

Palestine network workshop

Decentralized and non-governmental cooperation on Water and Sanitation

Friday, February 11th, 2022

Report

This workshop targets actors of decentralized and non-governmental cooperation (local authorities and French associations) intervening or wishing to intervene in Palestine in the water and sanitation sectors. It aims at sharing information on the national water and sanitation sectoral framework; and at connecting stakeholders and fostering exchanges around targeted themes, through the presentation of existing experiences.

Through its "country networks", pS-Eau proposes spaces to share experiences and debate issues of common interest; support the capitalization of actions; and accompany the setting up of projects in connection with competent bodies in France and in the concerned country.

These actions are part of the overall mission of pS-Eau who acts towards reaching Sustainable Development Goal 6: access to water and sanitation through activities aiming at centralizing, reinforcing, and producing knowledge, accompanying and supporting initiatives, and stimulating mobilization.

This webinar had 53 participants: [see the list of participants](#)

Decentralized cooperation on water and sanitation in the Palestinian sectoral framework

pS-Eau - Mélodie Boissel: [Overview of French-Palestinian cooperation on water and sanitation](#)

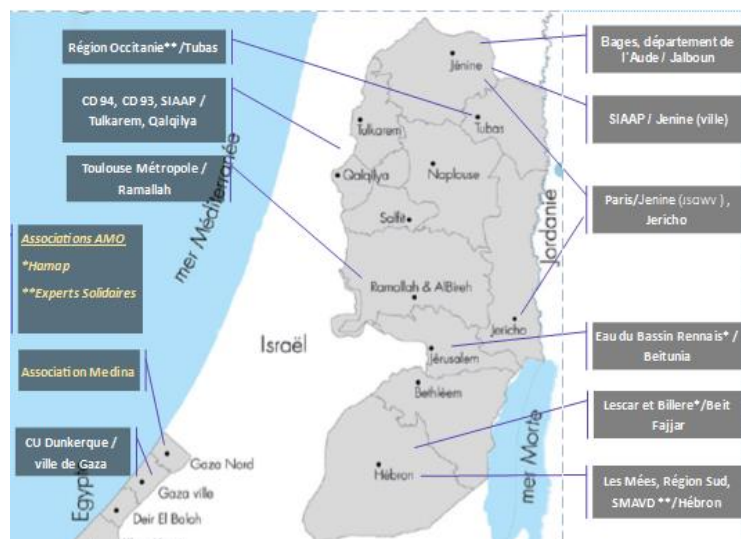
[Presentation link](#)

French local authorities are particularly involved in decentralized cooperation on water and sanitation in Palestine, both in terms of political leadership and in mobilizing their technical services (water, sanitation and water resource management services).

While many French local authorities support actions on water and sanitation worldwide (€15.4 million in 2020, in addition to the €15.8 million provided by the water agencies), such a level of involvement of technical services is rare. It gives all its meaning and relevance to decentralized cooperation between French and Palestinian local authorities.

Several of these interventions are also supported by French associations with sectorial expertise and a good knowledge of the local context, in particular Hamap Humanitaire and Experts Solidaires (see the map).

Some associations intervene outside the framework of decentralized cooperation, which is the case for Medina in Gaza.



Source: data: pS-Eau database, Map: Adour Garonne Water Agency, PWA, Hamap: decentralized cooperation for water in Palestine: a guide to good practices, 2013

SCAC Jerusalem/ AFD - Julie Dusseaux, Constance Bréhaut – Water and sanitation in decentralized cooperation and existing supporting and financing mechanisms.

Decentralized cooperation is a precious vector of French-Palestinian relations, stimulating multi-actors territorial dynamics in France and in Palestine (elected officials, technical services, civil society organizations, academics and students) around projects which improve living conditions. The water and sanitation sector is a major axis of French intervention strategy for the Palestinian Territories. It mobilizes funds from the French Development Agency, the MEAE, as well as from French local authorities. In 2019, official development assistance for the water sector in Palestine reached nearly €13 million.

French-Palestinian cooperation on water comes in a context where availability of water resources is constrained by the Oslo Agreements which defined resource sharing between Israel and Palestine in 1994. However, water resources are inferior to the terms of the agreement and do not allow to meet the needs. Moreover, dynamics of colonization increase pressure on the resource. The West Bank is thus forced to buy 60% of its water from Mekorot (Israel national water company).

As a consequence, Palestinian local authorities are seeking support to optimize the efficiency of their distribution system and improve the management of available water resources. The cooperation is based on strong relations between French and Palestinian elected officials, with an emphasis on political and technical exchanges. Actions in the water and sanitation sector also facilitate awareness-raising initiatives in France. At the technical level, it enables a co-construction of water and sanitation services, through exchanges of technical experience, governance models, and training of municipal technical teams.

The SCAC and the French Consulate can facilitate connections with local partner authorities, help identifying supporting technical services, and assist for funding requests to the DAECT.

Cooperation actors in the water sector benefit from technical support from several platforms: the pS-Eau, the DAECT in Paris and the SCAC in Jerusalem. Financial support can be provided through several mechanisms:

1) **Julie Dusseaux (DAECT/SCAC) presents the joint fund** for French-Palestinian cooperation, implemented by the French and Palestinian Ministries of Foreign Affairs, which identifies the water sector as a priority. This fund can contribute up to 50% of the total budget, but cannot exceed the contribution of the French local authority. Salaries of public officers can be valorized up to 50%. This fund doesn't finance infrastructures, as it focuses on capacity building. It is open for three years, with applications deadline on March 18th.

2) **Constance Brehaut (AFD) presents the FICOL** which provides financial support to French local authorities. Expression of Interest's deadline is on April 8th, and project proposal's submission will be on September 30th. This mechanism finances up to 30% of projects, for a minimum of 200,000€ and a maximum of 1.5 million €.

For more information, contact Catherine SIMO (simoc@afd.fr).

3) **Mélodie Boissel (pS-Eau) mentions the Oudin Santini law** which allows local authorities in charge of water and/or sanitation in France, to dedicate up to 1% of the budget of these services to international solidarity actions on water, sanitation and water resources management and protection. In addition to financial support, it encourages the mobilization of the expertise of related technical departments. These dynamics are supported by French Water Agencies who co-finance actions in which local authorities are involved.

PWA / AFD, Rawan Isseed, Hani Boullata: Challenges, regulatory framework of the water and sanitation sector, and ongoing reforms

[Presentation link](#)

Hani Boullata reflects on the Oslo Agreements, which constrains water development in the West Bank (see table).

West Bank aquifers	Palestinian Authority	Israel
East aquifer	54 million m3 + 78 million to develop	40 million m3
West aquifer	22 million m3	340 million m3
North aquifer	42 million m3	103 million m3

Regarding drinking water, the access rate reaches 97%, with a few rural localities still needing to be served. A large proportion of consumed water is purchased from the Israeli company Mekorot.

Regarding sanitation, 96 million m3 of wastewater is produced per year, of which 10 million m3 is treated in the West Bank and 18 million discharged untreated into the rivers reaching Israel, who transfers the cost of treatment to the Palestinians' authority for 35 million dollars. This untreated sewage contaminates aquifers in the West Bank and Gaza.

The 2014 Water Law reviews the institutional framework and redefines institutions' responsibilities. Newly created bodies are currently coexisting with previous ones which will be dismantled.

- ✓ The **Palestinian Water Authority (PWA)**, established by the Oslo Agreements, is responsible for resource management and preservation.
- ✓ A new regulatory body for water services, created by the 2014 law, has been set up. Independent from the PWA, the **Water Sector Regulatory Council (WSRC)** is in charge of monitoring and supporting domestic water and sanitation services (NCW, regional operators).
- ✓ A **National Water Company (NWC)** is to be established to manage the supply of water to utilities from Mekorot wholesale supply as well as from Palestinian aquifers. The West Bank Water Department (WBWD) currently performs this role in the West Bank.
- ✓ Currently, some municipalities and a few unions of municipalities and village councils (approximately 300 operators) are managing water distribution and sanitation where available (collection and treatment). The law provides the creation of regional establishments to optimize the quality and costs of services and encourage private sector involvement: the **Regional Water Utilities (RWU)**. Several phases are planned for this transition from 300 operators to 14, then to 3 operators in the West Bank and a single operator in Gaza. (See the presentation for more information on the ongoing operator merging process).
- ✓ The law encourages the creation of **Water Users Associations (WUAs)** for participatory and sustainable management of irrigation water, including treated wastewater.

Hani Boullata points out major stakes, challenges and updates from the Palestinian water and sanitation sector

- ✓ Resources generated from **services' fee collection** do not cover the costs of operations. Moreover, the price of water is subsidized by the Palestinian Authority at several levels: at the level of wholesale purchase from Mekorot by the West Bank Water Department (soon to be National Water Company); and at the level of purchase by local operators. In order to optimize the economic model of services, and to strengthen the equity of distribution, a **new tariff system** was established, which encourages operators to implement a system based on user categories.
- ✓ **Non-Revenue Water (NRW)** represents a major challenge for the technical and financial viability of services. Illegal connections and water losses due to networks obsolescence and lack of maintenance, lead to a NRW rate reaching 40% in the West Bank and 30% in Gaza.
- ✓ With the constraints on water availability due to the occupation and to climate change, a strong strategic axis lies in **optimizing the management of available resources, including through the mobilization of treated wastewater** as an additional resource.

- ✓ The water law encourages **operators to regroup in order to implement intercommunal management**. The PWA and WSRC are supporting operators in this process and are in charge of issuing their licenses.

In this context, decentralized cooperation represents an opportunity to share the experience of French local authorities in terms of intercommunal governance and technical management of services, in particular regarding distribution networks performance as well as wastewater treatment and reuse.

Rawan Issed (PWA) insists on the central role that French decentralized cooperation can play in the water and sanitation sector, by supporting and strengthening water and sanitation operators, particularly on specific technical topics, such as non-revenue water reduction and tariff optimization. It aligns with PWA's actions to support the sector and the structuring of these new decentralized institutions.

Hani Boulatta presents an **overview of the current AFD projects** in Palestine in the water and sanitation sector, often co-financed by the EU. Some of these projects result from initiatives implemented through decentralized cooperation. In addition to infrastructure projects, AFD also supports the PWA in its efforts to reinforce capacities of professionals in the sector and to conduct strategic studies, including a study on wastewater reuse in southern West Bank and a crisis response plan in Gaza.

See PWA/AFD presentation for specifications and additional information

[See pS-Eau Palestine country sheet](#)

Topic "Capacity building of services and support to the structuring of regional institutions"

City of Paris - Yann Bhogal: [Capacity building for water and sanitation management of the city of Jericho and the Jenin West Village Operator \(JSCJWW\)](#)

[Presentation link](#)

Yann Bhogal introduces the City of Paris' efforts towards international solidarity. Development aid represents 6 million euros/year, dedicated to several themes, with an important part for the sectors of water, sanitation, waste and energy. The City intervenes through the call for projects "SOLIDAE" as well as active cooperation in several sectors.

The cooperation with Jericho was initiated in 2009, with the involvement of Eau de Paris as well. A master plan was conducted from 2009 to 2011 as the first activity of the cooperation, together with a few priority works to reinforce the network. It was followed by a technical assistance program.

GIS and network modeling were developed, requiring in-depth data collection. Administrative and financial management was supported to optimize the rate of bill collection by enabling easier means of payment and by establishing means of sanctions and mediation for the management of unpaid bills. A water saving awareness campaign was also conducted.

A meeting with the JSC of Jenin Western Villages (JSCJWW), showed a complementarity for expertise sharing between the two Palestinian operators and the City of Paris, with Jericho being more advanced in terms of sanitation (WWTP equipped with a system of reuse for treated wastewater) and the JSCJWW on water distribution management. A tripartite cooperation has thus been initiated, supported through the FICOL mechanism. On the Paris side, the public operator Eau de Paris and the city's cleaning and water department (sanitation component) were mobilized to share their expertise.

Regarding water, the cooperation looks into tariffication and NRW reduction. In Jericho, network management should be reinforced through sectorizing and monitoring the networks (installation of flow meters, pressure sensors...). Regarding the sanitation component, the feasibility of a wastewater treatment plant in the northwest of Jenin will be studied, based on a master plan established by AFD.

Eau du Bassin Rennais - Laurent Geneau - [Technical exchanges for the training of Beitunia water authority officers](#)

Eau du Bassin Rennais (EBR) is an intercommunal syndicate for drinking water. It is active in international solidarity through a subsidy fund targeting associations of its territory of action; and through a decentralized cooperation project with the city of Beitunia. For this cooperation, EBR developed a partnership with the association Hamap Humanitaire which acts as operator, and mobilizes officers of the Collectivité Eau du Bassin Rennais (CEBR), a local public company (Société Publique Locale, SPL).

Beitunia aims at improving the performance of distribution networks before integrating its service to the Jerusalem Water Undertaking (JWU). This operator, which currently includes Ramallah and Al-Bireh, as well as 10 other towns, 43 villages and 5 refugee camps, is set to expand and eventually become one of the three regional operators of the West Bank.

In its first step, the cooperation supports the realization of a master plan to better understand the hydraulic system and the conditions of infrastructures, in order to prioritize needs and plan for future actions.

Technicians from Beitunia traveled to Rennes where they benefited from a training course on leakage detection and network repairs, provided by the CEBR, operator of the EBR water service, and by OIEAU. This mission enabled to build relations, and exchanges between technicians are continuing remotely on sectorization, monitoring and remote management, and network sizing. A mission of EBR technicians to Beitunia is now planned. In addition, EBR includes a cultural dimension to the cooperation, by raising awareness of actors of the Rennes territory to the water issue in Palestine.

This ongoing cooperation translates into successive projects supported by funds from water agencies and FICOL. Partners are looking into widening the focus, currently centered on EBR's water competence, to address sanitation by including other partners and coordinating with the German cooperation active in this region. The experience of EBR in intercommunal management could also be shared, in the context of the integration of Beitunia to the JWU.

In response to **Julie Trottier, Yann Bhogal** specifies that only the drinking water network has been modeled so far.

Franck Carrey, from Medina Association, raises the issue of the **malfunction of Gaza sanitation system**.

Nordine Henni from the Urban Community of Dunkerque (CUD) indicated that CUD is the only French territorial authority which has a long-standing cooperation in the Gaza Strip, more specifically with the city of Gaza. The needs related to water and sanitation were raised, especially the need to map, remotely control and sectorize networks (which, for Gaza, includes the challenge of isolating areas likely to suffer from bombing). However, it was difficult for the CUD to coordinate with institutions to implement water and sanitation project, both at the level of available French funding (FICOL), and of the relation with involved Palestinian authorities (Gaza City, PWA).

Régis Démoly, from Grand Besançon, asks how refugee camps will be considered in the new sectoral framework, as he perceives an apprehension from the camps to be absorbed by a large operator. Besançon is indeed cooperating with the camp of d' Aqabat Jabr and was involved in the project of connection to Jericho wastewater treatment plant.

Lana Sadeq from [AJPF \(Association promoting twinning between Palestinian refugee camps and French cities\)](#) indicates that AJPF raises awareness on the situation of Palestinian refugees in Palestine and Lebanon, and aims at stimulating French cooperation with refugee camps. The AJPF supports its members to revive their cooperation by identifying appropriate local actors in the camps. The camps are governed by popular committees, which are not elected by inhabitants but by civil society representatives.

Toulouse Métropole/Hamap - Nicole Miquel-Belaud, Julie Ducrot, Maxime Decaens - [Upgrading the sludge chain of Al Tireh wastewater treatment plant for agricultural valorization of sludge](#)

[Toulouse presentation link](#) ; [Hamap presentation link](#)

Mrs. Nicole Miquel-Belaud, elected official in charge of water for Toulouse Metropole, presents a historical summary of the cooperation which started in 2009 with the creation of a network for wastewater and rainwater collection in the old city of Ramallah, before moving towards supporting the implementation of a wastewater treatment plant.

Sludge drying for agricultural use had been considered as of 2016; however, the feasibility study conducted by Hamap concluded that optimizing the WWTP and its sludge chain was necessary before considering drying and its valorization. If implemented, the solar sludge drying greenhouse would receive sludge from the existing plant as well as from a future WWTP planned in Ramallah.

Therefore, the ongoing project funded by FICOL focuses on improving the sludge chain and studying the feasibility of agricultural recovery. The cooperation mobilizes the expertise of the Water Cycle Department of Toulouse Metropole and of the association Hamap Humanitaire.

Mrs. Julie Ducrot, Process and Water Treatment Engineer, explains the project.

Centrifuges and solar greenhouses should be installed to dehydrate and dry the sludge, in order to transform it into granules to facilitate its valorization as agricultural amendment. Currently, sludge is sent to landfill.

After studies were carried out by a French consulting firm, Toulouse Métropole has supported Ramallah in the procurement and bidding phase of the installation of centrifuges. A second consultation, focused on the creation of a laboratory and sludge quality monitoring system, is ongoing.

These actions are accompanied by capacity building for the treatment technology of the WWTP, equipped with bioreactors, as well as for the future centrifuges. Operations are carried out by a private service provider, therefore this capacity building aims at supporting the municipality of Ramallah in properly controlling its services by monitoring performance indicators.

M. Maxime Decaens, Hamap Humanitaire, provides technical support in cooperation with OIEAU, on the potential agricultural valorization. They study the feasibility of different types of processes, according to parameters from the environmental (nature of the soil, topography...), social and economic context (characterization of the agricultural activity, acceptability, possible economic model of the chain...).

A situation analysis of sludge management in southern Mediterranean countries will be conducted beforehand, with a focus on Morocco and Tunisia.

This process will be led by a monitoring committee gathering various stakeholders at the institutional and local level, which will decide on the feasibility of the agricultural valorization chain. The study results will be shared.

Mrs. Nicole Miquel-Belaud specifies that results from the feasibility study of sludge valorization for agriculture in Ramallah, will be shared, possibly through networks such as the pS-Eau.

Région Occitanie/Expert solidaires - [Project of treated wastewater reuse in Tubas.](#)

[Presentation link](#)

Mr. Thomas Lavour, office of international relations for the Occitanie region, presents a historic overview of the cooperation initiated fifteen years ago between the Midi Pyrenees region and the Governorate of Tubas. Water and agriculture were included as of 2019 with the technical support of Hamap Humanitaire.

The project of wastewater reuse from Tayassir wastewater treatment plant is part of the Governorate of Tubas' strategy to develop agriculture and become Palestine's sustainable food basket. The project is currently in its design phase and plans to mobilize a FICOL fund. It is led by the Occitanie region in partnership with the Governorate of Tubas and northern valleys, with the support of several technical partners: Experts Solidaires, the Association Sud-Ouest pour le développement International Agricole (ASODIA), and the Union of agricultural Work Committees - UAWC.

Mr. Thomas Cazalis, Experts Solidaires, gives further information on the study conducted by Hamap in 2019. This study prefigured the structuring of a market gardening sector from underground water in the plain of Tammun; and a fodder sector from reused water from Tayassir plant – which would eliminate the need to purchase fodder from Israel. Treated wastewater reuse would provide an additional water resource, thus reducing pressure on underground water.

This project plans to develop participatory management of water resources by establishing water users' associations and promoting water-saving irrigation practices. It is based on a 2007 experiment of the French cooperation in Gaza and aims at building links with other ongoing reuse initiatives in Palestine.

This new resource will allow local agricultural activities which will benefit from the experience of the Occitanie region in terms of agricultural strategy. A reciprocity is expected in order to develop reuse in Occitanie.

Mélodie Boissel points out the interest of targeting wastewater reuse in the context of decentralized cooperation, as it allows reciprocity since these processes are also being deployed in France.

Chantal Eyboulet from the Syndicat interdépartemental pour l'assainissement de l'agglomération parisienne - SIAAP, mentions the cooperation between the departments of Val de Marne and Seine Saint Denis; and the cities of Jenine and Qalqilya. A master plan was formulated, and has led to projects to reinforce sewage networks. Infrastructure projects for new wastewater treatment plants are currently being considered. Experience could be shared on the topic of wastewater reuse.

Hani Boullata and Mélodie Boissel underline the stakes of wastewater reuse in Palestine. It prevents losing a resource which, if not kept in the West Bank, flows via the wadis to Israel where it is reused for irrigation – while Israel makes the West Bank pay for the treatment of untreated or partially treated wastewater in treatment plants equipped with reuse devices.

Issa Elshatleh, River Company for fair developmental services, questions the impacts of developing a new agricultural sector on the local economic and social fabric of agriculture. Indeed, this is a traditionally cereal-growing region, and substituting this crop would risk compromising its food autonomy. Thomas Cazalis confirms that the choice of crops was based on a territorial diagnosis carried out with the farmers.

Topic "Intervening in constrained areas : Gaza, area C, refugee camps "

Association Médina – Franck Carrey: [Access to water and sanitation in schools in Gaza](#)

[Presentation link](#)

Medina association **carries out development actions in the context of war, crisis and conflicts, relying upon local foothold**. In Gaza, chronic insecurity and recurring wars can discourage donors, which requires constant **lobbying**.

For the past 4 years, Medina has been implementing a water and sanitation program that has so far reached 40 schools. Medina relies upon a local collaborator in Gaza and works in collaboration with the Palestinian Ministry of Education and Water (DREK, PWA). It is supported by funds from Lyon and Marseille metropolises (via the Oudin Santini law), and from the Rhone-Mediterranean-Corsica water agency.

The water component consists in setting up micro-stations for the production of drinking water (10m³ /day), distributed through the network. Medina also installs or rehabilitates drinking water tanks. Utilities are equipped with solar panels to allow energetic autonomy.

Contaminated water resources in Gaza:

While the West Bank's main challenge is the availability of water resources, the major issue in Gaza is water quality. Due to the overexploitation of the shallow aquifer, which extends from Israel to Egypt, its quality decreases with the infiltration of seawater and partially treated wastewater.

In terms of sanitation, sanitary facilities are rehabilitated or installed, and connected either to the sewage network (if existing), or to septic tanks installed for this purpose. Medina does not currently cover collection and treatment of sewage, which could be considered in the future.

Due to the political situation in Gaza (blockade), Medina faces challenges for the importation of materials and the transfer of funds, which impacts the timeframe of the projects.

Métropole de Dunkerque – Nordine Henni: [Launching of a "water fund" for interventions in Gaza](#)

Nordine Henni introduces the water fund of the Dunkerque region, carried by the Artois Picardy water agency, the Dunkerque water syndicate and the Dunkerque Urban Community. He insists on the major role of associations such as Medina in the context of the Gaza Strip, as French local authorities have more difficulties in intervening directly in Gaza.

[See the presentation of the water fund](#)

Experts Solidaires – Thomas Cazalis - [Water Resource Management in Area C](#)

[Presentation link](#)

This project is conducted through a decentralized cooperation between the municipality of Les Méées and the municipalities of Dura and Beit Ula, with the support of the AFD. It results from a partnership between the South Region in France and the Hebron Governorate. The Joint Development Syndicate of the Durance Valley, Experts Solidaires (France) and the Union of Agricultural Work Committees - UAWC (Palestine) are also involved as technical partners.

A first challenge lies in the control of Palestinian civil society by Israel, since the UAWC has been accused as many Palestinian CSOs of representing a terrorist organization.

Fortunately, the valley of Dura and Beit Ula has a total control over its water resources (shallow water table, thus not subjected to use restrictions imposed by Israel); an integrated water resources management approach can therefore be implemented.

In rural areas, development projects are quickly confronted to the issue of A, B, C zoning when planning for new infrastructures (wells, reservoirs, networks). For this project, the identification of boreholes locations required juggling between the results of the hydrogeological study and the zoning constraints. Regarding the reservoirs, the status of locations (in area B or C) impacts the choice of type of reservoirs, which can be a permanent construction in area B but has to be dismantlable in area C to avoid demolition order.

The Interim Agreement on the West Bank and Gaza Strip ("Oslo II") of September 28, 1995, divides the Palestinian territories in three distinct areas of sovereignty:

Area A (20% of the territory, 55% of the population), administered and controlled by the Palestinian Authority, covers the main urban areas.

Area B (20% of the territory, 40% of the population), administered by the PA and controlled by Israel

Area C (60% of the territory, 5% of the population), administered and controlled by Israel.

The construction of water and sanitation infrastructure and the importation of goods into the West Bank are subject to authorization by the Joint Water Committee (JWC), an Israeli-Palestinian committee.

In Area C, infrastructure development is even more restricted, as approval from the Israeli Civil Administration is also required.

Mérodie Boissel closes the session by indicating the available contacts for information and support:

pS-Eau's Palestine Country Network: Mérodie Boissel melodie.boissel@pseau.org

In relation with local actors:

- SCAC/DAECT : Julie Dusseaux : julie.dusseaux@diplomatie.gouv.fr
- AFD Jérusalem, PWA/ WSRC

pS-Eau's regional networks in France

Local support to cooperation actors, in relation with:

- RRMA - Regional Multi-Stakeholder Networks
- Water Agencies, in particular the Rhône Méditerranée Corse Water Agency, the reference agency for the Mediterranean basin
- ✓ Siège Paris (Ile de France, Bretagne, Normandie, Centre Val de Loire)
- ✓ Toulouse & Bordeaux : Irina Parrel irina.parrel@pseau.org (Occitanie, Nouvelle Aquitaine)
- ✓ Lyon : Philippe Mouton mouton@pseau.org (régions Sud, Auvergne Rhône Alpes, Bourgogne Franche Comté, Corse)
- ✓ Nancy : Marie Zerbo marie.zerbo-mangin@pseau.org (région Grand Est)
- ✓ Angers : Vincent Dussaux - dussaux@pseau.org (région pays de la Loire)

[Watch the video of the webinar \(in French only\)](#)