iwater
INTERNATIONAL INTEGRATED
WATER CYCLE SHOW

Fira Barcelona

2016 Report

Technical data sheet

iwater
INTERNATIONAL INTEGRATED WATER CYCLE SHOW

DATES
15–17 November 2016

EDITION
1

FREQUENCY
Biennial

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Contents

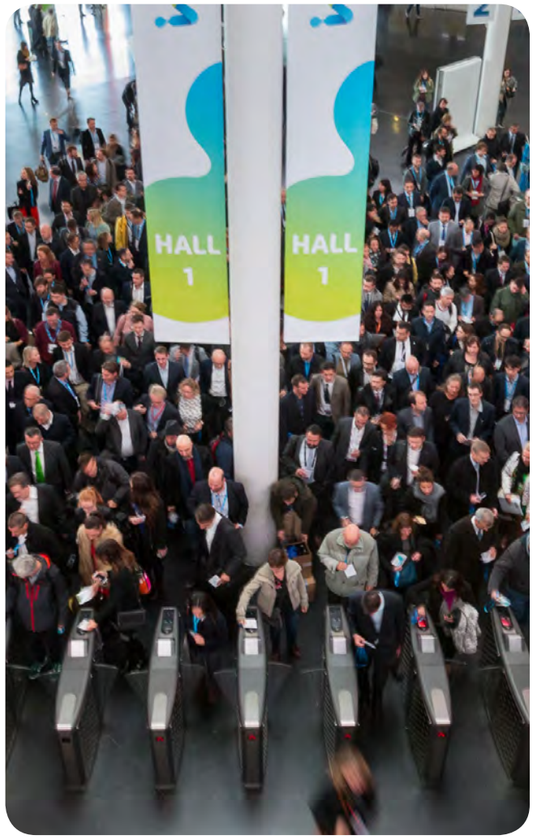
2016
The first
Iwater show

A unique, committed event

The Iwater show was created to provide a response to the important challenges facing the water sector, such as resources and infrastructure management, increasing demand for water in a context of water stress and the new forms of public-private partnership.

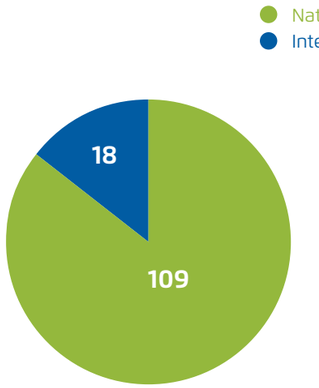
This, the very first of these events, was a great success, thanks to the show's ability to bring together leading representatives of the integrated water cycle chain.

Although this was the first show, Iwater has already become a benchmark event for the water sector.

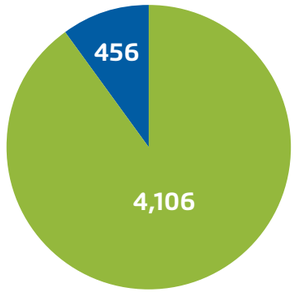


127
Exhibitors

3,200 sqm
rented



4,562
Visitors



Main achievements

- ✓ **Participation** of the leading Spanish operators.
- ✓ **Great coverage** of the show in the specialist press.
- ✓ **High attendance** at technical sessions: Inno Hub and Tech Hub.
- ✓ **Great** social media.
- ✓ **High degree of satisfaction** on the part of exhibitors and visitors.
- ✓ **Support from the IWA** (International Water Association).

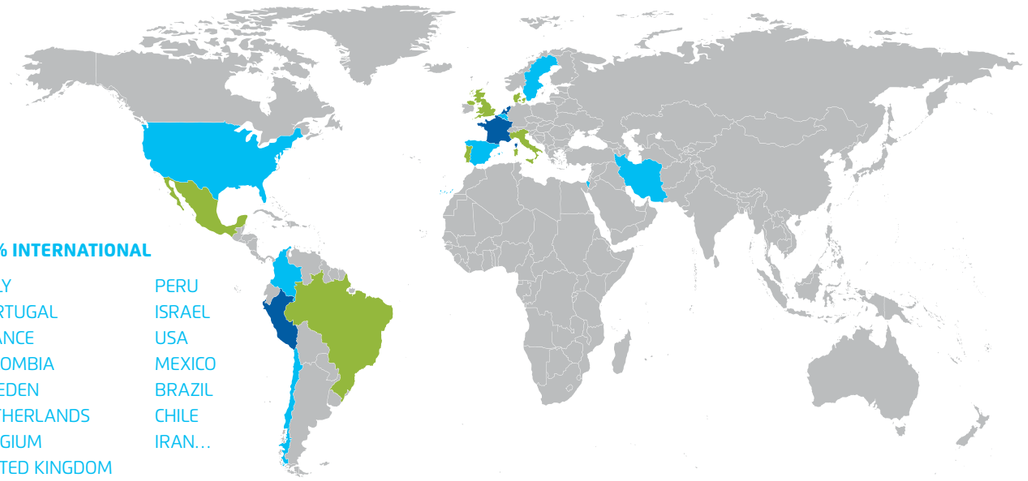
United for a better future

The show was held in conjunction with three other events: **the Smart City Expo World Congress, the Circular Economy European Summit and European Utility Week.** All of them of particular importance, and with which Iwater shared, in addition to venue and dates, goals which, in line with the proposals of the United Nations, seek to foster shared, sustainable development.

The simultaneous holding of these four leading events allowed those attending each of them to visit the others, resulting in an overall total of more than **32,000 visitors.**

> “The concurrent nature of these four events focusing on sustainable development has greatly enhanced the show’s synergies, international profile and convening power.”
>
> ANGEL SIMÓN, PRESIDENT OF THE IWATER ORGANISING COMMITTEE AND DEPUTY CHIEF EXECUTIVE OFFICER, SUEZ.

+16,000
professionals visited Iwater



25% INTERNATIONAL

ITALY
PORTUGAL
FRANCE
COLOMBIA
SWEDEN
NETHERLANDS
BELGIUM
UNITED KINGDOM
ANDORRA
PERU
ISRAEL
USA
MEXICO
BRAZIL
CHILE
IRAN…

Specifically, **11,500 professionals** visited Iwater from another of the events held simultaneously at Fira de Barcelona’s Gran Via exhibition site, joined by the **4,562 who registered** exclusively for the Integrated Water Cycle Show.

A global vision with an innovative focus

The show benefited from three platforms:

Business
127 exhibitors from 10 countries

Shared knowledge
Iwater Forum

Innovation and technology
R&D&I and real sector solutions

1 Business

A space for business with a global reach

With more than 5,000 square metres dedicated to displaying products and solutions, the show boasted the presence of **127 exhibitors from 10 countries**, including:

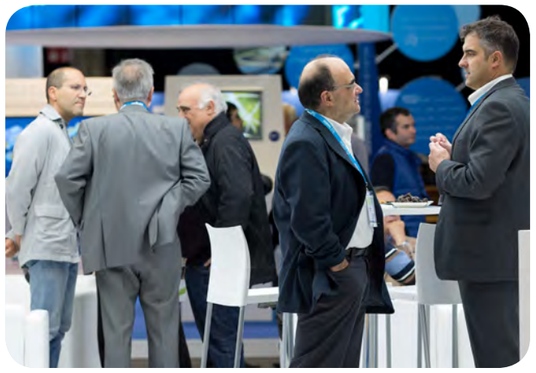
- Operators
- Engineers
- Construction companies
- Public bodies

as well as companies with solutions in

- Distribution, transportation
- Storage
- Sanitation, wastewater treatment
- Reuse
- Irrigation
- Management
- Consumption

for agricultural, urban, industrial or domestic use.

Iwater has become a business catalyst for companies involved in the integrated water cycle in Spain.



Priority markets abroad were also identified: Latin America, the Mediterranean Arch and the Middle East, which the show invited directly, making it a quality event with a marked international character.

In this way, Iwater communicated and highlighted the value of the R&D&I and the know-how of Spanish companies and strengthened the "Agua España" brand.

Exhibitors at the show

Exhibitor quality was the highest-rated aspect of the show.

- ACQUA-SOLFIT
- ADANTIA
- ADIQUIMICA
- AGBAR
- CATALAN WATER AGENCY (GOVERNMENT OF CATALONIA)
- AIGÜES DE BARCELONA
- AINTAS
- ALFIT FITTING SOLUTIONS
- ALSINA FORMWORK SOLUTIONS
- AMIANTIT SPAIN
- ANTICIMEX ESPAÑA / WISECON
- APLICOR WATER SOLUTIONS
- AQUA AMBIENT IBERICA
- AQUA ESPAÑA
- AQUALIA
- AQUEATREAT XXI
- ARMOLTEC
- ASAGUA
- AVK VALVULAS
- AZUD
- BASF CONSTRUCTION CHEMICALS ESPAÑA
- BERMAX 5000
- BIO-RAD LABORATORIES
- BLUPURA
- BOMBAS GRUNDFOS ESPAÑA
- CAMPI Y JOVÉ
- CANAL DE ISABEL II
- CANALETAS
- CARBUROS METALICOS
- CATALAN WATER PARTNERSHIP CWP
- CEASA
- CEIT–IK4
- CHIEMIVALL
- CIM AIGUA
- CONTAZARA
- COPERSA
- CULLIGAN ESPAÑA
- DAMOVA
- DANFOSS
- DENMARK
- DOROT
- DOSIM
- EBARA
- ECOZONA IBERIAN
- EGB
- ENKROTT
- ESPA
- EURECAT
- EUROPLAST
- EXCLUSIVAS ISMA
- FIBRAIGUA
- FLUIDEX
- FUTURENVIRO
- GL–TURBO INTERNATIONAL
- GRATT IBERICA
- GRUNDFOS BIOBOOSTER
- GRUPO AQUACENTER
- GRUPO INCLAM
- HANNA INSTRUMENTS
- HAWLE
- HIDRO TARRACO
- HIDROCONTA
- HIDROGLOBAL
- HIDROTEC
- HUOT
- I2O WATER
- IBSTT
- INET COUNTERS
- INGAPRES
- INNOVAEXTREMADURA
- INTERELEKTRIK GMBH & CO KG
- INTEXSA
- ITAIPU BINACIONAL
- ITALIFTERS IBERICA
- ITC
- ITRON
- KAMSTRUP
- KOZEGHO
- KRYPTON CHEMICAL
- KURITA
- LANA SARRATE
- LIKITECH
- LINAK ACTUADORES
- LLABERIA HYDRAULIC SOLUTIONS
- M3E2
- MASERMIC
- MEDCOM AMEPA
- MEJORAS – ENERGÉTICAS
- NORMA GROUP
- OXIDINE WATER TECHNOLOGY
- PANATEC
- PREMIER TECH AQUA
- PURAGUA SYSTEMS
- R3WATER
- RAIMABER FLUID TECH
- RAMTOR–SEBA HYDROMETRIE IBÉRICA
- REGABER
- REMOSA
- TECNOAQUA–INFOEDITA COMUNICACIÓN PROFESIONAL (MAGAZINE)
- S::CAN IBERIA
- SOFREL ESPAÑA
- SOLCO-V / CLA-VAL
- SORIGUÉ
- STEP
- STF-FILTROS
- SUEZ
- TASHIA
- TECNIBERIA
- TECNOPLUS
- TECNOLOGIAS PARA SANEAMIENTO (TECSAN)
- TEKSAN TECHNOLOGIC METERING SYSTEMS
- TREPOVI
- TWEMGI
- UNIONES ARPOL
- VIVAQUA INTERNATIONAL
- WATEROLOGIES
- WATTS
- WEHRLE MEDIOAMBIENTE
- WSSTP
- XYLEM WATER SOLUTIONS ESPAÑA

“I thank you for your efforts, which have made possible this show, which is very important to us.
An event that provides us with the opportunity to export and show to the market, to our customers and to the world our technology, our possibilities, improvements and solutions.”

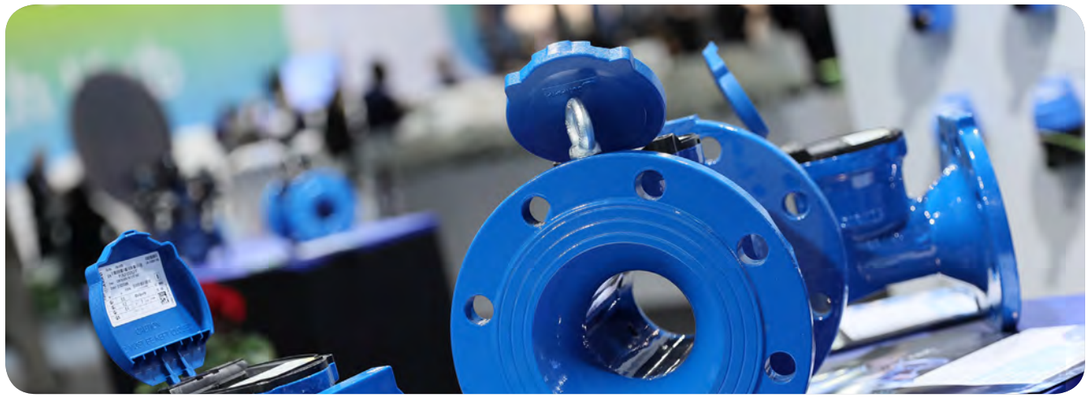
RAFAEL ÁLVAREZ
XYLEM

“I believe that supporting this first Iwater has been a great success, and we hope to continue doing so in future shows, which will surely be as great a hit as this one.”

JUAN PABLO MERINO
AQUALIA

“What we are looking for from the show is to make known our position in the concept of resilience, of the wholeness, of the water cycle; because we believe that Sorigué must be a key actor in all of this.”

IGNASI CLARIANA
SORIGUÉ



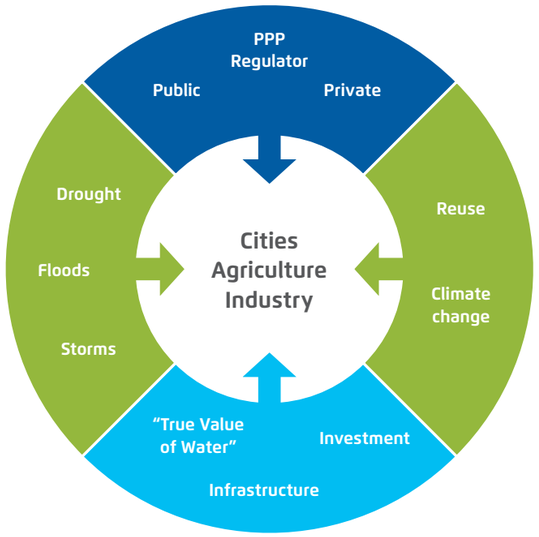
2 Shared knowledge

A key space for the future management of water

The **Iwater Forum,** a place for talks and debates, dealt with the keys to managing the integrated water cycle to tackle the great challenges presented by the future: the effects of climate change and how to tackle them with the ability to overcome and control adverse situations such as desertification, drought and flooding **(resilience),** the implementation of new , more efficient and inclusive management models **(governance)** and the search for investment alternatives that permit the renewal and modernisation of infrastructure **(financing).** Three core themes that will allow us to progress in the management of water in the medium term and guarantee its future.

The Forum boasted the participation of more than 80 experts from home and abroad; representatives of the authorities, academics, businesses and water managers from different countries, including leading US scientist **Peter Gleick,** who was responsible for giving the opening talk. He did so by reviewing the historical ages of water up to the present day, noting environmental abuses, the difficulties of supplying an ever-growing population and the conflicts arising from the scarcity of water resources.

Despite all these challenges, Gleick remarked: "the good news is that we are in a transition towards a third, sustainable age. The consequences of the abuses have brought about new thinking. We are at a historical moment."



Resilience

- Climate change.
- Floods, storms and droughts.
- Reuse

Financing

- Financing infrastructures (maintenance and new).
- "The True Value of
- Water". Water as an economic agent.

Governance

- Public, private and mixed partnership models.
- Regulatory models (the United Kingdom, Portugal, Italy, Denmark, etc.).

Gleick referred to the solutions for the future, along the lines of his **"soft path for water"**, in which it will be important to **reform institutions** to bring them into line with the current framework (governance), backing technology that allows people **to drink purified water with total safety** (reuse) and **improving efficiency.**

To conclude, he appealed to the responsibility of all of us as agents forming part of the integrated water cycle, highlighting the importance of being active participants in this new stage and dealing with it with commitment and optimism.

> "There is less demand for water today than 30 years ago. The mentality is changing, and more can be done with less. And this is the basis of the soft path for water of the third age, which has already begun."

Peter H. Gleick is a renowned US scientist and co-founder of the Pacific Institute, who works on subjects associated with the environmental sciences, economic development, international security, scientific ethics and integrity, paying special attention to the challenges presented by fresh water at a global level.

The **main conclusions*** of the first Iwater Forum to ensure the sustainable management of water were:

Governance

> **All management models are valid.** What is important is to ensure the model fits the project. The key is that **water**, whether its management is public or private, **is and must be public.**

> There is need for a **National Compact** whose main provision must be to **remove water from the political arena.** All actors must be involved in a cross-cutting way, with **pragmatism** prevailing over dogmatism.

> Water management requires the implementation of **holistic policies** based on profound **institutional reforms** that establish **competences** with clarity (regulation).

> The reasons why urban services need to be regulated go beyond the management model (public, private or mixed) since, whatever the model, there is a need for a regulator that pursues **transparency and efficiency goals with pricing incentives and with a holistic vision,** in both the short and the medium and long term.

“Over the coming 15 years, there is a need for great investment to achieve the 6th SDG by 2030.”

Ger Bergkamp, IWA Executive Director

Resilience

> The is a need to boost the **environmental education** of the public to achieve broad-based **social support** for the measures that should be taken in the future, ones which, generally speaking, could be quite unpopular.

> We need a strategy based on the **circular economy**, which, in water management, can be summed up easily in three words: savings, recirculation and reuse.

> **Legislation** must be improved and **an economic framework created** to help ensure that **the water sources are not marginalised** by traditional ones. Water recovery has a cost, and when it comes **into competition with traditional water** (which tends to be cheaper), its use is, except in scarcity scenarios, **brusquely slowed.**

> The **integrated management of water resources** and of their problems is the key to **increasing the resilience** of the system as a whole.

> The substantial damage (even in terms of human lives) must contribute to the **improvement of FRMP** (Flood Risk Management Plans) and to **increasing both the insurance cover and administrations' budget headings** aimed at risk prevention and management.

“The 6th is the most cross-cutting SDG. Technology must have a crucial role in its achievement, and in understanding the true value of water.”

Gaetano Casale, Liaison Office Manager, UNESCO-IHE Institute for Water Education

Financing

> T**he price of water is a key tool in moderating costs,** particularly in dry periods. **Seasonal tariffs** should be implemented, as should, in times of drought, **special rates.**

> **Technology** and **the training of professionals responsible for decision-making** (political, managerial and technical) will be key to the efficiency and productivity of facilities.

> The concepts of **water** and **energy** footprints, as well as of **virtual water,** should begin to take their place in **water policy.**

> It is much more important**to keep existing infrastructures operational** than to build new ones. Without upkeep, new works will soon lose their operability.

> The sustainability of new works, their solution and model, **must provide a perfect fit for the host context.**

> The water economy, based on the **cost recovery** stipulated by the Water Framework Directive, is the key to **economic sustainability. Social policy must be on the basis of tariffs.**

> **According to the United Nations,** the new water management is capable of creating a great many **green jobs.** This will help distribute wealth and thus **increase social sustainability.**

“Transparency and efficiency in water management are highly important. Sustainability and cost recovery are non-negotiable goals.”

Joanna Drake, Deputy Director-General, Directorate-General for Environment

** In the drawing up of these conclusions, we have benefited from the collaboration of Professor Enrique Cabrera Marcet, Professor of Fluid Mechanics. ITA. Technical University of Valencia.*

Leading speakers

Ardiles López, Liana
DIRECTOR GENERAL FOR WATER, SPANISH MINISTRY OF AGRICULTURE, FOOD AND THE ENVIRONMENT
Opening Session

Bergkamp, Ger
IWA
Opening Session

Del Campo García, Andrés
PRESIDENT, FENACORE
We have to include water in the real economy

Galilea Page, Victor
EXECUTIVE CHAIRMAN, ASOCIACION NACIONAL DE EMPRESAS DE SERVICIOS SANITARIOS, ANDESS AG
Governance models: The example of Chile

Gleick, Peter
PRESIDENT EMERITUS AND CHIEF SCIENTIST, PACIFIC INSTITUTE
The value of water: The Soft Path for Water

Lamo de Espinosa Michels de Cahmpourcin, Jaime
PROFESSOR EMERITUS, PUM
The value of water: The viewpoint of agriculture

Larsen Horsleben, Carl-Emil
CEO, DANVA
Governance models: The example of Denmark

Michelena Izquierdo, Pedro
PRESIDENT, FOROPPP
A consensus model: Public-private partnership

Molas Pages, Josep
GLOBAL SPRING AND MINERAL WATER QUALITY MANAGER, COCA-COLA *The value of water: The viewpoint of industry*

Morcillo, Fernando
PRESIDENT AEAS
Governance (Regulation)

Mujeriego, Prof. Dr. Rafael
PROFESSOR EMERITUS, PUC
Drinking and non-drinking water reuse

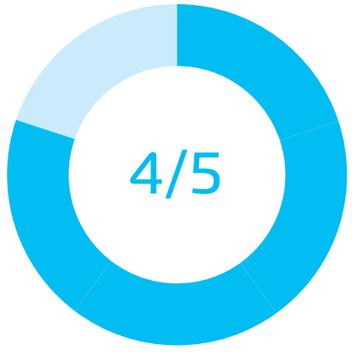
Patel, Mehul
DIRECTOR OF WATER PRODUCTION/GROUNDWATER REPLENISHMENT SYSTEM, OCWD
The indirect reuse of potable water in Orange County: a long-term collaboration between the health authorities and the general public

Ross, Cathryn
CEO, OFWAT
Governance (Regulation): 27 years of regulation in the United Kingdom

Tamames, Ramón
PROFESSOR, UAM
Different governance models discussed

Ulloa, Luis Fernando
GENERAL MANAGER, WATER AND SANITATION, FINDETER
The financing of infrastructures: The viewpoint of Colombia

RATING OF FORUM SESSIONS



Day 1

- **Welcome**
- **The value of water:** *The Soft Path for Water*
- **The EU's Prima Initiative:** *Food Safety in the Mediterranean*
- **The value of water:** *The viewpoint of agriculture* *The viewpoint of industry*
- **ROUND TABLE** *We have to include water in the real economy*
- **Resilience in cities:** *France, case study: Paris* *Portugal, case study: Lisbon* *Spain, case study: Barcelona*
- **Adaptation to regulations:** *Flood plans*
- **ROUND TABLE** *How much does non-resilience cost?*

Day 2

- **Governance models** *The example of Chile* *The example of Denmark*
- **A consensus model:** *Public-private partnership*
- **ROUND TABLE** *Different governance models discussed*
- **27 years of regulation in the United Kingdom**
- **European water regulation and the case of Italy**
- **The Portuguese model of regulation**
- **ROUND TABLE** *Governance (Regulation)*
- **The financing of infrastructures:** *An overview*
- **The viewpoint of the World Water Council**
- **Challenges and opportunities:** *India*
- **The goals of sustainable development and water**
- **ROUND TABLE** *The cost of non-sustainability*

Day 3

- **The indirect reuse of drinking water in Orange County:** *A long-term collaboration between the health authorities and the general public*
- **The regulatory process of protecting public health:** *from unrestricted irrigation to the reuse of drinking water*
- **ROUND TABLE** *Drinking and non-drinking reuse*
- **Water in the Mediterranean basin**
- **Spain and the Mediterranean:** *5+5 Programme*
- **Challenges and opportunities:** *Morocco*
- **Knowledge management in the Mediterranean basin**
- **The financing of infrastructures:** *A general overview of Latin America* *The viewpoint of Colombia* *The viewpoint of Peru* *The viewpoint of Paraguay*
- **Challenges for engineers and science**

There was a high degree of satisfaction with the issues tackled in the Forum (governance, resilience and financing), with the sessions on governance being a particular success, with a **score of 4.2 out of 5.**

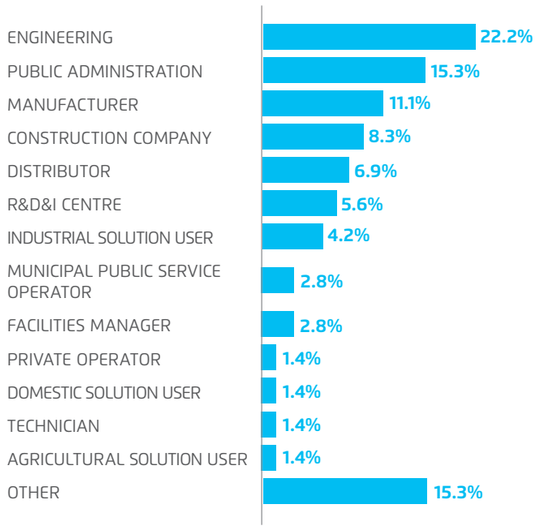
The Forum had a very high recommendation rate: the likelihood of attendees recommending it stands at **8.1 out of 10.**

Forum attendees

Amongst Iwater Forum attendees, the most noteworthy professional profiles included those associated with **the public administrations and engineering.**

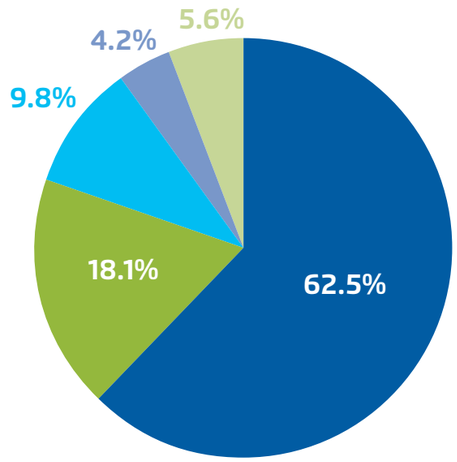
WHAT IS YOUR PROFESSIONAL PROFILE?

BASIS: 72 VISITORS



83.3% of Forum visitors had a degree of suggestive or decision –making power in the purchasing process.

Almost **40%** of attendees came from **abroad,** mainly from European countries.



SPAIN 62.5%

EUROPE 18.1%
France 8.3%
Belgium 4.2%
Italy 2.8%
Germany 1.4%
United Kingdom 1.4%

AMERICAS 9.8%
Peru 2.8%
Argentina 1.4%
Mexico 1.4%
Chile 1.4%
USA 1.4%
Colombia 1.4%

ASIA 4.2%
China 1.4%
Turkey 1.4%
India 1.4%

OTHER 5,6%

42% of attendees would considered themselves the event's promoters.

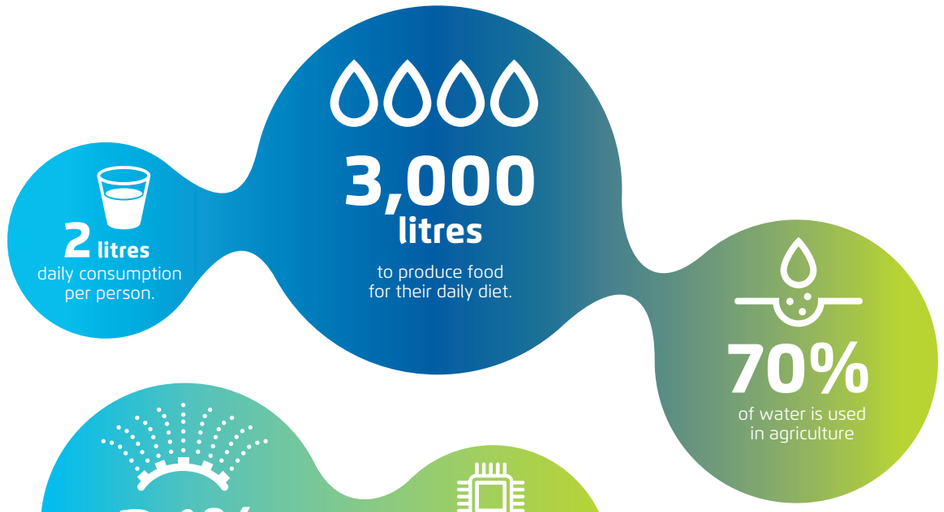
3

Technology and innovation

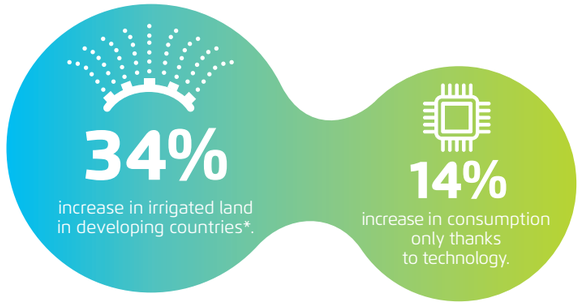
A look at the future of water, for everyone's future

Iwater has reflected the latest trends in the sector, such as the implementation of **"smart"** management systems in water, particularly agriculture, which is the primary sector that consumes the greatest amount of water (70% of water resources globally, a figure that reaches 90% in most developing countries).

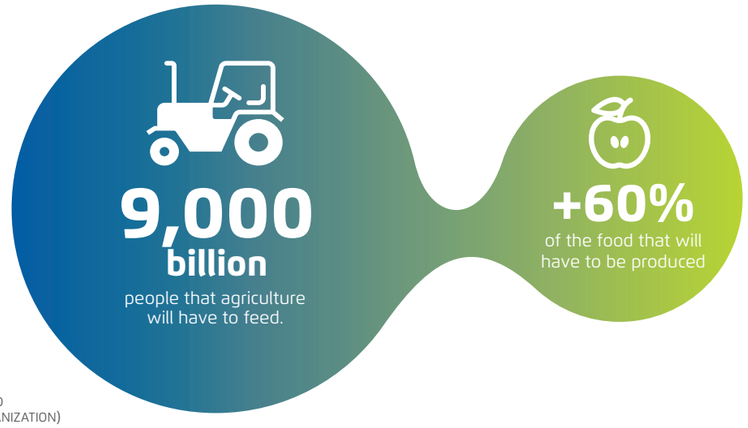
NEWS



2030



2050



* FAO (UN FOOD AND AGRICULTURE ORGANIZATION) DATA

It is vital to implement more efficient technology and irrigation systems to permit the irrigating of a greater area of land with a smaller amount of water, combining our food production needs with sustainable management.

Jaime Lamo de Espinosa, former Minister for Agriculture and professor at the Technical University of Madrid, and **Javier Borso,** Director of Irrigation Markets at Suez Spain, indicated in the Iwater Forum talk **"The value of water: the viewpoint of agriculture"**, that we need to continue promoting technological development to be able to establish what might be called **smart agriculture**, whose goal is to achieve precision agriculture that guarantees the sustainability of agrarian activities.

"The PRIMA Initiative embraces some 20 countries (EU Mediterranean and North Africa), will cover a long period (2018-2027) and has a total allocated budget of 400 million euros."

CAROLINA RODRÍGUEZ
POLICY OFFICER AT THE EUROPEAN COMMISSION. DIRECTORATE-GENERAL FOR RESEARCH AND INNOVATION.

"There is a need to implement a climatically 'smart' agriculture that includes the new concepts of virtual water and the water footprint."

JAIME LAMO DE ESPINOSA
EMERITUS PROFESSOR, TECHNICAL UNIVERSITY OF MADRID. FORMER MINISTER FOR AGRICULTURE.

The Show also witnessed highlighting of the need for industry to reduce its water footprint globally, by, for example, putting into practice the "three Rs".

Reduce the use of water, **reuse it** within the same facilities and **recycle** it for other uses.

"Forty-two per cent of the world's jobs are water-dependent. In industry, the cost of water is not as important as its availability. Its absence would compromise the sustainability of the majority of companies."

DIRK VAN DER STEDE, CEO, FLANDERS KNOWLEDGE CENTER WATER

Iwater also emphasised the fact that the implementation of a sustainability policy not only does not entail extra costs, but rather contributes added value and business competitiveness. Environmental benefits go hand-in-hand with economic ones.

"Reducing the consumption of water in all phases means reducing the use of energy and thus boosting economic competitiveness."

XAVIER CARDOSO, MARKETING DIRECTOR, NALCO WATER

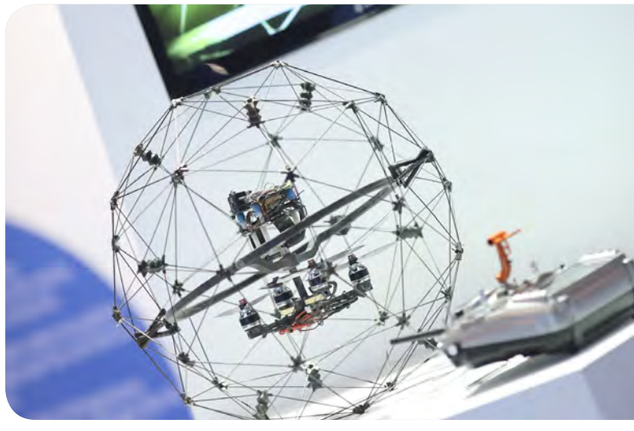
"The company has managed to reduce its water consumption by 27% compared with 2004, thanks to the implementation of a cross-cutting vision of water resources and the use of new technologies."

JOSEP MOLAS, GLOBAL SPRING AND MINERAL WATER QUALITY MANAGER, COCA-COLA

The event also played host to the showcasing of numerous **technological innovations,** such as sensors that communicate with each other via networks, sending data to new software products and which, thanks to sophisticated models, permit the taking of decisions in real time.

"We need to covers people's needs, of course, but also those of agriculture and industry. We therefore need to stop competing for this resource and begin collaborating to guarantee it."

TOMÁS MICHEL, IWATER SHOW SCIENTIFIC COORDINATOR



The meeting place for the urban water management models

Iwater also examined water management in cities and urban areas, looking at the different regulation systems in various parts of the world, not to mention the future challenges faced by urban supply.

A guarantee of rational financing for the different projects tackling this challenge is a must.

To deal with the scarcity of water resources, there is a need for formulas modifying the ways in which they are consumed and encouraging the reuse of water. Additionally, we need **flexible governance systems** that can adapt to fit each individual territory and that **encompass all the social, sector-based and institutional actors** involved in the integrated water cycle.

Private regulation

The example of Chile

“The regulatory framework, organised around the Superintendency of Health Services, enjoys great stability (concessions with no expiration date), very significant investments (with a coverage rate of almost 100% in both water and sanitation), and a comprehensive subsidy system (15% of customers).”

VÍCTOR GALILEA, *EXECUTIVE PRESIDENT, ANDESS AG*

Public regulation

The example of Denmark

“Water management is the responsibility of public enterprises separated from political interference and complying with the principle of economic sustainability. There is an independent economic regulator, with responsibility over the matter, to promote competitiveness.”

The price per cubic meter is one of the highest in the world (€8.5/m^3), resulting in a very low unit cost (106 litres per person per day) and an average loss level of 7% (if a company exceeds 10%, it is fined).”

CARL-EMIL LARSEN
CEO DANVA

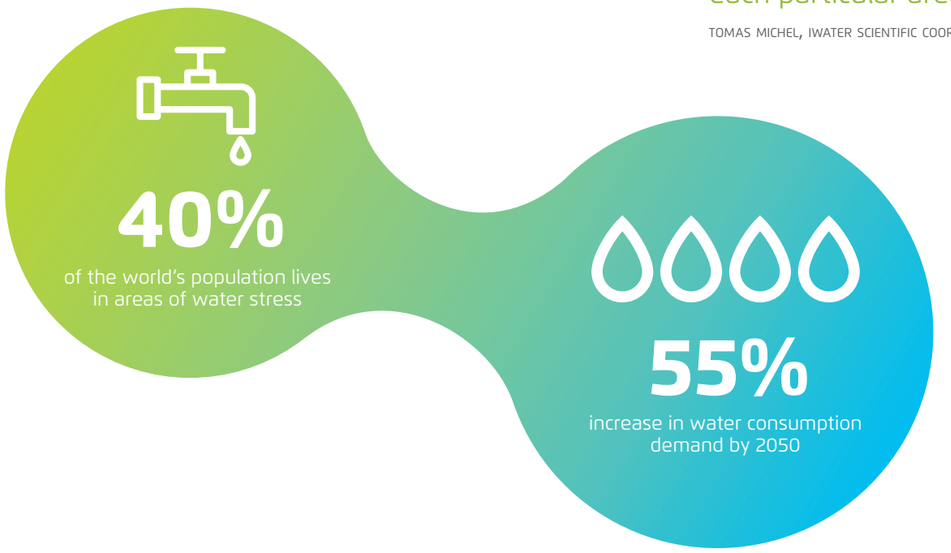
Public-private regulation

“In situations of a lack of cost recovery, of a lack of investment or financing, there is a pressing need for the implementation of a regulator to bail out the sector, which is greatly weakened, economically, within such a context”.

PEDRO MICHELENA, *PRESIDENT, PPP FORUM*

“Iwater saw presentations on different regulatory models, none better than the other, but which instead work on the basis of the needs of each particular area.”

TOMAS MICHEL, IWATER SCIENTIFIC COORDINATOR



Inno Hub

Iwater, promoting research and development

Iwater brought together numerous R&D&I projects aiming to provide innovative technological solutions to tackle the water sector's leading challenges and promoted contact between business, technology centres and universities, as well as knowledge transfer between all of them.

The thematic sessions placed special emphasis on innovative public procurement, R&D funding and dual education/training.

The Show included an encounter between the Spanish group of the Young Water Professionals (under-35s) of theInternational Water Association (IWA) and interviews between entrepreneurs and investors.

Day 1

- INNOVATION IN PUBLIC PROCUREMENT
- IWA YWPs (IWA Young Water Professionals)
- CALL FOR PITCHES: Projects
- CALL FOR PITCHES: Innovation

Day 2

- ENTREPRENEURS AND INVESTORS ENCOUNTER
- CALL FOR PITCHES: Projects
- INNOVATION: Thematic sessions

Day 3

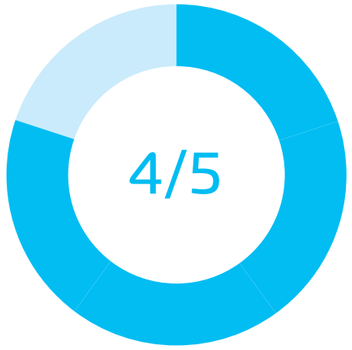
- FUNDING R&D PROJECTS

Vocational training
- (Dual vocational training in water)

CALL FOR PITCHES:
- Innovation

CALL FOR PITCHES:
- Projects

RATING OF INNO HUB ACTIVITIES



Tech Hub

Solutions for sustainable development

Iwater showcased the leading **solutions** and, what is more, presented examples of good practices in **energy efficiency, irrigation, water management in smart cities, buildings, residential areas and industrial sectors.**

Coverage was also provided of public and private investment plans in a number of countries.

Day 1

PUMPING SYSTEM EFFICIENCY

Current situation and trends in pumping energy efficiency *Andrés García-Alonso*

Session Event Partner: XYLEM *Pedro Martín de Blas*

EBARA: Ebara's new "Shurricane" impeller *Pedro de Velasco*

ESPA: CKE variable-speed pressurisation units *Llorenç Ramon*

LIKITECH: High performance pumping system *Markus Pazen*

SEWERAGE SYSTEM SPILLOVER REGULATIONS

Authorization of discharge of sanitary sewer overflows (SSO) in accordance with Royal Decree 1290/2012 *Carlos Blanco*

Impact of RD 1290/2012 on the management of sewer systems *Pere Malgrat*

WEHRLE MEDIOAMBIENTE: WEHRLE BIOMOX: removing nitrogen with Anammox *Pablo Garcia*

PRESENTATION PRIVATE INVESTMENT PLANS

ITAIPU BRASIL *Herlon Goelzer de Almeida*

Colombia *Tatiana Olarte*

Morocco Abdelaziz Taariji

SORIGUÉ: Changes in the water management model: renovation of the Săntămăria-Orlea DWTP in Romania *Ángel Ortega*

WATER & SMART CITY: SMART MANAGEMENT IN WATER USE

Smart water & Smart cities *Miquel Rovira*

Smart water: open technologies at the service of water management *Xavier Torret*

SUEZ: Water management in smart cities *Antonio Escamilla de Amo*

Platform for the validation of online sensors for the quality control of drinking water *Clàudia Puigdomenech*

SCAN IBERIA SISTEMAS DE MEDICIÓN: Micro::station. The online monitoring of drinking water stations *Jordi Raich and Daniel Millan*

SOFREL ESPAÑA: LS-FLOW: New datalogger sectoring and remote reading of large-volume consumers *Maria Torrecilla*

ACQUA-SOLFIT: KINEXTTM, the new composite material for the production of composite manhole covers *Aldo Barucco*

WATEROLOGIES: Smart Disinfection System *Antonio Cuevas*

AIGÜES DE BARCELONA: Method for continuous control of the potential formation of trihalomethanes *Miquel Paraira*

Evolution of Israel's water cycle - Recycling, Savings, Desalination - and its driving forces: Innovation and regulation *Raanan Adin*

Day 2

FRAMEWORK FOR THE USE OF SUBSTANCES AND MIXTURES IN THE DRINKING WATER PRODUCTION

The Spanish legal scenario in the European context of REACH *Gemma Falcó*

A technical guide for the interpretation, application and management of the use of substances and mixtures for the treatment of water intended for the production of water for human consumption *Nuria Adroer*

CAMPI Y JOVÉ: The advantages of multilayer filtration in purification processes *Xavi Cabré*

ADIQUIMICA: Water treatment support programmes for facilities (Adic-Ionic, AdicRO, Adiclean) *José Ignacio Ramos*

OXIDINE WATER TECHNOLOGY: iSEC Hyprolyser. In-line hypochlorite generator. *José Manuel Vilela*

CETAMINE: Water and energy savings in boilers and steam generators *Pere Izquierdo*

CHIEMIVALL: Katalox Light. New filtering material for Fe, Mn, H_2S, As, U, Ra elimination. *Jordi Masdeñol*

PRESENTATION PUBLIC INVESTMENT PLANS

Brief analysis of water industry in China *Shuang Li*

Denmark: Last developments in the water sector in Denmark. Business opportunities. *Ilse Korsvang*

Israel investment plans in the water sector *Avraham Israeli*

The water situation in Iran. Business opportunities for its sustainability *Reza Panahirad*

SORIGUÉ: Environmental impacts and technological solutions. The Chone dam in Ecuador. *Octavio Ibarra and Josep Serra*

COUTEX: Evacuation systems using plastic scrapers with ATEX Zone 0 certification, the only ones on the market *Pere Patau*

AZUD: Mobile drinking water plants *Alejandro Escolar*

REMOSA: Treatment of wastewater from a winery *Carme Santasmasas and Cristóbal Pomar*

COPERSA: Mazzei airjection gas contacting system *Michael Spillner*

WATER & THE CIRCULAR ECONOMY: NEW CHALLENGES, NEW STRATEGIES

Treatment plant sludge management in the context of the circular economy: recycling organic matter and nutrients *Joaquín Aguilar*

Reuse as a cornerstone of the circular economy in the water sector *Gari Villa-Landa*

KAMSTRUP: Kamstrup: Smart metering through IoT communication *Kurt De Nies, Jan Van Cappellen and Stig Knudsen*

ENERGY IMPROVEMENTS: PCORR sensors New methods for detecting and locating water leaks *Alejandro Aranguren*

HANNA INSTRUMENTS: EDGE BLU pH meter with Bluetooth receiver emitted by new HALO electrodes *Lluis Enric Guillen and Nines Marin*

WATER IDEA (INCLAM GROUP): WatEner. Web platform for the operation and management of drinking water networks *Jorge Helmbrecht*

SUEZ: Water and the circular economy *Javier Carrillo de Albornoz*

SUEZ: Water in apartment blocks and collective residential areas *Ignasi Gómez*

SUEZ: The efficient use of water in industry *Joaquin Pérez*

IWATER AWARDS

Day 3

SUSTAINABLE WATER MANAGEMENT IN SHARED BUILDINGS AND RESIDENTIAL AREAS

Regulatory perspective on extending water reuse solutions to shared buildings and residential areas. *Irene Corbella*

Technical Good Practice Guides for the use of water in apartment blocks and collective residential areas *Jordi Lluís Huguet*

REMOSA: GREM. Compact system for recycling grey waters for subsequent reuse in WC cisterns and irrigation *Carme Santasmasas*

HIDROTEC: SPRAYFORM. Renovation of downpipes without building work *Javier Yagüe*

INNOVAEXTREMADURA: Water saving systems for low-pressure toilets *Domingo Panea*

IRRIGATED AGRICULTURE: CHALLENGES AND OPPORTUNITIES

Challenges and the interests of users and organisations in irrigation in the 21st century: water safety. *Miguel Varea*

Irrigation systems of the future *Joan Girona*

SUEZ: Energy efficiency *Baptiste Usquin*

SUEZ: Control and decision-making in irrigation *Javier Borso di Caminati*

SUEZ: Advanced technologies in the deodorisation of wastewater treatment plants *Sílvia Nadal*

INET COUNTERS: New irrigation control systems with different communication technologies (ISM, Sigfox, GPRS) *Javier Herrero and José Tito*

HIDROCONTA: Deméter. GPRS-radio wireless system for remote control and supervision of equipment and facilities *Francisco Pagan*

PRESENTATION PUBLIC INVESTMENT PLANS

The Mayakoba City project. A sustainable development and water management model on Mexico's Riviera Maya *Maria del Carmen Sarmiento*

PRESENTATION PRIVATE INVESTMENT PLANS

Participation of the private sector in sanitation: An overview of Brazil 2016 *Andre Lermontov*

AMIANTIT SPAIN: FLOWTITE GREY piping Highly impact-resistant GFRP piping *Josep Aubeso*

AMPHOS 21 CONSULTING: Apps for aquifer management *Jordi Guimerà*

THE TECHNOLOGY REVOLUTION APPLIED TO THE WORLD OF WATER

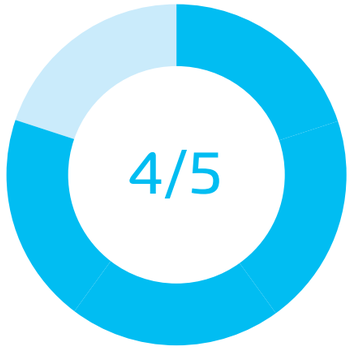
Rehabilitation, by means of "trenchless technology" of a section of the storm drain in the Avinguda del Vallès (Terrassa) *Ángel Ortega, Felipe Libreros and Francesc Castro*

Implementation of a 3D Information Services system in the urban subsoil *Ángel Ortega, Carles Colas and Mario Alguacil*

HIDROTEC: Experience in rehabilitating sanitation piping without construction works in buildings making up historical heritage *Ángel Ortega, Javier Yagüe and Santiago Castillo*

CIM AIGUA: Respirometry and bioindication studies for the management of industrial wastewater *Ángel Noguera*

RATING OF TECH HUB ACTIVITIES



Guided tours of infrastructure

Iwater visits Barcelona's main internationally-renowned facilities

Tour of the El Prat de Llobregat wastewater treatment plant (WWTP) + recharging of aquifers by injecting reused water. Attendees visited one of Europe's largest and most modern wastewater treatment plants.

Tour of the Water Cycle Control Centre + AntiDSU Sewer Control Systems (the Joan Miró Park rainwater retention tank). This tour visited two sites: the first at the municipal company Barcelona Cicle de l'Aigua, SA (BCASA) control centre, focusing on the management of alternative water resources, geographic information systems, integral coastal management and the real-time management of the city of Barcelona's sewer system.

The second tour was of Barcelona's Joan Miró Park's rainwater retention tank, built to minimise flooding in key points of the city and protect the receiving environment, facilitating the treatment and purification of rainwater and thereby benefiting the beaches, with proper management of the network as a whole.

Tour of the Llobregat river basin ITAM desalination plant, to understand the inverse osmosis desalination system, which is supplied by the sea. This plant incorporates 60 hm^3 per year of desalinated seawater, with an average daily flow rate of 180,000 m^3. When inaugurated in 2009, it was Europe's largest such plant for urban supply.

Visit to El Llobregat drinking water treatment plant in the town of Abrera, which also boasts one of the world's largest **reversible electrodialysis (EDR) treatment plants** .

There, visitors found out about the treatment process for the waters taken from the River Llobregat carried out at this plant, which has a treatment capacity of 4 cubic metres per second. They also toured the plant's EDR facilities, which use this membrane technology to remove salt content and contaminants from the water, improving its perceived smell and taste, whilst at the same time preventing the formation of trihalomethanes in the chlorination process.

The guided tours were very popular, being enjoyed by more than 130 attendees.

Iwater awards

Acknowledgement of the best advances in the sector

The show presented the Iwater awards in four different categories:

Award for the best research

The European project **“Watintech: smart decentralized water management through a dynamic integration of technologies”** coordinated by the **Catalan Institute for Water Research (ICRA).**

Award for the best idea

The Hazur project: a cloud-based computer solution that identifies the urban actors responsible for services, interdependencies, any impacts that may affect their operations and areas for improvement.

The project was submitted by **Opticits Ingeniería Urbana,** a pioneering firm in the assessment, improvement and management of urban services’ resilience, including the integrated water cycle.

Award for the best product

Flygt Concertor, the world’s first truly smart wastewater pumping system, submitted by **Xylem**.

Special social responsibility award

Iwater presented a special award for the best charitable initiative to the NGO **Proactiva Open Arms**, which assists refugees, the majority from Syria, and helps save lives in the Mediterranean.

Visitors to the show

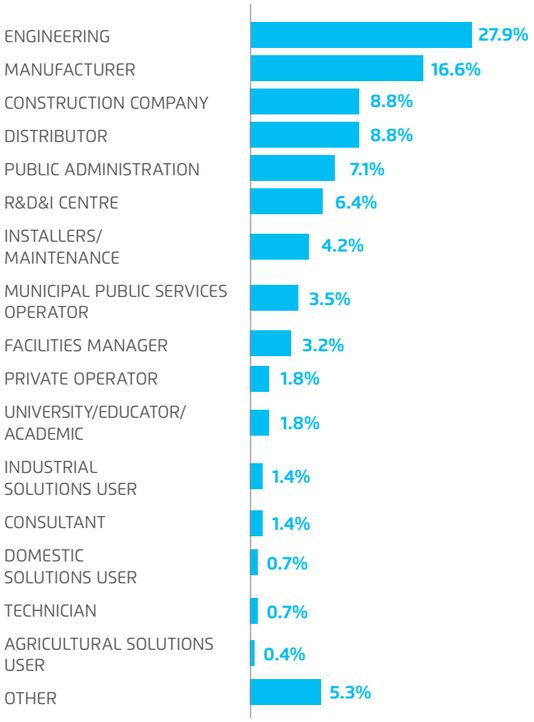
We all count in the integrated water cycle

Visitors to Iwater included a wide variety of professional profiles and interest areas.

The most common professional profiles were those associated with **engineering and manufacture.**

WHAT IS YOUR PROFESSIONAL PROFILE?

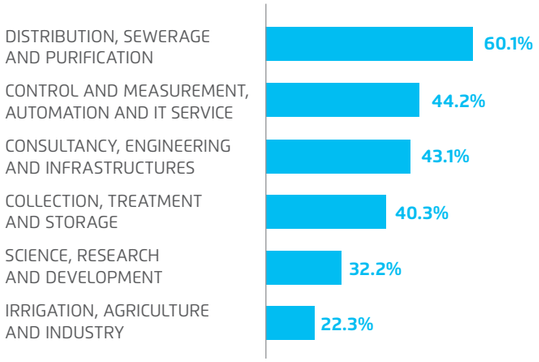
BASIS: 283 VISITORS



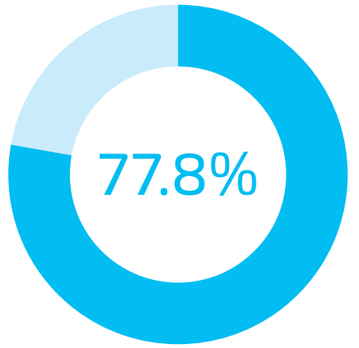
The predominant sectors were those of **distribution, sanitation and water treatment.**

WHAT IS YOUR AREA OF INTEREST?

BASIS: 283 VISITORS



PERCENTAGE OF VISITORS WITH SUGGESTIVE OR DECISION-MAKING POWER IN THE PURCHASING PROCESS

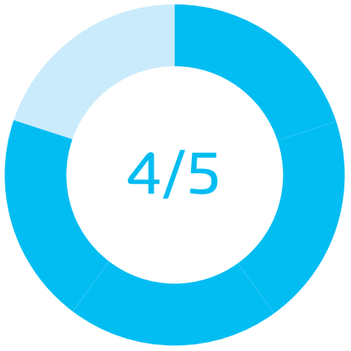


More 20% of attendees at this first show were of international origin.

The goals regarded by attendees as most important:

Gave a particularly high rating to both exhibitors and contacts made during the show.

RATING OF THE SHOW'S GENERAL QUALITY



Communication campaign

Iwater is launched to a warm welcome

Feedback received from the communication campaign has been very positive.

The channels with the greatest impact were the Iwater **website**, which received a large number of visits, followed by **social networks.**

Also very noteworthy was the **impact via email**.

100,395
Web visits

26,657
Visits via mobile devices

308,789
Impacts via email

673
App downloads

171
LinkedIn followers

1,867
Facebook fans

1,403
Twitter followers

WEBSITE

ADVERTISEMENTS

Media coverage of the new show

Iwater was news in the leading specialist and general media outlets, both at home and abroad.

All of them highlighted the importance of the event, in that it managed to bring together all the agents involved in the integrated water cycle, to build a sustainable future together.

497
press, radio, TV and online hits (*)

€1,511,602
in advertising value

123,533,276
people in cumulative audience

50
accredited journalists

SOURCE:
Access

Nov. 2016

EN AGRADECIMIENTO A:

Diamond partners

aqualia · Canal de Isabel II · suez

Global partners

soriguē

Event partners

CONTAZARA · xylem Let's Solve Water

Global supporting association

IWA the international water association

EN AGRADECIMIENTO A:

Media partners

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Partners & collaborating organisations

Have promoted this great event

We would like to thank all the companies and institutions that have made Iwater possible.

Diamond partners

aqualia

Canal de Isabel II

suez

Global partner

sorigué

Event partners

CONTAZARA

xylem Let's Solve Water

Global Supporting Association

IWA

Supporting institutions

Agència Catalana de l'Aigua

DENMARK

GOBIERNO DE ESPAÑA MINISTERIO DE AGRICULTURA, ALIMENTACIÓN Y MEDIO AMBIENTE

Collaborating organisations

Aeas Asociación Española de Abastecimientos de Agua y Saneamiento

AERYD

AIDIS

amec

AMEPA

ANAIP

asagua

asersa

AGA Asociación Española de Empresas Gestoras de los Servicios de Agua Urbana

AQUA ESPAÑA Asociación Española de Empresas de Tratamiento y Control de Aguas

AQUA EUROPA

Camins.cat Col·legi d'Enginyers de Camins, Canals i Ports - Catalunya

conaif unidos por la calidad

CWP CATALANWATERPARTNERSHIP

Enginyers Industrials de Catalunya

European Desalination Society

FENACORE Federación Nacional de Comunidades de Regantes de España

fluidex

lbSTT Asociación Ibérica de Tecnología SIN Zania

ΣH_2O Plataforma Tecnológica Española del Agua

seopan Asociación de Empresas Constructoras y Concesionarias de Infraestructuras

TECNIBERIA

WssTP The European Water Platform

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RETEMA Revista Técnica de Medio Ambiente

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INTERNATIONAL INTEGRATED
WATER CYCLE SHOW

iwaterbarcelona.com
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Fira Barcelona