

30th
YEARS

Sensor to Solution

IS Technologies Co., Ltd.

ISTEC

www.istec.co.kr

Company Overview

- 01 Introduction
- 02 ISTECH Mission & ESG
- 03 Business Areas [Piezoelectric ceramic devices]
- 04 Business Areas [Water management system]
- 05 Corporate Capabilities [Key personnel & R&D]
- 06 Past 30 years

Summary

Company	IS Technologies
Establishment Date	Apr. 14 th , 1993
CEO	Gab Sang Yoo
Capital	28.1 billion Won
Employee	64 employees
R&D center	A company-affiliated sensor system research center was established in 1996
Main Products	Sensor, IoT communication device, Solution system, Platform
Business Location	<p>Headquarters: 1602 and 1603, Building M, Songdo IT Center, 32 Songdo Gwahak-ro, Yeonsu-gu, Incheon (sarea 849.3m²)</p> <p>Factory: Room 301 and others , Kumho Ocean Tower, 583 Neungheodae-ro, Namdong-gu, Incheon (area 3,352.4 m²)</p> <p>Gangneung: 202-14, Science Complex-ro, Sacheon-myeon, Gangneung-si, Gangwon-do (Land: 4,055.2 m², Building: 2,011.4 m²)</p>

Since 1993

30 years of experience in ultrasonic sensor,
ICT convergency
Water management platform company

Business Location



HQ & R&D center
in Songdo

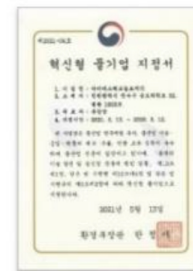


Factory In
Incheon



Factory in Gangneung

Main Certifications



Innovative water
company Ministry of
Environment (2021)



GS1
Certification
18-0543



OneM2M platform
ONEM2M0010



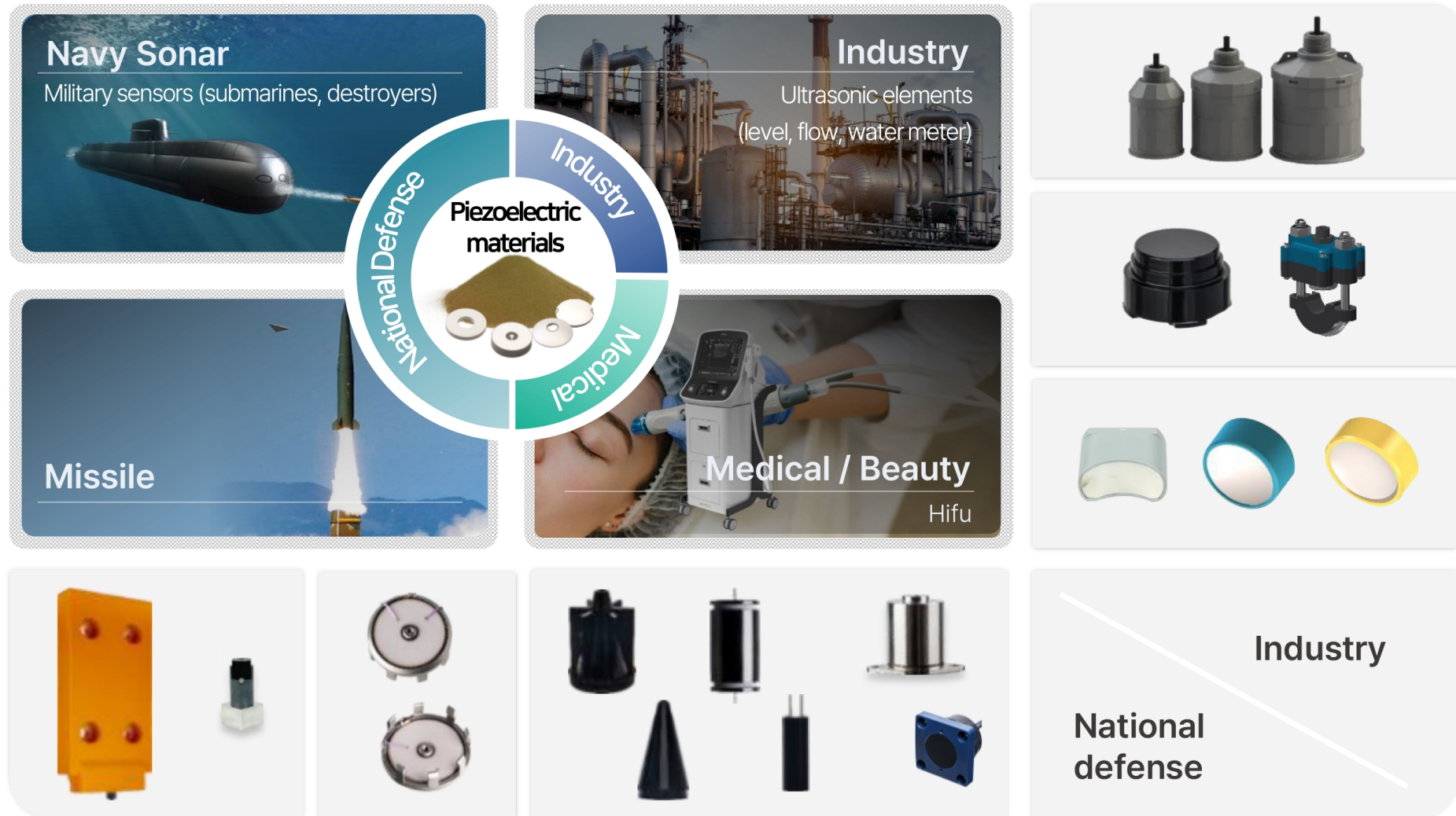
Innovative product
Ministry of SMEs
and Startups (2021)

MISSION With our own technology, make the world better and people happier



Based on our own sensor technology and platform,
We realize water saving and carbon emission reduction, and help acquiring time
to prepare for water-related disasters,
so that the world becomes better and everyone including employees, customers,
shareholders, partners, and communities becomes happier.

Manufacturing ultrasonic parts based on our own piezoelectric materials



Water management platform converging ICT,
providing solutions to water shortages and water disasters caused by
climate disasters such as persistent drought and localized heavy rain.



*SWM: Smart Water Management

Business Strategies

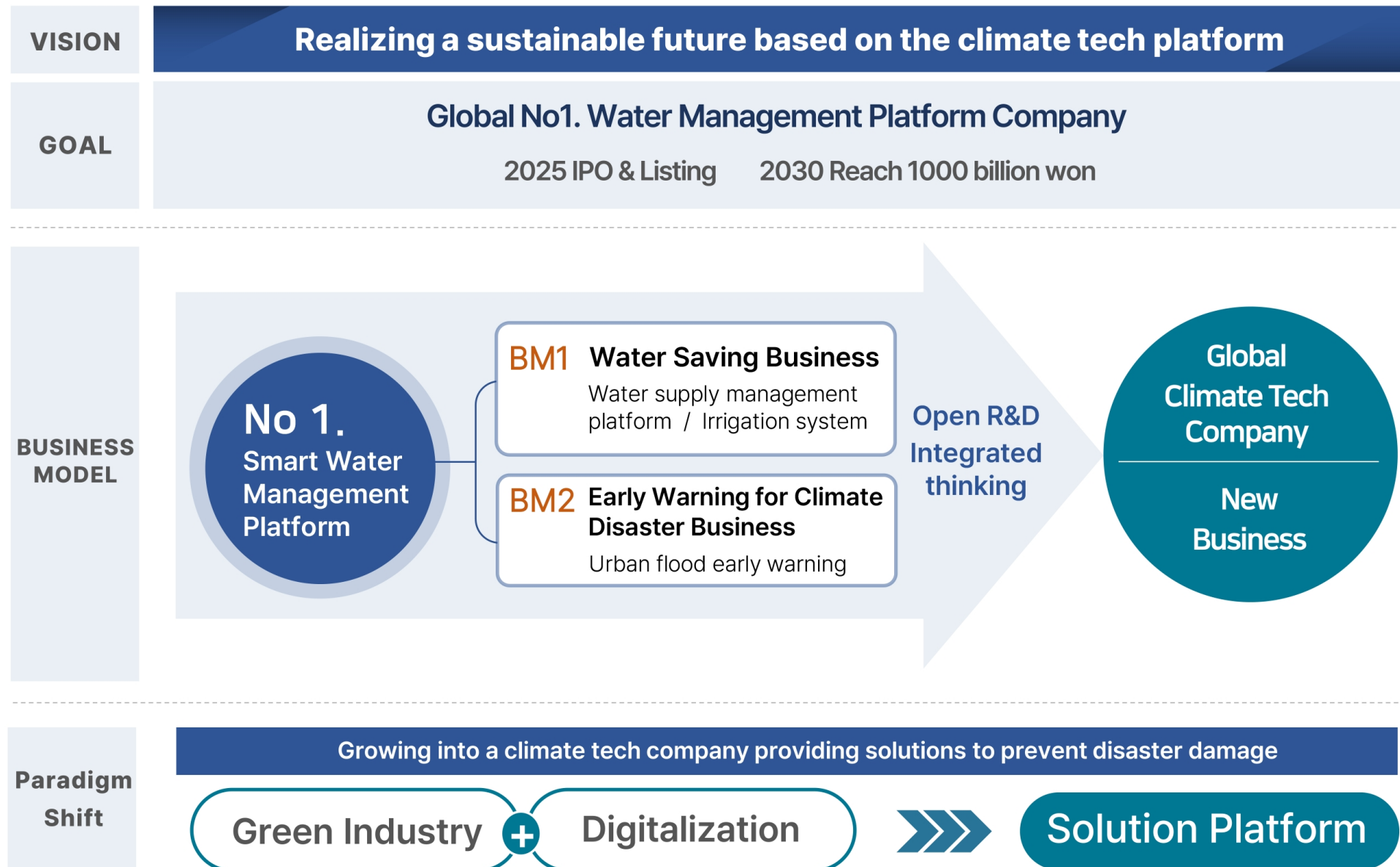
01_ ISTECH Strategies

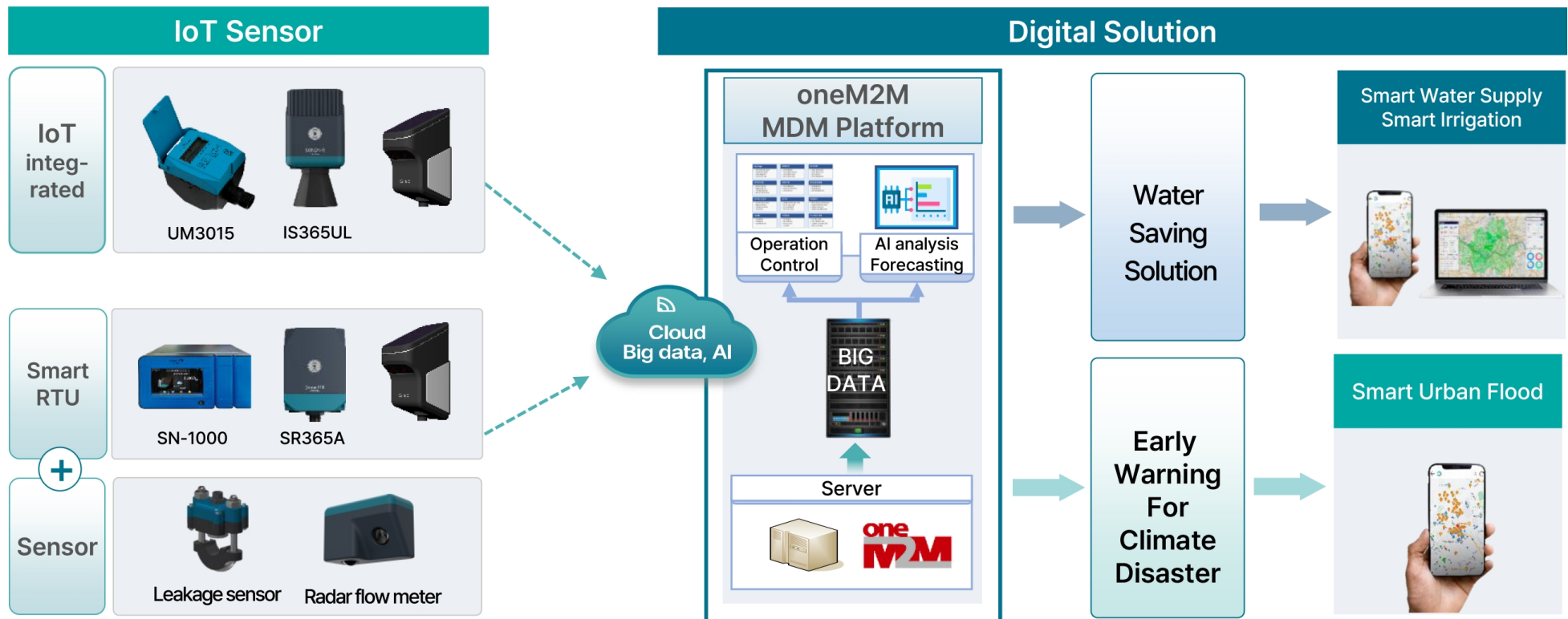
02_ Water Management Platform Overview

03_ Water Saving Solution [Smart Water Supply]

04_ Water Saving Solution [Smart Irrigation]

05_ Early Warning for Climate Disaster





*MDM: Meter(Measuring) Data Management

I Differentiation of IoT Sensor

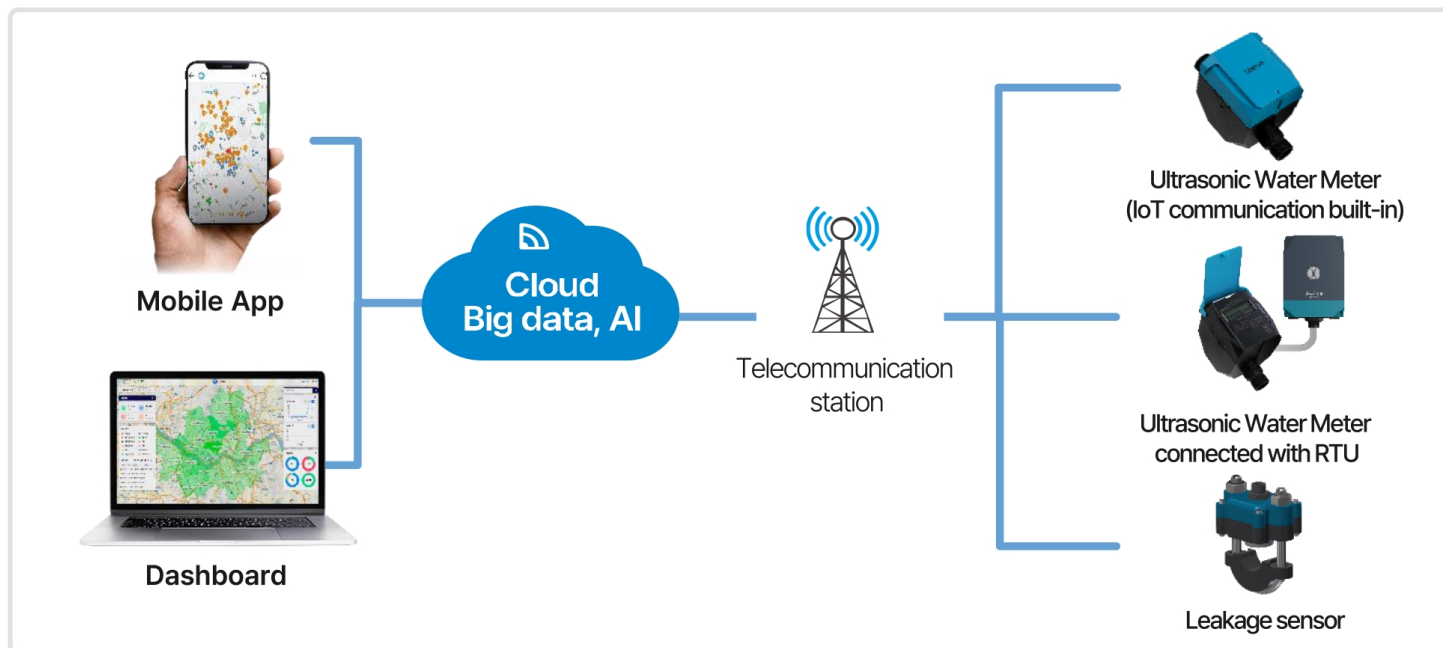
1. Self production of piezoelectric materials with our own recipe
2. Low-power design (long lifespan of battery)
3. Self-recovery (temporary firmware errors)
4. Battery level check algorithm
5. Data reception rate improvement algorithm

I Differentiation of Digital Solution

1. Acquiring openness based on oneM2M, IoT standard technology
2. Improving convenience through mobile-based system
3. Stable data collection, fast & accurate big data processing
4. In addition to data collection and monitoring, various data analysis possible
5. Diversification of connected systems and information (water supply GIS, billing system)

Smart Water Supply System

System overview



Achievement

Remote meter reading system in Seoul Up to 1million water meters

'18 Conducted pilot project
'23 Completed advanced system establishment

'23 Operation in 32 local governments including Seoul

Operating total 170 thousand of communication terminal devices

'22 designation as innovative product

Smart water meter, RTU, operation S/W

'22 K-water performance sharing system

Smart water meter

'23 Innovative product pilot purchase business

'22 Water meter overseas pilot project

'Vietnam' Haijeong City intelligent water management demonstration project

'23 Started Domestic installation and operation of water meters

Ultrasonic Water Meter



- IoT communication built-in
- Battery level check algorithm (patented)
- Leakage detection algorithm (patented)
- Communication interval change algorithm
- Innovative structure

Smart RTU



- OneM2M-based
- Low-power design
- Minimize data loss (distributed data transmission, data logging, self-recovery)
- Optimize network (network reinforcement in weak signal area)

Mobile-based system



- Work order through mobile app (manager → on-site worker)
- Work efficiency through on-site support app (work-related info registration, customer location based on GIS, device registration with QR)

Reservoir monitoring

| System overview

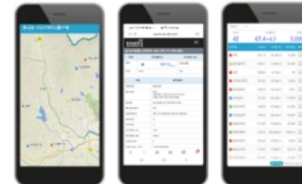


» Reservoir monitoring system

PC – WEB



Mobile – APP



» Application



Reservoirs



Waterways



Rivers

Water supply

2023
1,470 locations → 2025
2,148 locations

Earthquake/ Leakage
Displacement Meter
disaster measurement
device

2023
1,470 locations → 2032
3,326 locations

| Achievement

'02 Developed the first automatic reservoir level measuring device in Korea

Development with Korea Rural Community Corporation / Joint patent registration

'07 NEP Certification

Korea's first overseas export
Thailand, Pakistan, Myanmar, Vietnam

'23 Real-time measurement at 5,500 locations (reservoirs, waterways)

'05 Started smart irrigation business

'21 Reservoir smart water management advancement research project

'22 Establishment of disaster risk reservoir early warning system

Yangyang, Boryeong in Korea

'23 performance sharing system (Rural Community Corporation)

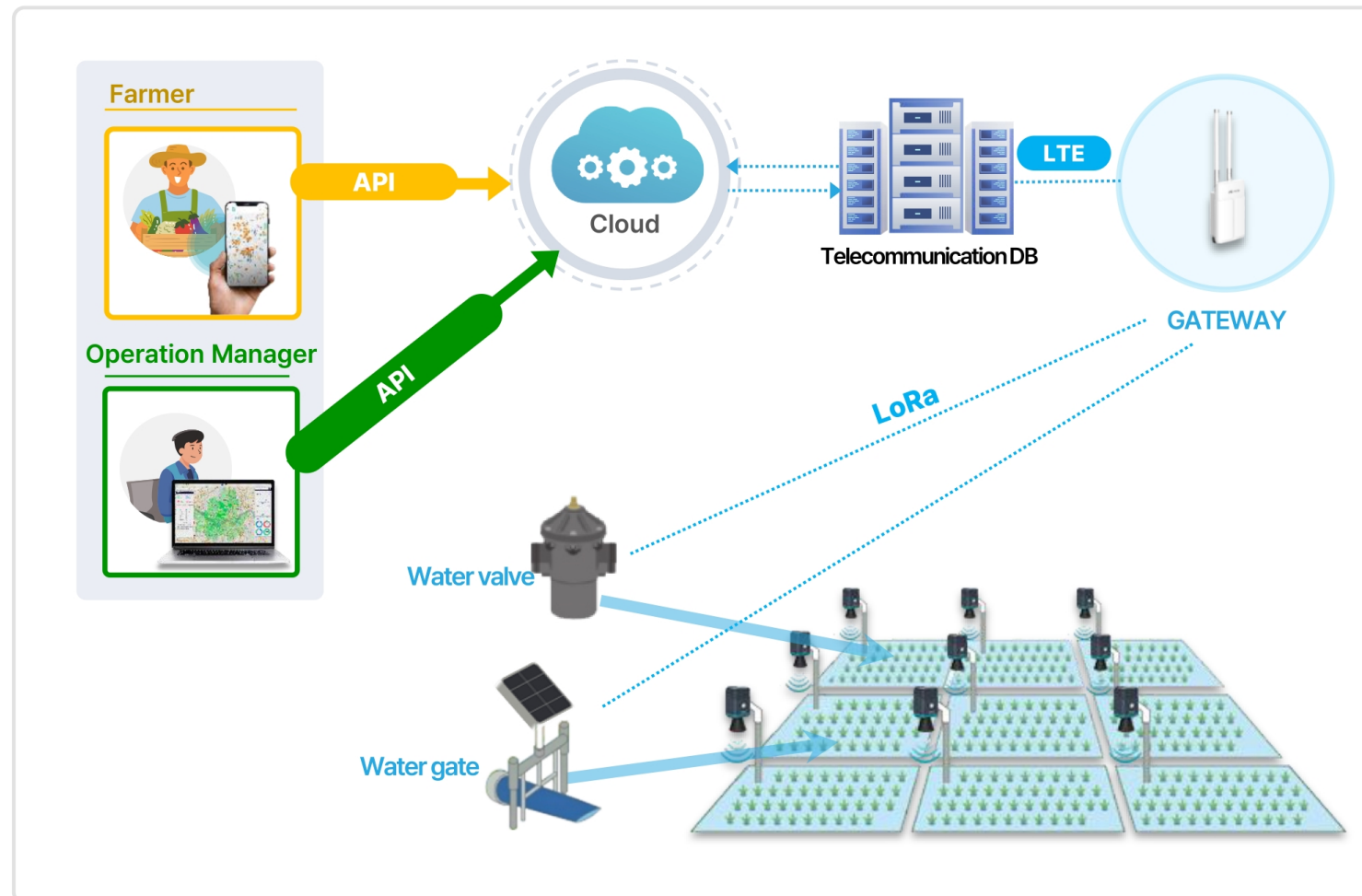
Reservoir integrated gateway

Rice farming irrigation

- Water saving by 50%
- Water management time reduced by 75%

carbon reduction
Reduce greenhouse gases by 63%

I System overview



I Core technology



Operation S/W



Water valve / Water gate



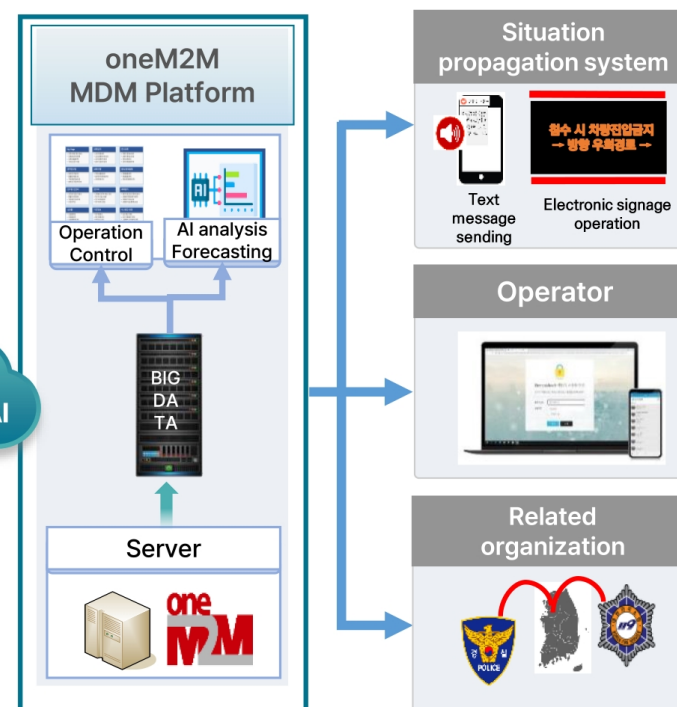
Water depth / temperature

Total system of early warning for water-related climate disaster (urban flood, river flood, etc.)

Technology and price competitiveness of IoT sensors measuring water level/flow

Data analysis and forecasting through open platform

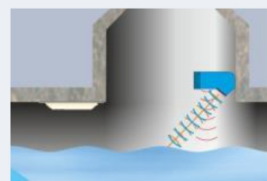
Connection with related organization and systems



Application field



Small rivers



Underground manholes



Urban flood depth



Underpasses



Underground parking lots

Thank you!