K-water Convergence Institute

The Best Water Partner

K water

CONTENTS

Ⅰ. INTRODUCTION

ⅰ. HISTORY

'92 ~ '98

1) Being designated as a qualified institution for testing drinking water quality
2) Being designated as an agency for conducting evaluation of environmental effects
3) Having attached research institute recognized

'05 ~ '07

1) Being recognized as the largest international flowmeter correction institution in Korea
2) Opening water supply and sewage research & education center and international flowmeter correction center
3) Being designated as an institute to test accuracy of environmental measurement equipments

'10 ~ '17

1) Opening centrifugal model simulation center
2) Opening Test & Evaluation Center
3) Designating national reference standard water quality data
4) Co-hosting the 7th World Water Forum

1967 1992 2001 2005 2007 2009 2011 2017

'67 ~ '91

1) Starting test and research institute with the completion of construction
2) Changing name to Water Resources Research Institute

'01 ~ '03

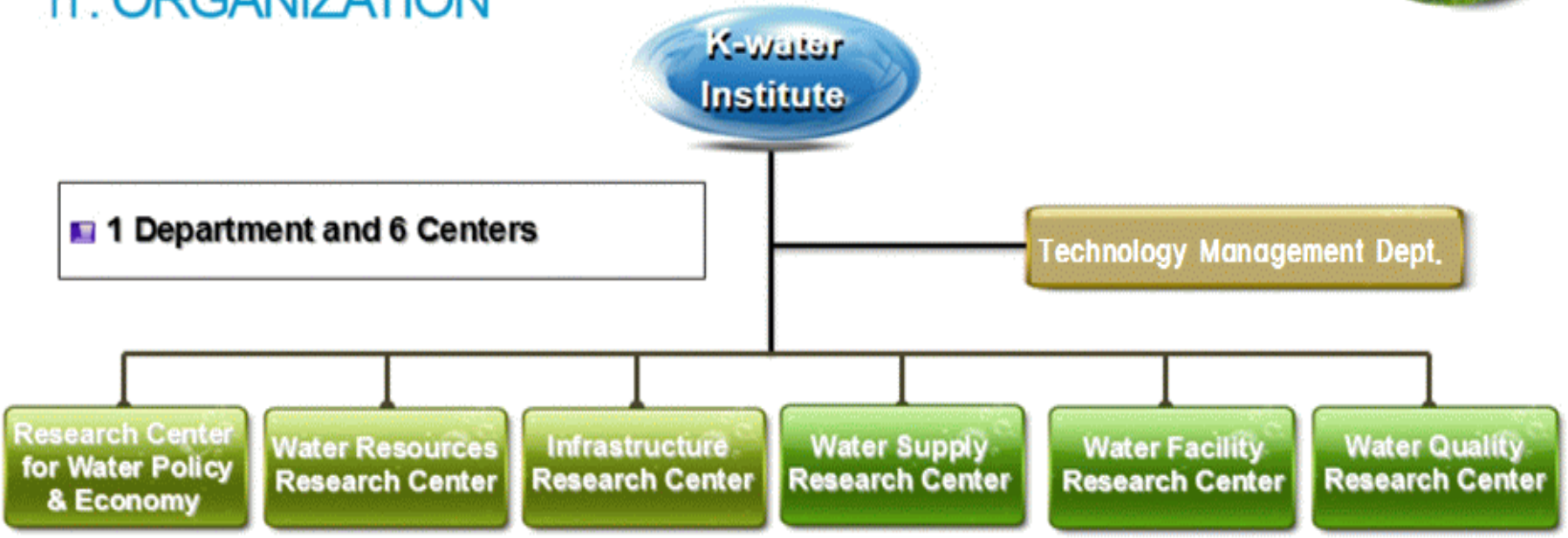
1) Being designated as an institute to test virus in tap water
2) Expanding and reorganizing into Water Resources Research Institute
3) Being recognized as the first national rain gauge correction institution in Korea

'08 ~ '09

1) Being recognized as Korea's first internationally accredited national hydrograph correction institution
2) Changing the name to K-Water Institute (Jan. 2009)
3) Being recognized as an internationally accredited institution for small-caliber flowmeter correction system

I. INTRODUCTION

ii. ORGANIZATION



Total Employees 176

82 Researchers

RESEARCH PERFORMANCE							
Sector	Before	2011	2012	2013	2014	2015 (Until Dec. 7th)	Total
Intellectual Property Rights	92 (Before 2011)	31	41	31	23	19	237
Published Research Articles	313 (in 2010)	365	390	455	443	422	2388

Ⅰ. INTRODUCTION

ⅲ. K-water Institute Facilities

Land Area : 27,319㎡ (2.7ha)

I. INTRODUCTION

iv. DEPARTMENTS

Technology Management Dept.

Conducting R&D planning & management and administration as well as international cooperation.

- Identifying the future business opportunities and R & D strategies for sustainable growth
- Establishing the technological measurement system for high value research projects
- Strengthening the R & D supporting system for enhancing research concentration
- Promoting recognition of K-water institute through establishing global partnership

Conducting Asia Water Council Secretariat to ensure the successful landing of Asia Water Council.

- Enlarging the membership of Asia Water Council by conducting various promotional activities
- Operating 7 special committees to implement the vision of Asia Water Council
- Providing a platform for water stakeholders in Asia to assembly their experiences and knowledge to overcome water-related problems in Asia

I. INTRODUCTION

iv. DEPARTMENTS

Water Policy & Economy Research Center

Researching on water policy and economic analysis for more efficient water resources management.

- Studying on the policy and economy for more efficient water resources management
- Providing analysis and research on the water industry to improve K-water's comparative advantage
- Performing economic analysis on water related business
- Supporting business strategies and governmental policies in water resources management

Infrastructure Research Center

Creating safe and efficient design, construction, and maintenance technologies of infrastructures

- Leading research and technical consultation in geotechnical and structural engineering areas
- Providing research and technical consultation in the field of geology and ground water technology
- Conducting inspection and consultation in constructing SOC facilities by operating geo-centrifuge center
- Inspecting safety of dams and water supplying facilities by seismic performance evaluation

I. INTRODUCTION

iv. DEPARTMENTS

Water Resources Research Center

Developing the advanced technology for integrated water resources management, river restoration, disaster prevention, and environmental management through interdisciplinary research projects

- Developing technology for integrated water resources planning, assessment and management
- Providing disaster management study for flood and drought by climate change
- Developing environment-friendly river restoration and water quality treatment technology
- Promoting U-IT development for hydrologic monitoring and hydro-informatics

Water Supply Research Center

Maintaining a sustainable water supply for the public through high quality tap water production, wastewater treatment.

- Supporting for the development of the future core technology of water & wastewater sectors
- Retrofitting conventional water treatment system for the cost-effective production of high-quality tap water
- Developing desalination, wastewater reuse, industrial water supply, bank filtration, and etc.
- Upgrading water pipe service through the comprehensive evaluation and optimum management

I. INTRODUCTION

iv. DEPARTMENTS

Water Facility Research Center

Making effort to realize low-carbon green growth through new & renewable energy technology and developing applicable technologies for water supply facilities.

- Developing future cutting-edge technologies for green growth
- Initiating the introduction of new renewable energy
- Developing core technologies for water supply facilities
- Inspecting 1,019MW hydropower plant and Sihwa tidal power plant, the largest in the world(254MW)

Water Quality Research Center

As the world's best research center for water quality analysis, the center performs to improve the safety and reliability of drinking water.

- Enhancing water quality examination(250 items) and analyzing emerging contaminants
- Providing quality control with accreditation & certification about water testing
- Standardizing analytical method for new contaminants in compliance with the national policy
- Participating in International collaboration research project with the US, Germany and Japan

Ⅱ. MANAGEMENT DIRECTION IN 2017

Realizing fast and influential K-water Institute with internal stability to fulfill Smart Water Management ear

Creating value	Customer trust	Future growth
• Establishing value-oriented research	• Strengthening decision making support function	• Leading global water technology

Ⅲ. MAIN R&D INFRASTRUCTURES

- The first virus inspection institution in Korea and the first internationally official test institution among water related organization
- Quality verification institution of water quality inspecting filed such as being appointed as a international skill-level test operation institution and so on

Water Quality Research Center

- The largest cutting edge facility in the world to enable reduction model experiment in civil engineering sector under a variety of conditions such as earthquake and so on by reproducing pressure condition of civil engineering structure

Centrifugal Model Test Facility

- Model and demonstration plant for research performance of water treatment(filterated water and sewage) and duct line sector
- Process evaluation of various conditions and development of operation technology by using model plant facility with 2,000 m^3/day scale demonstration plant facility

Water Supply model and Demonstration Plant

Ⅲ. MAIN R&D INFRASTRUCTURES

- Operating ultrapure water model plant for performance to provide water that industry needs such as precipitation water, pure water, ultrapure water, and so on economically
- Process evaluation and operation technology development by using 25 m^3/day scale model plant facility

Ultrapure Water Pilot Plant

- The nation's largest caliber laboratory operation organization
- Standard magnification of flow meter measurement
- Growth pulling of valve etc. associated industries

Flowmeter Calibration Center

- The first hydro turbine test center in Korea measuring hydraulic performance by designing as a miniature to predict real hydro turbine

Hydro Turbin Test Center for water power equipment

IV. TOP BRAND TECHNOLOGIES

K-water Institute has undertaken developing core technologies that reflect environmental changes and water resources management issues in domestic as well as abroad through the 'Selection & Concentration' strategy.

Integrated Watershed Management Operation Technology

Next Generation Decision making Support System for Dam Safety Management

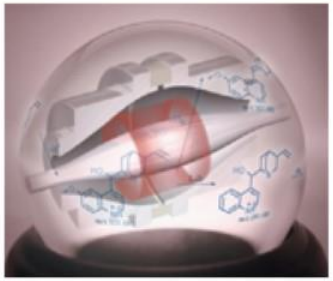
K-water Algal Harvesting System

Application technology for the Floating Photovoltaic System

Dr. Water+ & Dr. Pipe

KSMBR®

Fast Screening



Smart Sensing Technology for Drinking Water

V. INTERNATIONAL COOPERATION

K-water Institute has established cooperative network with global leading water-related organizations towards global standards; moreover, is carrying out forward collaborative R&D and technology exchange with government & Inter-government agencies and UN related organizations.

The 7th 2015 World Water Forum

- Co-hosting the 7th World Water Forum, 2015 in Korea and and and supervising the preparation
- In charge of leading the regional process, publication of the white paper of science and technology process, leading the parliamentarian process, organizing the Expo&Fair

7th WORLD WATER FORUM
2015 Daegu Gyeongbuk Korea

UNESCO i-WSSM

- Establishing i-WSSM (International Center for Water Security & Sustainable Management) under the auspices of UNESCO (category Ⅱ) & complete for approval of the 37th General Conference in Nov 2013
- Currently proceeding to establish

UNESCO

Annual Program for Technology Exchanges

- 'Japan Water Agency' since 1984

Japan Water Agency
Incorporated Administrative Agency

- 'Changjiang Water Resource Commission' since 2006

CWRC
Changjiang Water Resources Commission

Thank you

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