Task progress

- The agreement between providers for files collection is being finalized
- PhD student training finalized.
- Data collection (flow and quality in discharges, and quality in the Seine) for data base early warning system in Paris is almost completed (COVID measures has delayed the transmission of data from some data providers).

CHECKLIST

- [x] SIAAP: training of the Ph.D student Paul Dupain in the use of the Prose model. (April 2020)
- [x] SIAAP: Discussions on the ontologies of French databases with Mr. Moreno (International Office for Water) to find a simplified form of "sandre code" ontology
- [x] SIAAP: Confidentiality letters signed between providers for files collection (postponed)
- [ ] UNIVPM: organize meeting to coordinate development of EWS in Paris: work with KWB-SIAAP-SU for data models, data collection, data preparation and start modelling activities + participate to content of D1.2 (July 2020)
- [ ] SIAAP: finalize data collection for data base early warning system (Jul 2020)
- [ ] KWB-SIAAP: follow up data cleaning and preparation (flow, quality and rain) in the common database (July 2020)
- [ ] SIAAP: study of the simulation time interval needed to predict a bacterial concentration (Jul-Aug 2020)

Substask 1.3.1 WebGIS integration and upgrading (M18-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

WebGIS Acque di Lombardia will be upgraded with EWS to localize effluent wastewater in line with quality standards for water reuse

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Task progress

- Task starts in November 2020

CHECKLIST

- [ ] ISS: supervision and verification of correct EW signals implementation (Jun 2020)

Subtask 1.3.2 Local stakeholder training and engagement (M28-M42)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

Local stakeholder involved in the water reuse chain will be trained. Decisons and planning concerning water reuse in peri-urban areas will be discussed

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Task progress

- Task starts in 2021

CHECKLIST

Subtask 1.3.3 Visualization of long-term conclusive information to the end-users (M24-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

2 mobile-friendly websites will be developed to visualize EWS and validated information on treated wastewater and bathing water safety

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Task progress

- Task starts in June 2021

CHECKLIST

- [ ] UNIVPM: /

Deliverable D2.1: Implementation plan

WP2

D2.1: Implementation plan of each digital solution and methodology for quantification of the benefits provided by digitization - KPI (M12 - May 2020)

Status:

- Published: https://cloud.digital-water.city/index.php/s/tcsC2AATTneEKXL

CHECKLIST

- [x] WP leader: template for the report (September 2019)
- [x] WP leader: send KPI list summarised after WP2 meeting in Berlin (Oct 2019)
- [x] Task leaders: 1st draft of subsections 1-4 (Nov. 2019)
- [x] WP leader: review of subsections 1-4 (January 2020)
- [x] Task leaders: draft of all subsections (February 2020)
- [x] WP leader + WP team: review (14 April 2020)
- [x] Task leaders: final version of all subsections (30 April 2020)
- [x] WP leader: merge, format and review different chapters (May 2020)
- [x] Coordinator: Final check and submission of harmonized deliverable (May 2020)

Deliverable D2.3: Technology report

WP2

D2.3: Technical documentation of the digital solutions and key requirement for successful deployment (draft, final version in May 2022, M36)

CHECKLISTE

- [ ] KWB: Provide template with structure, discuss with STRANE (July 2020)
- [ ] Tech providers: provide draft versions of chapters (Sept 2020)
- [ ] STRANE: review draft chapters (mid Oct 2020)
- [ ] Tech providers: provide improved versions of chapters (end Oct 2020)
- [ ] KWB: write short introduction and summary (Nov 2020)
- [ ] KWB: final check and submission (Nov 2020)

Subtask 2.1.1 + 2.3.2: Well maintenance app + condition and rehab planning

WP2 Berlin

Goals:

- Development of a software application or webpage to be run on mobile devices of water well operators to i) support efficient data collection, ii) make well data available on-site and iii) enable preventive maintenance (T2.1.1, Demo in Berlin)
- Develop data-based algorithms for strategic rehabilitation of wells (T2.3.2)

Task progress:

- Tool #1: on-site maintenance app ("well diary"):
  - tool currently under development
  - prototype expected for Oct 2020
  - not affected by covid-19
- Tool #2: app for strategic rehab planning ("well management app"):
  - approach and available data to be discussed
  - official start: Nov. 2020
  - KPI: the benefit will be measured by a user survey (to be specified after the definition of the user requirements)

CHECKLIST

- [ ] VRAGMENTS: prototype for tool #1 ready (Oct 2020)
- [ ] BWB, VRAGMENTS: test, KPI assessment and iterative improvement of tool #1 (Nov. 2020 - Oct. 2021)
- [ ] VRAGMENTS, BWB: final version of tool #1 ready for deployment (Oct. 2021)
- [ ] BWB: deployment of tool #1 (Nov. 2021)
- [ ] BWB: requirements for tool #2 defined (Oct. 2020)
- [ ] KWB, VRAGMENTS: first prototype of tool #2 (April 2021)
- [ ] KWB, VRAGMENTS, BWB: tests, KPI assessment and iterative improvement of tool #2 (May 2021 - April 2022)
- [ ] KWB, VRAGMENTS: final version of tool #2 ready for deployment (April 2022)
- [ ] BWB: deployment of tool #1 (May 2022)

Subtask 2.1.2: Identification of illicit connections in the stormwater network

WP2 Berlin

Goal: Identification of illicit connections in the stormwater network via a two step monitoring approach consisting of i) hotspot screening via conductivity and multi-parameter sensors and ii) Distributed Temperature Sensing (DTS) for selected hotspots (Demo in Berlin)

Task progress:

- All work is prepared, partners are ready, but operational work of water utility is reduced to minimum
- sensor installations, originally planned for May 2020, is postponed to October 2020 for EC and KANDO sensors, to March 2021 for DTS
- However, not too critical regarding overall DWC timeline

CHECKLIST

- [ ] BWB, KANDO: sensor installation (October 2020)
- [ ] P4UW: DTS installation (March 2021)

Subtask 2.1.3: Advanced sewer cleaning and inspection

WP2 Sofia

Goal: Demonstration of video nozzle technology to combine sewer inspection and cleaning in a catchment with 10 km main sewers and known blockages (Demo in Sofia)

Task progress:

- Demo was supposed to start in May/June, but operational work of water utilities in Berlin and Sofia is reduced to minimum, demos are postponed for an unknown duration
- Traning with IPEK in Sofia postponed twice, could be conducted from IPEK side as soon as flights go as usual
- In Berlin operational activities are still running at minimum; XPection demo currently planned for March 2021
- However, delay is not critical regarding overall DWC timeline at the moment; demo could easily be postponed to next year without a major risk for the project
- Task meeting planned for 17 July 2020 (together with CSO monitoring)

CHECKLIST

- [ ] IPEK, SV: Training in Sofia (unknown)
- [ ] SV: conduct demo (unknown)
- [ ] BWB: conduct demo (planned for March - May 2021)

Subtask 2.2.1 + 2.3.1: Smart CSO sensors and analytics for real-time stormwater management

WP2 Berlin Sofia

Goal: Deployment of a network of low-cost temperature sensors to monitor occurrence and duration of CSO (Demo in Sofia and Berlin) to support real-time CSO alert and model calibration

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Task progress:

- Sensor development:
    - Offline sensors are ready for installation; will be sent to Berlin and Sofia together with a manual for installation; operators in Berlin and Sofia will install the sensors independently
    - Online sensors still under develelopment, had a delay since noone was allowed to go to the offices, no further progress at the moment
    - Online sensors turn out a little more costly than planned due to i) use of more robust material, ii) longer cables and iii) more elaborate firmware / software
    - Costs need to be reduced by doing without the water level sensors or slightly reducing number of sensors
- Sensor installation in Berlin:
    - 8-9 July check of installation points with operational team (mounting conditions, cable lengths, ...), as soon as they are allowed to do field work (Date unknown)
    - feedback to Oriol so that required material can be sent
    - installation planned for mid / end August 2020, best offline and online sensors together
    - regular maintenance with data and battery check every 8 weeks
- Sensor installation in Sofia:
    - can be done as soon as material arrives
- Visualisation platform: no news from IoTSens, to be checked at next task meeting
- Task meeting planned for 17 July 2020 (together with sewer cleaning task)

CHECKLIST

- [ ] ICRA: offline sensors sent to utilities (July 2020)
- [ ] SV, BWB: offline sensors installed in Sofia and Berlin (August 2020)
- [ ] ICRA: online sensors ready (?)
- [ ] SV, BWB: online sensors installed in Sofia and Berlin (?)

Subtask 2.2.2 + 2.2.3 + 2.2.4: WWTP inflow forecast + DSS for sewer and WWTP management + visualisation platform

WP2 Copenhagen

Goals:

- Development of a machine learning model for forecasting WWTP inflow based on sewer flow measurements, rainfall radars and a numerical weather model (Demo in Copenhaqen)
- DSS for real-time control of WWTP operations and in sewer-retention
- Web-based prototype platform for decision support at city scale

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Task progress (status mid May 2020):

- sensors in the sewer network wait for installation (9 or 10 additional water level sensors + some flow sensors)
- historical data is waiting to be collected (from HOFOR)
- ML models are developed and trained with historical sensor data, hydraulic model data and weather forecast data from the met office; to be updated with new data
- minor delay with update of hydraulic model but not critical at the moment
- Decision support system (DS12) depends on flow forecast (ML-) model
- Visualisation tool (DS13) is not affected; data flow, etc. is currently organised and checked between DHI, sewer and wwtp utilities
- next meeting with more specific update on 29 June 2020 (TelCo)

CHECKLIST (UPDATED FROM IMPLEMENTATION PLAN, MAY 2020)

- [ ] DS11 - BIOFOS, DHI: Historical data collected, sensors installed, software design ready (July 2020)
- [ ] DS11 - DHI: models set-up and evaluated, Software developed (Feb. 2021)
- [ ] DS12 - BIOFOS, DHI: Management scenarios defined (Nov. 2020)
- [ ] DS12 - BIOFOS, DHI: start uncertainty quantification (Sept. 2020)
- [ ] DS12 - BIOFOS, DHI: Uncertainties quantified (Mar 2021, formerly Oct. 2020)
- [ ] DS12 - DHI: Start development of DSS (Dec. 2020, until June 2021)
- [ ] DS12 - DHI: Start test of DSS (May 2021)
- [ ] DS13 - DHI: Start software development for visualisation platform (Oct. 2020)
- [ ] DS13 - DHI, BIOFOS: Design and data preparation finished (Dec. 2020)

Subtask 2.2.5 + 2.2.6: Water stress monitoring + match making tool for safe water reuse

WP2 Milan

Goals:

- Demonstration and validation of a monitoring drone equipped with remote sensors for water stress
- Development of an interoperable match-making ICT platform to link water demand for irrigation and safe water availability and quality
- Development of efficient irrigation schemes and WWTP operation strategies based on data from (T2.2.5) and crop / evaporation models

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Task progress:

- T2.2.5 (Water stress monitoring):
    - crops were sown (week 8-12 June)
    - Irrigation system in place and operational
    - ground sensors are partly installed, some others are still being purchased
    - drone operations is currently prepared, first flights planned for July when corn will be visible
    - drone permission for Pesiera Borromeo was finally given by authorities (with certain obligations)
- T2.2.6 (Match-making tool):
    - a remote COP meeting will be organized for after the summer
    - A task meeting is planned for 10 July (TelCo)

CHECKLIST

- [x] UNIMI: sensor installation and calibration (March / April 2020)
- [ ] CAP, UNIVPM: define user requirements for match-making tool (April 2020)
- [ ] UNIVPM: data acquisition by drone/pole mounted sensor (April - Sept. 2020)
- [ ] UNIVPM, UNIMI: monitoring with ground sensors (May - Sept. 2020)
- [ ] UNIVPM, UNIMI: 1st release of match-making tool (backend + web-app) (Nov. 2020)
- [ ] CAP: test of match-making tool (start in Dec. 2020)
- [ ] UNIVPM, UNIMI: 2nd release of match-making tool (Nov. 2021)
- [ ] UNIVPM, UNIMI: final release of match-making tool (May 2022)

Subtask 3.1.2 Screening of Digital, Data and Water Policies (M3–M12)

WP3

D3.2: Policy matrix (M12)

Delivers a cursory overview on:

- ICT policies related to EU legislation as well as to those addressed in the five case studies.
- Key issues from the different countries' perspectives enables the refinement of the methodological design.
- This task is closely linked to the work in the CoP in WP5. The results are compiled into a DWC policy matrix to allow for easy access.

Task progress

- Final draft of D3.1.2 was finalised and circulated to the reviewers

TO DO LIST

- [x] Compiling a final draft of D3.1.2 on the basis of the comments and inputs from the city partners. (Mid June)
- [ ] ECOL, UNIVPM, IRSTEA: Review of the final Policy matrix (D 3.2), meeting might be needed to coordinate the integration of the comments (July)

Subtask 3.2.1 Perception analysis - interview and workshops (M6–M38)

WP3

D3.4 : Perception, acceptance and use of digital solutions - 1st version [M18]

MS 3.1 Stakeholder Workshop (approx. April - June 2020)

In-depth sociological interviews in Paris (by IRSTEA), Milan and Berlin (by ECOL).
Organisation of three separate workshops before the summer holidays 2020 (May till mid June). Objectives and target groups (mostly experts) of the workshops need to be defined beforehand.
Stakeholder workshop and interviews have the objective to define the expectations and acceptance for the 3 apps. Interviews are more general also assess the governance structure. Results go to 3.3 (policy) and 3.4 (perception and acceptance of digital solutions).

Task progress

Interviews

- Interviews in Milano should start in July. Feedback from Milano on the selection of interview partners still pending.

Workshops

- COP Berlin took place June 11

TO-DO LIST - INTERVIEWS

- [ ] ECOL: set up meetings with technical partners for the app development to define together the expectations of the interviews (COP for Berlin; need meeting in Paris and Milan) (July 2020)
- [ ] ECOL: Pre-selection of telephone interview partners in Berlin and Milano; wait for feedback from CAP (End of June)
- [ ] IRSTEA: Preselection of potential telephone interview partners in Paris (End of June)

TO-DO LIST - STAKEHOLDER WORKSHOPS

- [ ] ECOL: Organisation of next stakeholders workshop in Milan (link to COP)
- [ ] ECOL: prepare timeline and responsibilities of the tasks until mid July 2020
- [ ] ECOL: Organisation of next stakeholders workshop (link to COP) in Paris; Nico will check with SIAAP

Subtask 3.2.2 Development of solutions for public involvement (M12-M38)

WP3

This card describes the activities linked to the technical development of the solutions for public involvement: AR in Berlin / visualization in Paris / Game in Milan

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Task progress

AR App

- First meeting on the groundwater app
- Feedback from potential end-users gathered

CHECKLIST - BERLIN > AR APP

- [x] ECOL: Meeting with VRAG and BWB to discuss AR app in berlin (End of May)
- [ ] ECOL: Need to define responsibilities, timeline and roles of partners (June)
- [ ] ECOL: Need to check table of content of deliverable for November

CHECKLIST - MILAN > SERIOUS GAME

- [ ] ECOL: /

CHECKLIST - PARIS > APP FOR BATHING WATER QUALITY

- [ ] ECOL: /

Task 4.1 Establishing the context

WP4

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

T4.1.1: Relevant Baseline evaluation of current systems
T4.1.2: Description of semantic models in use in the target domain - description of interoperability of existing IT/IoT systems - data exchange protocols

---

Task progress

- Feedback on questionnaire collected with emails from Kando, iPEK, P4UW, SIAAP
- SINTEF provided risk assessment & semanitc & technical interoperability aspects
- Draft deliverable submitted for internal review to Carsten (BIOFOS) and all interview partners on June, 16th, first feedback received, deadline set to 26th June

CHECKLIST

- [ ] KWB-SINTEF: finalize deliverable (June)
- [ ] KWB-SINTEF: discuss next steps in WP (2nd July)

Task 4.2.1 Strategic and tactical risk analysis based on RIDB

WP4

STOP-IT risk Identification DataBase (RIDB) is adapted and enhanced for bathing water and water reuse and current risk criteria used in DWC cities (T4.1).

Task progress

- xxx

CHECKLIST

- [x] SINTEF: Rita sets up meeting to discuss strategies of WP4 (April)
- [ ] SINTEF: During next GA, explain needs from utilities to feed this task and start the survey

Task 4.3.2 DWC reference ontology

WP4

Developing DWC reference ontology based on the findings of T4.1 and the outcomes of T4.3.1 by using OWL. Evaluation, validation and verification by utilities

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Task progress

- An early draft of the ontology using the SAREF suite of ontologies (including SAREF4WATER) has been developed as a baseline.

CHECKLIST

- [x] Develop an early draft of the ontology using the SAREF suite of ontologies (including SAREF4WATER) as a baseline.
- [ ] Integrate the data requirements elicited from the dialogue with utilities and technology providers, and whenever needed, extend the ontology with additional entities (as much as possible reusing existing ontologies identified in 4.3.1).

Task 4.3.1-3 Semantic interoperability middleware

WP4

D4.4: Semantic interoperability design requirements (M18)

Mapping relevant terminologies with respect to the existing ontologies and to the metadata in T4.1. Developing the semantic matching design requirements for alignment of the upper-level ontologies.

D4.6: Semantic interoperable middleware - 1st version (M18)

Identification of system mediation and matchmaking based on 4.3.1 and 4.1 results. Development of reference ontology and semantic alignment of existing ontologies.

Task progress

- Continued to map and describe data requirements elicited from the dialogue with utilities and technology providers in T4.1.

CHECKLIST

- [ ] Create identity service for secure authorization and authentication.
- [ ] Host a ontology representation as a microservice
- [ ] Create compose for all components required for semantic matching
- [ ] Create bridge between onotology and web-api
- [ ] See if FIWARE provides any real added value to DWC

Local CoP

WP4 WP5

Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (MS5.1) - delivered

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Task progress

- Rethink the role of I-CATALIST in the facilitation of the DWC local CoPs (due to Covid). Online meeting planned Friday 03/07/2020:
- Use existing online learning platforms:
  - access to a video conferencing tool
  - a repository with documents, videos, data, etc...
  - dashboard and news updates
  - an online forum, and a Q&A area
  - tool for making questionnaires (and quizzes)
  - calendar and activities planner
  - brief tour for new visitors/users, etc

CHECKLIST

- [x] BWB: Next CoP in preparation (topics: EWS Paris + virus + AR Berlin); support by Arctik for newsletter and mailing
- [ ] SIAAP: Upload information in DWC cloud about working groups and communities of practice involved in improving water quality in river Seine (before Olympics)
- [ ] SV: DWC Sofia during the yearly conference at World Water Day (22nd of March); postponed due to COVID
- [ ] BIOFOS: suggest a date for a meeting of DWC linked to existing Integrated Water Management Group of water utilities in Copenhagen region
- [ ] CAP: In Milan CoP is postponed because of coronavirus
- [ ] ICA: Organise meeting with each city after WP5 meeting

Intra-project CoP

WP5

This CoP focuses on cross-fertilization, mutual learning and knowledge exchange between the utilities. It will take up internal discussions and achievements within WPs1-2-3-4 and from the local CoPs to address common issues of both physical (e.g. performance topic) and digital (e.g. best practices for interoperability and cybersecurity) worlds.

Task progress

- No progress

CHECKLIST

- [ ] Next IP CoP meeting will be scheduled as part of the next GA meeting in Sofia, October 2020.
- [ ] Nico organizes project COP to discuss on “RTC experience considering modelling uncertainty” and support the definition of the baseline scenario for KPI assessment: how do we assess the benefits of RTC?

Market analysis and BP > SME providers

WP5

D5.1: Plan for exploitation of DWC results (M18)

In this task, the SMEs involved in DWC will evaluate and compare the attractiveness of different market segments, estimate the size and growth rate of the most relevant ones, and ultimately define the main target group they will address with their DS.

Task progress

- NDA submitted by Fluidion has been reviewed by the legal team at Ecologic, with some revisions necessary. These will be discussed with Dan over the coming days.
- WP5 has reached out to ICRA and IOTSENS to get an update on their discussions regarding the IP and exploitation strategy of their DS. They still need additional time to reflect and make decisions on this.
- The SME track was showcased during the WP5 webinar, followed up by individual discussions with the various developers.
- The processes with Vragments and Kando have been slow and intermittent. New timelines for the MAF+ assessments are being discussed and assigned to ensure we have the necessary material ready for the deliverable in November.

CHECKLIST

- [x] Schedule follow-up call with P4UW for end of May
- [x] Start of MAF+ assessment for Vragments: already started first exercise
- [ ] NDA between Fluidion and Ecologic to be signed
- [ ] Start of MAF+ assessment for Fluidion; needs NDA before starting
- [ ] Start of MAF+ assessment for IOTSENS; wait for feedback of collaboration with ICRA
- [ ] Ecologic and KWB will reach out to Pecher to evaluate their ambition towards market development for the DTS solution (relevant to Partners4UrbanWater)

Market analysis and BP > non-commercial providers

WP5

D5.1: Plan for exploitation of DWC results (M18)

Task progress

- Work on Business Models Canvas in order to start non-commercial interviews on Business Models (July - August 2020)
- Organisation on the WP5 webinar presenting Business Models methodologies by Ecologic and Strane. 31 partners attended the webinar. We created a survey on Google Form in order to retrieve the opinions of the participants. 13 participants responded (30% SMEs and 70% Non-SMEs). The Design Thinking method is of interest to a large proportion of respondents.

CHECKLIST

- [ ] Alain: Update excel gantchart with activities ECOL and STRANE
- [ ] Alain and Gerardo: make sure to integrate IPR question in surveys for each solution (July)
- [ ] Preparation of first interviews of non-commercial partners (July-September 2020)
- [ ] Alain: finalize BMC before starting interview (July)
- [x] STRANE: Prepare incentive: email and presentation for MAF+-Canvas. Alain sends first draft (April)
- [x] STRANE: Organise webinar with all tech providers with ECOL to present the method and added value (April-May 2020 would be good timing)
- [x] Nico: fills BM for ICT4Water group 2 solutions
- [x] Nico: Gerardo fills BM for AR solutions

General communication tasks

WP6

D6.3 : Communication and dissemination strategy for DWC project (M6 - November)

T6.1.1, M6 with updates on M18 and M30
Communication and dissemination strategy for DWC project

Task progress

- Infographic: first draft complete - to present during SC for feedback
- Update on DWC in the European Commission Eco-Innovation newsletter: DWC featured in a dedicated article on the project, and an infographic created on how digital water technologies can deliver eco benefits (to be published by end June/ early July)
- Participation in ICT4Water group 'Actor Awareness' in June, potential to contribute to work on a white paper (planned for spring 2021)

CHECKLIST

- [ ] Infographic to show urban water cycle and integration of DWC solutions (to be discussed)
- [ ] Look into printing options

Website

WP6

D6.2 : Setup of DWC website (M4 - September)

Task progress

- Website picture updates in progress, final adjustments to be made

CHECKLIST

- [ ] Update city pages with new images
- [ ] SC homework: feedback on website and infographic + contribution to pages cybersecurity, governance and market uptake (July)
- [ ] Provide analytics of the website during next meeting

Social media and videos

WP6

Social media activities and set up

Communication toolkit with first materials (MS27 - May 2020)

Task progress

- Website content: first interview on the solution providers published in June, with Oriol Gutierrez of ICRA; next interview with Dan Angelescu of Fluidion completed and to be published in July
- Social media campaign on digital solutions ongoing with post on Twitter/LinkedIn once a week
- Target audience list - personal LinkedIn and Twitter accounts added
- Communications toolkit online: website (logo, graphic charter, project description, project presentation); DWC cloud 'Communication materials' (all comms materials including social media visuals and posts)

CHECKLIST

- [x] Add personal Linkedin and Twitter accounts in target audience list
- [x] Communications toolkit - to define: which resources to include for public toolkit (website) and partners' toolkit (NextCloud) --> to request feedback during SC May
- [ ] Next interview with ISS in priority: development of EWS for reuse in Milan and link with COVID activity and national responsibilities (July 2020)
- [ ] Video motion design for project presentation > first ideas (June - building on infographic for animation)
- [ ] Contacts utilities and organize meeting with communication teams > see link
- [ ] Videos on site for local images - Berlin in July 13-14-15 / Sofia October GA / Paris July-August

Agenda SC Meeting

WP7

Agenda of SC Meeting

CHECKLIST

- [ ] List of deliverables + reviewers > https://cloud.digital-water.city/index.php/f/3251
- [ ] Next events > https://cloud.digital-water.city/index.php/f/60472
- [ ] Delay tasks and correction measures
- [ ] Synergies with H2020 projects
- [ ] Set up next meeting
- [ ] ##########
- [ ] Presentation of progress and action plans 15' x 6 = 1h30
- [ ] Update communication: target audience, editorial calendar and interviews

Admin issue

WP7

Task progress:

- Amendment: refinement loops with Sotirios & Laurence (new financial officer since May); some supporting documents open; submission asap
- Contact list: test of usability of current list with filters; search for easy-to-handle software solution ongoing (sharing contacts assigned to groups) to avoid maintaining two parallel lists (cloud & outlook)

Next major tasks:

- Preparation of 2nd general assembly and wp meetings (draft agenda, DMP, IPR etc)
- Preparation of M18 report: draft to be provided to all task leaders latest in August, contributions to be prepared by end of October

CHECKLIST

- [x] Hella: list updates templates PPT and word (word: style for ref, table and figure)
- [x] Hella: Submit amendment and proceed with proposed changes: Asap
- [x] Hella: Create full email contact list on the cloud instead of outlook + share with consortium
- [ ] Hella: start preparation of M18 report
- [ ] KWB & SV: start preparation of 2nd GA

Subtask 1.1.1 Set-up of a monitoring network for safe water reuse (M1-M18)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (Nov 2020)

CAP: first draft of practical manual (D1.1) (March (moved) to July 2020)

CAP: final version of practical manual (D1.1) (Nov 2020)

UNIVPM: MS 1.1: Successful integration of online sensors >> online sensors deliver valid and robust data (Nov 2020)

Task progress

- Alert System successfully installed and measuring campaing planned for September-October 2020
- Draft full structure and >50% detailed contents of Deliverable 1.1 prepared by UNIVPM and shared with relevant WP1 parnters
- Table of contents to schedule deadlines and clarify responsibles for each chapter of the deliverable 1.1 shared

CHECKLIST

- [x] CAP: ALERT System installation and troubleshooting (postponed to July-Aug 2020)
- [x] ISS: Assess the preliminar monitoring plan requirements (UV sensor)
- [ ] CAP: complete the installation of pH, conductivity, temperature, ORP, UV transmission (postponed to July-Sept 2020)
- [ ] CAP: complete the installation of ammonia nitrogen, nitrate nitrogen (postponed to July-Sept 2020)
- [ ] CAP: installation of TOC meter (postponed to July-Sept 2020)
- [ ] CAP: ongoing troubleshooting on UV sensor (data logger is needed) (Sept 2020)
- [ ] UNIVPM: take the lead of D1.1; send reminder for contribution

Subtask 1.1.2 Improvement of E. Coli and Enterococci automatic measurement of the ALERT system (M1-M12)

WP1 Milan

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

> This task focuses only on the product development by FLUIDION

Task progress

- first prototypes being delivered and tested successfully (new electronics and hardware, new communication protocol)
- ongoing development of protocol for Enterococci measurements

CHECKLIST

- [x] FLUIDION: implementation of a communication protocol that uses industry-standard secure certificate-based encryption and authentication for all data transmission over the air in Alert System
- [x] FLUIDION: new mobile data portal developed in substitution of SMS-based interface
- [x] FLUIDION-KWB: evaluation of ALERT technology against microplate standard methods in Berlin, on the Spree river matrix and new testing protocol agreed (Aug 2020)
- [ ] CAP: provide feedback for Alert System usability (postponed to Sept 2020)
- [ ] FLUIDION: new global cell operator implementation, for easier portability (Oct 2020)
- [ ] FLUIDION: First version of the new Alert System (Sept-Oct 2020)

Subtask 1.1.3 Test of Alert tech on multiple bathing water matrices (M1-M18)

WP1 Berlin Milan Paris

D1.1 : Practical manual on innovative sensor integration, validation and operation and maintenance in existing water infrastructure (M18)

MS 1.2: New ALERT available >> system successfully tested on 2 sites (M18)

Installation of 2 ALERT in Paris, 2 ALERT in Berlin and 1 ALERT in Milan. Once available the new product version will be deployed and tested

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Task progress

- Alert system installed in Peschiera Borromeo WWTP and preliminary tests made, after having solved some technical installation issues
- Monitoring campaign 2020 in Berlin and in Paris presented at WP1 internal meeting
- Proposition of methodology shared by KWB to FLUIDION and UNIVPM for assessment of sensor uncertainty

CHECKLIST

- [x] UNIVPM: organize meeting with FLUIDION and demo team for validation of monitoring campaign and definition of metrics for evaluation of ALERT system performance (July 2020)
- [x] CAP-FLUIDION: meeting to solve techincal installation issues of Alert System (Jul 2020)
- [x] FLUIDION-KWB-UNIVPM: organized meeting to agree on the methodology to compare Alert results with lab measures
- [ ] CAP-FLUIDION: monitoring campaign to test Alert System (Sep-Oct 2020)
- [ ] FLUIDION: collect information about operative personnel feedback (postponed to Sept 2020)
- [ ] FLUIDION: Verification of Alert results against standard methods (postponed to Sept-Oct 2020)
- [ ] FLUIDION: Alert System results validation (postponed to Sept-Oct 2020)
- [ ] SIAAP: Monitoring campaigns in the urban tributaries (e.g. Yerres, Orge and Morbras) (Jul-Sept 2020)

Subtask 1.2.1 Improved decision making for water reuse (M9-M36)

WP1 Milan

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water

Water Quality Integrated Platform will be realized in Milan. Water reuse risk management plan including QMRA and QCRA will be carried out to deliver a Sanitation Safety Plan

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Task progress

- WP1 leader prepared draft full structure and partial detailed contents of some chapters of the deliverable 1.2 shared with partners
- WP1 leader shared table of contents to schedule deadlines and responsibles for each chapter of the deliverable shared with partners

CHECKLIST

- [x] UNIVPM: prepare state of the art and extended outline for D1.2 (July 2020)
- [ ] ISS: provide a detailed flow-chart for raw-data preprocessing (Sept 2020)
- [ ] ISS: integration of UV transmittance into the EWS design (Sept 2020)
- [ ] UNIVPM: data analytics to detect events from on-line available data (postponed to Oct 2020)
- [ ] UNIVPM (support ISS): multi-parameter soft sensors design for early warning (postponed July-Sept 2020)
- [ ] UNIVPM: Soft sensor for risk minimization based on measures that are in place in Peschiera with data mining and pattern recognition (Oct 2020)
- [ ] FLUIDION: integration of E.Coli on-line measures in the soft sensor (postponed to Oct 2020)

Subtask 1.2.2-3 Early Warning System for bathing water quality (M1-M30)

WP1 Paris

D1.2 - D1.3: Early warning and improved decision support for health protection in water reuse and bathing water
MS 1.3: Launch of Early warning for bathing water quality and water reuse >> warning system accessible from remote location (M30)

Task progress

- ongoing modelling with ProSe model and statistical model in Paris

CHECKLIST

- [x] UNIVPM: organize meeting to coordinate development of EWS in Paris: work with KWB-SIAAP-SU for data models, data collection, data preparation and start modelling activities + participate to content of D1.2 (July 2020)
- [x] SIAAP: finalize data collection for data base early warning system (Jul 2020)
- [ ] KWB-SIAAP: follow up data cleaning and preparation (flow, quality and rain) in the common database (Oct 2020)
- [ ] SIAAP: study of the simulation time interval needed to predict a bacterial concentration (Oct 2020)
- [ ] UNIVPM: contact Vincent Rocher to follow up report preparation with SIAAP

Substask 1.3.1 WebGIS integration and upgrading (M18-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

WebGIS Acque di Lombardia will be upgraded with EWS to localize effluent wastewater in line with quality standards for water reuse

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Task progress

- Task starts in November 2020

CHECKLIST

- [ ] ISS: supervision and verification of correct EW signals implementation (Jun 2020)

Subtask 1.3.2 Local stakeholder training and engagement (M28-M42)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

Local stakeholder involved in the water reuse chain will be trained. Decisons and planning concerning water reuse in peri-urban areas will be discussed

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Task progress

- Task starts in 2021

CHECKLIST

Subtask 1.3.3 Visualization of long-term conclusive information to the end-users (M24-M36)

WP1 Milan

D1.4 Summary of experience on WebGIS utilization and mobile EWS for water reuse (M30)

2 mobile-friendly websites will be developed to visualize EWS and validated information on treated wastewater and bathing water safety

---

Task progress

- Task starts in June 2021

CHECKLIST

- [ ] UNIVPM: /

Deliverable D2.3: Technology report

WP2

D2.3: Technical documentation of the digital solutions and key requirement for successful deployment (draft, final version in May 2022, M36)

CHECKLISTE

- [x] KWB: Provide template with structure, discuss with STRANE (July 2020)
- [ ] Tech providers: provide draft versions of chapters (Sept 2020)
- [ ] STRANE: review draft chapters (mid Oct 2020)
- [ ] Tech providers: provide improved versions of chapters (end Oct 2020)
- [ ] KWB: write short introduction and summary (Nov 2020)
- [ ] KWB: final check and submission (Nov 2020)

Subtask 2.1.1: Improved operation and predictive maintenance of water wells

WP2 Berlin

Goals:

- Development of a software application or webpage to be run on mobile devices of water well operators to i) support efficient data collection, ii) make well data available on-site and iii) enable preventive maintenance (T2.1.1, Demo in Berlin)

-> DS7.1: Mobile application for data collection of drinking water wells

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Task progress:

- Data model was set up with test data, next step: use of BWB data base
- backend is being planned; current tasks: user management
- Mockup for frontend (UI) presented, feedback from BWB provided
- Prototype of tool will be tested from Nov./Dec. 2020 by selected test users at one Berlin waterworks
  -> feedback for improvement of app (several loops)
  -> KPI assessment
- interest by Fragment to perhaps propose the solution developed to other cities (should be discussed with Strane).

CHECKLIST

- [ ] VRAGMENTS: prototype for DS7.1 ready (Oct 2020)
- [ ] BWB: define procedure for KPI assessment and data collection (Oct. 2020)
- [ ] BWB, VRAGMENTS: test, KPI assessment and iterative improvement of DS7.1 (Nov. 2020 - Oct. 2021)
- [ ] VRAGMENTS, BWB: final version of DS7.1 ready for deployment (Oct. 2021)
- [ ] BWB: deployment of DS7.1 (Nov. 2021)

Subtask 2.3.2: Condition-based rehabilitation and reconstruction planning of drinking water wells

WP2 Berlin

Goals:

- Develop data-based algorithms for strategic rehabilitation of wells for DS7.2: Forecasting tool for strategic planning and maintenance

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Task progress:

- two major goals: long-term investment planning, short-term planning of regeneration or rehabilitation of individual wells
- end-users of tool at BWB defined: the controlling department has been identified
- First exchange took place: Expectation has been formulated: need for calibration of wells aging curves and using aging information for defining / developping / testing strategy
- open questions: which part of the tool will be open source and how will it be integrated in the BWB system? BWB system is based on a commercial database. Can KWB have access to the current BWB system? What kind of product can be developed (open source, licence, Software??? should be discussed with Strane; aslo exchange with a database compagny + SINTEF is necessary)
- data to be provided until Oct. 2020, start of algorithm test in Nov. 2020

CHECKLIST

- [ ] KWB, BWB: requirements and expecations defined (Oct. 2020)
- [ ] BWB, KWB: provide data for data analysis and alorithm testing (Okt. 2020)
- [ ] KWB, VRAGMENTS: first prototype of DS7.2 (April 2021)
- [ ] KWB, VRAGMENTS, BWB: tests, KPI assessment and iterative improvement of DS7.2 (May 2021 - April 2022)
- [ ] KWB, VRAGMENTS: final version of DS7.2 ready for deployment (April 2022)
- [ ] BWB: deployment of DS7.2 (May 2022)

Subtask 2.1.2: Identification of illicit connections in the stormwater network

WP2 Berlin

Goal: Identification of illicit connections in the stormwater network via a two step monitoring approach consisting of i) hotspot screening via conductivity and multi-parameter sensors and ii) Distributed Temperature Sensing (DTS) for selected hotspots (Demo in Berlin)

Task progress:

- All work is prepared, partners are ready, but operational work of water utility is reduced to minimum
- sensor installations, originally planned for May 2020, is postponed to October 2020 for EC and KANDO sensors, to March 2021 for DTS
- Details for sensor installation to be discussed between Michel (BWB) and Ricardo (KANDO), a meeting is planned beginning of September

CHECKLIST

- [ ] BWB, KANDO: discuss details of sensor installation (Sept. 2020)
- [ ] BWB, KANDO: sensor installation (October 2020)
- [ ] P4UW: DTS installation (March 2021)

Subtask 2.1.3: Advanced sewer cleaning and inspection

WP2 Sofia

Goal: Demonstration of video nozzle technology to combine sewer inspection and cleaning in a catchment with 10 km main sewers and known blockages (Demo in Sofia)

Task progress:

- Demo in Sofia:
    - Equipment is there since March 2020, waiting for training by IPEK
    - Training not possible due to travel restrictions at IPEK
    - As soon as training is done, demo can start; preferably not during winter months
- Demo in Berlin:
    - Equipment is there, a 2-3 months demo period is planned for March 2021; had to be postponed due to reduced operational activity

CHECKLIST

- [ ] IPEK, SV: Training in Sofia (unknown)
- [ ] SV: conduct demo (unknown)
- [ ] BWB: conduct demo (planned for March - May 2021)

Subtask 2.2.1 + 2.3.1: Smart CSO sensors and analytics for real-time stormwater management

WP2 Berlin Sofia

Goal: Deployment of a network of low-cost temperature sensors to monitor occurrence and duration of CSO (Demo in Sofia and Berlin) to support real-time CSO alert and model calibration

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Task progress:

- Sensor development:
    - offline sensors are ready, have been sent to Berlin and Sofia together with data download shuttles and installation manual,
    - online sensors are still under development; delay due to corona break and requirements for stronger sensor material and enhanced firmware
    - budget issue due to above reasons; reduction of sensor quantity or features of each sensor
- Data storage and visualisation platform:
    - beta version was presented in task meeting
    - data upload and user authentification to be improved
    - next steps: i) discussion of user expectations in meeting beginning of October 2020; ii) provide prototype tool to SV and BWB
- Sensor demonstration:
    - offline sensors will be installed at ~10 points in each city as soon as they arrive
    - details of installation have been / are discussed with ICRA
- meeting in 3rd of September for installation explanation

CHECKLIST

- [ ] ICRA: offline sensors sent to utilities (July 2020)
- [ ] SV, BWB: offline sensors installed in Sofia and Berlin (Aug. / Sept. 2020)
- [ ] IoTSens, SV, BWB: Discussion of user requirements for data storage and visualisation platform (Sep. / Oct. 2020)
- [ ] IoTSens: Provide prototype of data storage and visualisation platform (Oct. 2020)
- [ ] ICRA: online sensors ready (?)
- [ ] SV, BWB: online sensors installed in Sofia and Berlin (?)

Subtask 2.2.2 + 2.2.3 + 2.2.4: WWTP inflow forecast + DSS for sewer and WWTP management + visualisation platform

WP2 Copenhagen

Goals:

- Development of a machine learning model for forecasting WWTP inflow based on sewer flow measurements, rainfall radars and a numerical weather model (Demo in Copenhaqen)
- DSS for real-time control of WWTP operations and in sewer-retention
- Web-based prototype platform for decision support at city scale

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Task progress: (last Meeting 28. August 2020)

- DS11: Forecasting tool:
    - Historical data: main part of the data is there; the missing part will be collected untill end of september
    - new level sensors are available, some of them are installed, some others will be installed in october (important for machine learning model) but flow sensors offered are all too expensive, a new invitation for tender has to be prepared with more precise expectations, It is expected that 8 sensors instead of 10 will be installed (budget issue) but it isn't a problem--> enough information for calibration of hydraulic model. In one city it is allowed to install flow measurement but no IOT devices (delay, due to a retarded re-start after the covid-break)
    - Meteorological data is there, work on forecast started, short term forecast shows that cloudburst forecast is not reliable. Flow of data is organized from the radar--> rainfall intensity--> rainfall runoff modell--> consuderation of radar uncertainties--> flow prediction
    - Machine learning (ML) model is currently developed with preliminary data, also database structure for input data, etc. is prepared. Events where capacity of WWTP is exceded are rare (30 events a year--> about 100 events are there which is not enough for ML model--> data can be generated with the hydraulic model. Questions like how to cope with changing infrastructure in the dataset and in the future are discussed. A guideline will be provided on that topic. Scenarios have now to be developed, ideas are available they now have to be more specific.
    - Hydraulic model is there, is fully updated. Baseline for KPI evaluation is established
- DS12:
    - Decision support system: Depends on DS 11, not really initiated
- DS13: visualisation platform:
    - migration of visualisation platform from SAMDUS to another platform is now considered. A workshop should be organised (February) with end users to ask for their expectations concerning content and visualization (could be done within a COP--> need to be discussed with icatalyst)

Next meeting: after the general assembly

CHECKLIST (UPDATED FROM IMPLEMENTATION PLAN, MAY 2020)

- [ ] DS11 - BIOFOS, DHI: Historical data collected, sensors installed, software design ready (July 2020) -> delayed, see new deadlines below
- [ ] DS11 - BIOFOS: all historical data collected (end of August 2020--> September)
- [ ] DS11 - BIOFOS: all level sensors installed (end of September 2020), new tender invitation for flow sensors to be organized
- [ ] DS11 - DHI: models set-up and evaluated, Software developed (Feb. 2021)
- [ ] DS12 - BIOFOS, DHI: Management scenarios defined (Nov. 2020)
- [ ] DS12 - BIOFOS, DHI: start uncertainty quantification (Sept. 2020)
- [ ] DS12 - BIOFOS, DHI: Uncertainties quantified (Mar 2021, formerly Oct. 2020)
- [ ] DS12 - DHI: Start development of DSS (Dec. 2020, until June 2021)
- [ ] DS12 - DHI: Start test of DSS (May 2021)
- [ ] DS13 - DHI: Start software development for visualisation platform (Oct. 2020)

- [ ] DS13 - DHI, BIOFOS: Design and data preparation finished (Dec. 2020)

Subtask 2.2.5 + 2.2.6: Water stress monitoring + match making tool for safe water reuse

WP2 Milan

Goals:

- Demonstration and validation of a monitoring drone equipped with remote sensors for water stress
- Development of an interoperable match-making ICT platform to link water demand for irrigation and safe water availability and quality
- Development of efficient irrigation schemes and WWTP operation strategies based on data from (T2.2.5) and crop / evaporation models

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Task progress:

- T2.2.5 (Water stress monitoring):
    - maize sown, irrigation system installed, ground sensors installed
    - remote sensors / cameras tested from 20-24 July 2020
    - drone permission not there yet but almost (all requirements fulfilled)
    - New test site is planned for next season, also at Peschiera Borromeo: an active agricultural site cultivated by a local farmer -> better soil conditions and more realistic test conditions for sensors
- T2.2.6: Match-making tool
    - Hydrological model is currently under development
    - software is also being developed
    - COP meeting not yet conducted but under preparation:
        - A first pre-COP meeting is planned remotely middle / end July 2020 with first level stakeholders (local irrigation consortium and two farmer's associations)
        - A full Milan COP meeting is planned for 2nd half of September 2020 (probably remote)

CHECKLIST

- [x] CAP, UNIVPM: define user requirements for match-making tool (April 2020)
- [ ] UNIVPM: data acquisition by drone/pole mounted sensor (July - Sept. 2020)
- [ ] UNIVPM, UNIMI: monitoring with ground sensors (June - Sept. 2020)
- [ ] UNIVPM, UNIMI: 1st release of match-making tool (backend + web-app) (Nov. 2020) - to be updated by partners after covid-break
- [ ] CAP: test of match-making tool (start in Dec. 2020) - to be updated by partners after covid-break
- [ ] UNIVPM, UNIMI: 2nd release of match-making tool (Nov. 2021) - to be verified by partners after covid-break
- [ ] UNIVPM, UNIMI: final release of match-making tool (May 2022) - to be verified by partners after covid-break

Subtask 3.1.2 Screening of Digital, Data and Water Policies (M3–M12)

WP3

D3.2: Policy matrix (M12)

Delivers a cursory overview on:

- ICT policies related to EU legislation as well as to those addressed in the five case studies.
- Key issues from the different countries' perspectives enables the refinement of the methodological design.
- This task is closely linked to the work in the CoP in WP5. The results are compiled into a DWC policy matrix to allow for easy access.

Task progress

- Completed

TO DO LIST

☑ ECOL, UNIVPM, IRSTEA: Review of the final Policy matrix (D 3.2), meeting might be needed to coordinate the integration of the comments (July)

Subtask 3.2.1 Perception analysis - interview and workshops (M6–M38)

WP3

D3.4 : Perception, acceptance and use of digital solutions - 1st version [M18]

MS 3.1 Stakeholder Workshop (approx. April - June 2020)

In-depth sociological interviews in Paris (by IRSTEA), Milan and Berlin (by ECOL).
Organisation of three separate workshops before the summer holidays 2021 (May till mid June). Objectives and target groups (mostly experts) of the workshops need to be defined beforehand.
Stakeholder workshop and interviews have the objective to define the expectations and acceptance for the 3 apps. Interviews are more general also assess the governance structure. Results go to 3.3 (policy) and 3.4 (perception and acceptance of digital solutions).

Task progress

- Aim is to have at least 5 in-depth interviews ready by End of September
- D3.4 Perception, acceptance and use of digital solutions - 1st version in preparation and is due in November. [Irstea]
- Structure of D3.4 has been discussed between Ecologic and Irstea

Interviews

Berlin

- Stakeholder mapping completed and discussed internally
- Interview requests send out

Paris

- Stakeholder mapping completed
- Interviews will start soon

Milano

- Stakeholder mapping completed
- 2 out of 5 interviews already conducted.

Focus Groups Workshops

- are postponed to before summer next year.

TO-DO LIST - INTERVIEWS

- [x] ECOL: Pre-selection of telephone interview partners in Berlin and Milano; wait for feedback from CAP (End of June)
- [ ] IRSTEA: Preselection of potential telephone interview partners in Paris (End of June)
- [ ] ECOL: Potential internal reviewers need to be assigned.
- [ ] ECOL: run interviews in Berlin
- [ ] ECOL: run and finalized interviews in Milan
- [ ] IRSTEA: start interview in Paris

TO-DO LIST - STAKEHOLDER WORKSHOPS

- [x] ECOL: prepare timeline and responsibilities of the tasks until mid July 2020
- [ ] ECOL: Organisation of next stakeholders workshop in Milan (link to COP)
- [ ] ECOL: Organisation of next stakeholders workshop (link to COP) in Paris; Nico will check with SIAAP

Subtask 3.2.2 Development of solutions for public involvement (M12-M38)

WP3

This card describes the activities linked to the technical development of the solutions for public involvement: AR in Berlin / visualization in Paris / Game in Milan

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Task progress

- Reached out to partners to clarify next steps. Final decisions still pending.

CHECKLIST - BERLIN > AR APP

- [x] ECOL: Need to define responsibilities, timeline and roles of partners (June)
- [x] ECOL: Need to check table of content of deliverable for November
- [ ] ECOL: set up meetings with technical partners for the app development to follow up the development + define together the expectations of the interviews (Sep 2020)

CHECKLIST - MILAN > SERIOUS GAME

- [ ] ECOL: set up meetings with technical partners for the app development to follow up the development + define together the expectations of the interviews (Sep 2020)

CHECKLIST - PARIS > APP FOR BATHING WATER QUALITY

- [ ] ECOL: set up meetings with technical partners for the app development to follow up the development + define together the expectations of the interviews (Sep 2020)

Task 4.1 Establishing the context

WP4

D4.1 : Cyber-physical sphere and interoperability aspects in utilities regarding DWC solutions (M12)

T4.1.1: Relevant Baseline evaluation of current systems
T4.1.2: Description of semantic models in use in the target domain - description of interoperability of existing IT/IoT systems - data exchange protocols

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Task progress

- deliverable submitted (as announced with one month delay)
- no preliminary feedback yet
- open issues discussed between KWB and SINTEF to set scope of subsequent tasks

CHECKLIST

- [x] KWB-SINTEF: finalize deliverable (June)
- [x] KWB-SINTEF: discuss next steps in WP (2nd July)

Task 4.2.1 Strategic and tactical risk analysis based on RIDB

WP4

STOP-IT risk Identification DataBase (RIDB) is adapted and enhanced for bathing water and water reuse and current risk criteria used in DWC cities (T4.1).

Task progress

- Preparing for the AG CoP

CHECKLIST

- [ ] SINTEF: During next GA, explain needs from utilities to feed this task and start the survey
- [ ] SINTEF: After the GA, distribute the forms to gather DWC risk events

Task 4.3.2 Ontology and data models

WP4

Developing DWC reference ontology based on the findings of T4.1 and the outcomes of T4.3.1 by using OWL. Evaluation, validation and verification by utilities

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Task progress

- see next card

CHECKLIST

Task 4.3.1-3 Middleware and FIWARE

WP4

D4.4: Semantic interoperability design requirements (M18)

Mapping relevant terminologies with respect to the existing ontologies and to the metadata in T4.1. Developing the semantic matching design requirements for alignment of the upper-level ontologies.

D4.6: Semantic interoperable middleware - 1st version (M18)

Identification of system mediation and matchmaking based on 4.3.1 and 4.1 results. Development of reference ontology and semantic alignment of existing ontologies.

Task progress

Subtask 4.3.1 (and also relevant for 4.3.2) (ontology)

- Adapted previously developed methodology for semantic model development according to latest WP4 discussions (using SAREF4WATER as baseline ontology instead of semantic model development from scratch)
- Deliverable D4.4: Defined report structure according to adapted methodology, transferred and extended the most relevant requirements from D4.1 (for all cities in general, but focusing on Milan and Paris)
- Preparing use case scenarios describing use of middleware and semantics in Milan and Paris (in progress)

Subtask 4.3.3 (FIWARE)

- Deployed FIWARE - test at SINTEF
- Created the orchestrator config to use with the test cases
- Created synthetic data for testing
- Prepared the system for the meeting with the other partners

CHECKLIST

- [x] Create identity service for secure authorization and authentication.
- [x] Host a ontology representation as a microservice
- [x] Create compose for all components required for semantic matching
- [x] Create bridge between onotology and web-api
- [x] See if FIWARE provides any real added value to DWC
- [ ] Organise first meeting with SINTEF and Italian partners to discuss FIWARE implementation and data models
- [ ] Preparing use case scenarios describing use of middleware and semantics in Milan and Paris (in progress)

Local CoP

WP4 WP5

Practical guidance document providing generic instructions on setting up, operating and sustaining a CoP + Annexes (MS5.1) - delivered

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Task progress

- Berlin had an activity en June, no updates in this last months
- Milan organised an online meeting with the key stakeholders in late July, which will be the basis for a larger CoP presentation meeting to be organised in September
- We have a meeting in early september with Sofia to comment on the organisation of a press conference to present the local CoP there.
- We are trying to organise telcos with Copenhagen and Paris to discuss next steps
- ICA is preparing a mock-up for the learning platform to support digital CoPs.

CHECKLIST

- [ ] SIAAP: Upload information in DWC cloud about working groups and communities of practice involved in improving water quality in river Seine
- [ ] SV: DWC Sofia press conference (follow-up meeting in september)
- [ ] BIOFOS: suggest a date for a meeting of DWC linked to existing Integrated Water Management Group of water utilities in Copenhagen region
- [ ] CAP: Presentation meeting to be organised in September
- [ ] ICA: Organise meeting with each city after WP5 meeting
- [ ] ICA: Mock-up website to support digital Local CoPs

Intra-project CoP

WP5

This CoP focuses on cross-fertilization, mutual learning and knowledge exchange between the utilities. It will take up internal discussions and achievements within WPs1-2-3-4 and from the local CoPs to address common issues of both physical (e.g. performance topic) and digital (e.g. best practices for interoperability and cybersecurity) worlds.

Task progress

- KWB sends invitation to partners to identify participants in next IP CoP meeting
- KWB is organising a meeting as part of the next GA. Two topics will be discussed between the DWC cities: cyber-security and RTC in sewer systems. ICA and KWB will have a telco to comment on this next week.

CHECKLIST

- [x] Nico organizes project COP to discuss on “RTC experience considering modelling uncertainty” and support the definition of the baseline scenario for KPI assessment: how do we assess the benefits of RTC?
- [ ] Next IP CoP meeting will be scheduled as part of the next GA meeting, 6th October 2020.

Market analysis and BP > SME providers

WP5

D5.1: Plan for exploitation of DWC results (M18)

In this task, the SMEs involved in DWC will evaluate and compare the attractiveness of different market segments, estimate the size and growth rate of the most relevant ones, and ultimately define the main target group they will address with their DS.

Task progress

- Vragments has completed the first set of exercises (Market Segmentation, Attractiveness and Sizing) for DS#10 on the MAF+ portal. Ecologic is now reviewing the exercises and conducting additional research (to be completed by the end of August). A call will be scheduled in early September to discuss necessary revisions and next steps.
- Ecologic has not received any updates from Kando on progress on the exercises and none is registered in the portal. A telco has been scheduled on W35 with the VPs of Product and Marketing to designate a new point person for the task.
- An amended NDA draft has been sent to Fluidion.

CHECKLIST

- [ ] Ecologic to review and supplement Vragment's first draft of T5.2.2 exercises for DS#10
- [ ] Call with Vragments to discuss and plan revisions of T5.2.2 exercises for DS#10
- [ ] Call with Kando's VPs of Product and Marketing to designate a new point person for tasks 5.2.2 & 5.2.3
- [ ] NDA between Fluidion and Ecologic to be signed
- [ ] Start of MAF+ assessment for Fluidion; needs NDA before starting
- [ ] Start of MAF+ assessment for IOTSENS; wait for feedback of collaboration with ICRA
- [ ] Ecologic and KWB will reach out to Pecher to evaluate their ambition towards market development for the DTS solution (relevant to Partners4UrbanWater). Pecher is an associated partner who is involved in the testing of the DTS technology in Berlin. They might have some interest in commercializing the solution. They have been contacted because Partners4Water do not intend to commercialize the solution (it's not part of their core business)

Market analysis and BP > non-commercial providers

WP5

D5.1: Plan for exploitation of DWC results (M18)

Task progress

- First interviews have been delayed due to lack of availabilities from Technological Partners during the holidays period. First interviews will start end of August / beginning of September.
- Strane is briefing Maxime Loil, a new staff member, that is joining the DWC project and that will participate into the technical and Economical analysis of Non-SMEs Digital Solutions.
- Update excel gantchart with activities ECOL and STRANE (Telco on Friday 04/09)
- Interviews planned and started first half of september (DS2, DS4, DS5.1, DS7.2)
- Update ST 5.3.1: Table listing all marketable innovations

CHECKLIST

- [ ] Meeting with ECOLOGIC on the organisation of the D5.1 work tasks and integration of the first completed tasks in the deliverable
- [ ] Finalise T 5.3: Market study for non-SMEs Digital Water Solutions by updating the academic and grey literature carried research and industry reports on digital solutions and Early Stage Technologies concerning the water sector (General market information and competition analysis for non-SMEs candidates for spin-offing).

General communication tasks

WP6

D6.3 : Communication and dissemination strategy for DWC project (M6 - November)

T6.1.1, M6 with updates on M18 and M30
Communication and dissemination strategy for DWC project

Task progress

- Deliverables added to Zenodo - investigating with web developer how to link Zenodo to the DWC website thumbnails
- Printing business cards and t-shirts on hold (as in-person meetings/events still generally not taking place)
- Infographic being finalised - for review during SC

CHECKLIST

- [x] Infographic to show urban water cycle and integration of DWC solutions: being finalized for the next SC
- [x] Update press articles on website and cloud
- [x] Deliverables on Zenodo
- [ ] Look into printing options for the business cards and t-shirts (to be printed in Germany)

Website

WP6

D6.2 : Setup of DWC website (M4 - September)

Task progress

- City pages updated
- Horizontal pages update - to discuss during SC
- Analytics overview to be provided during SC

CHECKLIST

- [x] Update city pages with new images
- [x] Provide analytics of the website and twitter during next meeting
- [ ] SC homework: feedback on website and infographic + contribution to pages cybersecurity, governance and market uptake (July)

Social media and videos

WP6

Social media activities and set up

Communication toolkit with first materials (MS27 - May 2020)

Task progress

- Digital solutions social media campaign complete
- Utilities contacts for comms meeting, date being set
- FLUIDION interview article online
- Video on site in Berlin - shooting plan in development, plan end Sept
- Animated video - concept to be developed on basis of finalised infographic
- Brochure - infographic and additional brochure text to be finalised in layout and approved

CHECKLIST

- [x] Next interview FLUIDION ready + interview with ISS: development of EWS for reuse in Milan and link with COVID activity and national responsibilities (August 2020)
- [x] Contacts utilities and organize meeting with communication teams
- [ ] Organise meeting with utilities contacts for communication
- [ ] Interview for 'digital-health-water-nexus' in planning, article for September
- [ ] Videos on site for local images - Berlin in September. Wells app, bathing water and T-sensors. Concept to prepare
- [ ] Video motion design for project presentation > first ideas (June - building on infographic for animation)

Agenda SC Meeting

WP7

Agenda of SC Meeting

CHECKLIST

- [ ] Preparation of GA
- [ ] List of deliverables + reviewers > https://cloud.digital-water.city/index.php/f/3251
- [ ] Next events > https://cloud.digital-water.city/index.php/f/60472
- [ ] Delay tasks and correction measures
- [ ] Synergies with H2020 projects
- [ ] Set up next meeting
- [ ] ##########
- [ ] Presentation of progress and action plans 15' x 6 = 1h30
- [ ] Update communication: target audience, editorial calendar and interviews

Admin issue

WP7

Task progress:

- Amendment: to be submitted asap (after holiday period as requested by project officers), not more changes

Next major tasks:

- Preparation of 2nd general assembly and wp meetings (draft agenda, DMP, IPR etc)
- Preparation of M18 report: draft prepared, WP leaders to organize contributions from task leaders

CHECKLIST

- [x] Hella: list updates templates PPT and word (word: style for ref, table and figure)
- [x] Hella: Submit amendment and proceed with proposed changes: Asap
- [x] Hella: Create full email contact list on the cloud instead of outlook + share with consortium
- [ ] Hella: start preparation of M18 report --> draft document
- [ ] KWB: start preparation of 2nd GA --> agenda sent

DWC Steering Committee
Virtual meeting

Minutes

15 October 2020

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Participants

Nico, Pascale, Hella (KWB), Serena, Francesco (UNIVPM), Ulf (ECOLOGIC), Rita, Audun (SINTEF), Alain, Maxime (STRANE), Anna (ARCTIK)

Agenda

Classical Steering Committee meetings focus on reports of project progresses and ongoing actions via Trello. Since we had a complete overview of the tasks and activities of each WP during the GA, we changed the focus of this meeting and took the time to reflect on the status of the project: what went well ? What went wrong ? How we can improve our collaboration?

Agenda of the meeting was

1. Feedback survey satisfaction GA (see minutes of General Assembly #2)
2. WP update management and communication

For the second topic, each WP leaders did a short 15-20 feedback on the following points:

- Deliverable preparation for M18
- How can we improve the WP management and internal communication?
- How can we improve the WP external communication?
- Link with other WPs

General comment

It is important that all meetings get documented on the cloud with short minutes and presentations. This is the only way to keep track of the tasks and WP activities. Meetings organizers are in charge of this and WP leader should make sure that this is carefully done.

WP1, Francesco Fatone

Deliverable. UNIVPM took over the responsibility for the deliverable and task 1.1. Full draft of D1.1 and D1.2 are available with 50% of the content; much efforts have been deployed to plan the structure of the report, the timeline and allocate responsibilities, this was very important since many partners are involved in the redaction of the document. There will be a delay for D1.1: first version in November as planned and final version in November 2021; Hella informs the PO.

WP management. In the future, we need to plan in advance and better organize the preparation of deliverables. In particular, we need to make clear as early as possible the responsibilities of each partner.

We also noticed that we need more exchanges at WP level between the partners. This is important for the preparation of future deliverables and to find synergies between the EWS developed in Paris and Milan. From now on, we will run 3 WP meetings a year to exchange on common issues and identify difficulties or delay.

Link with other WPs. We identify clear links between the solutions of WP1 and WP2, e.g. for solutions development in Milan; more exchanges is required. Very interesting would be to map the role of each digital solutions in the integrated urban wastewater and reuse system. We could also include results of ongoing parallel projects by the partners (e.g. CAP working with KANDO and ICRA). We propose to

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organize a common project workshop in 2021 on solutions interactions and integration. Strane will have to report and address these synergies and will be in charge of setting up the meeting.

WP2, Pascale Rouault

Deliverable. Draft technical report is in preparation for November; it will be updated after the demonstrations. Most of the partners have delivered their part. Strane will do the review. No delay is expected and collaboration was smooth due to early definition of table of content, timeline and contribution.

WP management. KWB is running regular task meetings with each task leader, this is crucial to have a real team work at WP level, identify risks and allow the WP leader to have an overview on all activities for coordination and communication. We plan to follow with this rhythm.

WP meetings are more difficult since WP2 is a massive WP with >10 partners and very different solutions. First meetings focused mainly on reporting progresses and next actions: they were a bit tiresome and hard to follow for each participant. In the future we would like to find a common topic of interest (e.g. communication, system integration, online training) for such meetings and keep all partners engaged. In particular, we propose to have a next WP meeting with a focus on communication activities by the end of the year. The idea is to discuss potential communication activities for each demo site (e.g. interview, videos of sensors installation, publication, etc.).

External communication. The idea to hold a communication workshop will foster communication actions in the WP, with the help of Arctik in WP6.

Link with other WPs. There are many synergies, we could for example run common WP meetings on the solutions with WP1, 2 and 3 or transverse workshop such as the one proposed on communication.

WP3, Ulf Stein

Deliverable. Deliverables 3.4 is currently in preparation for November. Several interviews and meetings have been done with the partners and a clear structure is now available. The first version of the report gives a board perspective of governance issues and describes the technical development of the apps. The second version next year will provide details on the perception, acceptance and use of the solutions with results from the focus groups, COP and interviews.

We noticed a lack of communication for the preparation of the deliverable. INRAE was not fully aware of the content of the deliverable and the partners for the apps development were not involved early enough in the preparation of the report. This is also due to the late official start of the tasks for the apps development. In the future, we need to plan in advance and better organize the preparation of deliverables. In particular, we need to make clear as early as possible the responsibilities of each partner.

WP management. During the first phase of the project, WP3 focused mainly on governance and policy topics with the successful preparation of first deliverables. From now on, the key activities will be to accompany the development of the apps and to integrate the technical development with social studies on perception, acceptance and governance.

This mean that ECOLOGIC will organise regular task meetings with each of the 3 apps developers (VRAGMENTS-KWB-BWB; UNIVPM; SIAAP) as well as 3 WP meetings a year to exchange on common

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issues and identify difficulties or delay. Focus will be also to find a common language and working method between technical development and social science investigations so we can benefits from each other works.

We also noticed that people get easily confused by the different formats used in the WP (COP, focus group, stakeholder workshop, interview): we will deploy more communication efforts to clarify the methods used in WP3.

Final, we notice the relevance of being proactive to organize stakeholders event such as COP. We need to organize in advance stakeholders event.

External communication. The first part of the project focused on theoretical work mainly; in the future we will have results and will be able to engage more with external initiatives such as the ICT4Water cluster. We also plan to participate to international/national conferences

Link with other WPs. There are several relevant link with the other WPs. Data governance is becoming more important so we could plan interactions with colleagues in charge of cybersecurity. We could also plan joint WP meetings (WP3/WP5) to find synergies between the activities of the 2 WPs, mainly interviews, COP and focus groups and avoid double work. Several deliverables of WP3 such as the guiding protocol can be useful for other WPs and deliverables.

WP4, Rita Ugarelli

Deliverable. 2 deliverables are in preparation at M18 on the development of the ontology and middleware. D4.6 is the semantic middleware planned for M18; it is a first version which cannot be delayed since it was a request from the PO. However, since we changed the strategy of WP4 from the beginning of the project (no global middleware but instead use of FIWARE and deployment in 2 case studies in Paris and Milan), the deliverable could simply precise this new strategy and the rationale behind it. SINTEF still needs to identify reviewers based on the feedback of the slido survey.

WP management. The transition of WP lead from Mehdi to Rita was uneasy due to the lack of communication. It created a mismatch on the plan received and the expected outcomes and we lost time to plan the scope and activities of the WP. However we are well on track now for all activities on cybersecurity, ontologies and middleware. We are having regular meetings with Milan and Paris (just started) for the development of data models and deployment of FIWARE. SINTEF is clearly taking the lead of these activities including minutes and organization of meetings.

SINTEF will run monthly WP meetings and invite KWB regularly. Goal is to monitor the progress and distribute clear responsibilities and chain of communication.

External communication. We plan to attend an IWA workshop on cybersecurity in 2021 and collaborate to a white paper from ICT4Water.

Link with other WPs. We had difficulties to align WP4 with the other WPs. This will be easier from now on since SINTEF is actively collaborating to the development of data models and FIWARE deployment on 2 case studies.

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WP5, Alain Dinis

Deliverable. The plan for exploitation is in preparation and still need a reviewer. We still need an update on the COP report by ICATALIST. A meeting is planned with the team to finalize the details.

WP management. At first, it was not easy to get feedback from all WP partners in order to follow up the progress of the tasks and report to the steering committee every month. We need more interactions at WP level with regular WP meetings (e.g. every 2 months).

More precisely, we need to discuss with KWB and ICATALIST to clarify the roles of each partner in the preparation of the COPs.

In the first phase of the project, it was difficult to collect information about the digital solutions to start the exploitation plan; this was mainly due to the low development stage of many solutions and has improved since.

Due to the slow development of some tasks, it is hard to report every month new progress at the SC; this is not a problem: if some tasks did not evolve we don't need to discuss more details and can focus only on the actual progress of other tasks.

In 2020 we were delayed in launching the exploitation activities and in starting the interviews with the tech providers. This is partially due to the COVID situation. In the future, we need to have a clear agenda of exploitation activities and keep regular contacts with each tech provider to accompany the product development.

Link with other WPs. It would be relevant to run a workshop between the different technology providers to identify potential technical/economical synergies especially between partners from different cities: technological providers and/or technological users. See also proposition in WP1.

WP6, Anna Dunne

Deliverable. Milestones to update the communication strategy. List of target group, messages and value proposition will be added.

WP management

We are having regular monthly calls with KWB to go through the communication activities. Next step is to organize regular meeting with the communication departments of the 5 city partners. We need active sharing of information and local support for communication activities.

To be more effective, we will hold a workshop with WP2 tech providers to pin point clear communication actions for each solution. It can include short videos of sensors installation with smart phones or interview of partners at demo sites.

Link with other WPs. Horizontal topics WP3, 4 , 5 will become important for communication in the next phases of the project.

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