WATER OPERATOR PARTNERSHIPS AND SOLIDARITY

A global effort to realise the human right to water and sanitation





AQUA PUBLICA EUROPEA

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PREFACE

Providing water and sanitation services is a complex industrial task. Like for any other industrial activity, water and sanitation services require capital, in order to build or replace water and sewages networks and treatment plants. They require technologies, for example to monitor water quality and treat pollution. Last but not least, they require skills and know-how to run the services every day and combine capital and technologies in an efficient way.

Ensuring access to adequate funding for water-related investments certainly remains the paramount issue in developing countries. However, even if, suddenly, an infinite amount of financial resources became available for the water sector, we would still have to face several challenges. Especially in rural or more disadvantaged areas, the availability of appropriate technical and management capacities may indeed represent a significant problem. Not only will the lack of localised know-how and skills affect negatively the quality of the services; it will also make it more difficult for operators to devise solutions that are adapted to their specific context, thus perpetuating their dependency on (often expensive) expertise coming from abroad.

The good news is that, worldwide, a wide repository of competences is available in many public utilities, both in the Global North and in the Global South. Thanks to their public nature, these competences are then apt to be shared and transferred to other utilities on a not-for-profit basis. In addition to fostering mutual trust, the non-commercial nature of the partnerships between public utilities also ensures that the transfer of knowledge and knowhow responds to the real needs of the beneficiaries.

SIAAP – the utility providing sanitation services to 9 million French citizens and probably one of the biggest public utility in Europe with its 1,4 billion euros turnover – has been for long involved in Water Operators Partnerships (WOPs) to support capacity-development efforts in the water sector all over the world. SIAAP is currently involved in 34 different cooperation projects in over 20 countries, with the primary objective to contribute to the realisation of the Sustainable Development Goals '6' on water sanitation, as well as of many

many other SDGs where improved management and access to water resources represent a key condition for their achievement.

Based on this long and rich experience, I feel confident to say that WOPs can represent an effective, and relatively low-cost approach to help operators improve their performance, use existing resources more efficiently, and ultimately enhancing the quality of the service for more people. WOPs can have a 'ripple effect' since the beneficiary (the 'mentee' in a WOP project) can then share the acquired competences with other utilities. Finally, WOPs are also beneficial for the mentor, as knowledge-transfer is always a two-way process, and because taking part in WOPs can be a very stimulating experience especially for young staff.

The strong engagement of SIAAP in international cooperation is the result of the company's determination to contribute to the Sustainable Development Goals, but it is also facilitated by a French regulation (the so-called Oudin-Santini law) that enables water utilities to devote a part of their budget to international solidarity projects. Unfortunately, this possibility is foreclosed or very limited in many European countries, leaving a large potential of knowledge and solidarity untapped.

For this reason, I would like to express – also on behalf of the whole Aqua Publica Europea's community – the strong appreciation for the European Commission's decision to support again WOPs through the new EU-WOP Programme. We are confident that this programme, on the one hand, will have beneficial effects on other EU development policies aimed to increase access to water and sanitation and, on the other hand, will help mobilise new utilities from new European countries in the solidarity effort.

The publication that you are about to read intends to be a small contribution to this mobilisation effort. More precisely, the collection of projects and experiences that you will find in the following pages aims to show the positive and concrete impact that WOPs can bring. But it has also the ambition to trigger the participation of more operators – within Aqua Publica's community or beyond – in this kind of solidarity-based projects, which are extremely important for beneficiaries, but are rewarding for all.



JOAKIM GIACOMONI
Head of Public and International Affairs

Syndicat interdépartemental pour l'assainissement de l'agglomération parisienne (SIAAP) (Paris, France)

INTRODUCTION: UNIVERSAL ACCESS TO WATER AND SANITATION AS A HUMAN RIGHT

On 28 July 2010, the *United Nations' General Assembly* recognised the access to water and sanitation as a human right, further stating that access to clean drinking water and sanitation is essential to the realisation of all human rights [1]. After ten years since its adoption, progress has been made towards the realisation of this right, but significant work still remains to be done.

Despite some progress, today is estimated that 2.2 billion people still have no access to basic drinking water service and 4.2 billion people lack access to sanitation facilities[2].

The full realisation of the human right to water is first of all a matter of prioritisation in the political agendas, and of the consequent mobilisation of adequate resources to achieve this objective.

The inclusion in 2015 of a set of specific objectives to improve access to water and sanitation in the **UN Agenda for Sustainable Development** certainly represented a step in the right direction.

In Europe, the first-ever successful **European Citizens' Initiative**, **Right2Water**, gathered **1.8 million signatures** calling for EU decision-makers to recognise the right to water for all. As a result of this formidable citizens' mobilisation, and in response to the UN 2030 Agenda, in 2017 in the framework of the **European Consensus on Development** [3] the European Union and its the Member States committed in 2017 "to support the poorest communities in improving access for all to land, food, water and clean, affordable energy without damaging effects on the environment."

Today, with the impact of the COVID-19 global health emergency, universal access to water and sanitation is more than ever a condition for collective wellbeing.

In these difficult times, European society is called to show its political responsibility by deploying concrete solidarity mechanisms beyond its borders and by supporting more vulnerable communities to realise the right to water as an essential condition for human dignity, global wellbeing, and collective security.



A GLOBAL EFFORT TO REALISE THE HUMAN RIGHT TO WATER AND SANITATION

28 JULY 2010

UNITED NATIONS GENERAL ASSEMBLY EXPLICITLY RECOGNISED THE **HUMAN RIGHT TO WATER AND SANITATION** AND ACKNOWLEDGED THAT CLEAN
DRINKING WATER AND SANITATION ARE ESSENTIAL TO THE REALISATION OF
ALL HUMAN RIGHTS

1,884,790



EUROPEANS SIGNED THE EUROPEAN CITIZENS' INITIATIVE, RIGHT2WATER, TO CALL THE EU FOR THE RECOGNISITION OF THE WATER RIGHT TO WATER AT EULEVEL.

2015

THE UN'S SUSTAINABLE
DEVELOPMENT GOALS INCLUDED A
SPECIFIC GOAL STANDING FOR
"CLEAN WATER AND SANITATION"
(SDG 6)

2017-2030

EUROPEAN CONSENSUS ON
DEVELOPMENT WAS DESIGNATED TO
BIND IN THE SDGS
BETWEEN 2017 AND 2030.



JANUARY 2021

EU-WOP Programme

TODAY



STILL HAVE NO
ACCESS TO BASIC
DRINKING WATER
SERVICE

4,2

BILLION PEOPLE LACK ACCESS TO SANITATION FACILITIES

INTERNATIONAL SOLIDARY AND COOPERATION TO ACHIEVE THE SDG 6

Over the last ten years, several international organisations – including **Aqua Publica Europea** and its members – have been stressing the urgent need to step up collective efforts to realise the human right to water, and called European Institutions to provide concrete support. *Aqua Publica* has been in particular drawing the international community's attention to the role of **Water Operators' Partnerships (WOPs)** as an effective mechanism to improve the access to water and sanitation services across the world.

WOPs are a solidarity-based approach that aims to strengthen the capacities of water operators and the skills of their employees, thus contributing to the improvement of the quality and of the access to water and sanitation services for all. Enhancing the capacities of water operators in less developed countries represents indeed an essential condition not only for effective management of water resources but also for efficient use of the (often scarce) financial resources, whether locally generated or coming from foreign donors, that are needed to run and develop the service.

Aqua Publica was therefore very pleased to learn in 2020 that the *European Commission* decided to launch a new funding programme – **the EU WOP programme** [4] - to support not-for-profit Water Operators' Partnerships (WOPs). The programme has been officially launched at the beginning of 2021.

Following previous raise-awareness initiatives in this field and, in particular, a workshop organised in cooperation with *UN's Habitat/ Global Water Operators' Partnerships Alliance* in 2019 at the Stockholm Water Week on "Water operators' partnerships Europe: Leveraging utilities, governments and investments for SDGs" [5], the present report provides an overview of some WOPs projects carried out by the members of *Aqua Publica Europea* in the past years. The examples show the positive impact that this approach can have in improving access to water and sanitation. What is more, the examples show that the impact comes at low cost, as the financial resources needed to carry out a WOP are, normally, quite modest. Clearly, these projects cannot replace the significant investments that are needed to build or strengthen water infrastructures in developing countries (the lack of which affects disproportionally more vulnerable people). But WOPs constitute a necessary complement to such investments, precisely because without localised capacities these investments risk to fail or, worse, reproduce dependency situations.

WHAT ARE WATER OPERATORS' PARTNERSHIPS?

The Water Operators' Partnerships (WOPs) are agreements between two or more water/sanitation operators that are aimed at facilitating the sharing and transfer of skills and know-how between partners on a not-for-profit basis. The partnership's ultimate goal is to improve the performance and capacity of the beneficiary operators, through a peer-to-peer learning process.

In the words of the *Global Water Operators' Partnership Alliance* (GWOPA) – an international initiative that supports WOPs under the umbrella of the *UN-Habitat* programme– "WOPs make use of the fact that while many local water and sanitation service providers are struggling, others have great performance and are willing to support others in their improvement process on a not-for-profit basis.[6]"

The range of matters that can be addressed in a WOP are as wide as the functions and skills that are needed to manage water and sanitation services: from assets' management to the organisation of customers' service, from techniques to monitor drinking water quality to approaches to reduce leakages. However, as the cases reported in this publication will show, a WOP can go also beyond typical 'industrial' aspects related to the management of water

services and address broader issues such as the **governance** of water resources or territorial planning. This is normal, since the challenges related to water resources' management are rarely just a technological or infrastructure issue, but they have social, economic, and environmental implications that involve a wide range of stakeholders.

Finally, a WOP can also involve – or be complementary to – the creation or renovation of assets: this actually represents a frequent driver for an operator to ask for support to other utilities through a WOP. Indeed, if the main objective of a WOP is to improve performance and capacities of the beneficiaries, the decision to activate a WOP can respond to different specific needs: facilitating access to finance, rebuilding capacities following the republicisation of water services, extending the services to (more vulnerable) parts of the population, ensuring that new infrastructures are correctly managed, etc.

To summarise, WOPs are a flexible solidarity mechanism that helps increase universal access to drinking water by helping operators and communities in less developed areas to develop their own know-how in water resource management. This knowledge is important not only to ensure that resources (water, but also economic and technological resources) are managed efficiently; perhaps even more importantly, this knowledge is also a condition for operators and communities to develop the solutions that are more adapted to their local needs, thus reducing the dependency on know-how and technologies coming from abroad.

The **non-for-profit nature** of the partnership is not then stemming only from solidarity motives, but it is also an essential condition **to build trust** among partners, which is in its turn the ultimate ingredient for a successful partnership: if there are no commercial objectives involved, beneficiaries have fewer hesitations to open their doors to external companies, as the partner will not have a hidden agenda. Similarly, the operator that decides to engage in a WOP to provide its expertise is certainly inspired by solidarity principles, but it also does that because the WOP is beneficial for its own staff, as the learning process is always two-ways (see next section).

We will explore more in details some of the successful and beneficial characteristics of the WOP approach in the next pages through a review of concrete examples.



PARTNERSHIPS PRINCIPLES



Right to water



Peer-to-peer learning



Capacity building



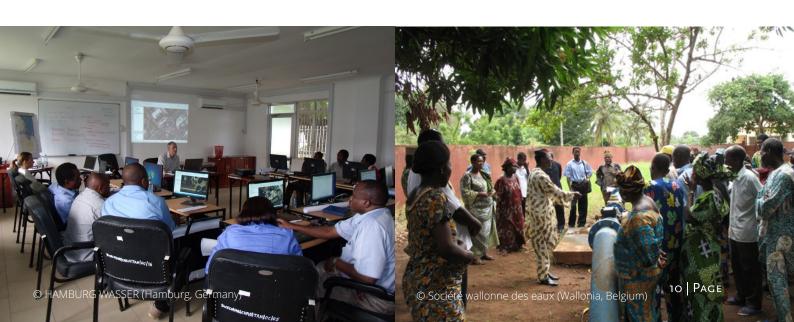
Long term impact and contributing to the **SDGs**



"WPOs mustn't just be a vehicle for exporting technologies and approaches but support in co-developing solutions that are desired and which fit"

> Julie Perkins, Head of Office **UN'S Habitat** Global Water Operators Partnership Alliance (GWOPA)





THE INVOLVEMENT OF EUROPEAN OPERATORS IN WOPS

In this publication, we present a series of examples of WOPs where APE's members were involved. Through these examples, we will try to outline the different objectives and arrangements WOPs can take, as well as the benefits they can generate for beneficiaries.

Before doing so, it is worth briefly examining the possible motivations that drive European utilities to engage in WOPs, as well as the constraints that may hamper their participation. Enlarging the 'base' of European utilities that get engaged in WOPs is indeed one of the objectives of the new **EU WOP Programme**; it is also and above all a condition to harvest the maximum potential of know-how and expertise that lie in European water operators for the benefit of other water utilities worldwide.

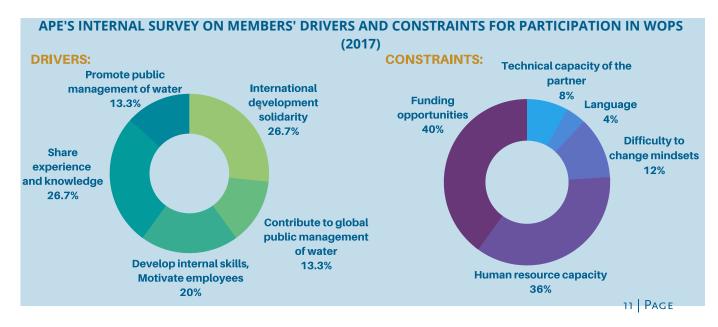
In 2017, *Aqua Publica Europea* conducted **a survey among its members** to map drivers and hurdles to their involvement in WOPs. Some of the results are reported in the charts here below.

If 'solidarity' and 'sharing' – as expected – are the main motivations for a public operator to participate in a WOP, a significant part of respondents have indicated that 'motivating their own staff and developing internal skills' also constitute an important incentive. This is normal as **the learning dynamics and the exchange are always a two ways process**: although a WOP normally involves a 'mentor' that is providing the expertise and a 'mentee', the relation is not asymmetric but, on the contrary, is enriching for both parts.

With regard to the **constraints**, **funding availability ranks first**. In many European countries, the possibility for water operators to mobilise economic resources (including in the form of staff's hours) for international cooperation projects is limited by law. Funding from public institutions and donors, like the European Union, is therefore crucial, as it allows water utilities to participate in cooperation projects while respecting national obligations on cost-recovery (we will discuss this issue in more detail in the last section of this publication).

Human resources availability and capacity is indicated as another important constraint. Participation in international cooperation projects can be in fact a challenging experience (due to cultural differences, practical problems, etc.), which requires trained and dedicated staff. Once again, the existence of a stable source of extending funding, which enables operators to 'regularise' their participation in this kind of projects, certainly helps operators to develop dedicated capacities and training: **this is why the new EU WOP Programme** is particularly important.

We will come back on the policy implications of these findings in the final section of the publication.



LESSONS LEARNT BY PUBLIC WATER OPERATORS



Strong participation from staff involved in the project is essential and must be of a voluntary nature, and adapting to the local context is very important - **Eau de Paris (Paris, France).**



I want to say a BIG THANK YOU for the density of the training you gave us. I have benefited a lot from it and I will benefit from it my entire career. I will always be at your school to develop further. Calixte Akotegnon (SONB Benin, partnership with SWDE (Wallonia, Belgium).



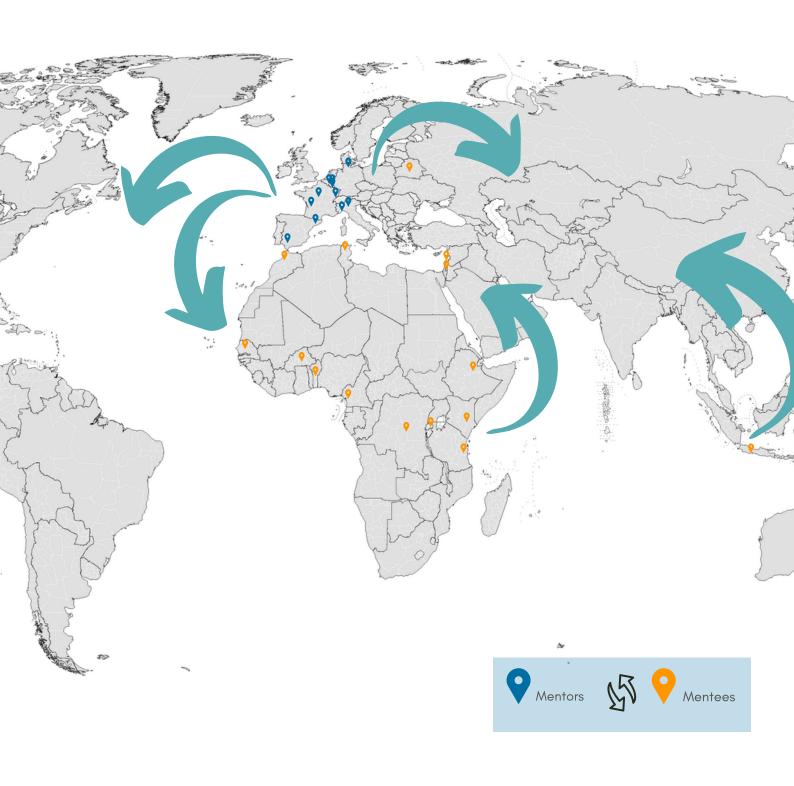
In the end, we realised that our management processes are not so different and that we can learn from each other. The most important is to overcome the cultural barriers, rather than the management styles. We are all technical staff working for water operators. Moises Roldan (EMASESA (Seville, Spain) partnership with PDAM Tirta Raharja (Bandung area, Indonesia).



WOPS are more than just a learning experience, it's also about involving the staff in the potential changes that the WOPs bring. Hendriati Bahar PDAM Tirta Raharja (Bandung area, Indonesia) partnership with EMASESA (Seville, Spain).



PARTICIPATION OF AQUA PUBLICA'S MEMBERS IN WOPS



The main objective of WOPs is to support efforts towards the realisation of the human right to water. From Kenya to Lebanon, from Belarus to Syria, Aqua Publica's members' have been developing cooperation programmes to help colleagues and local authorities to make progress in extending access to water and sanitation services, especially for the most vulnerable parts of the society.





- Gruppo CAP (Milan, Italy)
- Diocese of Meru Water & Sanitation Services (Kenya)



WATER FOR LIFE 2.0: PROVIDING EXPERTISE, KNOW-HOW AND TRAINING

Gruppo CAP, the water operator serving the province around Milan (Italy), participated in the 'Water for life 2.0' project to support the maintenance and renovation of the water network in the village of Matiri (Kenya).

The project relied on the cooperation between Gruppo CAP, IPSIA (a non-profit organisation working in the fields of rural development and child protection in Kenya) and the Diocese of Meru Water & Sanitation Services (DOMWASS).

The main goal of the three-year project (2017-2020) was to modernise the water supply network to increase access to water for the population, schools and hospital of the community of Matiri in South-Tharaka (Kenya). Furthermore, a dedicated water supply system was built for irrigation use.

The project was designed with the purpose to make the community more resilient both from an economic and a social point of view. On the economic side, the transformation of semi-arid areas into irrigated agricultural land encouraged the cultivation of products for family sustenance and further commercialisation. From a social perspective, the modernisation of the existing water network increased the availability of water at affordable costs to schools and other social and health facilities, thus improving the quality and accessibility of local public services.

In parallel to the modernisation of the infrastructures, a capacity building and training programme was implemented. The programme and activities were developed by the non-profit organisation IPSIA. Gruppo CAP contributed with equipment, technical know-how, training and financial resources. Gruppo CAP and DOMWASS also jointly designed a specific training course to improve local technicians' knowledge about the management and distribution of both drinking and irrigation water.

The renovation works of the water network were fully financed by Gruppo CAP.



- Eau de Paris (Paris, France)
- Water Supply and Sanitation
 Authority
 (Palestinian territories)



IMPROVING THE OPERATIONAL PERFORMANCE OF THE BETHLEHEM WATER SUPPLY AND SANITATION AUTHORITY

The water operator of the city of Paris, *Eau de Paris* (France), took part in a WOP to improve the operational performances of the *Bethlehem Water Supply and Sanitation Authority* (WSSA) in two areas: Geographic Information System (GIS) and the water network's flow. The project took place between 2015 and 2018.

Firstly, *Eau de Paris* made its technical expertise in GIS available to support the WSSA in launching a tender process to purchase GIS systems. More precisely, *Eau de Paris*, acting as a project management adviser, supported the WSSA to identify its needs, and to draft the technical recommendations for the tender.

Subsequently, *Eau de Paris* and WSSA collaborated to design and to implement a strategy to improve the technical performance of the water networks. The operators analysed the existing infrastructures and used the Water Balance methodology to calculate non-revenue water. In the case of the WSSA, the billing metering was identified as an area to be improved. Therefore, the operators designed an additional plan with specific objectives and key performance indicators in this domain.

This collaboration was developed in parallel to the City of Paris 'Water and Sanitation Solidarity' [7] plan in the field of sanitation which involved the City of Paris, the water operator of *Grenoble Alpes Métropole* and the WSSA.

This Water Operator Partnership collaboration took place thanks to an agreement between *Eau de Paris*, the *French Development Agency* (AFD), *Bethlehem Water and Sanitation Authority* (WSSA) and the *Palestinian Water Authority* (PWA).

The project was funded by the *French Development Agency* (AFD) with a total budget of 70,000€.









OPERATION CLEAN WATER

The Società Metropolitana Acque Torino (SMAT) - the water operator of the city of Turin (Italy) - carried out the 'Operation Clean Water' project, between 2008 and 2009, which aimed to improve the quality of drinking water in some areas of Belarus.

The 'Operation Clean Water' focused on removing the presence of contaminants and heavy metals through the provisions of drinking water filters, which were installed in the schools' buildings of the municipalities of Korma, Piererost, Dobrush e Borshciovka in the south-west of Dobrush (Belarus).

The funding was provided by all the partners involved: Belarus Government, Municipality of Volpiano, Municipality of Robassomero, GAIA Circle, as well as the partners from Italy: Società Metropolitana Acque Torino (SMAT), Piedmont Region and Legambiente Piemonte e Valle d'Aosta association. The total investment amounted to 40,046.00€.

The 'Operation Clean
Water' focused on
removing the presence of
contaminants and heavy
metals.





- Eaux de Vienne -Siveer (Vienne, France)
- The municipalities of Manga, Koubri and Diébougou (Burkina Faso)



DRILLING FOR WATER SUPPLY

Eaux de Vienne - Siveer, which is in charge of water and sanitation services in the department of Vienne (France), took part in an international cooperation project to improve drinking water supply in three municipalities in Burkina Faso.

The project was based on a partnership with the association of *Blaslay-Kpakpara* (a twinning initiative between the French city of Blaslay and the municipalities of Burkina Faso) and provided financial support for the drilling of new wells in the municipalities of Manga, Koubri and Diébougou (Burkina Faso), thus granting access to drinking water to additional 5,308 inhabitants.

Actions in this partnership included the construction of a water tower, the construction of an electric pump, and the creation of 16 standpipes on a 19 km network line. *Eaux de Vienne - Siveer* also designed a training programme for local water technicians.

The funding for this partnership was made available thanks to the French *Oudin-Santini law* and *Eaux de Vienne - Siveer's* own budget and included the participation also of the Haut Poitou district and the Aquitaine Region in France.





- Acquedotto
 Pugliese (Puglia,
 Italy)
- Edea (Cameroon)



PARTNERSHIP TO FINANCE THE CONSTRUCTION OF THREE TECHNOLOGICALLY ADVANCED WELLS

Acquedotto Pugliese, the public water operator providing water and sanitation services to the Italian region of Puglia, in collaboration with the Italian association A hope for Cameroon launched a partnership to finance the construction of three technologically advanced wells in the Edea region in Cameroon.

Based on long-standing cooperation between the water operator and the NGO, in June 2020, the two organisations launched this project that is expected to improve access to water for thousands of people. The project also includes training activities for young Cameroonian technicians at the "Water Academy" of *Acquedotto Pugliese*.

The construction works are fully financed by *Acquedotto Pugliese* (24,000 €).



The WOP approach relies on peer-to-peer learning as a way to share knowledge and expertise among partners. The idea is that, instead of resorting to expensive consultants, operators' staff can learn a lot from their 'peers': colleagues from other operators who have a similar background and face similar challenges, but who may have developed proven expertise in a certain domain. 'Peer-to-peer' is, therefore, an effective methodology to transfer know-how, as it relies on that fact that people share the same 'professional horizon', thus facilitating trust and mutual understanding. Trust is then also fostered by the not-for-profit nature of both the partnership and of the organisations involved, which ensures that the knowledge-sharing is not motivated by hidden agendas or commercial purposes.

Not only is peer-to-peer learning expected to strengthen the capacities of beneficiaries in mastering technological, organisational, and industrial processes, thus increasing their overall efficiency in the management of water resources. By building up their knowledge base, peer-to-peer learning is also an important tool to 'empower' beneficiaries, as it enables them to better define their own development needs and thus devise solutions that really respond to their needs, rather than to the commercial objectives of other companies or consultants.





- HAMBURG WASSER (Hamburg, Germany)
- Rwanda's Water
 Sanitation
 Corporation
 (Rwanda)



OPTIMIZATION THE OF WATER SUPPLY USING PERFORMANCE INDICATORS

HAMBURG WASSER, the public water operator of the German city of Hamburg, took part in a capacity-building programme, which aimed to improve the quality and the efficiency of the water supply system in Rwanda. A partnership was signed specifically with Rwanda's Water Sanitation Corporation (WASAC) for two years (2014-2016).

The partnership focused on the systematic optimization of the use of resources in drinking water production and distribution, and its implementation was assessed through some key performance indicators. In addition, *HAMBURG WASSER* provided capacity-building and training programmes for selected Rwandan experts at their supply facilities in Hamburg.

Significant cost-savings were achieved as a result of the partnership: a decrease of 44% of water losses from the pipe network, a 24% increase in the energy efficiency of the water pumps, a 18% reduction of chemicals in water treatment. In addition, the hydraulic grid model for the capital of Rwanda, Kigali, was improved. Thanks to the joint water treatment plant optimization and the capacity building programme, the local technical staff was able to design proposals for systematic optimization of the drinking water production. Additionally, substantial progress was made in optimizing the water treatment plant, i.e. through the reduction of chemicals by more than 75% at the Muhazi waterworks in Eastern Rwanda.

This partnership was funded through the ACP-EU Water Facility.





Barcelona Cicle de l'Aigua SA

- BCASA
 (Barcelone,
 Spain)
- Water Supply and
 Sewerage
 Authority
 (Palestinian
 territories)



DEVELOPING A GEOGRAPHIC INFORMATION SYSTEM IN THE PALESTINIAN TERRITORIES

Barcelona Cicle de l'Aigua (BCASA), the public operator managing the sewage network of Barcelona (Spain), supported the Water Supply and Sewerage Authority (WSSA) of the cities of Bethlehem, Biet Jala and Biet Sahour in Palestine to develop and manage their Geographic Information System (GIS).

Thanks to this project, which was carried out between 2014 and 2018, BCASA's experts were able to train the WSSA technical staff in the areas of GIS for water supply and sewage network.

In addition to the training activities that took place in Palestine, WSSA's staff was also invited to visit BCASA's local infrastructures to complement technical training with concrete practice during every-day operations. This exchange was fundamental for the success of the WOP as it allowed the WSSA's staff to understand better the technicalities of GIS in every-day activities.

This partnership, co-financed by the *UN-Habitat/Global Water Operators' Partnerships Alliance*, had a total budget of 50,000 €.

WSSA staff was also invited to visit BCASA local infrastructures to complement technical training with concrete practice during every-day operations





Service public de l'assainissement francilien

- SIAAP
 (Paris Region,
 France)
- Moroccan Public
 Utility for Water,
 Sanitation and
 Electricity
 (Morocco)



STRENGTHEN THE TECHNICAL AND ORGANISATIONAL CAPACITY THROUGH TRAINING AND EXCHANGE

The public utility providing sanitation services for the Greater Paris Region (France), SIAAP, carried out a partnership aiming to strengthen the technical and organisational capacity of *the Moroccan Office National de l'Électricité et de l'Eau Potable* (ONEE), the national public utility dealing with water, sanitation and electricity services. The collaboration was structured in two phases.

The first phase was focused on providing technical support to the Moroccan utility, followed then by specific training in the key areas identified jointly by the partners, such as water quality control and safety and hygiene.

Between 2002 and 2007, SIAAP trained 70 technicians and engineers contributing to the Moroccan utility's successful transition to sanitation service's provision. In particular, the staff was trained in the field of wastewater treatment processes, flow management, microbiology, wastewater treatment facilities and disturbances, and environmental protection. As a follow-up, the Moroccan utility's staff visited SIAAP facilities in Paris.

The second phase focused on knowledge- transfer activities in the field of water quality control, which was then continued by capacity-building activities in the areas of hygiene and safety management. In order to prepare this phase, the partners jointly analysed the knowledge needs of ONEE in the areas of prevention of professional risk in sanitation activities, managerial and organisational activities. As a result, several recommendations were made to improve ONEE's management of their hygiene and safety department.

The WOP was funded entirely by the partners. SIAAP relied on the opportunity offered by the French *Oudin-Santini law* to mobilise a part of its budget, while ONEE relied on its own funds.

Between 2002 and 2007, SIAAP trained 70 technicians and engineers contributing to the Moroccan utility's successful transition to sanitation service's provision.



- Société wallonne des eaux (Wallonia, Belgium)
- The national water company of Bénin (Bénin)



COLLABORATION BETWEEN SWDE AND SONEB IN BENIN

The WOP carried out by the Wallonia water operator, *Société* wallonne des eaux (SWDE), developed a capacity-building programme with the *Société Nationale des Eaux du Bénin* (SONEB), the national water company of Benin.

A first partnership agreement was signed in 2004, focusing on the improvement of the drinking water services in the cities of Ouidah and Nattitingou (Benin).

After this first initial partnership, SWDE and SONEB continued their collaboration in 2013 with a second cooperation agreement. This WOP aimed to improve and strengthen the daily management operations at SONEB. This partnership included: capacity-building activities, support to the local training centre, and a "train the trainers' programme": training sessions were designed by SWDE's experts with a view to creating a team of 'SONEB trainers' who could then transfer the acquired knowledge to their colleagues. In this framework, SONEB technical staff received specific training materials and documentation in the areas of protection of groundwater catchments and water boreholes management, treatment, network management, the improvement of network's performance (with the supply of leak detection equipment) and laboratory management. A last component of the partnership focused on project management and included a study visit from SONEB to SWDE headquarters in Belgium.

The project was financed through the international cooperation programme of the 'Belgian Wallonia Region', where SWDE is based.





- EMASESA (Seville, Spain)
- Indonesian Public District Water Utility PDAM Tirta Raharja (Indonesia)



EXCHANGING EXPERIENCE AND KNOWLEDGE IN THE FIELD OF SANITATION AND WATER TREATMENT

The public water operator serving the city of Seville (Spain), EMASESA, signed a cooperation agreement with the *Asian Development Bank* (ADB) to implement a Water Operator Partnerships with the *Indonesian Public District Water Utility PDAM Tirta Raharja*, operating in the Indonesian district of Bandung.

This WOP aimed to support the local public water operator to improve its water metering and leaking detection systems. The project was articulated in four phases: analysis of the local utility's performance and context, design of an action plan and implementation and control of results. As a result of the analysis, it was decided to replace and modernise the water meters in the Indonesian district of Bandung. Thanks to this intervention, the operator succeeded in increasing the accuracy of the water bills by 11%. Likewise, the leaking detection system was improved thanks to a new software, which was tested in some pilot areas. At the end of the partnership, the water operator *PDAM Tirta Raharja* established a new department exclusively dedicated to monitoring the leaking systems.

The partnership was financed by the *Asian Development Bank* (ADB).



Water is a natural heritage: "what we have is what we have", as we cannot 'produce' more water. Water is also a finite resource serving different needs: it is essential for life, but it is also needed for other fundamental human activities, from farming to industrial development. As a finite natural heritage, water is, therefore, a common good, meaning that its management and distribution is not just a 'technical' issue, but necessarily involves political arrangements among different social and economic needs. While water resources' management certainly requires industrial know-how and technologies, there are fundamental aspects and challenges that cannot be addressed just from an 'engineering' point of view. These include, for instance, decisions about water allocation among competing needs (i.e. between households' drinking water and industry), decisions about the reparation of costs related to maintenance of water infrastructures and treatment of pollution, the organisation of effective and equitable service with regard to the integration of rural environment (where watersheds are normally located) and the urban space (where water resources are consumed).

In short, governance represents a key element to be considered for effective management of water resources, as the *Organisation for Economic Co-operation and Development's* (OECD) 'Principles on Water Governance'[9] highlight. For this reason, WOPs can also address governance aspects, especially when they are integrated within larger cooperation projects that involve local authorities.





- SDEA (Alsace – Moselle, France)
- Mbam and
 Inoubou
 Municipalities'
 Union
 (Cameroon)



SUPPORTING THE DEVELOPMENT OF INTER-MUNICIPAL PUBLIC WATER AND SANITATION SERVICES

The public water operator of the French region Alsace – Moselle, SDEA, along with other French and Cameroonian partners, contributed to the creation of an inter-municipal public entity entrusted with the responsibility of organising the public water and sanitation service in 9 municipalities of the department of Mbam and Inoubou (Cameroon).

The project, which was carried out in the context of an administrative decentralisation process in Cameroon, aimed to train local decision-makers and officers in the administrative skills needed to develop and manage the new inter-municipal public entity in charge of water management.

As a result of this collaboration, *Mbam and Inoubou Municipalities' Union* (SYCOMI) was created in 2010. The SYCOMI was the first structure of this type in Cameroon and it was a pilot experiment in the field inter-municipal cooperation, which served as a reference at the national level for the ongoing decentralisation process of water management. Currently, the SYCOMI is responsible for the maintenance of the local water infrastructure, as well as of the quality of the water supply, and it is developing a specific strategy in the field of sanitation. Citizens' representatives are also involved in the governance and management of the SYCOMI, as they are organised in committees to collectively collect the fee that contributes to the SYCOMI's financial balance.

This project was funded through *the ACP-EU Water Facility* and is now being replicated across other Cameroonian territories.







- BCASA (Barcelone, Spain)
- Saida City Council (Lebanon)



SEWAGE MANAGEMENT AND URBAN PLANNING: TECHNICAL ASSISTANCE TO THE CITY OF SAIDA

Barcelona City Council is one of the founding partners of MedCités, a network of Mediterranean cities created in 1991. Between 2011 and 2014, MedCités supported a project called "Mediterranean Network for the promotion of Urban Sustainable Development in the Mediterranean region[9]".

The project aimed to promote sustainable urban planning strategies in the cities of Sousse, Saida and Larnaca (Lebanon), which also included the development of a plan for the renovation of the Saida sea waterfront and fishing port. In this framework, representatives of the Barcelona city council and of BCASA – the public operator managing the sewage network of the Catalan city - visited the city of Saida in November 2015 to advise local technicians on the re-design of the waterfront as well as on the use of alternative water resources.

As a result of the exchanges between the representatives of BCASA and the city of Saida, the project was further elaborated with an additional component involving the assessment of the wastewater network management of the city. BCASA advised Saida City Council about the management of the sewer network in order to reduce wastewater discharges into the environment as an essential component of the urbanistic project for the renovation of the waterfront. As a follow-up of the project, and to address the issue of flood risk, it was further decided to develop a pilot project on flood management.

The project was partially funded by the *European Union Neighbourhood and Partnership Instrument* (ENPI), and the rest co-financed by partners and other institutions.

BCASA advised Saida City Council about the management of the sewer network in order to reduce wastewater discharges into the environment as an essential component of the urbanistic project for the renovation of the waterfront.









SAFE HEALTH AND WATER MANAGEMENT

Between 2017 and 2019, *Società Metropolitana Acque Torino* (SMAT), the water operator of Turin (Italy) carried out the 'Safe Health and Water Management' project in Lebanon with the goal to of supporting access to water for the communities most affected by the Syrian crisis.

The project was based on the development of a participatory approach for the planning and management of water resources - including their use in agriculture through the involvement of citizens and the identification of innovative solutions for the water resources management. More specifically, 'Safe Health and Water Management' promoted the adoption of measures to increase water efficiency, including control and reduction of water losses; strengthening of local administrators and technicians' capacities in the development of water management plans; a training programme for the Lebanese technicians carried out in Italy.

The funding for project – 500,000€ - was provided by the *United Nations Development Programme* (UNDP) - *ART GOLD Programme in Lebanon*, Turin Area Authority and the *Coordination of Municipalities for Peace*.

The project was based on the development of a participatory approach for the planning and management of water resources



- Eau de Paris (Paris, France)
- Water Supply and Sanitation Authority (Palestinian territories)



SUPPORTING THE MUNICIPALITY OF JERICHO IN BUILDING A SUSTAINABLE WATER MANAGEMENT STRATEGY

The City of Paris, through its public water operator, *Eau de Paris*, signed an agreement of collaboration with the Palestinian city of Jericho to develop - between 2009 and 2017 - a sustainable water management strategy, in line with the territory's environmental constraints.

In response to the recommendations of this study, a new project aimed at strengthening the water supply in the southern districts of Jericho started in 2012. Then, until 2017, *Eau de Paris* supported the city of Jericho's public water services with its technical expertise in the areas of hydraulic modelling of the drinking water network, network operation and investment programming, renovation of the billing and collection system, and the launch of a water-saving awareness campaign.

The project was financed by the City of Paris (through the French *Oudin-Santini law*), 555,000€, in cooperation with the *United Nations Development Programme* (UNDP), 500,000€, and the *French Development Agency*, 65,000€, total budget 1,120.000€.

Eau de Paris supported the city of Jericho's public water services with its technical expertise in the areas of hydraulic modelling of the drinking water network, network operation and investment programming, renovation of the billing and collection system, and the launch of water saving awareness campaign.



The realisation of WOPs requires some financial resources to cover the cost of human resources that are made available from the mentor, as well the costs travelling, and of some basic equipment and infrastructures. Although, as we have seen in previous examples, the amount of resources needed is relatively modest, their availability is often limited for a series of reasons.

When legally possible (for example in France thanks to the *Oudin-Santini law*), operators can allocate a tiny part of their own resources coming from tariffs' revenues. Sometimes, additional resources come from local authorities through their international solidarity programmes, which represent an important complement if we consider that water resources are often managed at a sub-national level, and decentralised cooperation can be an effective approach in this field.

Even if very precious, these resources are often not enough to meet the wide demand for support coming from developing countries; what is more, in some European countries operators are not allowed to spend their resources outside the geographical area that they are entrusted with for the provision for water services.

For this reason, additional economic support coming from national and international donors is fundamental. In the European context, the potential role of the European Union has to be emphasised because, thanks to its strategic vision and capacities, the EU can play an important role of coordination, ensuring that resources are addressed were most needed and thus avoiding duplication of efforts.

From 2002 to 2010, through *the ACP-EU Water Facility* [10], the EU contributed significantly to increasing the number and the quality of international cooperation projects in the water sector and, in particular of WOPs. The launch of the new E*U-WOP Programme* in January 2021 is, therefore, a very welcomed and long-awaited initiative that will certainly boost the European collective efforts to support the realisation of the right to the water where most needed.





- SMAT (Turin, Italy)
- Arba Minch Town Water Utility (Ethiopia)



ADMINISTRATIVE AND TECHNICAL CAPACITY DEVELOPMENT - WATER AND SANITATION MANAGEMENT (WATSAM) PROJECT

The water operator of Turin (Italy), SMAT, participated, together with other Italian water organisations and local Ethiopian institutions, in a project to support *Arba Minch Town's Water Utility* in Ethiopia.

The project was designed to strengthen the administrative capacities of the local water and sanitation service agencies, by transferring know-how and technical skills.

The role of SMAT in this project was to provide training to Ethiopian personnel, both on-site and in Italy, on a series of aspects related to water infrastructures maintenance and management, such as water quality monitoring and training on Geographic Information System (GIS) and GPS systems.

The project was funded through the ACP-EU Water Facility with a value of 914, 025.00€.

The project was designed to strengthen the administrative capacities efficiency of the local water and sanitation service agencies, transferring know-how and technical skills.



VIVAQUA

VIVAQUA (Brussels, Belgium)

REGIDESO
(Kinshasa, the
Democratic
Republic of the
Congo)



IMPROVING THE WATER SUPPLY NETWORK IN KINSHASA

The water and sanitation public utility of Brussels (Belgium), *VIVAQUA*, started in 2013 a four-year public-public cooperation project with REDIGESO, the public water utility serving Kinshasa, the capital of the Democratic Republic of Congo.

The broad objective of the partnership was the enhancement of the water distribution network of the Congolese capital, through a series of different actions. The first step consisted in providing training to the local operator's staff in relevant areas such as division of the network (sectorisation) into smaller sectors to facilitate the search for leaks and fraud. A pilot district was then chosen in the Congolese capital to test the new capacities acquired through the training. Thanks to the new detection methods, REGIDESO was able to reduce the rate of fraud and to recover a significant amount of non-revenue water, thus making the planned construction of a new water production unit no longer needed. Following the successful piloting, the methodology was then extended to other areas of Kinshasa.

This project, with a total budget 900,000 €, was funded (75%) the European Union through the *ACP-EU Water Facility*.

Thanks to the new detection methods,
REGIDESO was able to reduce the rate of
fraud and to recover a significant
amount of non-revenue water, thus
making the planned construction of a
new water production unit no longer
needed.





- CILE (Liège, Belgium)
- Lubumbashi
 (The Democratic
 Republic of the
 Congo)



'LUBUMBASHI 2030' - SUSTAINABLE URBAN DEVELOPMENT AND ESSENTIAL SERVICES

The Belgian public water operator operating in the Belgian city of Liège, CILE, is supporting the 'Lubumbashi 2030' cooperation and development partnership in collaboration with the Department of Hydrogeology and Environmental Geology of the *University of Liège* (HGE-ULiège). The 'Lubumbashi 2030' partnership is an initiative of the European Covenant of Mayors in Sub-Saharan Africa that aims to meet the environmental challenges of the territory with the support of the European Union, and *the Association Internationale des Maires Francophones* – AIMF (the international association of francophone Mayors)

The purpose of the 'Lubumbashi 2030' project is to promote climate resilience in the city of Lubumbashi, by supporting the sustainable management of water resources, forests and urban tree heritage. In order to achieve this objective, partners designed several training activities for local staff. CILE contributed to the project by bringing its scientific and technical expertise in the water sector, in collaboration with the Department of Hydrogeology and Environmental Geology of the University of Liège. They carried out the first mission in 2017 which enabled partners to make an inventory of the main water intakes, together with a brief assessment of their environment and risks. This was followed by a second mission where CILE and the HGE-ULiège organised training session to share their knowledge in water management and hydrogeology with the water authorities of the Lubumbashi city.

The project was co-financed by the European Union and the partners, with a total budget was 1,803,590 €.



- HAMBURG WASSER (Hamburg, Germany)
- Tanzania Dar es
 Salaam Water
 and Sewerage
 Authority, Dar es
 Salaam Water
 and Sewerage
 Corporation
 (Tanzania)



WATER OPERATOR PARTNERSHIP FOR SUSTAINABLE SERVICE PROVISION IN DAR ES SALAAM

In 2014, *HAMBURG WASSER* the public water operator of the city of Hamburg (Germany) participated in partnership for capacity development in the region of Dar es Salaam (Tanzania).

In addition to *HAMBURG WASSER* and its consulting unit *CONSULAQUA Hamburg* (CAH), the partnership involved the *Bremen Overseas Research and Development Association* (BORDA), the *Tanzania Dar es Salaam Water and Sewerage Authority* (DAWASA), *Dar es Salaam Water and Sewerage Corporation* (DAWASCO), the *Tanzania Ministry of Water*, and local capacity building institutions.

The main objective of this project was to improve the water governance and management of water resources in Dar es Salaam. This also included the strengthening of the financial sustainability and infrastructure asset management of DAWASA and DAWASCO.

HAMBURG WASSER contributed to improving the management capacities of DAWASA and DAWASCO by updating their existing data management system. In particular, the programme included training in the area of Geographic Information System (GIS) that was conducive to developing an integrated database to analyse service's demand and supply. Additional training areas concerned the management of databases for the management of infrastructure assets, customer relations, and operations.

The partnership was financed through *the ACP-EU Water Facility* with a total budget of 1,274,788 €.





- CILE and SWDE (Wallonie, Belgium)
- North Lebanon
 Water Company
 (Lebanon)



WATER MANAGEMENT EXPERTS' MISSION TO LEBANON

In 2016, the Belgian public water operators of Liège, CILE, and of Wallonia, SWDE, participated, in cooperation with *UN-Habitat*, in an expert mission on water management to contribute to the improvement of integrated water management in Lebanon.

The partners defined an action plan to improve the drinking water and wastewater services provided by the *North Lebanon Water Company*. More specifically, three priority areas were identified: non-revenue water, sanitation, and human resources management. These operational domains were analysed jointly in a series of thematic workshops involving the staff of the different departments of the local water company. As a result, for each of these priorities, specific action plans were designed. In the following implementation phase, the Lebanese team received additional training on specific technical issues.

This project was financed by the European Union programme *Technical Assistance and Information Exchange Instrument* (TAIEX): a financing instrument to support capacity development in the public sector.

CONCLUSIONS: IMPLICATIONS FOR POLICY-DESIGN

The list of examples of Water Operators Partnerships reported in the previous pages represents just a sample of the wealth of initiatives and projects European public operators are involved in, in their effort to contribute to the realisation of the human right to water and sanitation across the world. The examples show how, through a relatively modest financial effort, **WOPs are effective** in:

- increasing access to water and sanitation services, especially for people leaving in poor or rural areas;
- improving the overall performances of the beneficiaries on key areas such as water quality, leakages, energy efficiency, and many others;
- strengthening the governance and institutional factors that are essential for an efficient and sustainable management of water resources.

What is more, the positive outcomes of WOPs are expected to have long-lasting effects, as they are based on a structural strengthening of localised capacities: thanks to the acquired new skills and know-how, beneficiaries will be able to use resources more efficiently, they will be less dependent on external expertise, and they can transfer these skills to other or new colleagues.

If WOP is an effective approach, not all WOPs are always successful. Different factors can be identified to assess whether a WOP will deliver or not the expected results but the most important is probably **trust**: WOP is essentially a relation between two or more partners and, like in all relations, trust among partners is essential for the WOP to thrive.

Some pre-conditions seem to play a particularly important role in creating a conducive framework for building trust among partners.

- First, there must be of course **a clear commitment** from all partners to enter the relation: this involves dedicating specific attention to the motivation of the staff to be involved on both mentor's and mentee's side.
- Second, it is important that the relationship is not conditioned by other interests or agendas other than those established in the WOP itself, hence the **importance of the public ownership** of the actors involved.
- Third, the kind of exchanges that underpin a **WOP need time to evolve and develop**: it will be important therefore that a WOP between "new" partners does not start with too ambitious objectives, but rather provides for a 'progressivity' in the targets to achieve.
- Finally, for reasons mentioned in the introduction, engaging in WOPs needs some "preparation" especially on mentor's side with regard to both its internal organisation (compensating for the staff that will be temporarily unavailable as involved in the WOP), and the staff participating in the WOP (for whom spending time very far from home and in very different working in contexts may prove to be, at first, a challenging experience). It will therefore be important that the decision of an operator to participate in WOPs is not improvised but rather framed in a clear and long-term engagement, in order to avoid disappointing experiences for both staff involved and the management.

The analysis of the conditions for successful WOPs are of course **relevant also for the design of policies** that aim to support the realisation of the right to water and sustainable management of water resources through this approach.

- First, it is essential that these policies offer a long enough timeframe for support to allow operators to develop a sustainable and progressive implication in the international cooperation effort.
- Secondly, in the selection process of WOPs to be financed, **assessing the 'maturity'** of the relationship between partners is a relevant aspect: established relations can deliver (and should be asked for) more ambitious results, especially with regard to the link between the results of the WOP and the attraction of financial actors. At the same time, support schemes should not neglect 'younger' or new relations, especially if these are between operators that are at the beginning of their participation in WOPs: specific criteria (and expectation) should be devised for this category of operators also to respond to the fundamental objective of expanding the total number of operators (both mentors and mentees) involved in WOPs.
- Consequently, policies should also provide for schemes that **encourage more experienced operators (both mentors and mentees) to include new ones** as a part of the capacity development programmes of the WOP.

The new *EU WOP Programme* that is finally opening in these days looks particularly promising especially with regard to the last two elements. The new programme establishes indeed two different 'windows' through which operators can apply for support: one dedicated to more developed relations and another for new ones. Also, specific selecting criteria are introduced that award partnerships involving both 'experienced' and less experienced operators. The hope is then the programme will be extended beyond the initially planned four years, precisely to respond to the need of stability and predictability that – it is worth restating this – are important conditions to ensure the development of trust and experience and thus, eventually, the success of WOPs.

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