flowless

Flowless Impact Report 2023

Tech for Resilience: Radical, Generative Transformation

Empowering communities to lead the way for long-lasting impact

CONTENT

Overview

Flowless' Impact Journey: Transforming Towards Resilience

Continuing on our journey to support sustainable tech adoption & build communities resilience

Throughout 2023, Flowless' impact expanded across the MENA Region and beyond. We're focused on empowering water utilities and farmers to improve resource-efficiency and boost feasibility. All efforts contribute to sustainable management and climate resilience by curbing greenhouse gases emissions and cutting-down losses.

These achievements stem from intuitive yet powerful solutions, designed to adapt to emerging needs and provide actionable insights for optimizing daily operations.

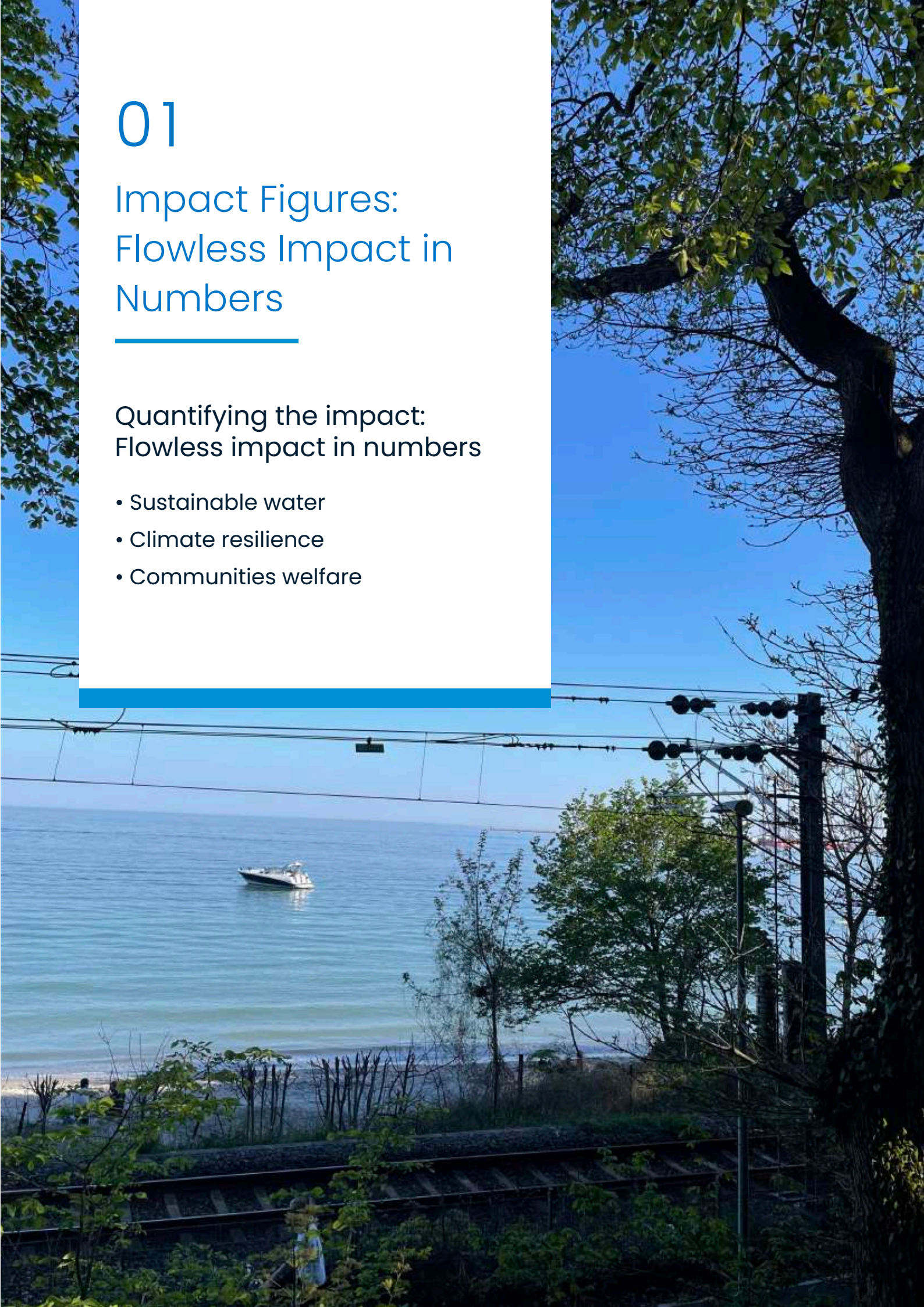
This report will dive into the details: showcasing Flowless impact through agile deployment, collaborative efforts, & a commitment to continuous innovation. Get ready to explore how Flowless generates impact and seeks to promote sustainable management.

01

Impact Figures: Flowless Impact in Numbers

Quantifying the impact: Flowless impact in numbers

- Sustainable water
- Climate resilience
- Communities welfare



Impact Figures

WATER SAVINGS

172,800 m^3

of water saved through active leak detection and water losses reduction in water networks

ENERGY SAVINGS

109,300 kW

energy savings by optimizing operations of pumps in water networks & farms

JOB CREATION

20 job opportunities

made available for local communities through Flowless interventions in the agriculture and high-tech sector

CLIMATE RESILIENCE

47,000 kg CO_2

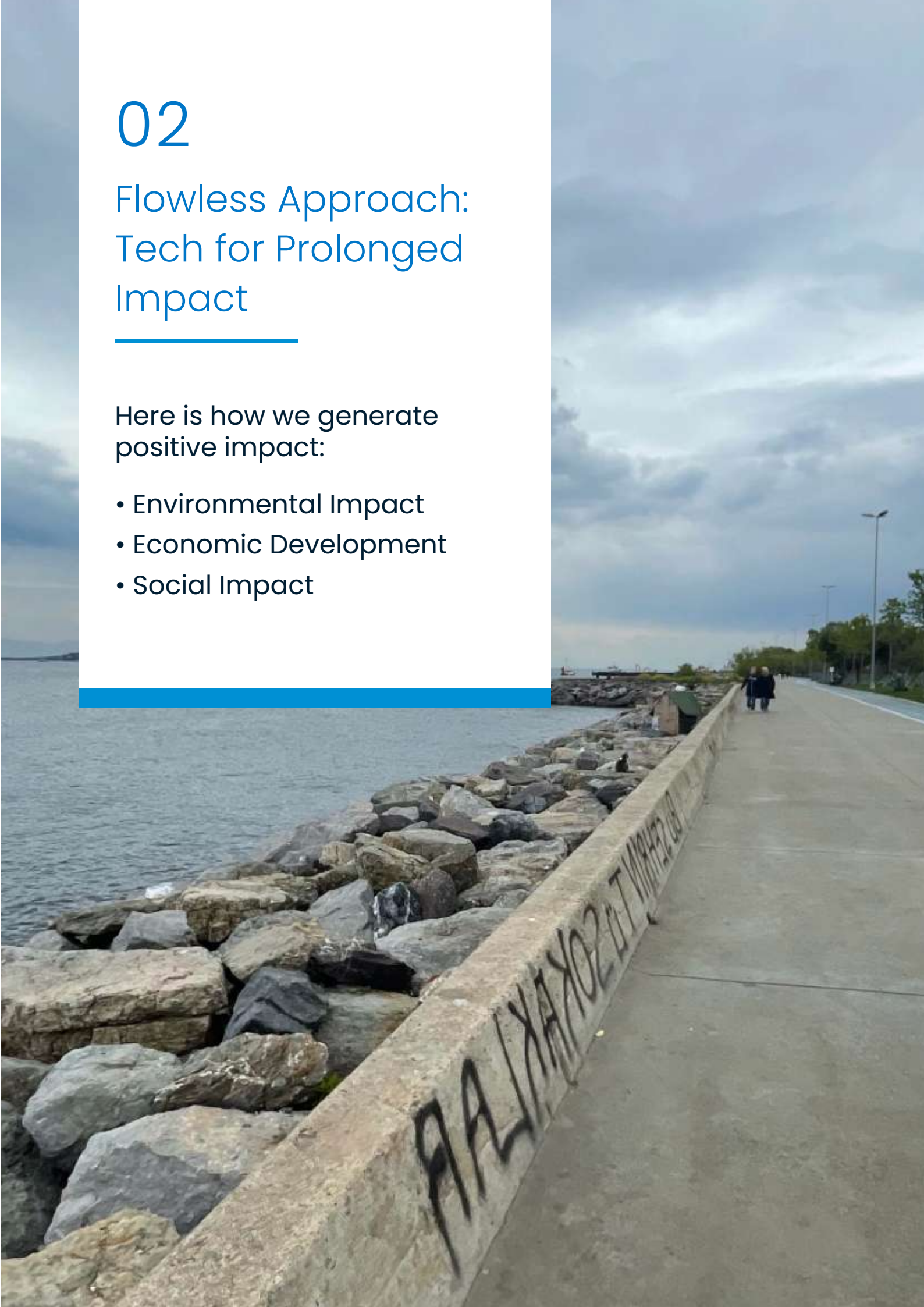
emissions reduction by improving operational efficiency and optimizing processes in farms & water facilities

02

Flowless Approach: Tech for Prolonged Impact

Here is how we generate positive impact:

- Environmental Impact
- Economic Development
- Social Impact



Approach

Flowless' Approach: Empowerment Through Agile Technology

As a cross-industry solution, Flowless' technology steps in to optimize operations and improve efficiency for utilities, farmers, and the industry.

We understand that people often expect magic from technology, and that's where our journey begins. We start by actively listening and understanding the needs of utilities and farmers. These insights drive the development of our tech solutions, making them not just effective but also practical for everyday challenges.

When utilities and farmers overcome these challenges, the impact is more than pronounced. It translates into more efficient processes, streamlined operations, cost reduction, and increased feasibility. These positive outcomes extend beyond individual utilities and farmers; they create a ripple effect in the community, ensuring reliable water supply for everyone.

But it's not just about fixing problems; it's about creating resilient communities through sustainable tech solutions. We envision a world where everyone has equitable access to water, and we're doing it by leveraging technology and making the most out of it.

Sustaining valuable resources through losses reduction & energy conservation

Environmental Impact

As part of our mission, we actively engage in mitigating challenges like climate change, & water stress, contributing to water resources sustainability.

So for 2023, our work enabled farmers & utilities to control their carbon and water footprints through process optimization and operations management. The results are cutting-down water loss and carbon emissions reduction.

For water utilities:

Flowless solutions support utilities to conserve water by:

- **Reducing water losses:** detecting losses as soon as they emerge & reducing leak runtime.
- **Reducing carbon emissions:** managing the carbon footprint by optimizing operations like water pumping & distribution
- **Energy Conservation**

For farmers:

Flowless empowers farmers to adopt sustainable practices through:

- **Reducing water consumption:** through precision irrigation & soil-less farming.
- **Energy conservation:** by optimization operations in the farm to reduce energy consumption.
- **Reducing fertilizers use:** by tracking the amounts of nutrients in the soil and providing just the right amount for each plant.

Boosting feasibility through improved operational efficiency

Economic Feasibility

Water utilities & farmers struggle to enhance feasibility, but sadly their efforts don't always pay-off.

Compromised feasibility, ever-increasing costs, and low efficiency are all challenges that overwhelm farmers and networks' operators.

Throughout our impact journey in 2023, we put into action an improved approach towards empowering utilities and farmers to help therm achieve their financial targets. The results are:

For water utilities:

- **Reducing financial losses:** by reducing water losses through active leak detection.
- **Cutting-down operational costs:** by automating processes and optimizing operations.
- **Prioritizing interventions and capital investment:** based on insights from field data

For farmers:

- **Reducing operational costs:** by reducing water and fertilizers consumption through precision irrigation
- **Reducing labor costs:** by automating operations and optimizing processes based on real-time data analytics
- **Maximizing profitability:** by improving the yield as a result of precise irrigation and proper fertilization

Supporting communities in building resilience

Social Impact

What people care about is getting continuous and reliable water supply, but have you ever considered yourself as part of the solution to keep water flowing through the tap?

At the society level, we're supporting communities to become aware of the real value of water, which leads to more responsible consumption. We do this through active outreach and supporting our partners to get the message across.

At the utility level, here is how it works: we equip network operators with powerful tools to reduce water losses, which reduces losses and results in improved water availability

But it goes far beyond water supply to jobs creation & community empowerment:

✓ Supporting farmers to improve their social status & well-being

✓ Generating **20 job opportunities**, contributing significantly to local social development.

✓ Actively empowering local communities, fostering **participation in decision-making & active governance.**

✓ Improved overall **community well-being** by enhancing water supply in terms of quality and quantity.

✓ **Reinforcing infrastructure** through strategic partnerships & tech-adoption, paving the way for a more resilient future.

03

Impact Stories: Spotlight on Our Impact Heroes

Shedding lights on our impact heroes, and showcasing an examples of a water utility making huge impact by utilizing Flowless' tech solutions.

More than 10,000 cubic meters of monthly water savings - through active leak detection

Water Losses Reduction & Water Supply Optimization

Enhancing Supply Efficiency, One Leak at a time!

Salfeet Municipality is on track to achieve outstanding water networks operational efficiency.

Through active leak detection, operations monitoring, & data interpretation, Salfeet Municipality was able to save more than 10 million liters of water every month.

Salfeet utilized Flowless system to collect real-time data from the field, then used the analytics to track and detect leaks in the network, ultimately reducing losses and improving operational efficiency

Flowless team worked with Salfeet Municipality on deploying Flowless smart system to monitor water supply and control operations.

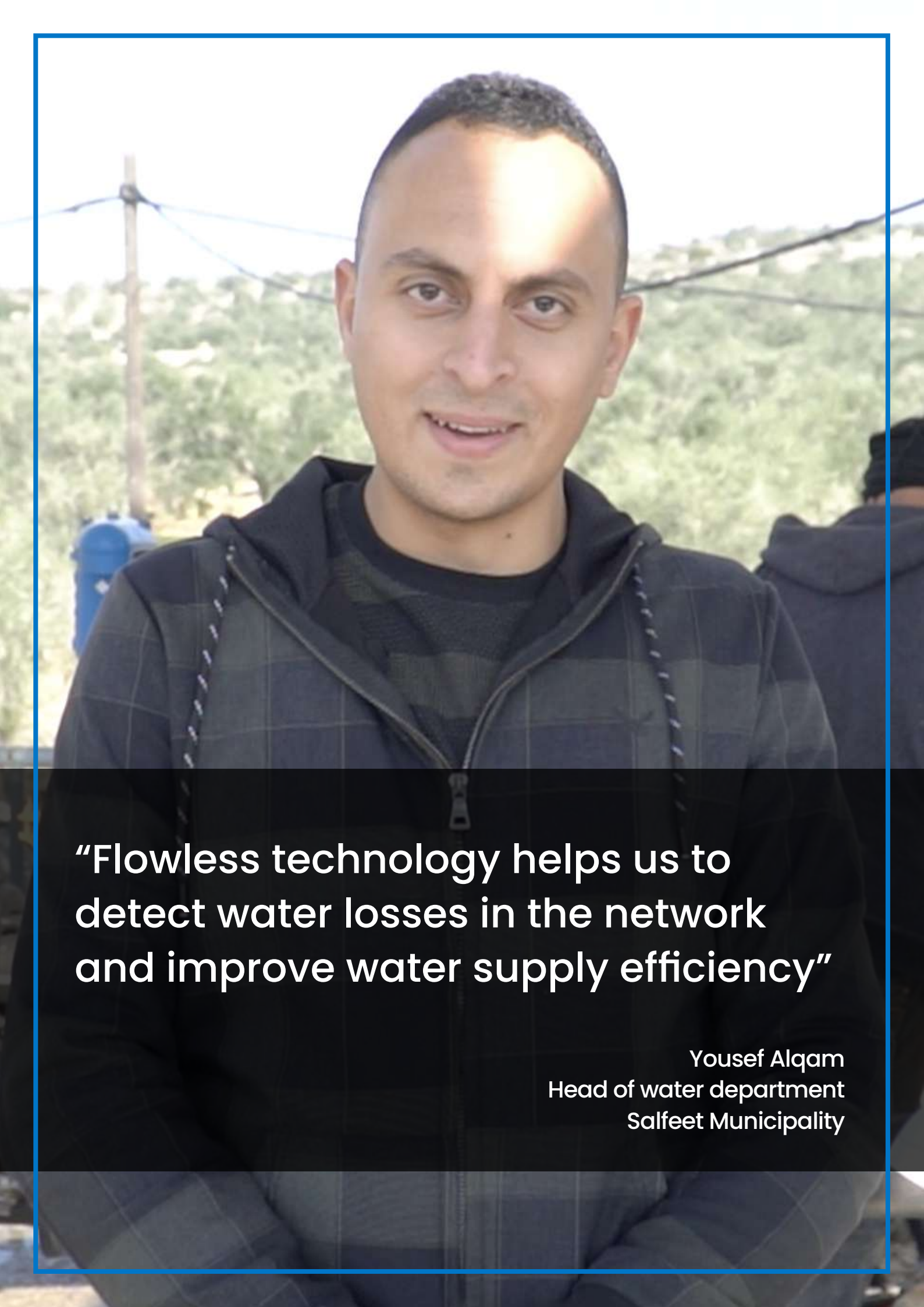
Spotlight on The Water Heroes

Meet Yousef Alqam, head of water department at Salfeet Municipality. Yousef is in charge of water supply management.

We've been supporting Yousef on solving the municipality's biggest water challenges like water losses and operations efficiency.

Smooth tech adoption is the KEY. The journey starts with setting clear and practical implementation plans. Here is how we did it in Salfeet:

1. Define the municipality's targets
2. Look for ways to improve
3. Implement the tech solution, but only after you customize it to fit the needs



“Flowless technology helps us to detect water losses in the network and improve water supply efficiency”

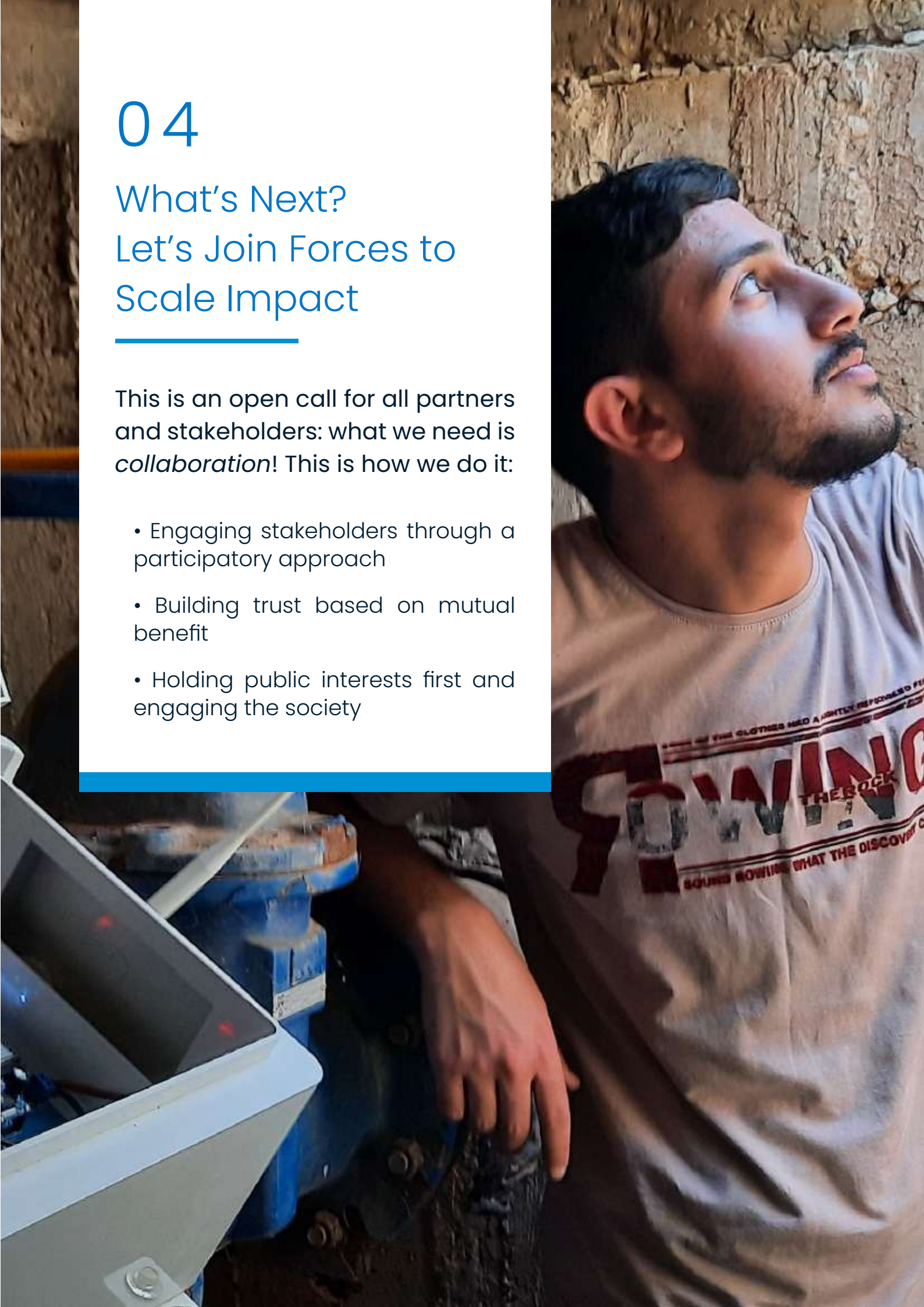
Yousef Alqam
Head of water department
Salfeet Municipality

04

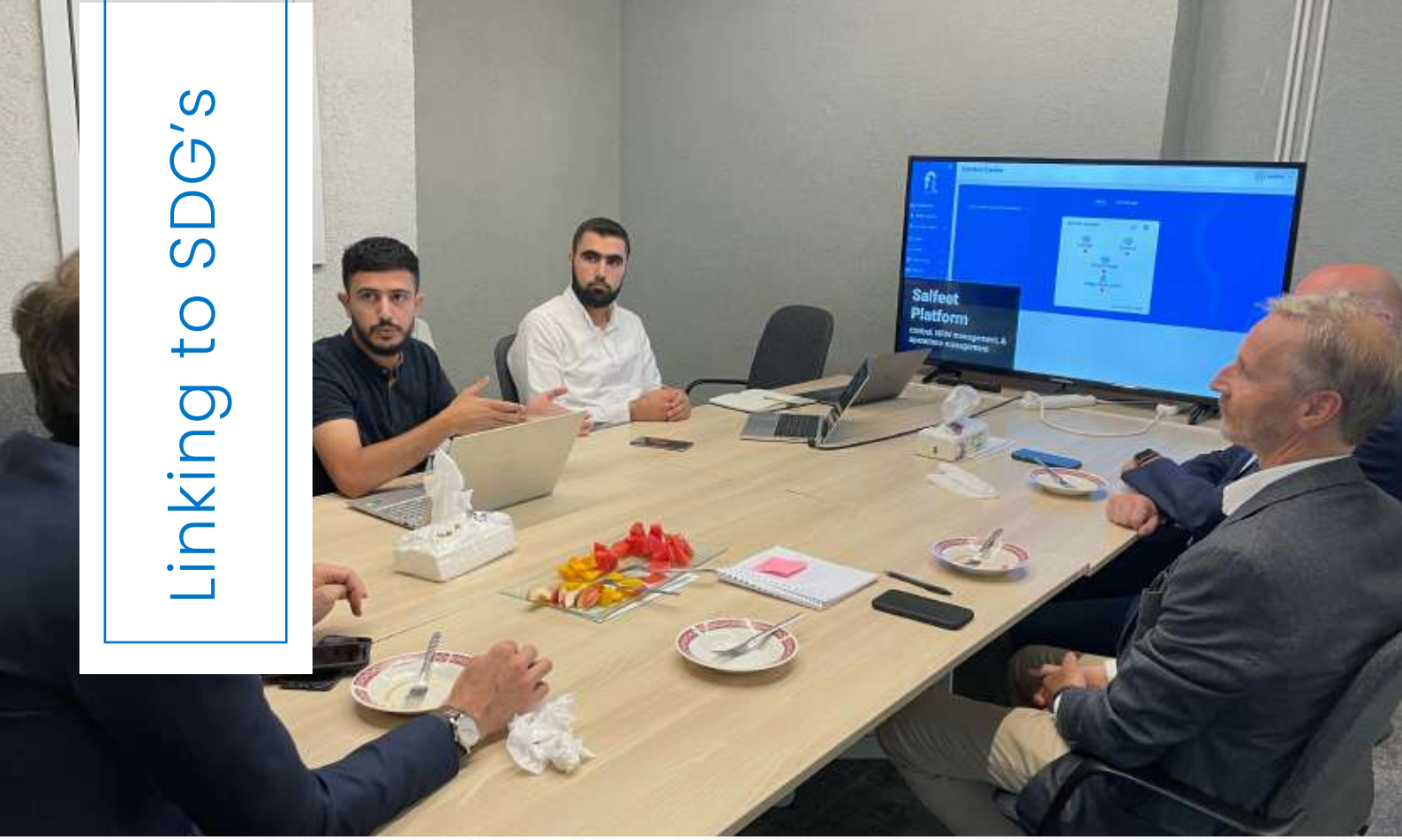
What's Next? Let's Join Forces to Scale Impact

This is an open call for all partners and stakeholders: what we need is *collaboration*! This is how we do it:

- Engaging stakeholders through a participatory approach
- Building trust based on mutual benefit
- Holding public interests first and engaging the society



Linking to SDG's



Aligned Efforts: How Flowless Work Contributes to a Sustainable Future

Here's how our mission aligns with the Sustainable Development Goals:

• **SDG 6: Water & Sanitation:** our goal is to ensure that water is available and accessible for all. We're continuously innovating to support water utilities in utilizing emerging technology for improved efficiency and losses reduction.

• **SDG 13:** actively working to mitigate the impact of climate change through energy conservation and carbon emissions reduction. Flowless process optimization technology ensures higher efficiency throughout the water supply and farming value chain, cutting down energy waste and optimizing the operations of pumps.

By focusing on these SDG's, we continuously empower our partners to enhance water efficiency, apply integrated water resources management practices , and strengthen resilience within the communities.

Sustainable Water

Improving Water Sustainability: Unleashing The Power of Active Management

Our goal is to help communities build resilience through resources sustainability. We know that we cannot do it alone, and this is why we always work with partners for scalable and sustainable impact. This approach us built on three pillars:

• **Active governance:** ensuring better performance of water utilities through accountability and increased sense of ownership.

• **Solid organizational structure:** well-structured procedures and continuous improvements through active monitoring and evaluation.

• **Integrity & transparency:** engaging stakeholders in planning and inclusive decision-making process.

We're build a win-win situation for all stakeholders including communities and the planet! We're always on the lookout for operations and development partners, and would be open to build trust and relations based on mutual benefit.

Making Sustainable Agriculture Mainstream: Where Do We Stand?

Conventional farming is resource-intensive, prone to climate risks, and compromises feasibility. More farmers are starting to realize these facts. The question is: how to scale-up sustainable agriculture practices and make them the new norm? Here are some insights from Flowless' journey:

• **Leading by example:** farmers work in clusters, where they learn from each other. Start working with early adopters, then the rest will follow.

• **Piloting & progressive scale-up:** aim big, start small. Introduce as much value as possible for the farmer through simple interventions, then start building up with more complicated interventions (also known as ***agility***)

• **Making technology more affordable:** Innovative financing is ***key***. Utilizing blended-financing & alternative mechanisms reduce the financial burden for the normal farmer, making impact much more scalable.

To put these insights into action, we're continuously working with our partners to scale our impact. Join forces and help us build resilience!

Call To Action

The Vision - Flowless Aspirations for 2024

Building communities resilience through sustainable resources management

That's our vision. We're utilizing technology as a vehicle; it's a means to an end. Flowless' technology serves as the engine to generate, measure, and improve our environmental impact. We envision a world where we get to enjoy the resources we have without compromising the future generations' right to equitable access to those resources.

But we know that we cannot do this alone, and that's why we always have amazing people we love to work with.

We do believe in the power of our collective work. That's why we work with partners around the world to materialize tangible outcomes, which makes it easier for us to grow and expand our impact worldwide.

So, what's next?

Let's join forces to scale and grow our impact. We're always open for partnerships and happy to explore new horizons. Let's get in touch.

flowless

Technology, Sustainability, Resilience.

Join forces to generate positive impact for sustainable resources and resilient communities. Let's work together!

info@flowless.co