CT
CITYTAPS
Reduce Non-Revenue Water (NRW)

Optimize your
REVENUE

CTCloud
NRW

CityTaps end-to-end NRW solution

Our **step-by-step approach** helps you to choose and deploy the most appropriate actions to reach your NRW reduction target.

The **modularity** of our software platform combined with an offer of hardware and services allow to **personalize each project** so that it fits your current and future needs.

126
billion m³/year Worldwide

This is the global level of Non Revenue Water...

"Do you know how many m³/year you lose and how much more revenue you could invoice?"

1 Monitor and Report Water Losses

Network sectoring

Real time flow and pressure logging

NRW monitoring and reporting

2 Reduce Physical Losses

Localisation, prioritisation and repair of physical losses

3 Reduce Commercial Losses

Identification, analysis of abnormalities & inaccuracies

4 Planning & Investment

Define future NRW action plan

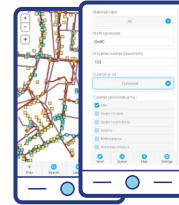Estimate budget and ROI

Find financial solutions

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WATER LOSSES

1

1.1 DMA Creation

A. GIS update

A field collection software with **map visualisation** is used to update data from the GIS and the billing software.

B. DMA sectorization

Expert Services are provided to **sectorise the network into District Metered Areas** (DMA) and verify the hydraulic model.

1.2 DMA Monitoring

A. Bulk Meters

Ultrasonic bulk meters up to DN200 record **low and high flow-rates** with optimum accuracy at the inlet/outlet of the DMAs.

B. GPRS Loggers

GPRS loggers are connected to the bulk meters to **record & transmit flow & pressure** data to the DMA Monitoring module.

C. DMA Monitoring Module

Monitoring of flow and pressure for all DMAs available **from any computer or smart phone in real time**

1.3 NRW Monitoring

A. NRW Monitoring Module

An **analytic** software provides:

- Monitoring of **production volume**
- Follow-up of of **pressure and night-time flow**
- Detection of **bursts**
- Automatic **NRW balance** calculation including **split between physical and commercial losses**
- Reporting of all major **NRW indicators**

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Reduce
PHYSICAL LOSSES 2

90%
Physical losses are invisible

2.1
Leak Finder Module

Satellite imaging is used to pre-localize the **visible and invisible leaks** in a large area within few hours and with the highest hit rate.

2.2
Acoustic Leak Detection

Acoustic Leak Detection equipment, provided with training, allows your team to **precisely locate invisible leaks** in the field.

2.3
Leak Manager Module

A **collaborative software** optimizes all field activities from leak detection to repair to reduce leaks duration and losses.

2.4
Pressure Management Module

A solution of pressure management can be deployed to continuously optimize water pressure and **protect the assets.**

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Reduce
COMMERCIAL LOSSES 3

3.1
Commercial Loss Manager Module

A software analyses the **data from the billing database** to detect metering inaccuracies and abnormal readings.

Meter & Billing Data Input

CTCloud NRW

Detect
metering inaccuracies

- Poor meter **quality**
- Meter **ageing**
- Meter **blockage**
- Incorrect meter **size**
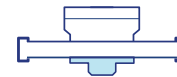
Flag
abnormal readings

- **Excessive** water consumption
- **Zero** consumption
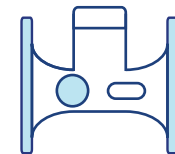- **Identical** water consumptions
- **Repeated** estimates

3.2
Accurate Billing Meters

- **Ultrasonic** technology for high accuracy
- Long lifetime as **no moving part** in the water
- **No air** in pipe measured
- **Large flow range** capabilities
- **Smart** meter (wMBus or LoRaWAN) for **meter reading accuracy**
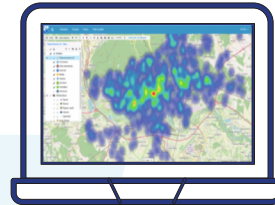
Smart residential meter

Smart C&I meter
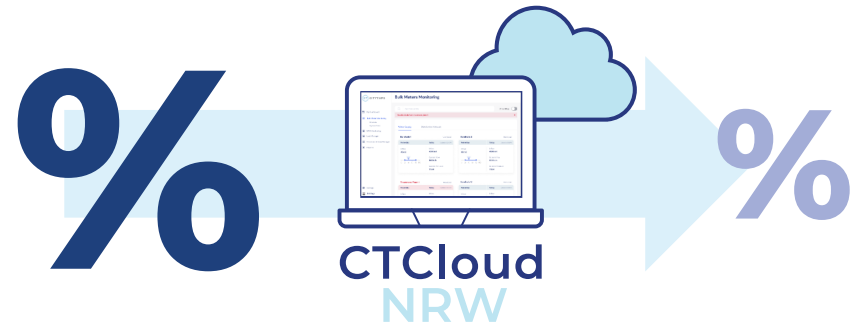
Manage

BUDGET & INVESTMENTS

4

% CTCloud NRW %

To reach **your objectives of NRW reduction**, we help you manage your **replacement plan and operations maintenance** to ensure an optimized return on investment.

Asset Manager Module

- **Analytics** based on leak detections and repairs
- Pipes and meters **replacement programs priorities**
- Optimized infrastructure maintenance costs
- **Calculation of budget** for replacement and maintenance projects
- Financing of **NRW investment plan**

Financing Solutions

CityTaps helps water utilities to source adequate **tailor-made financing** to invest and carry out NRW reduction programs.

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Achieve
SUCCESSFUL DIGITAL TRANSFORMATION

Capacity Building

The CityTaps technical team, with its strong experience and knowledge of local culture, provides **customized training** to build the capacity of local water utility teams.
The local teams therefore **improve their skills and achieve autonomy** in the use of the newly deployed technologies for a successful digital transformation

Technical Assistance

A dedicated CityTaps team provides technical assistance both in **design phase** of your NRW programs and throughout the **implementation phase.**
CityTaps experts and support team are committed to your long-term success and work with you to **ensure that NRW reduction results meet the objectives** defined in the service contract.
CityTaps teams can also **provide numerous operational services** (eg. Meter installation, remote reading infrastructure maintenance , sending SMS, etc...) allowing your teams to remain focused on their core business of water production & distribution and customer relations.

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Overview of
OUR SOLUTION

1 Monitor & Report Water Losses

2 Reduce Physical Losses

3 Reduce Commercial Losses

4 Planning & Investment

Sectoring	**Pre-localisation**	**Analysis**	**Analytics**
Measurement	**Localisation**	**Detection of**	**Replacement programs**
Transmission	**Prioritisation**	**abnormalities & inaccuracies**	**Prioritisation**
Monitoring	**Management & Repair**	**Prioritisation**	**Budget Calculation**
Reporting	**Asset Management**	**Large consumer strategy**	**Financing Solutions**

Software Platform with Multiple Modules

GIS update

DMA Monitoring

NRW Monitoring

Leak Finder

Leak Manager

Pressure Management

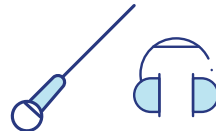Commercial Loss Manager

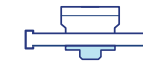Asset Manager

Hardware

Bulk meters   GPRS Loggers   Acoustic Leak Detectors   Pressure Regulated Valve   Smart C&I meters   Smart residential meters

Services

DMA Creation

Equipment Installation
Software Integration

Financing Sourcing

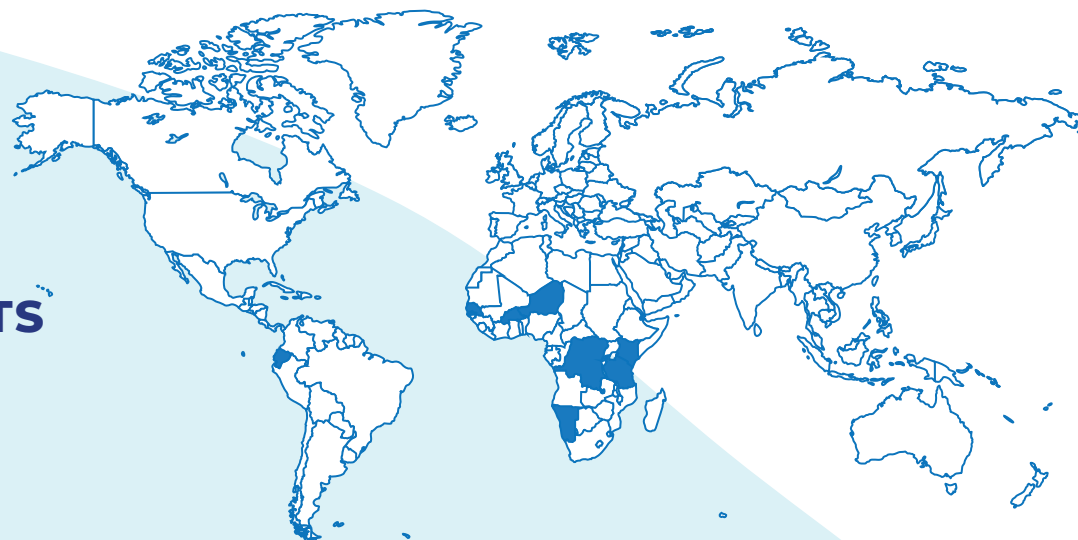Customized Training, Capacity Building & Technical Assistance

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Why
CHOOSE
CITYTAPS

Team of
EXPERIENCED WATER EXPERTS

More than
8 NATIONALITIES

Projects deployed in
11 COUNTRIES

CityTaps helps bring running water to every urban home. It provides water utilities with comprehensive technological and financial smart water solutions to continually improve performance.

The company delivers evolutive Non-Revenue Water solutions that allow water utilities to build capacity and optimize their network efficiency, and patented Pay-As-You-Go technology that secures sustainable water access for the urban poor without the risk of accumulating debt.

CityTaps is committed to helping water utilities strengthen their financial health, allowing them to invest in infrastructure to connect more homes to the water supply network.

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