

Digital Water



A Global Issue

Globally, nearly all countries face a growing **funding gap** as they try to keep up with the rehabilitation, operation, and maintenance of aging water infrastructures.

New water systems must be built to cope with **growing populations**, shifting **consumption patterns**, and a changing **climate**.

In developing countries, public and private investment has not kept up with **demand for water infrastructure**, which increases costs in the long-run.



\$9 billion

yearly cost of operational inefficiencies in Africa¹

€89.8 billion

investment by Western Europe water utilities²

RMB4T

set aside in China to address infrastructure issues³

Sources:

American Water Works Association¹
American Society of Civil Engineers²
Deloitte³

Challenges and Costs

Some inherent qualities of water infrastructure have allowed it to be neglected over time:

- Most obvious, the **physical assets are invisible**, often buried underground. Further, there is a lack of baseline data/knowledge on pipelines – including mapping, piping material, size, or installation dates. This forces water utilities to operate in a very reactionary way.
- The majority of assets are managed at the local/municipal level. This **highly decentralized network** makes **data collection and information sharing**

a challenge. This is compounded by the aging workforce that presents risk to institutional knowledge for these disparate systems.

- Providers are often unaware of an issue, such as a pipe burst, until it literally surfaces. **Without real-time insight** into network infrastructure conditions, **operators are trapped in a negative reactive cycle.**



\$1 trillion

needed to restore
U.S. water pipes¹

2.1 trillion

gallons of water lost
annually in the U.S.²

65.5%

of pipes are
over 20 years old³

Sources:

African Development Bank Group¹
Water & Wastewater International²
China Water Risk³

The Digital Solution



The Industrial Internet brings together people, machines and data to solve problems in a faster, more predictive way.

It can take information from disparate sources and use it to trace the root cause of a problem and stop it from happening again; or, even better, uncover potential issues before they happen.

Customer Benefits

Our goal is to **build a more sustainable water future** by delivering software-as-a-service (SaaS) through a single platform to produce operational efficiencies that **improve water quality and availability** worldwide. By utilizing a **single-platform approach** for data

collection, management and analysis, we are able to help water utilities shift to a **proactive** service model.

Utility Priorities



Deliver Drinking Water

- Reliability + Security
- Public perception and transparency



Reduce Non-Revenue Water

- Leakage Management



Reduce Operating Costs

- Labor + Energy



Join Disparate Data Sources

- Flow + Pressure + Demand + Labor + Network Mapping

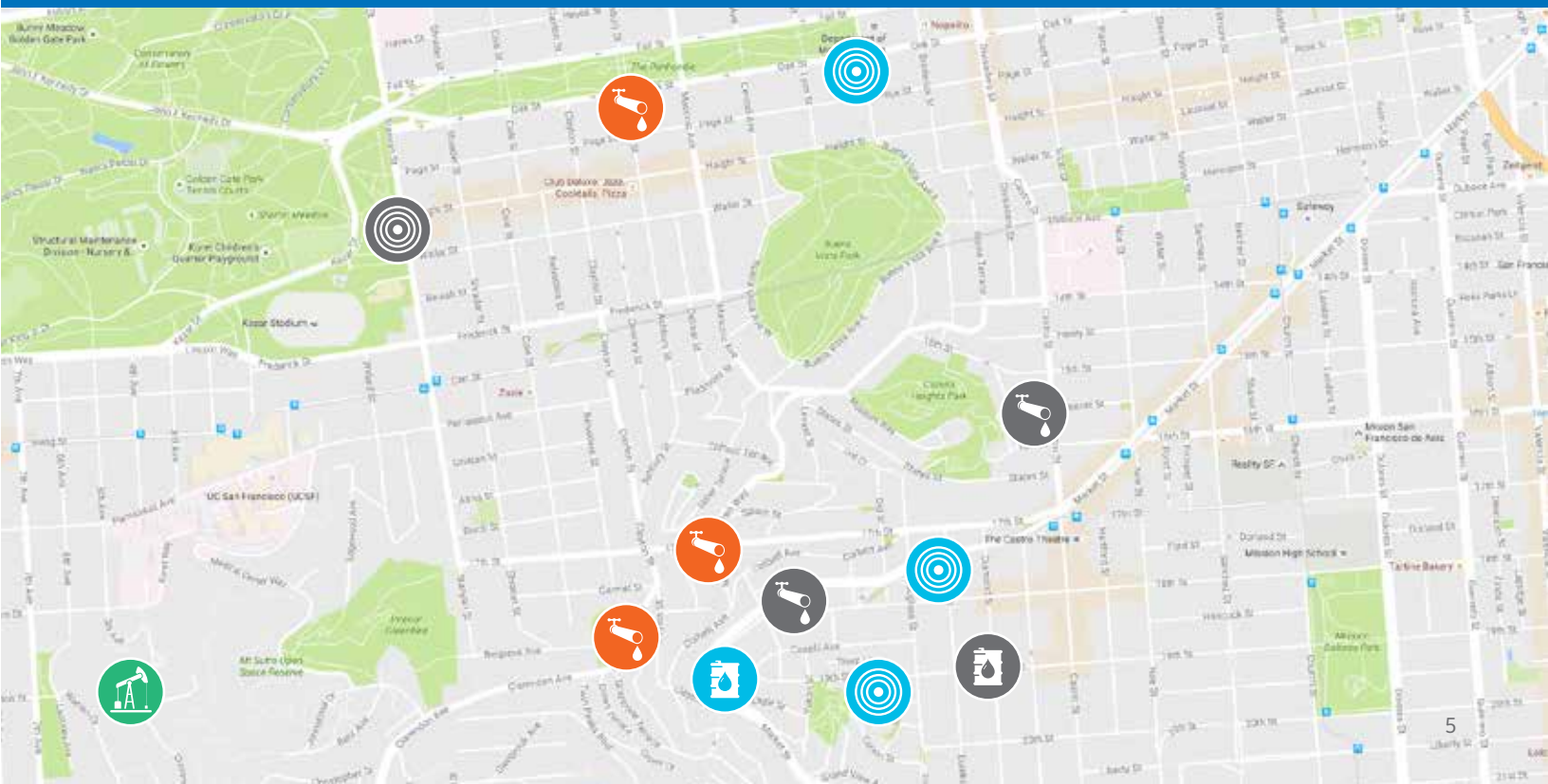
Opportunities

Deliver real time network overview without additional CAPEX

Next generation software that goes beyond simple anomaly detection

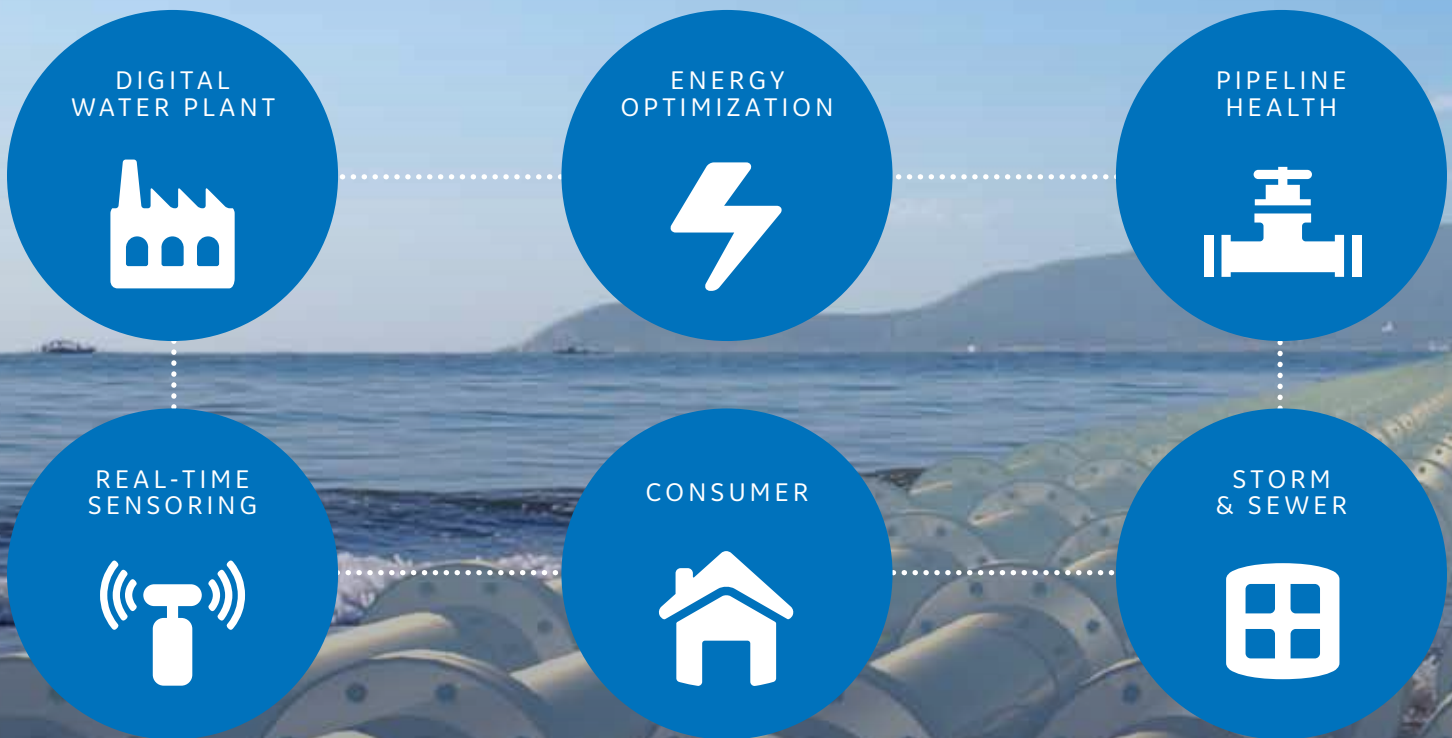
Leverage predictive analytics to proactively deploy resources

Streamlined data management - device agnostic data aggregation



Our Suite of Software-Enabled Solutions

Water & Process Technologies combines our **decades of experience** in water treatment and digital asset optimization with **cutting-edge Industrial Internet solutions** to address the biggest water infrastructure challenges across the globe.



Our Digital Water solutions connect “inside the fence” plant operations with “outside the fence” distribution networks to **optimize the holistic treatment and delivery lifecycle** for drinking and waste waters.

Municipalities and water utilities worldwide can use a seamless **software solution set** to put their data to work, addressing aging infrastructure, manpower constraints, and water conservation.



To learn more, visit www.gewater.com/digital



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