

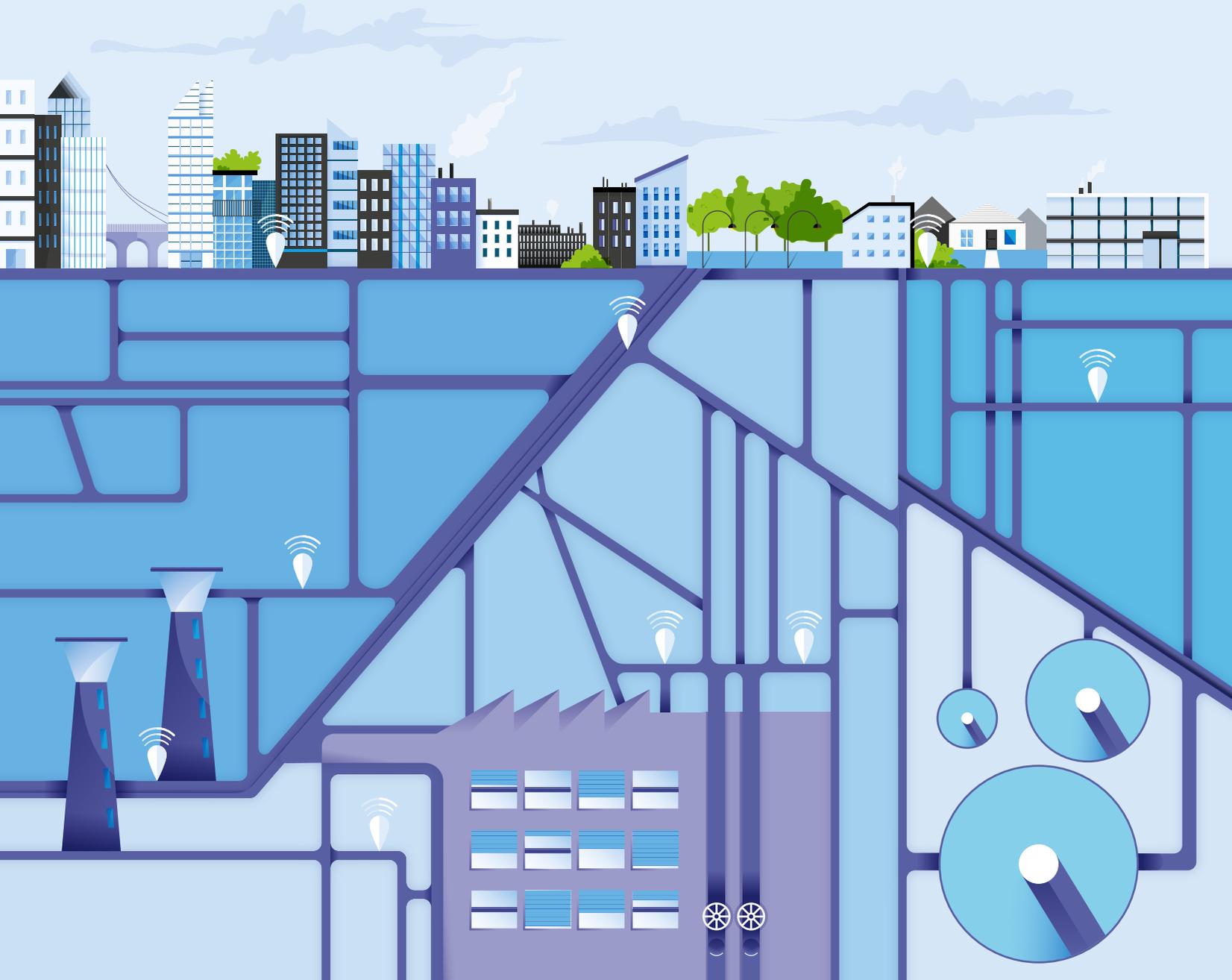
# PERFORMANCE PROVIDER

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# MODULAR DIAGNOSIS, OPTIMIZATION AND PERFORMANCE-MANAGEMENT SOLUTIONS FOR WATER AND SANITATION SYSTEMS

WORKING TOGETHER TO OPTIMIZE  
THE PERFORMANCE OF DRINKING WATER  
SUPPLY NETWORKS AND PRESERVE  
OUR RESOURCES

WMI is committed with excellence on all your projects worldwide, because we share the will to provide sustainable access to drinking water, in order to reconcile human activities and the preservation of our environment.

WMI - Water Management International is a specialized subsidiary of the water works department of VINCI Construction Grands Projets, which designs and builds major civil engineering and building projects.

WMI is dedicated to assessing and optimizing drinking water and sanitation systems, and has been providing its expertise worldwide to operators of networks and services since 1989.

We help you design and operate **efficient and quality water supply systems** for your customers.

Based on our experience and expertise in all areas of water supply, from water sources to consumers, we can provide solutions, **from engineering design to implementation of works and commissioning**, that are customised to the needs, budget and priorities of our clients. Our services range **from technical assistance to turnkey projects**.

We can also develop financial solutions for your projects.

Through the management of **smart networks**, we ensure greater safety and reliability, more relevant decision-making, and better operational control. Thus, you can provide better customer service and **optimize your systems' environmental and financial performance**.

To ensure that actions undertaken are sustainable and operators are fully in control of water supply systems, WMI teams are keen to pass on their know-how to local and client personnel.

OUR MAIN FOCUS:  
CONTROLLING AND REDUCING NON-REVENUE WATER (NRW)



# SOLUTIONS OF ENGINEERING, SERVICES AND WORKS

for the management of water and sanitation systems





# TECHNICAL optimization

A constant challenge for local, regional or national utilities and operators of water and sanitation systems, is to improve technical performance to ensure that people have access to sufficient and high-quality drinking water.

WMI provides support to optimize the management of water system networks, from diagnosis to the implementation of an action plan aimed at preserving water resources and ensuring the sustainability of assets.

Our main objective is to reduce technical losses through various key actions: active detection and repair of visible and non-visible leaks, implementation of a Geographical Information System (GIS), hydraulic modelling, network zoning and pressure management.



◀ Pressure regulation, Jamaica

WMI helps you implement solutions for effective commercial management and responsive, exemplary customer service.



Smart water meter, Barbados

A key objective is to ensure that all water consumption is consistently and accurately measured and that customers are billed fairly.

To secure your revenue, we help you evaluate, upgrade and maintain your measuring tool as well as optimize the commercial management chain (consumer survey, pricing/subscription, customer database, meter reading, analysis of consumption, billing and revenue recovery).

## ENGINEERING

## SERVICES

## WORKS

NETWORK DIAGNOSIS	NETWORK SURVEY/PIPES AND CABLES DETECTION	IMPLEMENTATION OF A DISTRICT METERING AREAS DESIGN
HYDRAULIC MODELLING	GIS MAPPING AND DATA ENTRY	CONSTRUCTION OF MEASUREMENT CHAMBERS AND HYDRAULIC SECTORS
NETWORK ZONING ( <i>design</i> )	DETECTION OF NON-VISIBLE LEAKS: ACOUSTIC METHODS ( <i>correlation, geophone</i> ) OR TRACER GAS	HYDRAULIC EQUIPMENT INSTALLATION
IWA APPROACH: WATER BALANCES, MONITORING OF INDICATORS ( <i>ILI, LLI, ...</i> ), BENCHMARK	MEASUREMENT CAMPAIGNS/QUANTIFICATION	INSTALLATION AND CONFIGURATION OF PRESSURE CONTROL VALVES
PRESSURE MODULATION/OPTIMIZATION	THEORETICAL AND FIELD TRAINING	REPAIR OF LEAKS OF ALL TYPES AND SIZES
ENERGY BALANCE	VIDEO INSPECTION	LAYING AND REPLACEMENT OF PIPELINES
OPTIMIZATION OF PUMPING AND STORAGE	TIGHTNESS TESTING (AIR OR WATER TYPE TEST)	REHABILITATION OF PUMPING STATIONS
DEFINITION OF STRATEGIES AND ACTIONS PLANS		

## ENGINEERING

## SERVICES

## WORKS

CUSTOMER DATABASE ANALYSIS	SURVEY OF CUSTOMERS AND ILLEGAL CONNECTIONS	INSTALLATION OF METERS ( <i>domestic, commercial and industrial</i> )
MONITORING OF CONSUMPTION/ KEY PERFORMANCE INDICATORS	CUSTOMER DATABASE UPDATING AND RECLASSIFICATION	MOBILE REMOTE METER READING ( <i>walk by/drive by</i> )
METER READING, BILLING AND REVENUE MANAGEMENT	GIS MAPPING AND DATA ENTRY	INSTALLATION OF AUTOMATIC METER READING SYSTEMS AND FIXED NETWORKS (AMR/AMI)
METER ANALYSIS AND REPLACEMENT PLANNING	INSTALLATION OF METER TEST BENCHES	INSTALLATION AND REPLACEMENT OF SERVICE CONNECTIONS
CUSTOMER SATISFACTION SURVEYS AND CONTINUOUS IMPROVEMENT	IDENTIFICATION OF MEASURING ERRORS	
DEFINITION OF STRATEGIES AND ACTION PLANS	ESTABLISHMENT OF CONSUMPTION PROFILES	
	THEORETICAL AND FIELD TRAINING	
	INSTALLING AND UPDATING OF CUSTOMER INFORMATION SYSTEMS ( <i>CIS</i> )	
	SELECTING AND INSTALLING OF METER DATA COLLECTION ( <i>MDC</i> )/ METER DATA MANAGEMENT ( <i>MDM</i> ) SYSTEMS	

### PILOT PROGRAM TO REDUCE NON-REVENUE WATER IN THREE PRIORITY AREAS

Yangon, Myanmar

As part of the implementation of the NRW reduction action plan of Yangon City, WMI teams trained technicians of the water utility (YCDC) to detect leaks with tracer gas.

This technique is especially used in the case of low pressure networks.



### IMPROVEMENT OF THE COMMERCIAL MANAGEMENT SERVICE OF THE NATIONAL WATER COMMISSION (NWC)

Jamaica

WMI supplied and selectively replaced/installed more than 120,000 water meters, DN15 mm to 100 mm, more than 4,000 of which were equipped with remote reading systems.

In addition, a manual and semi-automatic reading (AMR/AMI compatible) system with a capacity of 400,000 subscribers was installed.

At the same time, the technical assistance provided by WMI, including co-management with the NWC, resulted in a sustained increase in NWC incomes of approximately \$17.7 million/year.





# OPERATIONAL assistance

WMI is committed to improve and maintain the sustainable performance of water and sanitation systems through smart management of resources. We aim at providing our clients with better service and help them achieve optimized environmental and financial performance.

Working closely with water network operators, WMI establishes appropriate data retrieval, processing and analysis solutions.

We implement solutions that are compatible with systems already in place, thereby enabling seamless communication and interoperability. In addition, decision-making processes are built in so as to ensure dynamic and effective operational management.

## SMART NETWORKS: improved network performance through intelligent applications

The smart network approach combines constant monitoring and remote control of facilities (telemetry, SCADA), smart metering and asset management.

The monitoring of production (via GSM/GPRS) and consumption values (via radio, fixed and mobile systems, AMR/AMI), as well as the real-time detection of leaks, make it possible to optimize physical and financial performance, reduce power consumption and provide better information to clients (leak and high/low consumption alerts, daily readings, etc.).

### ENGINEERING

### SERVICES

### WORKS

ASSET MANAGEMENT	CADASTRAL/SURVEY MAPPING	INSTALLATION OF TELEMETRY/SCADA SYSTEMS
GIS (implementation)	GIS OPERATION	PREVENTIVE AND CORRECTIVE MAINTENANCE
DESIGN OF COMPUTERISED MAINTENANCE MANAGEMENT SYSTEM (CMMS)	MANAGEMENT OF TECHNICAL INTERVENTIONS	
DESIGN OF SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) AND TELEMETRY	INFORMATION SYSTEMS TRAINING	
MANAGEMENT OF INFORMATION SYSTEMS	OPERATION AND MAINTENANCE	
EXPLOITATION OF DATA AND DECISION-MAKING TOOLS		
ALERT IN CASE OF INCIDENT (abnormal flow, failure, fraud, overflow, flood...)		



# INSTITUTIONAL SUPPORT and organizational strengthening

WMI is committed to the institutional development of the water sector, and supports public authorities and management entities in achieving their goals and missions to provide transparency and quality services while controlling rates.

To achieve this, WMI will assess the situation and formulate recommendations on methods/procedures for operations, financing, collaboration, control and regulations.

We define the strategic priorities needed to strengthen water and sanitation utilities across all their divisions. WMI's experts will provide you with assistance to develop strategic plans for both technical and commercial enhancement.

Using sustainable management methods, WMI will also develop and implement organisational change strategies to achieve technical, societal and financial excellence.

### ENGINEERING

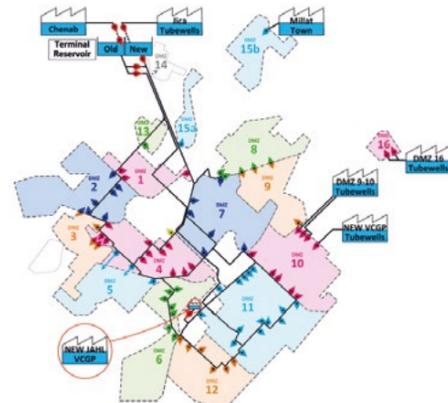
### SERVICES

INSTITUTIONAL ASSESSMENT AND AUDIT	OPINION AND CUSTOMER SATISFACTION SURVEYS
TARIF, FINANCIAL AND ECONOMIC STUDIES	PUBLIC AWARENESS PROGRAM
PREPARATION OF REGULATORY AND LEGAL INSTRUMENTS	CAPACITY BUILDING AND CHANGE MANAGEMENT
DEVELOPMENT OF STRATEGIC PLANS FOR THE WATER SECTOR	STUDY TRIPS
INSTITUTIONAL REFORM SUPPORT	ASSISTANCE WITH TENDERS AND PROCUREMENT
ORGANIZATIONAL AUDITS	TECHNICAL AND MANAGERIAL ADVICE
DEVELOPMENT OF AN INTERNAL IMPROVEMENT PLAN	

## OPTIMIZATION OF THE WATER SUPPLY NETWORK OF FAISALABAD

Faisalabad, Pakistan

Following the updating of GIS mapping and the creation of a hydraulic model (WaterGEMS®), the network zoning for the Faisalabad distribution network (1,600 km) was designed and 90 DMAs were installed. A SCADA system for remote monitoring and control (flow/pressure) of the distribution network was also designed, installed and put into service.



## TECHNICAL ASSISTANCE TO THE ADDIS ABABA WATER AUTHORITY

Addis Ababa, Ethiopia

WMI provided support to AAWSA in the specific commercial, financial and technical fields to increase its efficiency on various points: drinking water and sanitation, non-revenue water, customer management, operation and maintenance, information technology, finance, institutional and organizational strengthening of the general management, and contractual management.



# Our main REFERENCES



