

A close-up photograph of a chrome water tap. The tap handle is in the background, and the spout is in the foreground. A single, large, clear diamond is positioned directly under the spout, with a thin stream of water appearing to fall from the tap onto it. The background is a plain, light-colored wall.

ITRON Solutions to harness and sustain water access for all Africa
AFWA STC Kampala, July 2018
B. DIBA , Managing Director ITRON Africa

ITRON Solution & Methodology

NRW : KEYS TO SUSTAINIBILITY / ITRON METHODOLOGY & SOLUTION

1

Definition of needs & Objectives

2

Initial Analysis of the situation

3

Implementation of the Appropriate Solutions

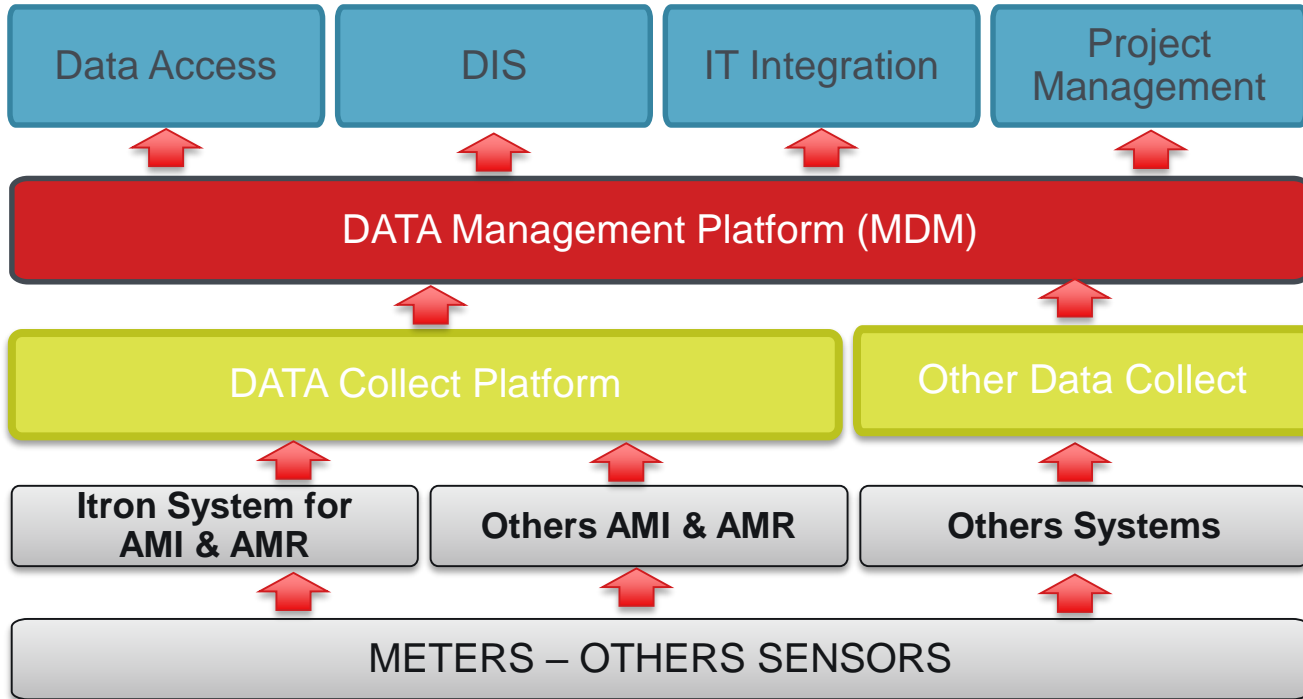
4

**Project Management & Capacity building
Performance based**

5

Results periodical communication

PRINCIPLES & METHODOLOGY



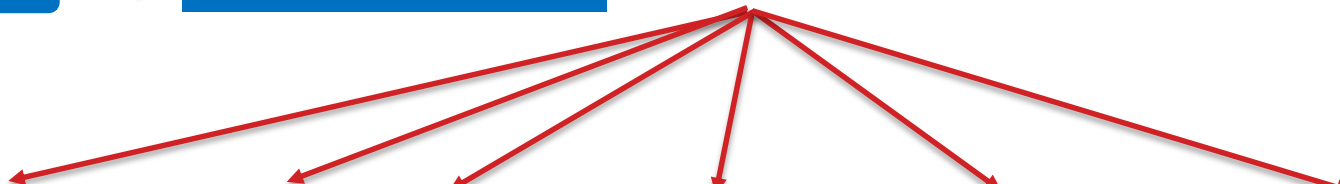
Database Extract



Load in Data Intelligence Service



Preliminary Database Analysis Report



C&I Projects

Monitoring Tools

Mobile AMR

DMA Projects

Pressure Management

Customized Projects (ORB)

Aging
Meter park analysis
Datalogging and
Consumption profiling



Focus:
Largest
Customers

Focus:
Meter
replacement
Campaign
Gain

Focus:
Productivity
meter reading
campaigns

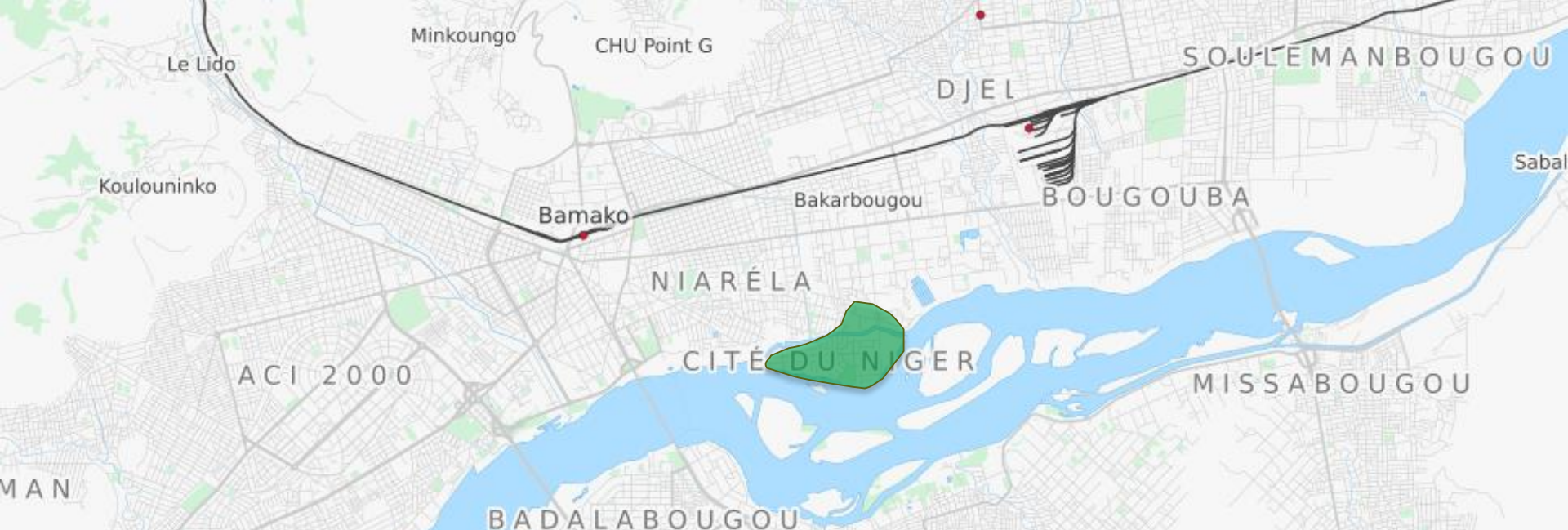
Focus:
Network
efficiency
Improvement

Focus:
Burst
occurrence
reduction

Focus:
Meter Park
Management

SOMAGEP – MALI

Project Started in 2014



« Cité du Niger » DMA Focus

Project Description and Results

CITE DU NIGER

Level of NRW in the DMA :

Average level before the project : **~35%**

Average level for 2016 : **16%**

Average level for 2017 : **10%**

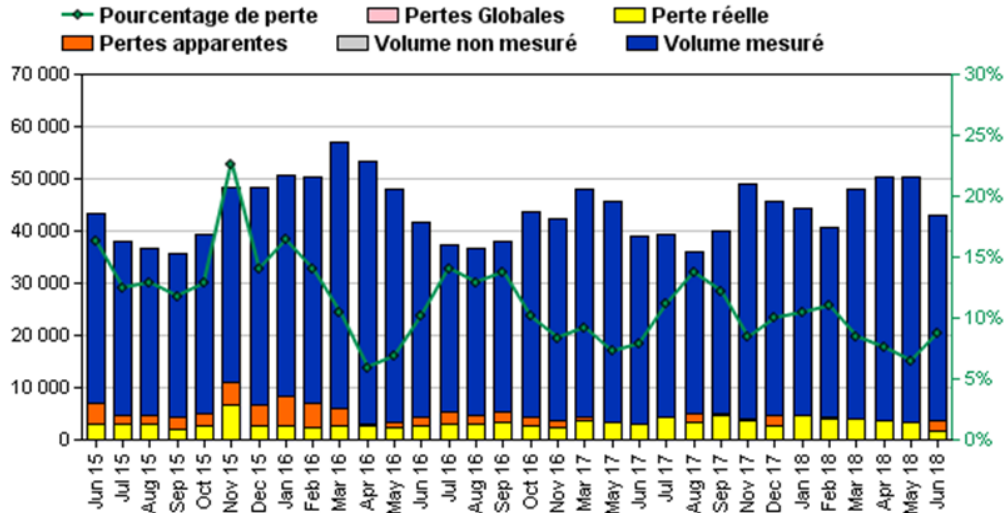
Average level for 2018 : **9%**

Billing reading time evolution :

Frequency : **12** reading per year

Before the project : **80h/ reading campaign** (2 meters readers)

After the project : **3h/ reading campaign** (1 meters reader)



Real losses management :

October 2015 :

1 leakages detected, flow : **7m3/h**

Monthly volume of the fixed leakages: **5.100m3/month**

Apparent losses management :

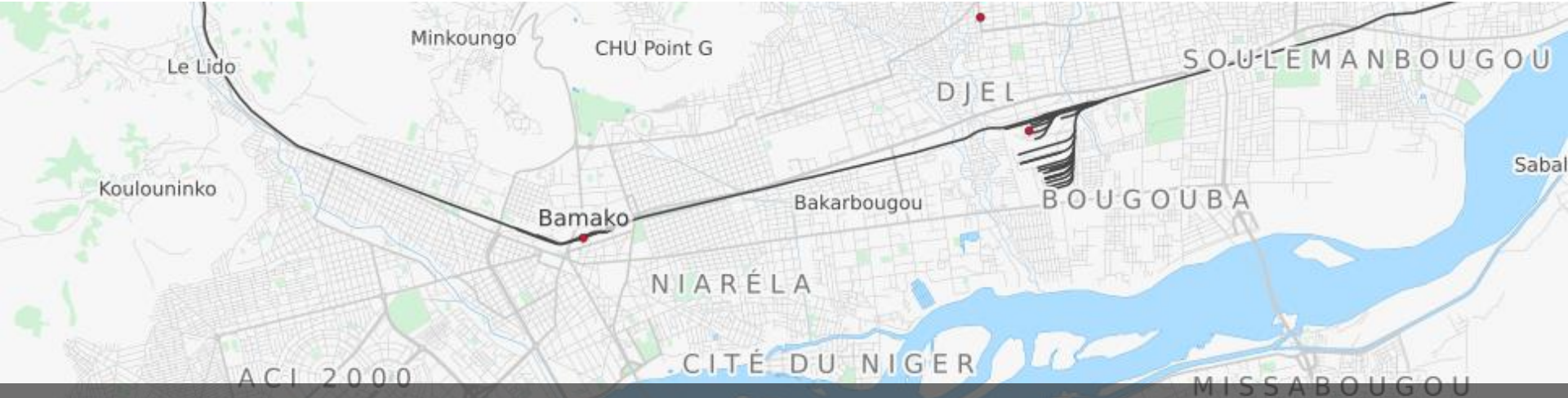
Additional monthly volume : **+5.600m3/month**

Billing estimated gain: **+14%**

Evolution of the number of connections :

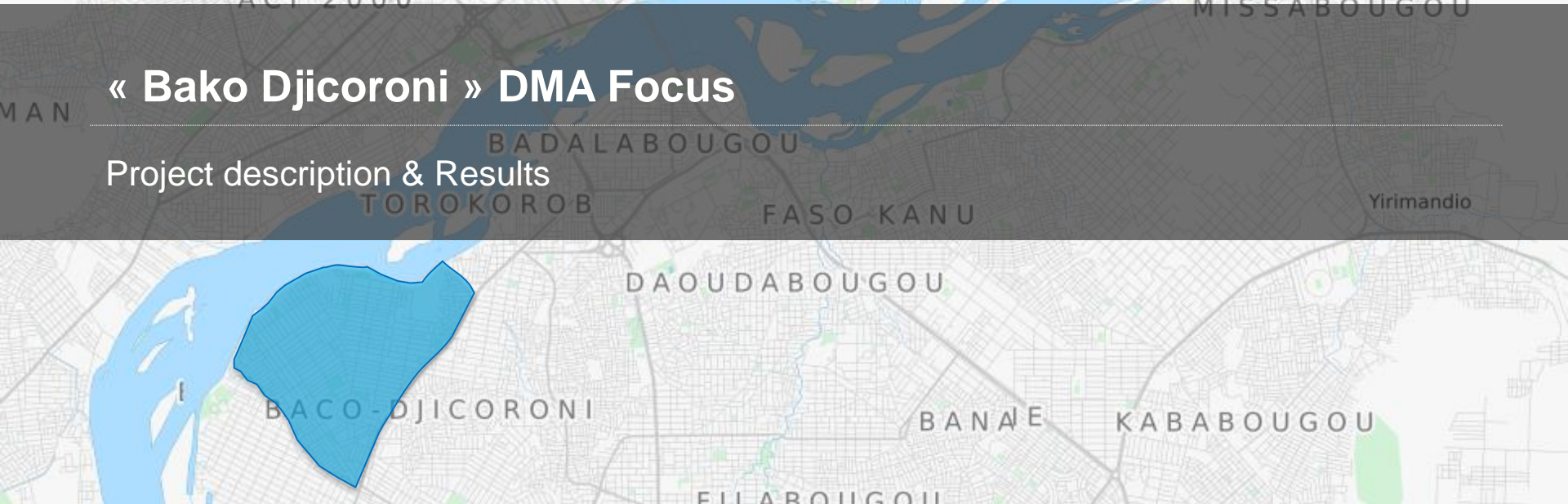
Before the project : **367**

In December 2017 : **546**



« Bako Djicoroni » DMA Focus

Project description & Results



BACO DJICORONI

Level of NRW in the DMA :

2015 average level, before the project : **~35%**

2016 average level – from June 2016 : **25%**

Average level for 2017 : **18%**

Average level for 2018 : **21%**

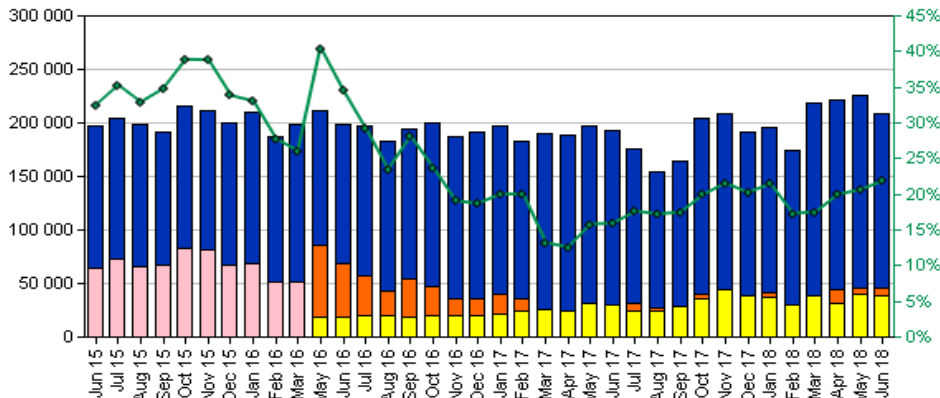
Billing reading time evolution :

Frequency : **12** reading per year

Before the project : **340h/reading campaign** (6 meters readers)

After the project : **16h/reading campaign** (2 meters readers)

—●— Pourcentage de perte
 ■ Pertes Globales
 ■ Perte réelle
■ Pertes apparentes
 ■ Volume non mesuré
 ■ Volume mesuré



Real losses management :

Year 2017 :

11 leakages detected, flow : **15m3/h**

Monthly volume of the fixed leakages : **10.000m3/month**

Year 2018 :

16 leakages detected, flow : **22m3/h**

Monthly volume of the fixed leakages: **16.000m3/month**

Apparent losses management :

Additional monthly volume : **+15.000m3/month**

Billing estimated gain : **+19%**

Evolution of the number of connections :

Before the project : **4'562**

In December 2017 : **5'002**

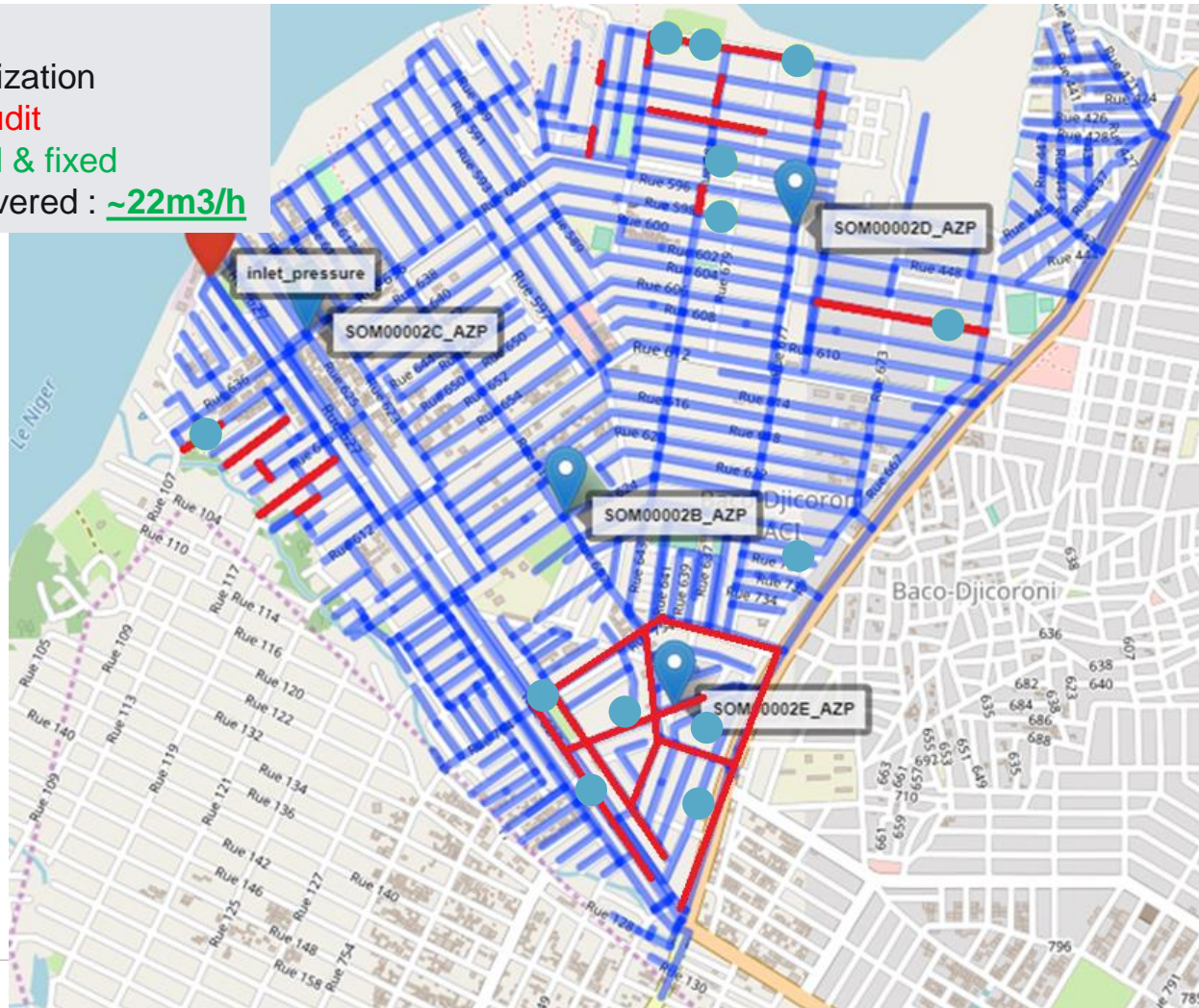
20/05/2018

Leakage pre-localization

26 segments to audit

16 leakages found & fixed

Total volume recovered : ~22m³/h



ITRON CONFIDENTIAL PROPRIETARY

REGIDESO - BURUNDI

PROJECT ACTIVITIES DEFINITION

Monitoring Bujumbura Water Production with automatic record
Setup, Management & follow up of 15 DMAs in Bujumbura to reduce losses

Activities 1 & 2

Set up of Itron solution for data acquisition, storage, and data use inside Regideso
organization

All Activities

Setup and implementation of data platform for data exchange between Regideso
Departments

All Activities

PROJECT ACTIVITIES DEFINITION

Identification of the 250 biggest consumers of water and generating the majority of the revenues of Regideso

Activity 3

Identification of blocked meters and unreadable meters with replacement over Bujumbura perimeter (Estimated to 10 000 consumers)

Activity 4

Identification of the 20% biggest residential consumers of Bujumbura , composed of 7 000 households and the most strategic ones.

Activity 5

Extraction and cleaning of technical data from the existing billing system of Regideso and defining processes for data control inside Regideso.

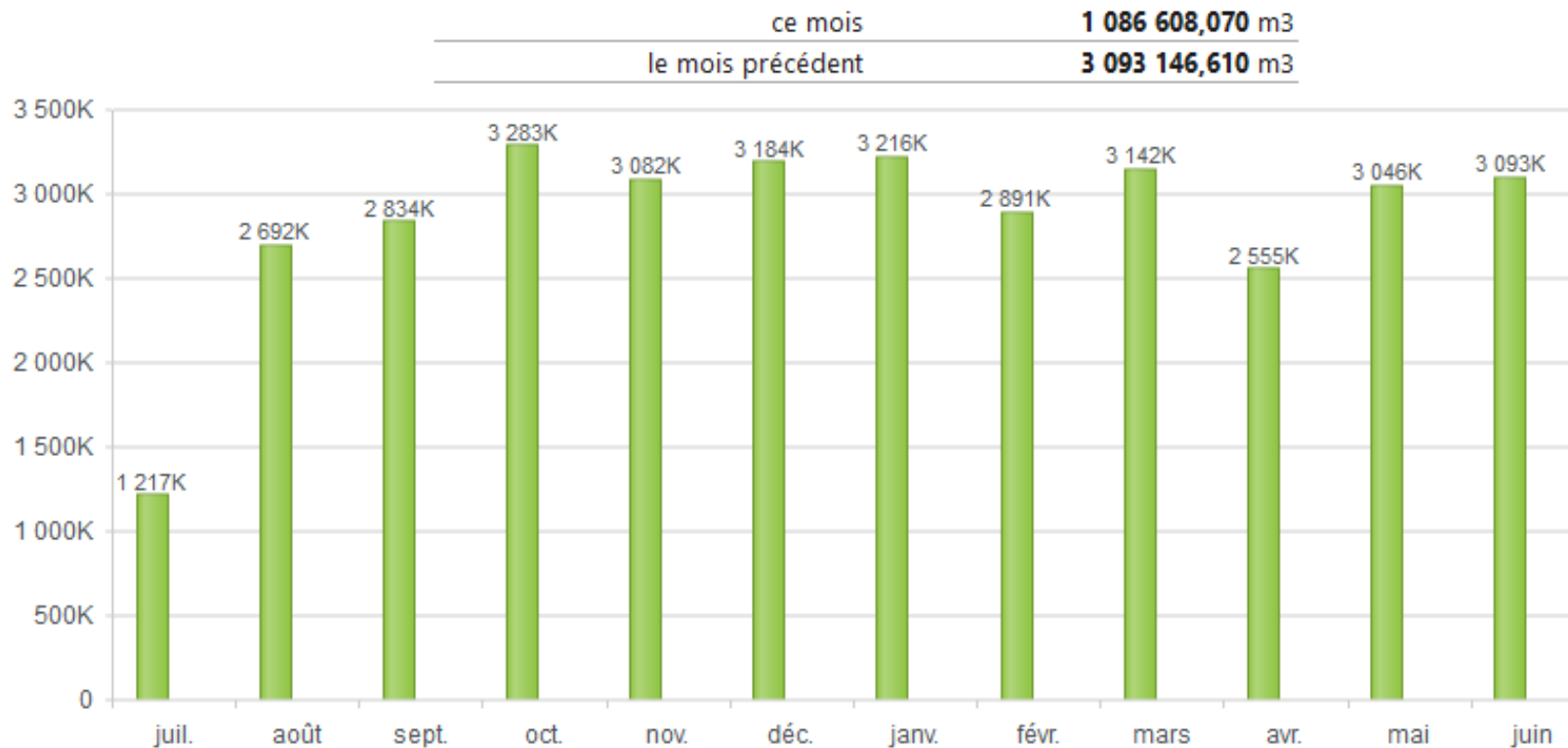
Activity 6

Activity 1 – Production Follow Up

TOUS LES SITES DE PRODUCTIONS SUIVIS

Production Site	DN meter	Installation year	Meter type	Actions	Status of Actions
ARRIVEE BUHONGA	150	2012	WOLTEX	- Replacement of mechanism - Logger installation	Done
Sortie SP2b-SP2a-1	600	-	Minisonic	- Repair of Minisonic - Logger installation	Done
REFOULEMENT SUD	300	1985	ALTOMETER	- Repair of Minisonic - Logger installation	Done
REFOULEMENT CENTRE	800	2014	KHRONE	- Repair of Khrone meter not possible - Clamp on meter installation - Logger installation	Done
REFOULEMENT NORD	400	2012	SHARPFLOW	- Logger installation	Done
NTAHANGWA VERS R1 GASEKEBUYE	200	1983	WOLTEX	- Replacement of mechanism - Logger installation	Done
ARRIVEE NTAHANGWA VERS R1c	200	2010	WOLTEX	- Replacement of mechanism - Logger installation	Done
MISUMBA	200	-	ZENNER	- Replacement of meter - Logger installation	Done
SOURCE GATUNGURU	150	1983	WOLTEX	- Replacement of mechanism - Logger installation	Done
SOURCE GITARAMUKA GIKOTO	100	2012	Flostar M	- Logger Installation	Done

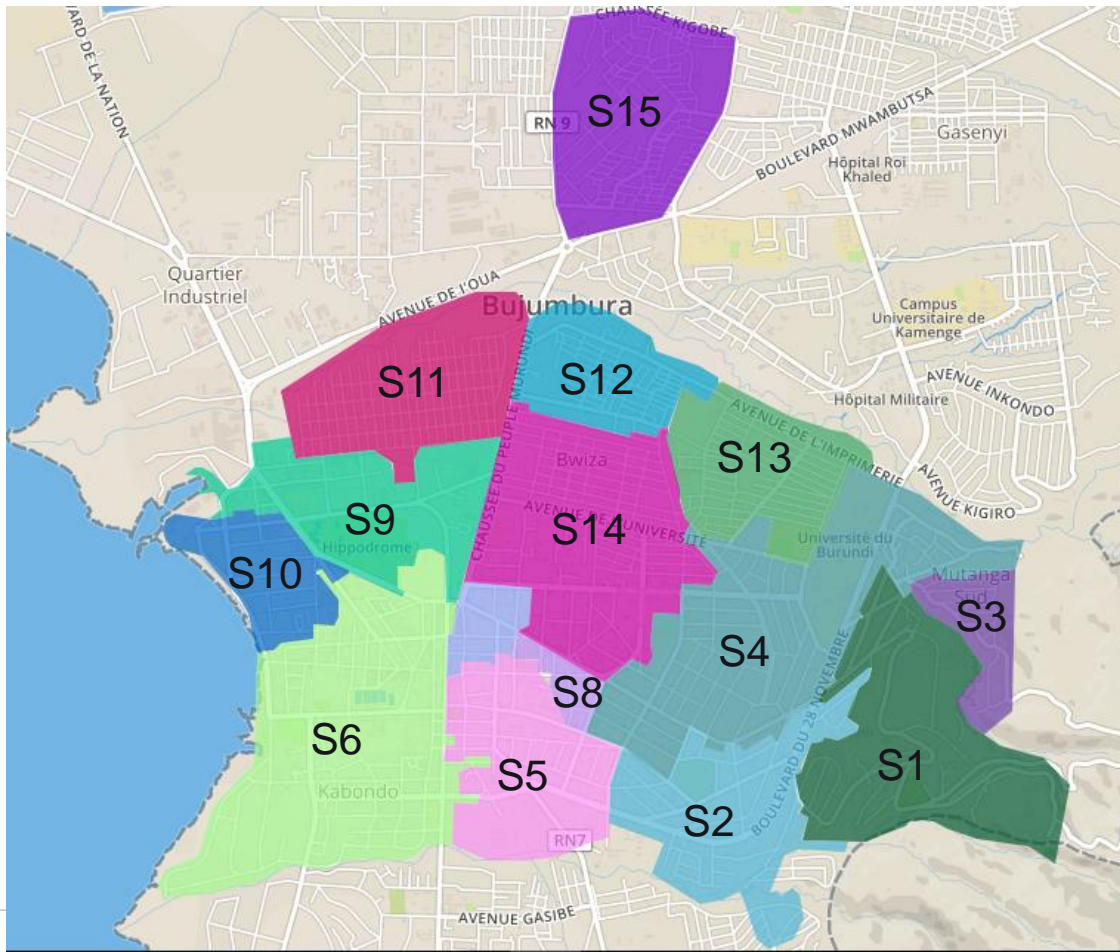
INJECTED VOLUMES IN NETWORK



Activity 2 – Management of 15 DMAs

DMAS

DMA	DMA Id #
SP6 Kiriri	S1
Gatoke	S2
Sororezo	S3
Refoulement R3	S4
Gravitaire R1	S5
Kabondo-Asiatique	S6
Commercial	S7
Marché central	S8
Prince régent	S9
Port	S10
Buyenzi	S11
Jabe	S12
Nyakabiga	S13
Bwiza	S14
Ngagara	S15



DMAS ACTIONS DASHBOARD – 1

DMA	Nbre Connections	Inputs	Outputs	Reference NRW	Replaced Meters	Leaks	Evolution NRW
S01 – Kiriri	343	2	0	54% (01/2018)			
S02 - Gatoke	503	1	0				
S03 - Sororezo	202	1	0	50% (10/2017)	100%	5 Leaks (200m3)	20% (06/2018)
S04 – Refoulement R3	274	1	3				
S05 – Gravitaire R1	310	2	0	65% (01/2018)			
S06 – Kabondo Asiatique	1 154	1	0	55% (01/2018)			
S07 - Commercial	237 (e)	1	0				
S08 – Marché Central	84	1	2				

DMAS ACTIONS DASHBOARD – 2

DMA	Nbre Connections	Inputs	Outputs	Reference NRW	Replaced Meters	Leaks	Evolution NRW
S09 – Prince Régent	117 (e)	1	0				
S10 – Port	391 (e)	1	0				
S11 – Buyenzi	1305	1	0	35% (12/2017)			
S12 – Jabe	892	2	0	35% (12/2017)			
S13 – Nyakabiga	1 178	3	0				
S14 – Bwiza	1 715	2	1	45% (12/2017)			
S15 – Ngagara	1 345	2	0				
Bujumbura Total	53 765	10	0	48% (12/2017)			

S03 - SOROREZO

Level of NRW in the DMA :

2017 average level, before the project : **~50%**

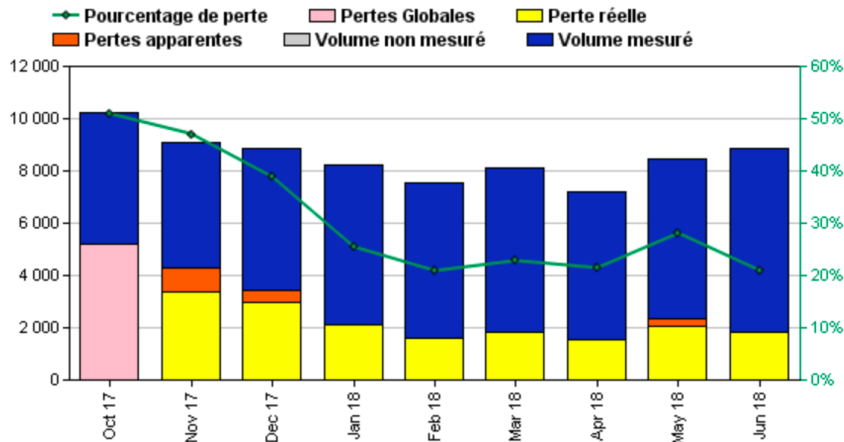
NRW June 2018: **20%**

Billing reading time evolution :

Frequency : **12** reading per year

Before the project : **30h/reading campaign** (2 meters readers)

After the project : **45min/reading campaign** (1 meters reader)



Real losses management :

Year 2018 :

5 leakages detected, flow : **0.35m³/h**

Repair June 15th 2018

Monthly volume of the fixed leakages : **400m³/month**

Apparent losses management :

Additional monthly volume : **+500m³/month**

Billing estimated gain : **+11%**

Evolution of the number of connections :

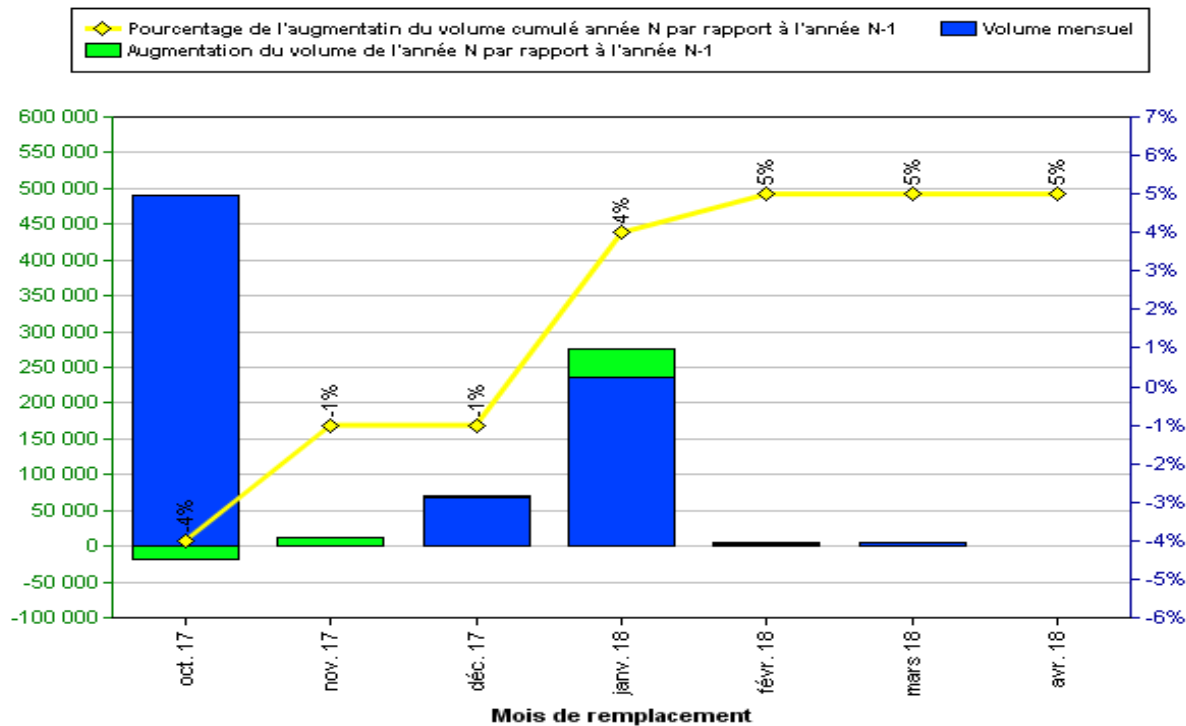
Before the project : **202**

In December 2017 : **202**

Activity 3 – Management 250 Top Consumers

C&I CONSUMMERS REPLACEMENT

- 170 Meters to replace in contract year
- 75 Meters replaced so far

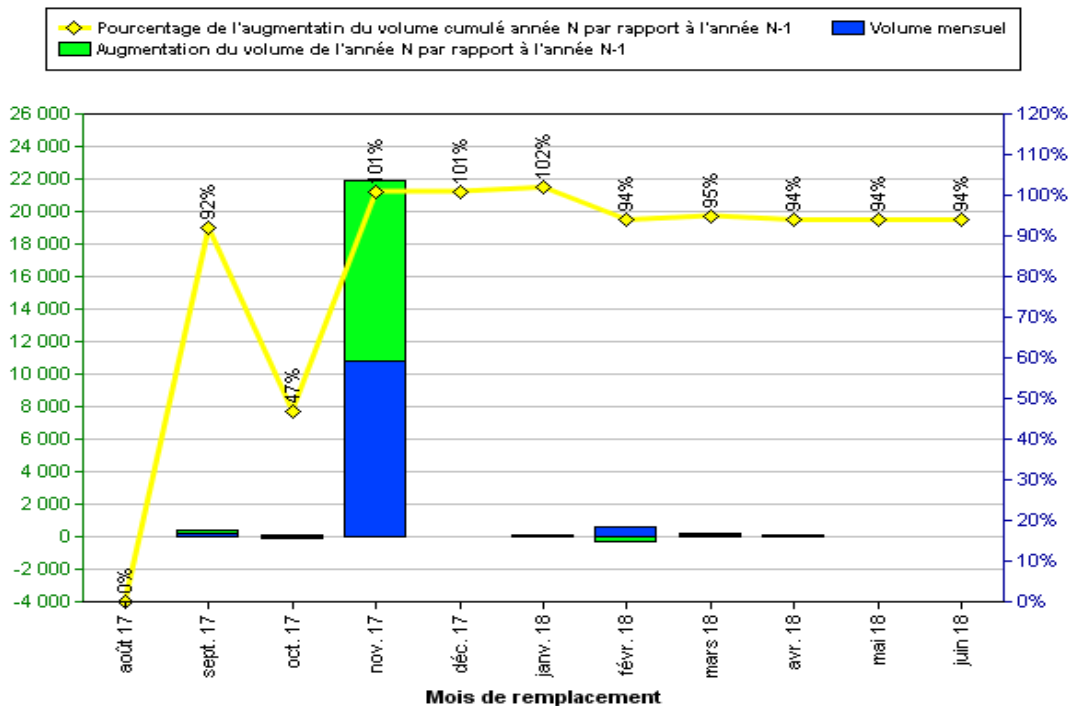


AUGMENTATION TOTALE DU VOLUME CUMULÉ
36420 M3

ACTIVITY 4 – MANAGEMENT BLOCKED METERS

BLOCKED & UNREADABLE METERS

- Nov. 17: 2614 Blocked meters replaced
- 7,500 additional under identification!



AUGMENTATION TOTALE DU VOLUME CUMULÉ
11156 M3

The Itron logo is located in the top left corner. It consists of the word "Itron" in a white, sans-serif font, with a small yellow lightning bolt icon above the letter 'i'. The logo is set against a red rectangular background.

WATER LOSSES: ARE YOU GETTING A CLEAR PICTURE ?



THANK YOU



www.itron.com