

VIVAVIS



WATER SOLUTIONS

Water Network Advanced Management and
NRW Management

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WATER SOLUTIONS

Water Network Advanced Management and NRW Management

- ✓ VIVAVIS
- ✓ Challenges in Water Operation
- ✓ Solution for Advanced Water Management Systems
- ✓ What is AWM/NRW Non Revenue Management
- ✓ NPM – Network Planner and Manager
- ✓ Live Demo of NPM



SUSTAINABLE INFRASTRUCTURE



SUSTAINABLE INFRASTRUCTURES

FOR LIVABLE CITIES

Digital Transformation, Telecontrol, IoT
Network Control and Advanced Network Management Systems

| | | | | | |
|---|-----------------------|---|----------------------------|---|------------------------------------|
|  | +40 COUNTRY |  | +10.000 CUSTOMER |  | +100 YEARS OF EXPERIENCE |
|---|-----------------------|---|----------------------------|---|------------------------------------|

Challenges in Water Operation



NRW Non-Revenue Water
Water Losses (Physical and Commercial)



Operation Costs
(Energy, Operation, Maintenance)



Malfunctions
in the Network



Pressure Instability
High Pressure or Pressure Drop



Limited Water
Resources



Consumer Complaints
Service, Water Quality



Variable Consumption Demands
Nighttime, daytime, and seasonal consumption (summer, winter, holidays)



Non-digital and Unknown Assets in the Network
Ineffective intervention and management deficiencies



Lack of KPI System for the Overall Operation Status
Performance of the operation



Lack of Decision Support Systems
Operation planning investments



Lack of Unified Management Platform
Integrated with expert systems

SUSTAINABLE

Solution for Advanced Water Management System ?



Digital Twinned Infrastructure
Pipe Network and Facilities



Modeled and Simulated Network
Operation Plans



NRW Non Revenue Water Management
DMA - District Metered Area



Operation and Energy Efficiency
Production and Distribution



Resource Management
Supply and Distribution



Reducing Malfunctions and Extending the
Economic Lifecycle of Infrastructure and Assets



Driving operational improvements
Refining Operational Planning



Advanced Event Management
Reporting, Anomaly Detection, AI-Driven Data Analytics



KPI Based Operation
Operational KPIs, Water Loss KPIs (ILI - Infrastructure Leakage Index, LPC - Leakage Performance Category, Loss/km/day, Loss/connection/day, etc.)



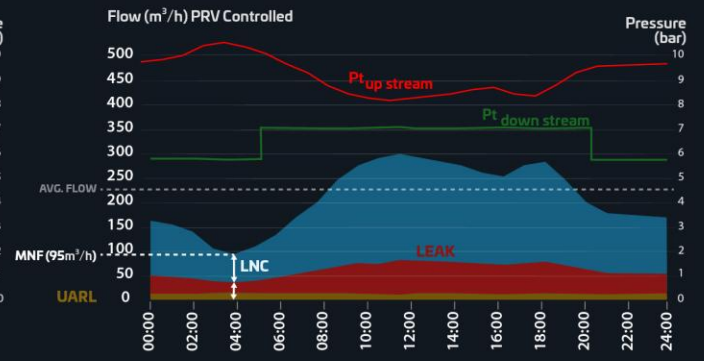
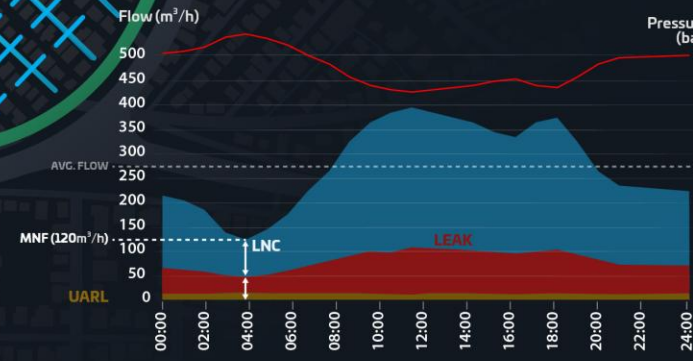
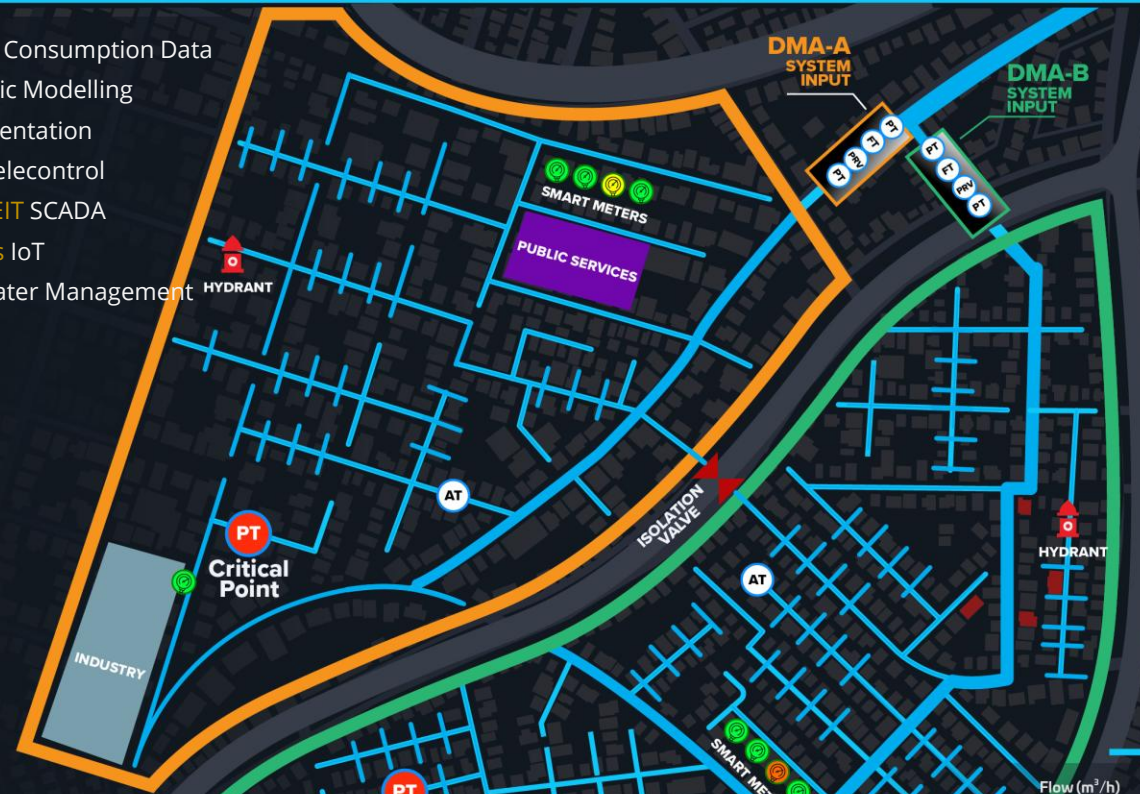
Unified Management Platform
Collects real-time data from various expert systems
SCADA, GIS, HMS, AMR, AM, WFM



WATER BALANCE

| | | | |
|--------------|---------------------------------|---|-------------------|
| System Input | Billed Authorized Consumption | Billed Metered Consumption (Including Water Exported) | Revenue Water |
| | Unbilled Authorized Consumption | Billed Unmetered Consumption | |
| Water Losses | Apparent Losses | Unauthorized Consumption | Non-Revenue Water |
| | Real Losses | Customer Meter Inaccuracies | |
| | | Leakage On Transmission And/ Or Distribution Mains | |
| | | Leakage And Overflows At Utility's Storage Tanks | |
| | | Leakage On Service Connections Up To Point Of Customer Metering | |

- GIS and Consumption Data
- Hydraulic Modelling
- Instrumentation
- ACOS Telecontrol
- HIGH-LEIT SCADA
- Octopus IoT
- NPM Water Management



MNF-MINIMUM NIGHT FLOW



NETWORK PLANNER AND MANAGER

ADVANCED WATER MANAGEMENT PLATFORM



Key Features of NPM



Digital Twin-Based Network Management



Real-Time Integration with Expert Systems



Efficient Resource Allocation and Distribution



Advanced NRW and Pressure Management



Proactive Monitoring and Anomaly Detection



Customizable Dashboards



GIS-Enhanced Visualization



Investment Planning Support



Active Leak Control Services Management



Compliance with International Standards





NETWORK PLANNER AND MANAGER

ADVANCED WATER MANAGEMENT PLATFORM

Live Demo
Loading...

VIVAVIS | WATER



THANK YOU

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