CROSSWATER PILOT PROJECTS STATUS
FOR APULIAN PARTNER AQP (P2)

PILOT PROJECT DESCRIPTION	The pilot projects consist in the implementation of a monitoring system of the biological sector through the determination of a series of parameters in two different treatment stations of the wastewater treatment plant: **MONOPOLI (anaerobic sludge treatment)** and **SAMMICHELE DI BARI (aerobic sludge treatment)** ***Monopoli Wastewater Treatment Plant*, the sludge treatment line consists in:** • **Thickening** • **Primary Digestion** • **Secondary Digestion** • **Dewatering** • **Gasometer** • **Sludge Drying Beds** ***Sammichele di Bari Wastewater Treatment Plant*, the sludge treatment line consists in:** • Screening • Equalization • Nitrification • Oxidation • Final sedimentation • Disinfection • Sludge aerobic stabilization • Dewatering

CURRENT IMPLEMENTATION STATUS **28.02.2023**	***PILOT PROJECTS STATE OF ART AND CLOSURE*** ***5th October 2021*** - Installation of measuring devices**; *5th January 2022***- Monthly measurement Report; ***31st July 2022 -*** End of the project. On a monthly basis, a "measurement report" is prepared in which the data collected by the equipments installed in the field are analyzed and synthesized, also through graphs and tables. The pilot project involves the implementation of an "information system" through which measurements of the equipments installed at the two treatment plants are viewed and monitored in real time through a **"dashboard".** This dashboard makes available a lot of information / data of different nature and complexity accessible in real time
	

Sammichele di Bari Wastewater Treatment Plant

Monopoli Wastewater Treatment Plant

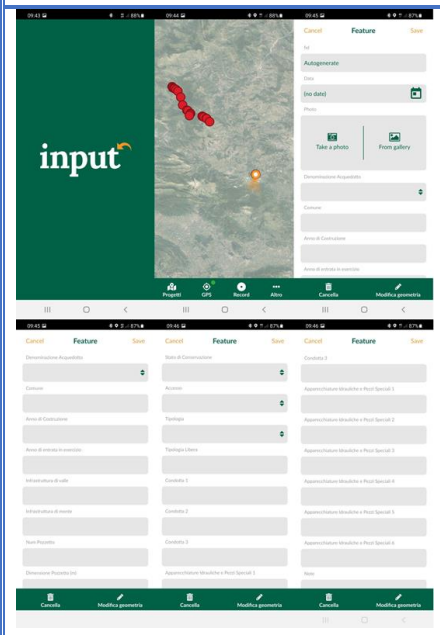
The water treatment line consists in:

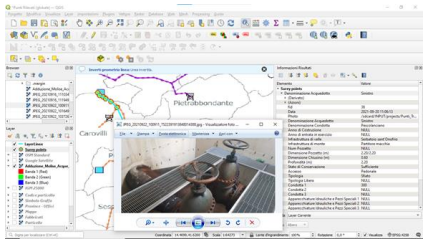
1. Screening
2. Equalization
3. Primary Sedimentation
4. Oxidation - Nitrification
5. Secondary Decantation
6. Disinfection

CROSSWATER PILOT PROJECTS STATUS FOR MOLISE REGION PARTNER (P3)

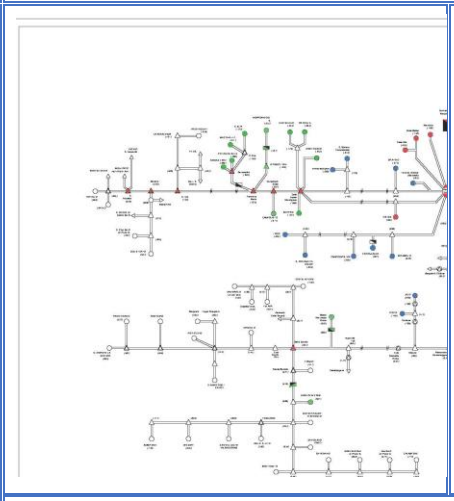
PILOT PROJECT DESCRIPTION	The pilot projects consist in Integration between GIS, PLC, SCADA and hydraulic modeling software The pilot aims to : ✓ reduction of **management costs**; ✓ reduction of **time** of maintenance; ✓ improval of the **performance** and of the working methods of the personnel engaged in the management; ✓ gathering of **informations** to plan ordinary and extraordinary maintenance work; ✓ prevention of **inefficiencies** due to accidental causes; ✓ measure of the **effectiveness** of maintenance activity
CURRENT IMPLEMENTATION STATUS 28-02-2023	**<u>Pilot project – GIS activity</u>** The activity is completed ; the technical staff is being formed for the use of the GIS software in the online and desktop version. The water network is now implemented in the GIS software **<u>Pilot Project – hydraulic data– closed</u>** The activity is completed. Some plc after working for a few months has broken down and is now being repaired. **<u>Pilot Project– Supervisory Control And Data Acquisition</u>** The SCADA is already installed and working. The Control Room is already working technical staff was fully trained for the use of the water modelling software e and they have done several hydraulic simulations to better understand the behaviour of the network and to propose system improvements

Pilot project – GIS activity

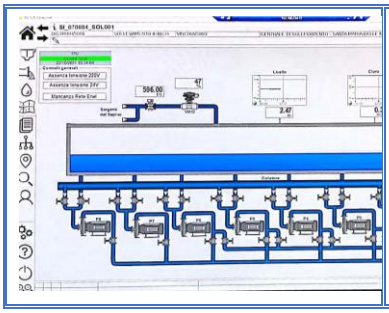
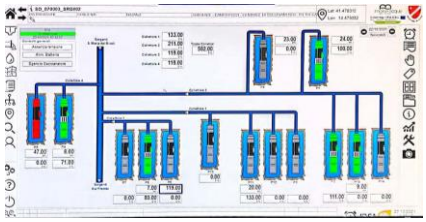




Pilot Project – hydraulic data– work in progress



Pilot Project– Supervisory Control And Data Acquisition

1. UKT PILOT PROJECT REPORT

1.1 Brief description of the pilot project

On June 2019, Tirana Water and Wastewater Utility (UKT) became part of the cross border project 'Integrated Water Management System in cross-border area – Cross Water" to implement a pilot project in Kasalla village for the amount of 876,879.07 Euro (Eight hundred and seventy six thousand and eight hundred and seventy nine point zero seven) of which 85 % was a financing from IPA and 15 % from UKT contribution. The main objective of the "Interreg IPA CBC Italy-Albania-Montenegro Programme'' was to intensify cooperation in the eligible area, addressing common challenges and promoting integrated territorial development. The Programme aimed to enable regional and local stakeholders to exchange knowledge and experience, develop and implement pilot actions, test the feasibility of new policies, products and services and support investments in the areas of interest.
Village of Kasalla is part of the Administrative Unit of Zall Herr. Before project implementation, the village of Kasalla was not supplied with potable water from a well-structured pipeline network except some small neighbourhoods. Water supply was made from illegal connections, and private wells. The only source of water supply was from the pumping station of Zall-Herr through the tank 200 m3.

1.2 Pilot project goals

The pilot project regards building of a new network for water supply in Kasalla. The main goal of the pilot project is to provide potable water for nearly 2'360 people. The 30.58 km increase in length of transmission and distribution network allow 550 families to be connected to the main water network. For this purpose, the main indicator of this goal is the generation of the new contracts in Kasalla region.
This project falls in line with Goal 6 of Sustainable Development Goals of UN, to ensure access to clean water and sanitation for all. At the end of this project, residents of Kasalla have 24 h access to potable water. This ensure an improvement of hygienic sanitary conditions of their water. An additional expected result is meeting the needs of water supply during drought periods.

1.3 Pilot project implementation and monitoring

The pilot project in Kasalla village included construction of a new water network for a total of 30.58 km divided in 5 phases:

- **Phase 1: Construction of transmission pipeline of 4.63 km –Completed 100%**
- **Phase 2: Construction of distribution pipeline of 10.53 km –Completed 100%**
- **Phase 3: Construction of distribution pipeline and connection works to the final consumers of 15.42 km- Completed 100 %.**
- **Phase 4: Construction of water reservoir with capacity 400 m3 and installations of 2 additional new pumping stations -Completed 100%.**

- **Phase 5: Reconstruction and protection of the transmission line from the Zall-Her Pumping Station to the Cekrez water reservoir -Completed 100%.**

For five phases, 3 construction companies were chosen by public tenders. One company will be responsible for phases 1 and 2, one for the phases 3 and 4 and the other company will be responsible for Phase 5.

The contracts for the first two phases were signed on 30th of April 2021. The contracts for phases 3 and 4 were signed on 17th and 21st of June 2021 respectively. And the contract for phase 5 was signed on 19th of May 2022. All phases are completed 100% (Phase 1: finished on October 2021; phase 2: finished on March 2022; phase 3 and 4: finished on April 2022; phase 5: November 2022).

1.4 Stakeholders involved and activities carried out

Stakeholders involved in this pilot project are:

1. **Tirana Municipality – sole shareholder of UKT sh.a and partner in this project.**
2. **Residents in Kasalla Region as main beneficiary having access to potable water.**
3. **Ministry of Infrastructure and Energy – involved in developing the main strategy for Water and Wastewater infrastructure where one of the priorities identified is increase of water coverage so that everybody is connected to the water supply system.**
4. **SHUKALB (Water Supply and Sewerage Association of Albania) who is helping UKT to promote the Kasalla project through SHUKALB water newsletter.**
5. **National Public Health Institute that was in charge to test the water quality once the project concluded.**
6. **Contractor 'Gerard-a sh.p.k' with supervisor 'Maging Studio l.t.d ' for Phase 1 and 2 of works: Construction of transmission and construction of distribution pipeline.**
7. **Contractor 'Drino/T sh.p.k' with supervisor 'Maging Studio l.t.d' for Phase 3 and 4 of works: Distribution pipeline and connection works to the final consumers and Construction of water reservoir with capacity 400 m3 and installations of two additional new pumping station.**
8. **Contractor 'Arb & Trans- 2010 l.t.d' with supervisor 'E.B.S l.t.d' for phase 5 of works: Reconstruction and protection of the transmission line from the Zall-Her Pumping Station to the Cekrez water reservoir.**

1.5 Achievements

- **Providing drinking water to 550 families or 2'360 inhabitants for 24 h and improvement of hygienic sanitary conditions.**
- **Meeting the needs of water supply during drought periods.**
- **Reduced illegal connections.**
- **Reduced non-revenue water and increased revenues through new contracts/connections to the water network**
- **River protected (which means protection of the old water pipeline that passes through the river).**

- **Improved cross-border framework conditions through a common integrated plan, starting from the analysis of best practice and aiming to improve techniques and institutions.**

1.6 Performance evaluation

The project reached the objectives as defined in the cross border pilot project plan (CB guidelines). Concretely, a totally new water network of 30.58 km was constructed including the transmission and distribution network as well as pumping station and water reservoir. Thanks to the project, 550 families are now connected to the main water network. The water quality is

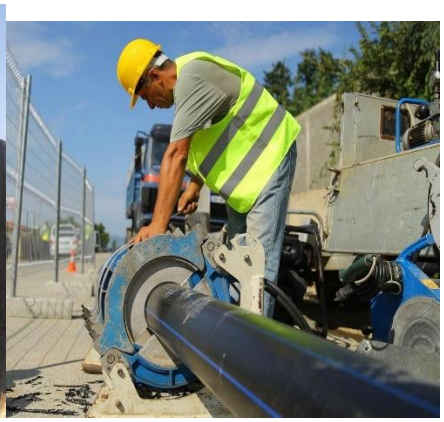
improved because families are no longer dependent on wells, but now are supplied from water network whose quality is checked and controlled by UKT and public health institute every day.
Citizens of Kasalla village have continuous water supply and as a result the hygienic sanitary conditions are improved.
Overall, the project was implemented 100 % and its performance can be rated as very good.

1.7 Possible developments and guidelines for future implementation in other contexts

The Kasalla project was very successful and the cross border approach proved to be very supportive and should replicate in the future. This approach allowed all partners identify best solutions and good practices and share experience between peers, practitioners, academics in the pilot countries. All outputs of this project should be transferred and replicated in other places and other regions and not only, and provide common and specific policy recommendations to support policy makers during the decision phase.







CROSSWATER PILOT PROJECTS STATUS
FOR MONTENEGRO PARTNER (P6)

Activity 1

PILOT PROJECT DESCRIPTION	Supply of equipment for leak detection Regional water supply company is operating a relatively new system for bulk supply of the potable water to the local water supply companies on the Montenegrin coast. Around 70 % of the system is constructed in 2010, while 30 % was constructed in 1986. The system is operating with low water losses, but the percentage of losses is increasing every year. Regional water supply company does not have equipment for detection of the water losses in the system. Pilot project: • Supply of the specialized leak detection equipment, along with the appropriate vehicle • Training of the company's personnel for leak detection
CURRENT IMPLEMENTATION STATUS	FINISHED

Activity 2

PILOT PROJECT DESCRIPTION	**Monitoring, control and protection of the regional water supply source "Bolje Sestre"** The purpose of the Monitoring, control and protection of the regional water supply source "Bolje Sestre" assignment is to target a current challenges related to the control and protection of the only regional water supply source in Montenegro.
CURRENT IMPLEMENTATION STATUS **At 28.02.203**	FINISHED
	

Activity 3

PILOT PROJECT DESCRIPTION	**Supervision of the Monitoring, control and protection of the regional water supply source "Bolje Sestre"** The purpose of the supervision is to obtain an independent expert support, which will take a role of an expert supervision of the assignment and represent Regional water supply company for all technical issues
CURRENT IMPLEMENTATION STATUS **At 28.02.2023**	FINISHED

Activity 4

PILOT PROJECT DESCRIPTION	**Establishment of the monitoring stations network** The purpose of this activity is to establish a monitoring stations network for ground water inside of the catchment area of the water source Bolje Sestre, as well as rainfall station if possible.
EXPECTED RESULTS AND BENEFITS	The main goal of the pilot project is establishment of the infrastructure for monitoring of the ground water in the catchment. Main benefit is possibility of an early response to the possible risks, as well as to establish a relevant database
CURRENT IMPLEMENTATION STATUS **At 28.02.2023**	FINISHED,
	

Activity 5

PILOT PROJECT DESCRIPTION	**Supply and installation of the flow and pressure measurement equipment** The purpose of this activity is to establish a good monitoring system that would help with water loss management.
CURRENT IMPLEMENTATION STATUS **At 28.02.2023**	FINISHED

Activity 6

PILOT PROJECT DESCRIPTION	**Construction of a measuring and control unit in front of Budva pump station**
EXPECTED RESULTS AND BENEFITS	The main goal of the pilot project is establishment of the infrastructure for long distance management of the water flow, as well as measurement and monitoring of the water flow of the pipeline that is supplying pumping station Budva. Main benefit is better control and management of the water flow
CURRENT IMPLEMENTATION STATUS **At 28.02.2023**	FINISHED, CONTRACT SIGNED EXPECTED DEADLINE: NOVEMBER 10TH, 2022