

TOKENTAP

WHAT IS IT?

TokenTap is a **low-cost** and **easy-to-maintain** token based pre-payment system. It can be integrated in a water tower and enables cost-recovery of public water services.

Fully mechanical, it is a robust system that delivers a fixed amount of water to the user when a token is inserted.

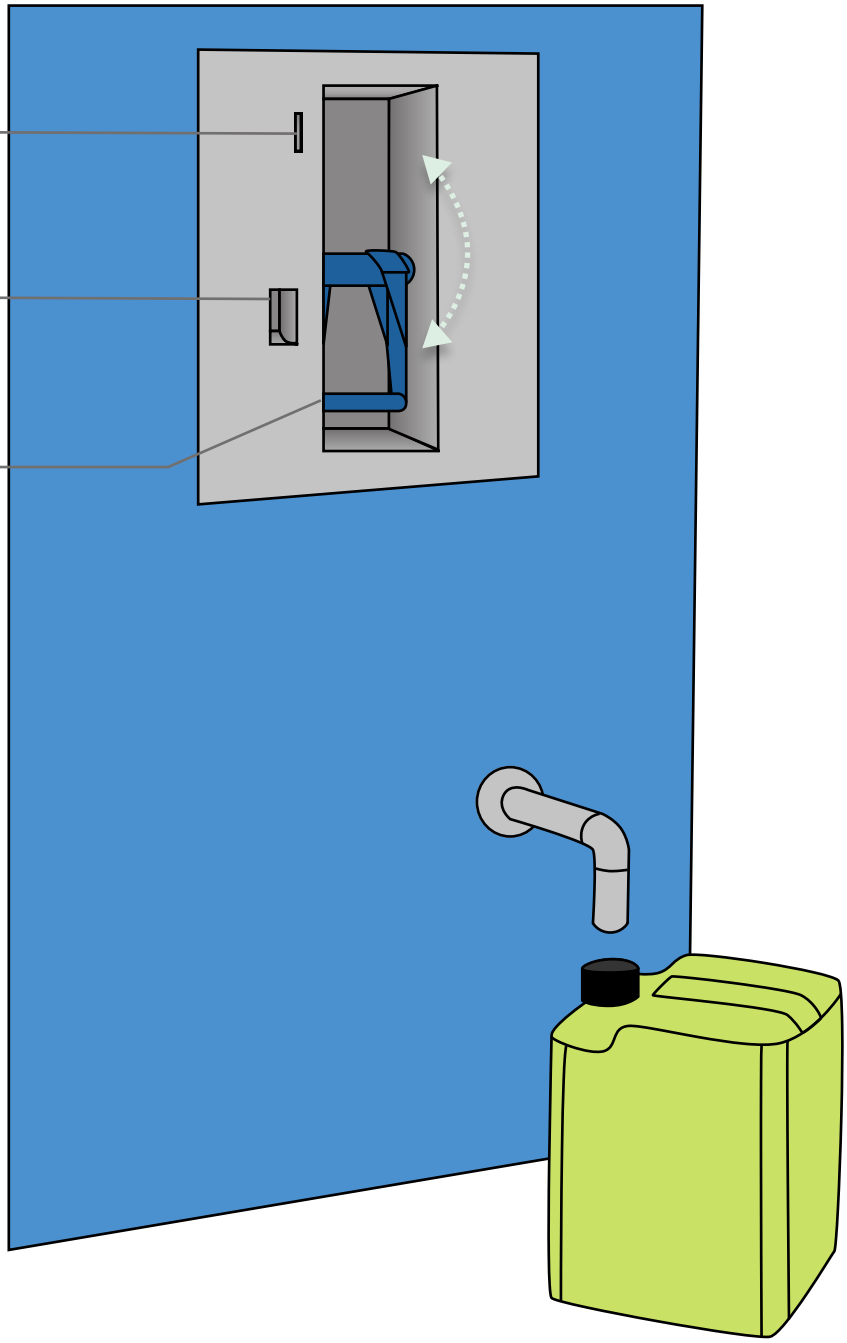
1. User inserts a **token** specifically designed for the payment system to avoid theft

2. Other coins are rejected

3. Once the token is inserted, the user pushes the handle in the upward position. Half of the **fixed amount** of water is dispensed.

   The handle is then lowered to the initial position to dispense the second half of the volume.

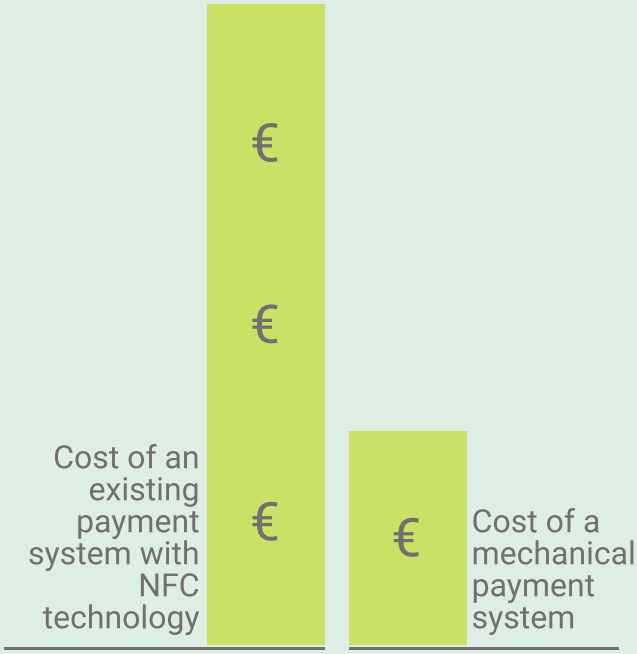
   For 20L this operation takes about 1 minute in total.



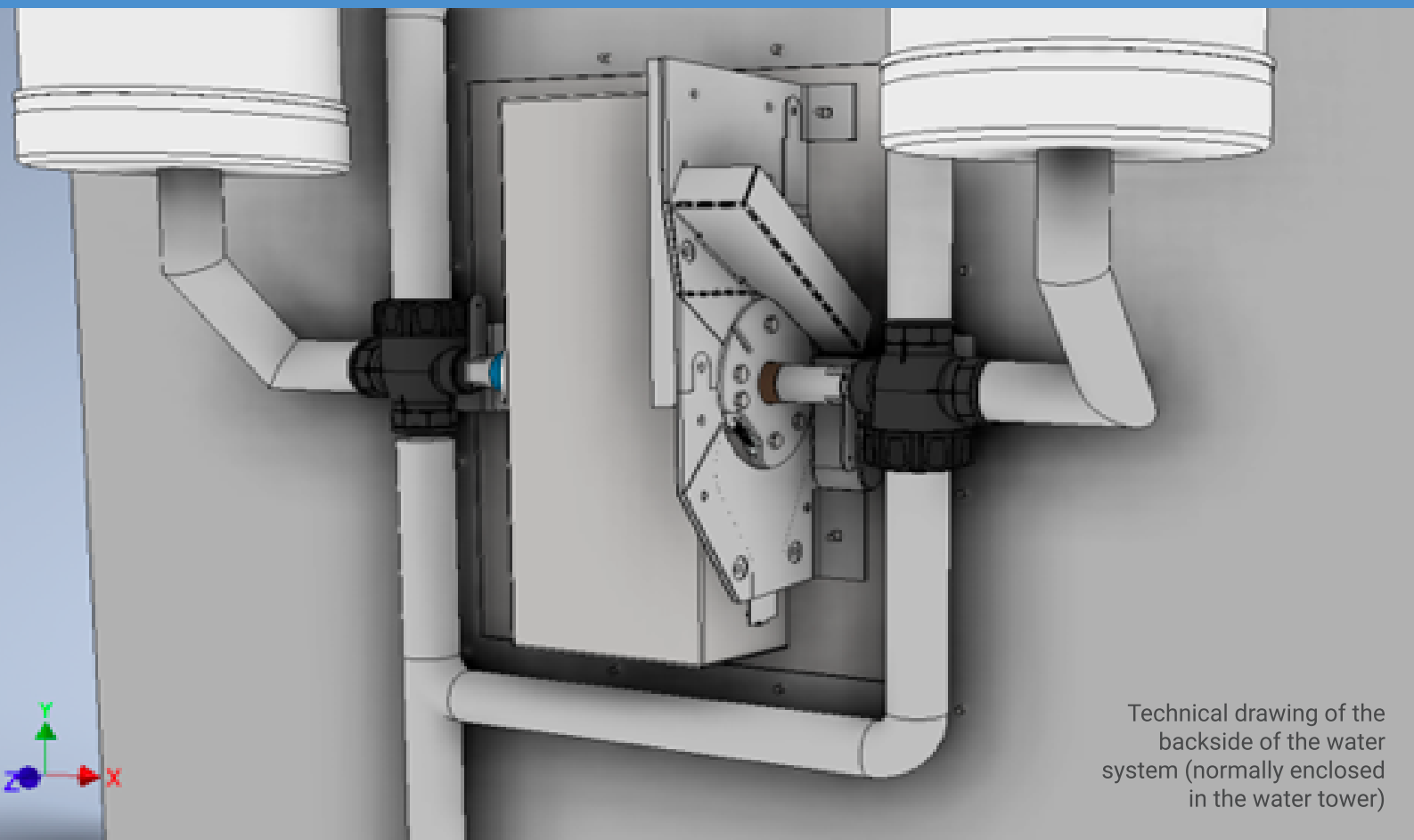
Technical features

- System designed for 1 tap
- Accurate dispense through fixed volume of reservoirs (no calibration required)
- Insensitive to pressure change between 0.1 and 4 bar (2.9-58 PSI)
- Insensitive to sand or deposits in the water
- Mistake friendly: non-recognised coins are returned to the user
- Easy to maintain
- No electronics for main functionality (only for data logger)
- Low power data logging (battery last more than 1 year)
- App for easy data readout
- Remote area proof: network coverage on water point location not required

The low-cost but effective TokenTap improves the business case of water services



TokenTap is a mechanical pre-payment technology with a built-in monitoring device



Technical drawing of the backside of the water system (normally enclosed in the water tower)

Cost-recovery of water supply, low investment costs and guaranteed water payments

Easy-to-maintain use of locally available materials and simple design

Acceptable, easy to use and low-cost system that does not inflate water tariff

"An innovative, low-cost and easy-to-maintain pre-payment technology that insures sustainable access to water in remote areas."

Data logger



The amount of transactions is logged with a simple electronic data logger. It records each transaction with a **time** stamp, a **location** and the name of the **water point**.

Data can be download from the logger to a mobile phone using a provided app. This data is stored on the phone and transmitted to a server when there is cellular reception.

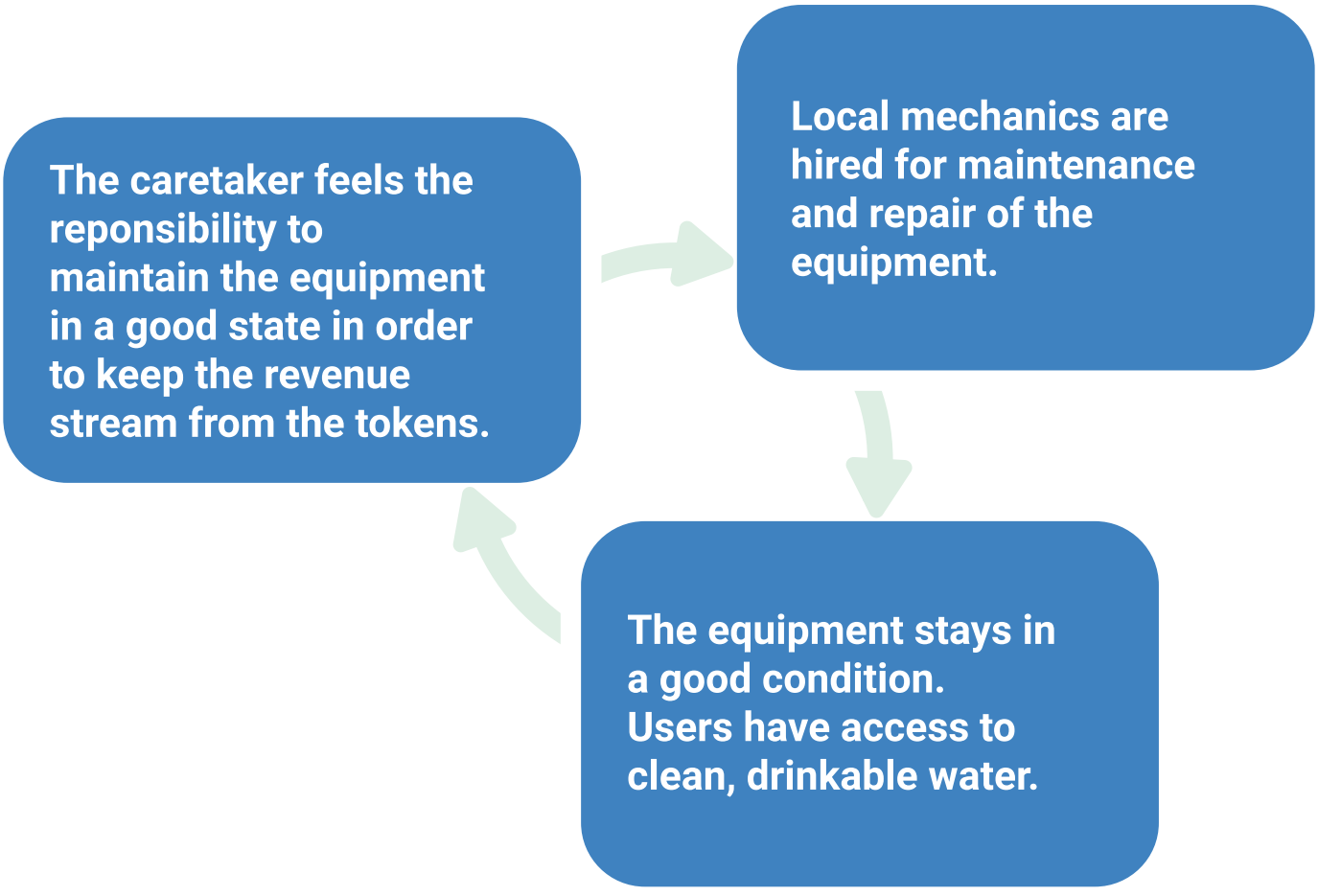
BUSINESS CASE EXAMPLE

The retailer buys tokens from the service provider. He sells it to the users. Funds for maintenance and repair are stored at a bank account.

Customers use the tokens to fill their containers with clean, drinkable water.

The management entity has the key to the box in the water tower where the tokens are collected. They regularly collect the tokens and download the data from the logger.

When the equipment needs maintenance the service provider organises it the money collected from the token sales.







CONTACT DETAILS

Website: www.practica.org

Telephone: +31 7 86 15 01 25

Mail: marije.vandenbroek@practica.org
or ilja.vankinderen@practica.org