Water Utilities: Driving the Future with Digital

Wipro's presence and capabilities in the water industry

wipro

Water Utilities: Driving the Future with Digital

Water is vital for every form of life on earth. Getting water to the right place at the right time with great reliability is not just an important business but an essential one. And the challenge is getting harder.

Climate change is wreaking havoc with the world's water supplies – and forcing utilities (along with every other sector) to become more sustainable. An increasingly urban population is making new demands on local water utilities. Safety is, of course, an ongoing mandate.

These realities are changing the economic fundamentals of the water industries – and demanding big changes in the ways utilities work. Technology will play a huge role in enabling water utilities to meet the demands today and in the future.

Wipro is using digital technologies to make water utilities smarter, more innovative, and more future-ready – to accelerate their digital transformation.

A key part of the Wipro strategy is to build reusable components that can accelerate business transformations, then to couple that investment in preconfigured solutions with real-world experience in helping water and wastewater customers build new capabilities and deliver results:

- Improved customer experiences, like driving digitally enabled self-service, delivering always-on service availability, and ensuring affordability.

- Asset investment strategies to address aging infrastructure – for example, deploying predictive maintenance based on machine learning, supplying situational intelligence on operations, and enabling smart network management.

- Rising costs of water and wastewater management necessitate analytics-based efficient energy operations, optimal inventory management, and effective workforce utilization.

- Stringent regulations and climate change means focusing on digital solutions for catchment management, water quality and sustainability, and real-time monitoring for regulatory compliance.

- Workforce challenges demand intuitively easy and contextually aware knowledge management, digital assistants, and industry-standard enterprise systems.

Digital Transformation for Water Utilities

Going digital is essential for virtually every business and sector, including the water industries. Digital transformation is the best and fastest route to improving the customer experience, to growing revenues and profitability, and to pave the way for the future.

Wipro offers a full set of digital solutions for the water industries that focus on the elements depicted in Figure 2.
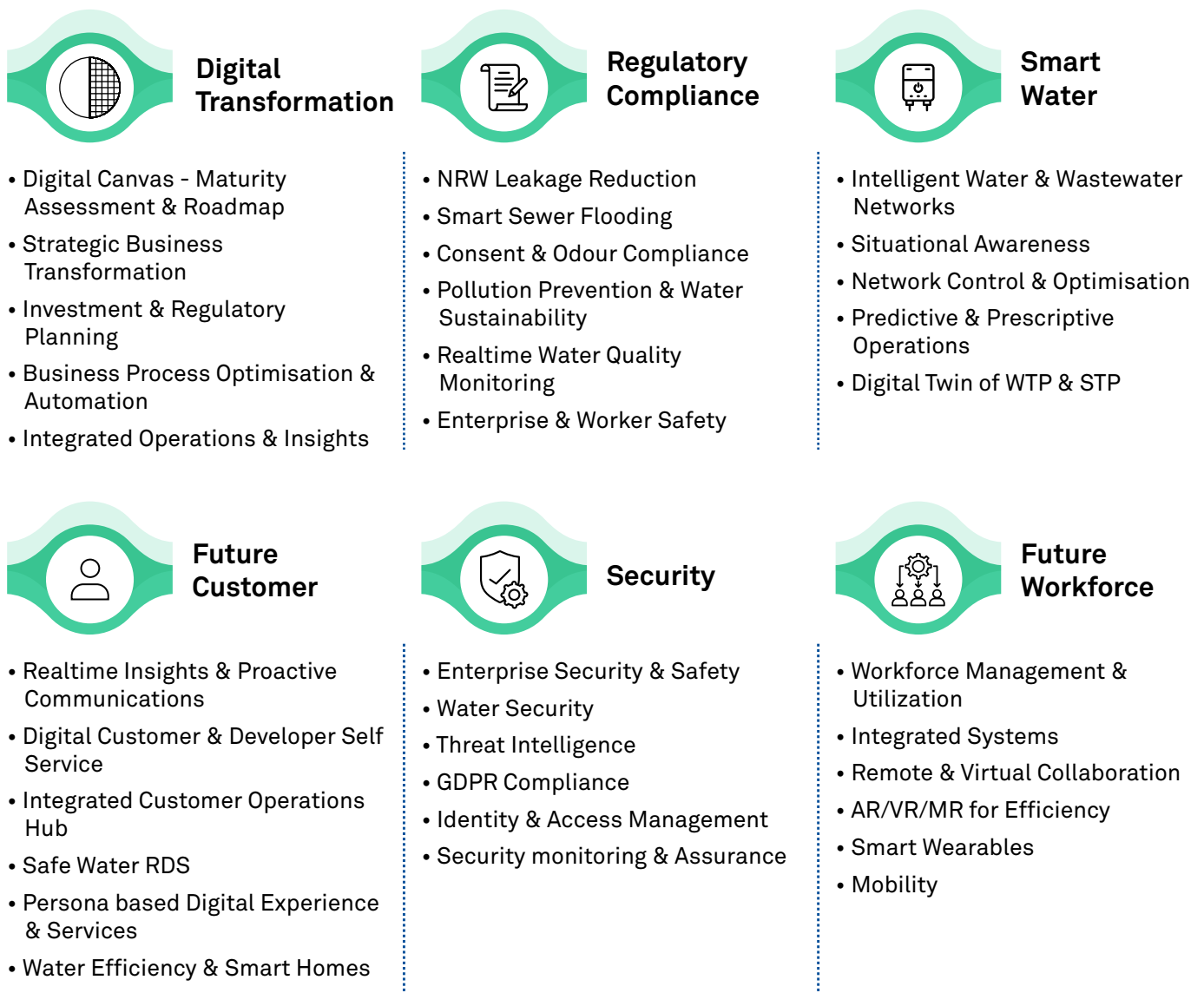
Digital Transformation

- Digital Canvas - Maturity Assessment & Roadmap
- Strategic Business Transformation
- Investment & Regulatory Planning
- Business Process Optimisation & Automation
- Integrated Operations & Insights

Regulatory Compliance

- NRW Leakage Reduction
- Smart Sewer Flooding
- Consent & Odour Compliance
- Pollution Prevention & Water Sustainability
- Realtime Water Quality Monitoring
- Enterprise & Worker Safety

Smart Water

- Intelligent Water & Wastewater Networks
- Situational Awareness
- Network Control & Optimisation
- Predictive & Prescriptive Operations
- Digital Twin of WTP & STP

Future Customer

- Realtime Insights & Proactive Communications
- Digital Customer & Developer Self Service
- Integrated Customer Operations Hub
- Safe Water RDS
- Persona based Digital Experience & Services
- Water Efficiency & Smart Homes

Security

- Enterprise Security & Safety
- Water Security
- Threat Intelligence
- GDPR Compliance
- Identity & Access Management
- Security monitoring & Assurance

Future Workforce

- Workforce Management & Utilization
- Integrated Systems
- Remote & Virtual Collaboration
- AR/VR/MR for Efficiency
- Smart Wearables
- Mobility

Figure 2: Focal points for digital transformation for water utilities

Wipro's approach to innovation for the water utilities and long track record has led to multiple examples of innovations unique to this industry:

Digital Canvas

A Digital opportunity canvas to help water utilities assess the Maturity and create a transformation roadmap.

Safe Water RDS

A Rapid Deployment Solution using SAP or Oracle for CRM and Billing capabilities

Smart Water EAM

An end-to-end Asset management solution powered by Wipro AI Models for Water Sector

CX Platforms

Digital Customer experience platforms using new age products for efficient customer experience

Smart / Digital Twins

Digital twins of Network or Treatment Plants to monitor critical assets in real-time

Smart I-Connect

A ready to deploy solution using Internet-of-Things (IoT) technology with open standard architecture supports multiple protocols and helps realize advanced analytics for newly harnessed and existing data.

Low Cost IoT Sensors

Wipro's engineering solution that can help in reducing the cost of sensors with fit for purpose IOT sensors developed as per customer requirements.

Pipe Sleuth Anomaly Detection

AI-powered pipe condition assessment solution for metropolitan wastewater networks

Water Insights Platform

An integrated and AI-enabled proposition for all requirements across water distribution stages for clean and wastewater businesses.

Smart Wearables

A connected worker solution with esteem sensor and wearables providers for the health and safety of employees

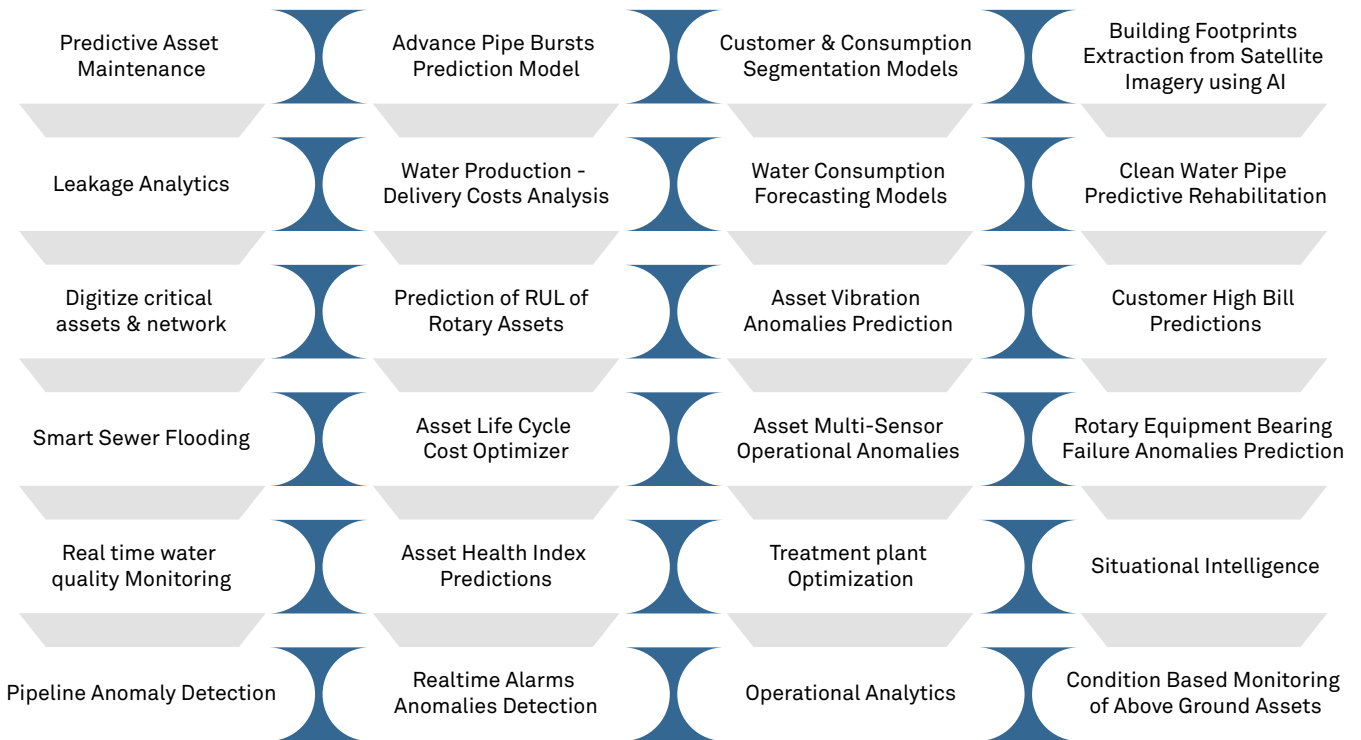## Digital IoT & Analytics Platform

A Digital IOT & Analytics Platform that helps in building a Smart Water Network powered by Intelligent insights

Process Optimisation/ Automation

Helping customers to automate business processes and eliminate tedious manual tasks

One of the key enabling technologies for Wipro's water industry solutions is artificial intelligence/machine learning, and Wipro has created many AI-powered models for the sector:

Predictive Asset Maintenance	Advance Pipe Bursts Prediction Model	Customer & Consumption Segmentation Models	Building Footprints Extraction from Satellite Imagery using AI
Leakage Analytics	Water Production - Delivery Costs Analysis	Water Consumption Forecasting Models	Clean Water Pipe Predictive Rehabilitation
Digitize critical assets & network	Prediction of RUL of Rotary Assets	Asset Vibration Anomalies Prediction	Customer High Bill Predictions
Smart Sewer Flooding	Asset Life Cycle Cost Optimizer	Asset Multi-Sensor Operational Anomalies	Rotary Equipment Bearing Failure Anomalies Prediction
Real time water quality Monitoring	Asset Health Index Predictions	Treatment plant Optimization	Situational Intelligence
Pipeline Anomaly Detection	Realtime Alarms Anomalies Detection	Operational Analytics	Condition Based Monitoring of Above Ground Assets

Wipro's Experience with Water Utilities

Wipro has worked with water utilities for more than two decades and, for the past 10 years, has built a global team dedicated to serving water and wastewater utilities by delivering innovative IT solutions to help them do business better. The result is deep domain experience, informed by an in-depth understanding of the sector's unique business processes and an end-to-end business process model that incorporates best practices from this and other industry sectors.

Currently, the Wipro team includes more than 1,500 associates focused exclusively on water utility challenges and features a Water Center of Excellence, charged with driving innovation into the water sector. Today, Wipro has 32 water and wastewater utility customers around the world, enterprises that benefit from 45 water-industry-specific domain solutions.

A snapshot of Wipro's Global footprint in the Water sector:

America
- Greater Cincinnati Water Works
- DC Water
- Los Angeles Water and Power
- Denver Water
- Alexandria Renew

Middle East
- Abu Dhabi Water
- National Water Company
- Dubai Electricity & Water Authority
- Haya Water

India
- Delhi Jal Board
- Punjab Government's Department of Water Supply & Sanitation
- L&T ECC

UK & Ireland
- Thames Water
- Southern Water
- Northumbrian Water
- Severn Trent Water
- United Utilities
- Wessex Water
- Bristol Water
- Welsh Water
- Yorkshire Water
- Scottish Water
- Irish Water

Australia
- Sydney Water
- SA Water
- Melbourne Water
- CWW
- Yarra Valley Water
- South East Water
- Water Corp
- Water NSW

France
- Veolia Water

Asia Pacific
- Guam Waterworks Authority

200+ Years of Experience

32+ Waste Water Utilities

400+ Industry – Specific business applications

1500+ Team focusing on Water Accounts

45+ Innovative Soluions

System Integration

Digital Transformations

Application Services

IOT, Cloud & Infrastructure

Consulting & Advisory

BPO / KPO Services

Data Analytics & Artificial Intelligence

Product Engineering

Embrace The Future

Domain experience. Proven solutions. A track record of innovation. And a deep commitment to the success of water industry clients. This is what Wipro brings to the table.

These aspects of the Wipro approach enable water and wastewater utilities to embrace the future, to transform their enterprises to operate even more intelligently and even more efficiently and to deliver even more powerful and valuable customer experiences.

To learn more about Wipro and the water industry, please visit Wipro Water microsite.

https://www.wipro.com/utilities/water-utilities-/

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