flowless

Reducing Water Losses in Tubas

Case Study

January 2022

KEY HIGHLIGHTS

How Emerging Technology & Active Decision Making Help Water Utilities Achieve Feasibility

In this case study, we explore how Flowless system helps Tubas JSC in reducing leak detection, reducing losses and saving 100 m^3 of water everyday.

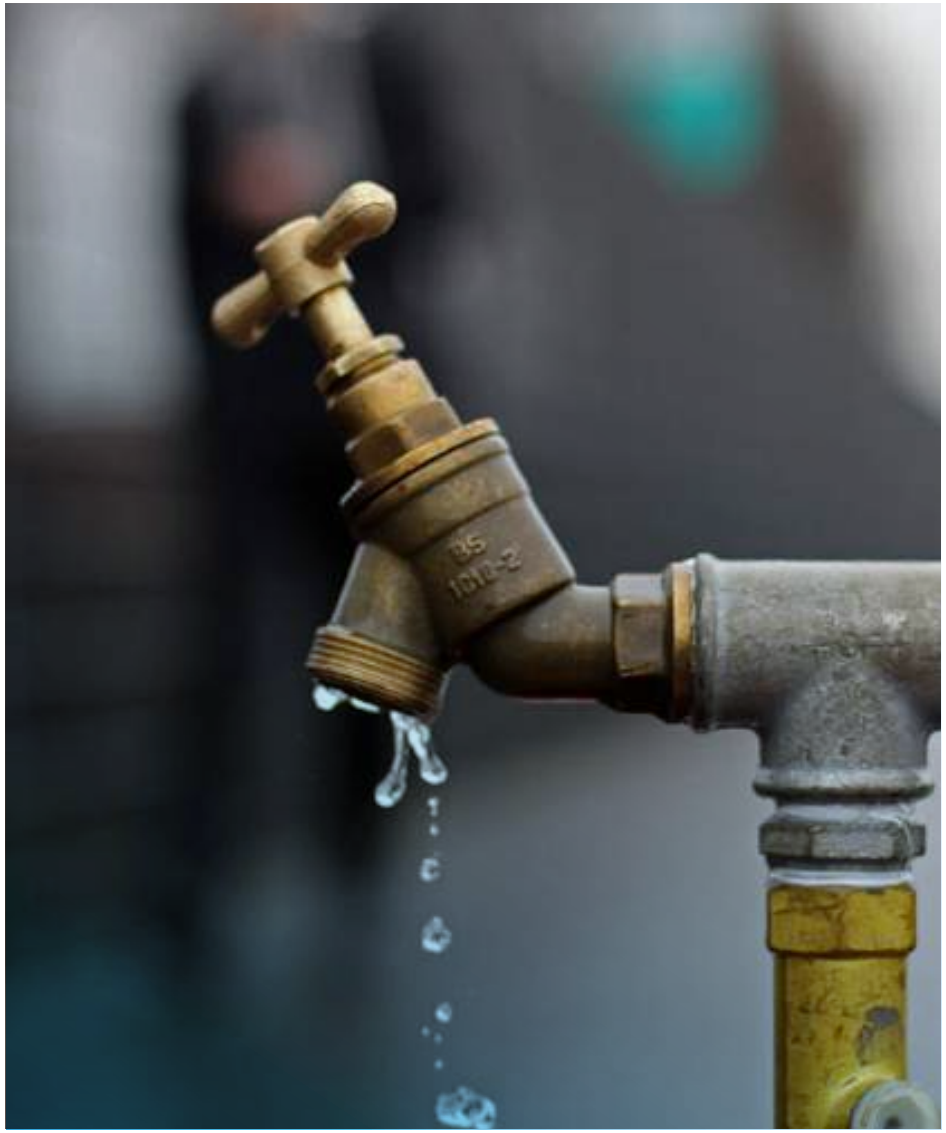
- Real-time data collection is essential for NRW management and leak detection.
- Automation in data analysis and reporting facilitate effective water networks management.
- Utilizing emerging technologies enhances operations and facilitates efficient losses reduction

WATER SAVINGS IN TUBAS

Brief Overview

Tubas Joint Services Council (JSC) is on the track for achieving huge water savings, currently saving 100 cubic meter per day in Ras Al-Fara'a. Through active leak detection and data interpretation, the service council utilized data collected through Flowless platform, ultimately cutting down supply quantities to the half.

Flowless deployed the real-time data collection system in Tubas 1.5 years ago, and our team continues to follow-up with the utility, provided the needed support to maintain the system and materialize the impact. Ras Al-Fara'a is a relatively small neighborhood, with a total of 30 households. Reducing water losses can partially solve water stress, so Flowless actively works with water utilities to support their work in efficient water management



Collecting real-time data for active leak detection & losses reduction

Water Supply in Tubas

And Water Management Challenges

- Water Scarcity
- Growing demand
- Conventional management

Tubas is a Palestinian city to the northeast of the West Bank. It is home to over 65,000 people. Positioned within the Jordan valley, Tubas is famous for its wide fertile plains and moderately-hot climate, making it an attractive region for agriculture. Locals work mostly in agriculture, growing crops, fruits, and vegetables that covers a large portion of the local demand in Palestine.

Tubas Joint Water and Sanitary Services Council (JSC) is responsible for managing municipal water supply of fresh water for 7 localities in Tubas, mostly rural localities. The rural setting adds more complicities and pressure on water supply management, which adds to the natural challenges of water scarcity in the region. The demand is continuously growing, and the available resources are finite.

FLOWLESS INTERVENTION

The “What” and The “Why”

Flowless team worked with Tubas JSC on deploying Flowless smart system to monitor water supply in selected areas in Tubas. Flowless interventions included network assessment, data transmitters installation, and providing Flowless web platform for the JSC to monitor water flow and pressure in real-time. The aim was to:

1. Monitor water supply for active leak detection
2. and utimately enhance water supply efficiency and operations feasibility

Flowless system components included:

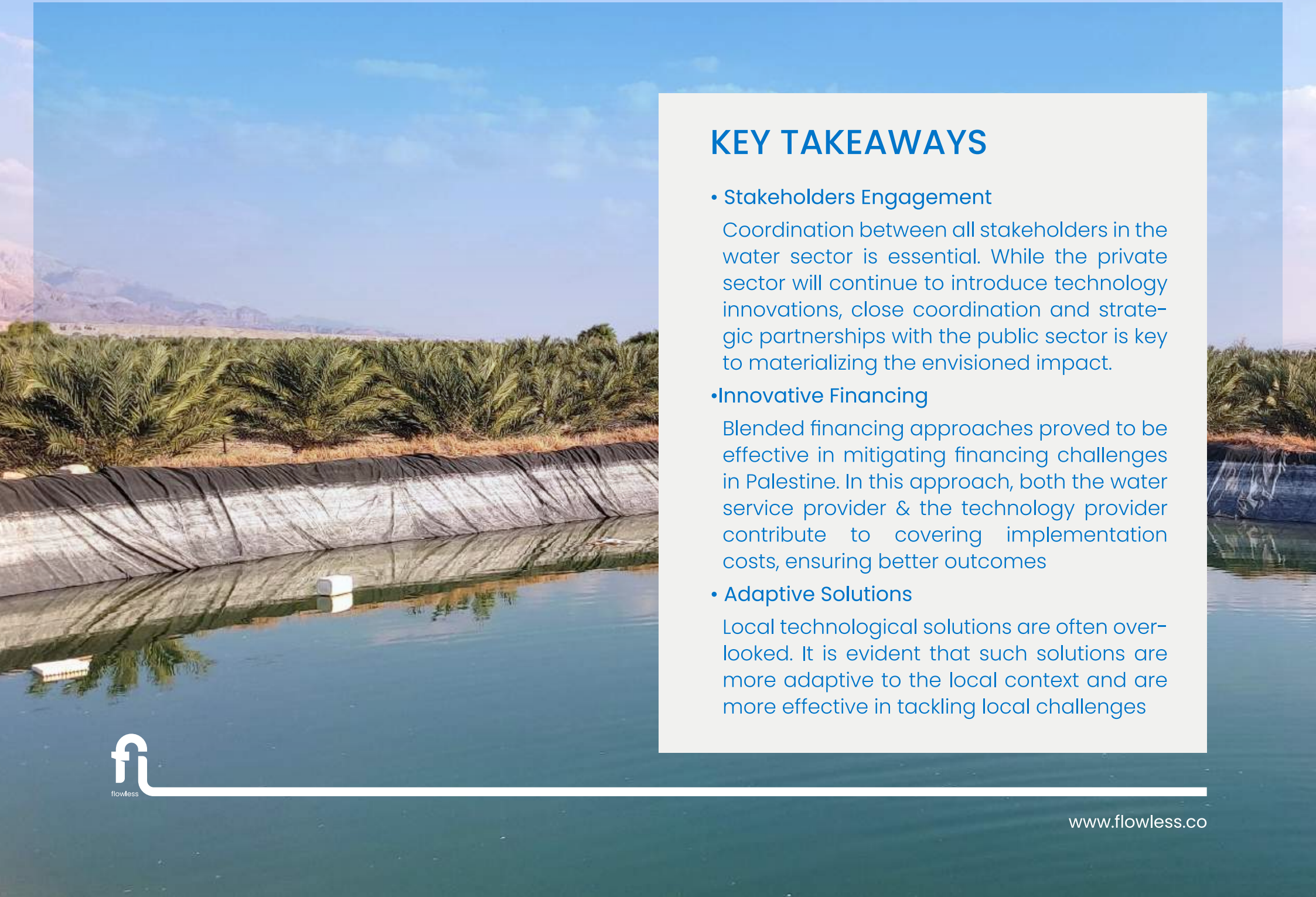
1. Flowless Smart Units: which are data transmitters connected to meters and sensors to collect real-time data and transfer it to the cloud-based database.
2. Flowless Web App: a software dedicated for water networks management through real-time tracking and reporting.

HOW FLOWLESS WORKS

Our Approach and System Design

Flowless integrates emerging technology, innovative financing, and social responsibility to support water utilities in enhancing water efficiency. Flowless system utilizes IoT and AI technologies to optimize operations and automate processes in water networks. It starts with collecting real-time data from the field, then analyzes it and provides robust tools for automated leak detection and process optimization, ultimately contributing to cutting water losses and enhancing water supply.

We have been working with utilities and municipalities in Palestine for the past couple of years, and we implemented projects to monitor water networks, detect leaks, and provide consumption tracking. We worked with water service providers in Salfeet, Tubas, Jenin, in addition to working with PWA and the UNDP and more regional and international projects.



KEY TAKEAWAYS

- Stakeholders Engagement

  Coordination between all stakeholders in the water sector is essential. While the private sector will continue to introduce technology innovations, close coordination and strategic partnerships with the public sector is key to materializing the envisioned impact.

- Innovative Financing

  Blended financing approaches proved to be effective in mitigating financing challenges in Palestine. In this approach, both the water service provider & the technology provider contribute to covering implementation costs, ensuring better outcomes

- Adaptive Solutions

  Local technological solutions are often overlooked. It is evident that such solutions are more adaptive to the local context and are more effective in tackling local challenges

Interested in contributing to Flowless impact? Drop us an email!

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Thank you!

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