

2017 2018

Annual Report

inspiring change

IWA at a glance

50 Specialist Groups 20 Specialist Group Events

42 Members of the Strategic Council 16 Board Members

3 Thematic programmes 17 Projects worldwide

120 Regulatory institutions from more than 90 jurisdictions in all continents



938K Website page views 24K Wechat followers

118K Vimeo views 13 IWA webinars

20K IWA Connect users 3K Webinars participants from 124 countries

21K LinkedIn followers 363 IWA Learn courses from countries

10K Twitter followers 10K Participants at IWA Events

20K Facebook followers 35 Events

1 million Journal articles downloaded

2,5K Journal articles published

850 Books in catalogue 651 eBooks

16 Journals 20 Books published

10.6% Increase in journal impact factors

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- | | |
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<i>Board Member</i> |
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Introduction



The International Water Association is a strong and thriving global organisation that continues to deliver on its vision of a sustainable, water-wise world. A rapidly changing world requires IWA to evolve and adapt. Our members are at the heart of the organisation, and the IWA membership has demonstrated in the past year that it is a growing and vibrant network that delivers water solutions in over 130 countries worldwide.

The water sector faces a pivotal moment. In a world that suffers increasing water stress and faces water scarcity that is heavily impacted by climate change, the ever-increasing demands to allocate water to all the sectors to cover all human and environmental water needs represents an unprecedented challenge. At the same time, it also presents a unique opportunity to create the sustainable water management of the future.

The Sustainable Development Goals provide unprecedented political will to address these issues in low-, middle- and high-income countries. However, in order to achieve this ambitious 2030 Agenda, there are many challenges ahead of us. There is a need to identify and mobilise additional financial resources to address the SDG funding gap. Utilities, being at the core of water management, must improve their creditworthiness, since it has a ripple effect on the region or municipality they operate in. By creating an enabling environment with the right policies, institutional arrangements, and regulatory frameworks, utilities can be incentivized to improve their operational and commercial efficiency, leading to improved services and enhanced credibility.

Another major challenge relates to human resources - the sheer lack of capacity to proceed with the SDG tasks ahead, and the deficiencies in education and training at all levels. It is a critical priority for us to invest in driving more professionals to enter the water and related sectors, and to provide accessible and affordable professional development opportunities for them.

Delivering solutions for the complex water problems we face today, and in the future, requires a concentrated and pioneering focus on integrated water management that bridges the gap between sectors and raises awareness at a political level. It also requires leading-edge scientific research and technological developments to be combined with the best water management practices. As a sector we must embrace disruptive technologies and science, and adopt them at a much faster rate if we are to deliver the maximum benefit they can bring.

Developing adaptive responses to climate change will be a critical need in all parts of the world. At the same time water utilities will be at the leading edge of delivering the circular economy by becoming resource miners, extracting not only water but energy, minerals, metals, bioplastics and diffuse pollution such as fertiliser from wastewater. And the sector must prepare for the era of digital water, and the potential this has to disrupt and truly reshape the water sector.

IWA members are the heart of the Association, a source of inspiration, knowledge and ideas for solutions to increasing global challenges the water world is facing. IWA provides the platform where global leaders from within and outside the water sector can ferment innovations and rigorously debate. Here, both innovators and adopters of new technologies and approaches can bring the push and pull of innovation together. It is a place for diffusion, benchmarking and evidence.

Ours is an industry of people and, as an industry, we face the twin challenges of ensuring we have enough human resources to deliver the massive growth in water and sanitation services required to meet the SDGs; and that water professionals around the world have the right skills and knowledge to manage the sector of the future.

Shaping our water future, the International Water Association is more relevant than ever today. In its 71st year the Association continues to bring together the most promising developments and optimal solutions, sharing the best from around the world, while promoting and encouraging language, age and gender diversity within our membership.

There is much to look forward to in the coming years. We look forward to presenting IWA's new strategic direction in the *IWA Strategic Plan 2019-2024* at the IWA World Water Congress & Exhibition in Tokyo.

Diane d'Arras *President*

Kala Vairavamoorthy *Executive Director*

Calendar

2017

SEPTEMBER

SINGAPORE

8th IWA Specialised Membrane Technology Conference & Exhibition for Water and Wastewater Treatment and Reuse

PRAGUE, CZECH REPUBLIC

14th IWA / IAHR International Conference on Urban Drainage

KUALA LUMPUR, MALAYSIA

IWA – ASPIRE

LIVORNO, ITALY

Water Challenges in XXI Century: Role of Economics, Statistics and Asset Management

CRACOW, POLAND

YWP Poland: Water, Wastewater and Energy in Innovative Cities – from Theory to Practice

VIENA, AUSTRIA

10th Micropol & Ecohazard Conference

WARSAW, POLAND

7th IWA Odour and Air Emissions Conference

OCTOBER

KRUGER NATIONAL PARK, SOUTH AFRICA

14th IWA Specialist Conference – Watershed and River Basin Management

BEIJING, CHINA

The 15th IWA Anaerobic Digestion Conference

NANTES, FRANCE

IWA International Conference on Sustainable Solutions for Small Water and Wastewater Treatment Systems (S2Small2017)

NOVEMBER

CHONGQING, CHINA

Sustainable Wastewater Treatment and Resource Recovery: Research, Planning, Design and Operations

BUENOS AIRES, ARGENTINA

Water and Development Congress

BUENOS AIRES, ARGENTINA

4th International Water Regulators Forum

VINA DEL MAR, CHILE

8th IWA Specialised Conference on Sustainable Viticulture, Winery Wastes & Agri-Industrial Wastewater Management

BILBAO, SPAIN

3rd IWA Spanish YWP Conference

DECEMBER

CAPE TOWN, SOUTH AFRICA

8th International Young Water Professionals Conference

Calendar

2018

FEBRUARY

MELBOURNE, AUSTRALIA

AWA / IWA Young Water
Professionals Conference 2018

MARCH

QUEBEC, CANADA

6th IWA / WEF Water Resource
Recovery Modelling Seminar

DELFT, NETHERLANDS

IWA Biofilms: Granular Sludge
System Conference

APRIL

CRANFIELD, UK

19th IWA UK YWP

MAY

CAPE TOWN, SOUTH AFRICA

Water Loss 2018

ZAGREB, CROATIA

10th Eastern European IWA YWP

BEIJING, CHINA

The 2nd Disinfection and
Disinfection By-products
Conference

ROME, ITALY

Sludge Management in
Circular Economy

NANJING - CHINA

The 15th IWA Leading Edge
Conference on Water and
Wastewater Technologies

JUNE

MURCIA, SPAIN

Regional Water Reuse and Salinity
Management

LONDON ONTARIO, CANADA

ecoSTP 2018

JULY

PALERMO, ITALY

13th International Conference on
Hydroinformatics (HIC 2018)

SEPTEMBER

TOKYO, JAPAN

World Water Congress & Exhibition

TOKYO, JAPAN

5th International
Water Regulators Forum

PALERMO, ITALY

11th International Conference on
Urban Drainage Modelling
(UDM2018)

VALENCIA, SPAIN

16th IWA Specialist Conference on
Wetland Systems for Water
Pollution Control

IWA Membership 2017

13,899

Network
Members

6,607

Individual Members
in 130 countries

3,243

Nominated
CM

378

Corporate
Members (CM)

23

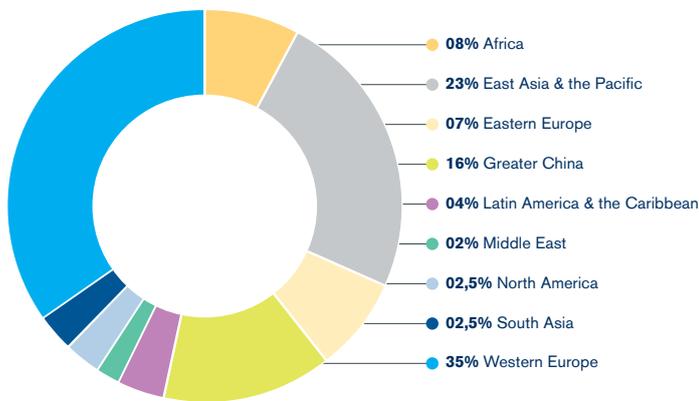
University
Members

54

Governing
Members

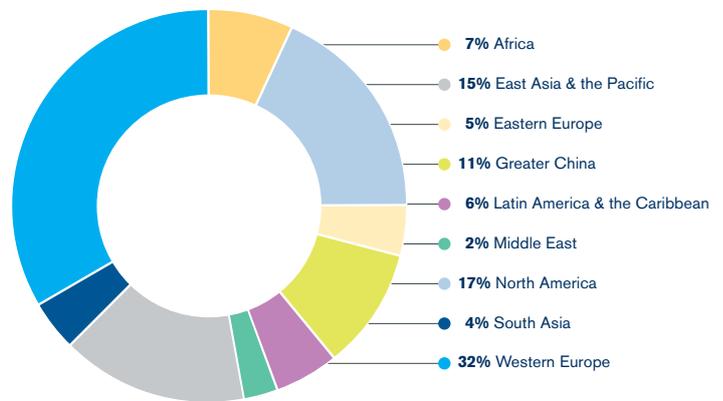
Active Corporate & University Members

by Region 2017

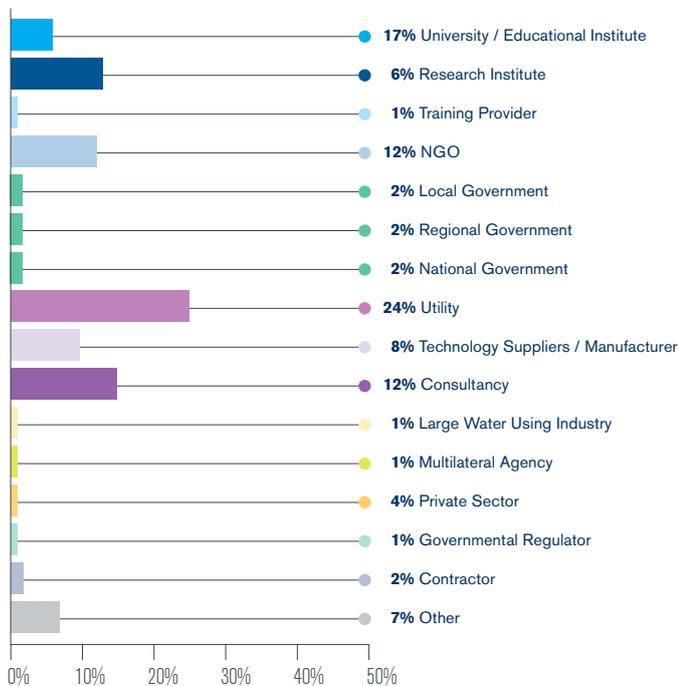


Active Individuals Members

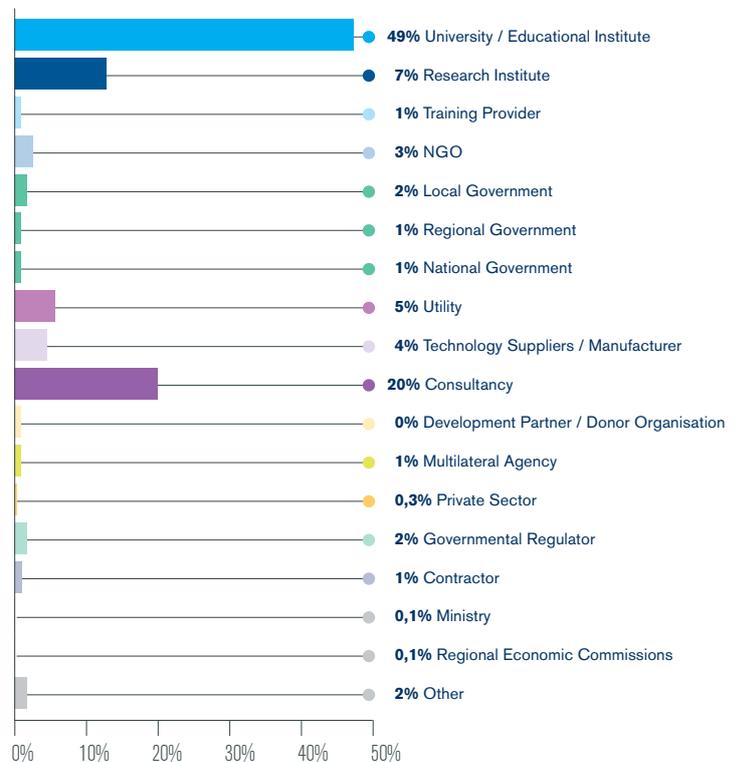
by Region 2017



by Sector 2017*



by Sector 2017*



* Government officials and regulatory authorities together belong to the global network of regulators

An International Decade for Action on Water for Sustainable Development



In October 2016, IWA adopted a resolution to work towards the effective contribution of our network of water professionals to the achievement of Sustainable Development Goal 6 and all water-related Targets of the 2030 Agenda for Sustainable Development. Two years into our commitment, pressure on the water sector is rising, and action is becoming even more urgent.

2.1 billion lack access to safe drinking water on premises that is available when needed and free from contaminants, 4.5 billion lack access to safely managed sanitation, and 892 million still practice open defecation¹. At the same time, flood and drought events are becoming increasingly common, more severe and less predictable. Climate change is the major driver, but a growing global population, urbanisation, changing land use, and increased demand for water from agriculture and industry are piling pressure on water resources at a time when water scarcity is growing. Water quality and the ecosystems dependent on water resources are being degraded by increasing amounts of wastewater discharged untreated into the environment.

2018 has been an important year for the international agreed Global Goals and the political processes worldwide, with paying special attention to water and water related issues. To accelerate progress towards ensuring the availability and sustainable management of water and sanitation for all (SDG 6), the High Level Panel on Water (HLPW) put forward an **Agenda for Water Action**². This HLPW Outcome Report launched in March 2018 calls for a fundamental shift in the way we manage and value water, as well as the involvement of all stakeholders in crafting responses to our water challenges. "At stake is our human right to access to safe drinking water and sanitation", stresses their outcome report.

While the Sustainable Development Goals have provided unprecedented political momentum, insufficient financing continues to prevent countries from meeting national water, sanitation and hygiene targets, and a lack of skilled professionals threatens to derail progress now and in the future. The SDG 6 funding and capacity gaps are reflected on the **UN SDG 6 Synthesis Report 2018**³ on Water and Sanitation launched at the High Level Political Forum in July this year. It makes for a sobering reading regarding the global status of our target: "The world is not on track to reach the SDG 6 on Water and Sanitation by the deadline set for 2030."

The year 2018 also marks the start of the International Decade for Action on "Water for Sustainable Development". It gives the world an opportunity to renew its commitment to delivering SDG 6 and ensure no one is left behind.

As the leading global network of water and sanitation professionals, IWA is now more relevant than ever for professionals, political decision makers, citizens and the environment. With our membership of top water professionals, regulatory authorities, city leaders and basin organisations, relevant corporations, academics and researchers, and promising and interested individuals, we promote the diffusion of innovation and forward-thinking approaches to contribute to achieving the 'water goal' and the other SDGs that depend on the wise management of water resources.

As professionals in the sector, we strengthen knowledge-sharing to achieve SDG 6 in every country across the globe, we change the way we communicate about the value of water, and we stay ahead of the curve in technological development and innovation that can help the water sector become more efficient, sustainable, resilient and a driver of the circular economy.

To this end, IWA is launching the Strategic Plan 2019-2024 at the IWA World Water Congress & Exhibition, in Tokyo, Japan. Positioning IWA as the indisputable source for leading-edge water expertise, the place for professionals to exchange water knowledge, a bridge between research and science, and a supportive body in the implementation of the SDGs.

¹ Source: Water Synthesis Report, UN-Water 2018

² https://sustainabledevelopment.un.org/content/documents/17825HLPW_Outcome.pdf

³ <http://www.unwater.org/publications/highlights-sdg-6-synthesis-report-2018-on-water-and-sanitation-2/>

IWA Publishing

Empowering generations of water scientists, technologists and researchers

The IWA Publishing **portfolio**⁴ consists of 16 journals and a backlist of 850 books. It covers all aspects of water supply, wastewater and sanitation. In total, in 2017 our journals published 2,500 new articles, assisted by a global network of authors, editors and reviewers.

Open for everybody everywhere

Great progress has been made in increasing the openness of our books and journals, making it as easy as possible for members, researchers and professionals to access IWA Publishing content around the world. Researchers from 29 different countries chose to publish Open Access articles in IWA Publishing journals in 2017. Overall, IWA Open Access output doubled during the year.

Journal of Water Reuse and Desalination⁵ is now completely Open Access and a new Open Access journal, **H2Open Journal**⁶ has been launched covering all Water Science and Technology subject areas. **Ingeniería del Agua**⁷, co-published with Universitat Politècnica de València, is also fully Open Access and publishes articles in Spanish and Portuguese. Other new Open Access journals will follow in the years to come.

2017 | 2016 | 2015 | 2014 | 2013



H₂Open Journal



Greater engagement and impact

Usage of journal articles exceeded one million Full Text Downloads (FTDs) for the first time in 2017, more than double the previous year. This was driven by targeted marketing campaigns, expansion of our Open Access output and efficient SEO (Search Engine Optimisation) on our online publishing platform. Readers were widely distributed around the world.

Downloads of IWA Publishing journals in 2017, by country

A busy IWA Water and Development Congress & Exhibition (WDCE) in Buenos Aires 2017 welcomed the launch of various books, including **Tratamiento biológico de aguas residuales: Principios, modelación y diseño**⁸, **Manual Sobre os Direitos Humanos à Água Potável e Saneamento para Profissionais**⁹ and **Benchmarking Para Servicios de Agua: Guiando a los prestadores de servicios hacia la excelencia**¹⁰. A website was launched to coincide with WDCE (Water and Development Congress & Exhibition 2017) which showcases the full range of Spanish and Portuguese language content from IWA Publishing.



Launch of the Portuguese Version of the IWA Manual on Human Rights to Safe Drinking Water and Sanitation for Practitioners

The quality of our journals continues to be of the highest standard. Ten out of twelve of our indexed journals increased their Impact Factor in 2017, on average by 7.6 per cent, with **Water Research**¹¹ maintaining its position as the top ranked journal in the field, with a 2017 Impact Factor of 7.051.

7.6%

average increase in
2017 Impact Factors

2,500

research articles
published in 2017

100%

more Open Access
articles published

⁴ www.iwapublishing.com

⁵ <https://iwaponline.com/jwrd>

⁶ <https://iwaponline.com/h2open>

⁷ <https://polipapers.upv.es/index.php/ia>

⁸ <https://www.iwapublishing.com/books/9781780409139/tratamiento-biol%C3%B3gico-de-aguas-residuales-principios-modelaci%C3%B3n-y-dise%C3%B1o>

⁹ <https://www.iwapublishing.com/books/9781780408965/manual-sobre-os-direitos-humanos-%C3%A0-%C3%A1gua-pot%C3%A1vel-e-saneamento-para-profissionais>

¹⁰ <https://www.iwapublishing.com/sites/default/files/ebooks/9781780400877.pdf>

¹¹ <https://www.journals.elsevier.com/water-research>

IWA Development Award 2017

Recognising Water Sector leaders



Barbara Evans Leeds University, UK and Marco Antonio Cevallos EPMAPS, Ecuador

In an era when the water sector is facing unprecedented challenges, and the need for innovative action has never been more urgent, recognising those water leaders who are making a difference is of pivotal importance.

Granted in recognition of outstanding innovation or contributions to science or practice leading to a demonstrable impact at national, regional or international levels in low- and middle- income countries, the IWA Development Award 2017 highlighted the positive impact that IWA's members have brought to addressing the challenges of water management worldwide. The 2017 IWA Development Award for Practice was awarded to Marco Antonio Cevallos (EPMAPS, Ecuador); the 2017 IWA Development Award for Research was presented to Professor Barbara Evans (Leeds University, UK).

"I am very excited to have the opportunity which this award brings to work with the IWA's members, who play a vital role in WASH service delivery, to further develop our understanding of how to deliver the SDG target 6.2 of universal access to safely managed sanitation."

Barbara Evans
Leeds University, UK

During the celebration, Kala Vairavamoorthy, Executive Director of the International Water Association said, "Barbara Evans and Marco Antonio Cevallos have both made significant contributions to realizing safe water and improved sanitation for millions of people."

Marco Antonio Cevallos has shown how management vision can lead water utilities in emerging economies to deliver vastly improved services, including the poorest in society.

Barbara Evans' research has played a key role in developing effective strategies for securing safe access to water and sanitation, with a sustained attention to community-wide approaches to tackle urban and rural water and sanitation challenges.

"I have found that my efforts would be nothing if not for the amazing people on my team. I share this award with them and look forward to continue reaching our goals together."

Marco Antonio Cevallos
EPMAPS, Ecuador

IWA Water and Development Congress & Exhibition, Buenos Aires, Argentina



Over 3,000 water professionals from 82 countries came together between the 13th and the 16th of November 2017 to debate water solutions for developing countries and emerging economies, and to build new partnerships to accelerate change that delivers a sustainable water future.

A unique strength of the IWA Water & Development Congress and Exhibition is the seamless integration of the conference's leading-edge science and technology focus, with world-renowned water companies, utilities, governments, NGOs, research institutes and civil society organisations participating in the exhibition.

"The African Water Association, as the leading organization in the WASH sector in Africa, is and will always be where important stakeholders gather to talk about drinking water and sound sanitation services, as well as environment, hygiene and climate change. That's the main reason for our participation in IWA congresses around the world, where we can highlight and share African expertise." -

Sylvain Usher

Executive Director, African Water Association

"The 2017 Water and Development Congress is an excellent opportunity for Servior to show the full potential of the organization and to strengthen commercial ties between the private and public sector. A great occasion to reinforce our trademark image and connect with a highly qualified public. We believe that cultivating public-private partnerships is crucial to the long-term sustainability."

Servior

Thought leadership for a sustainable water future



Dhesigen Naidoo speech

“The global water community needs to accept the ‘new normal.’ This is characterized by climate change, increasing population, and the high demand for basic needs, and of course it is encapsulated in our collective ambition; to meet the Sustainable Development Goals”

Dhesigen Naidoo CEO of the Water Research Commission, South Africa

Thought provoking plenary sessions with keynote presentations from some of the most prominent figures in the world of science, technology, industry, government, business and civil society, addressed the biggest issues facing water management in low- and middle-income countries, now and in the future. A major focus of the Congress was on how we achieve the Sustainable Development Goals (SDGs), particularly SDG 6 on water and sanitation.

There is a role for everyone to play in navigating this 'new normal' towards building a more resilient city in 2030. Global professional bodies, like IWA, could facilitate and fast-track learning from stories of success and failure in contributing to SDGs, with the aim of shortening the learning curve.

The technological or digital revolution demonstrates huge successes in improving water management and efficiencies along water and sanitation value chains. However, in low- to middle-income countries, servicing development needs have not kept pace with technological advances. It was stressed that there needs to be a balance between meeting basic needs of cities and upgrading or advancing systems, that there needs to be more emphasis on integrated urban water management planning.

To transition to a sustainable model of service delivery requires attracting new staff, and capacitating and changing behaviours of existing staff. It requires a skilled workforce able to co-produce knowledge and action that enhances the likelihood that findings, models, and decision support tools are scientifically credible, solutions-oriented, and relevant to management needs and stakeholder perspectives.

“We need more people in the water sector, to keep the infrastructure running and to make sure the level of services stays high.”

Eleanor Allen
CEO, Water for People



Emerging Water Leaders at the Water and Development Congress and Exhibition, Buenos Aires

The Buenos Aires Congress was the first IWA Congress that offered a joint keynote session by three young Emerging Water Leaders, as part of a continued effort to empower young water professionals within the association and the sector. IWA also secured funding to support 17 young water professionals to attend and take a formal learning role as rapporteurs. These rapporteurs fed the information into the Emerging Water Leaders Forum, held at the Congress, and produced the outcome **Buenos Aires Report**¹².

¹² http://www.iwa-network.org/wp-content/uploads/2018/04/IWA_2017_Buenos_Aires_Report.pdf

IWA Specialist Groups

The 'heart' of the Association

IWA Specialist Groups connect top leaders in their fields to drive future innovations in urban water management and sanitation. Spread across IWA's membership in more than 130 countries, they are an effective means of international networking, sharing cutting edge knowledge, best practices and skills, and making professional and business contacts. Given the evolution of the sector towards higher complexity and inter-connectivity, IWA Specialist Groups (SGs) have become more inter-dependent to facilitate collaboration. Major trends identified through the SG Leaders Forum will reorient many of the groups' framing in the next years, including addressing global water challenges through digitization and circular economy thinking.

Through SGs, IWA members contribute to issue-based interactions on scientific, technical and management developments, including conferences, publications, newsletters, and agenda-setting within the water sector. Among their many contributions, the following can be highlighted for 2017-2018:

ISME/IWA Bio Cluster Compendium

This Compendium presents ground-breaking advances in microbial ecology that holds great promise in helping to solve challenges in the areas of public health and sanitation, wastewater management, resource recovery and industrial wastewater. The holistic approach of **this volume**¹³ is the result of intensified cooperation between the IWA Specialist Groups that collaborate in the BioCluster and the International Society for Microbial Ecology (ISME).

130

Countries

50

Specialist
Groups

4

Task
Groups

3

Clusters

20

Specialist Group
Conferences

22

Specialist Group
newsletters

10

Specialist Group
books published

Resource Recovery Cluster Best Practice Award 2017

The Resource Recovery Cluster that partners with the KWR Watercycle Research Institute in the Netherlands initiated the Best Practice Award to promote and accelerate the development of resource recovery science and technologies, to showcase great examples of large scale and marketable applications from current scientific innovations.

The Best Practice Award 2017 was awarded to the water- and energy-independent wastewater treatment plant in Saemul Park, Anyang, South Korea, which was jointly developed by technology provider POSCO Engineering and Construction, the Korea Environment Corporation (K-eco) and the city of Anyang. This underground plant is energy self-sufficient through the production of biogas, while simultaneously recovering water and other valuable resources. The plant has significantly reduced its carbon footprint by reducing greenhouse gas emissions and introduced a 'Positive Impact Development' tool to monitor overall achievements.



¹³ <http://www.iwa-network.org/publications/state-of-the-art-compendium-report-on-iwa-biocluster-activities>



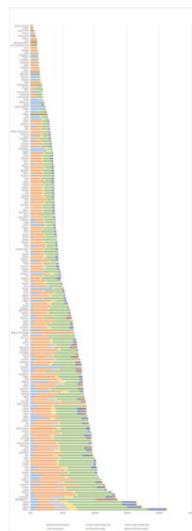
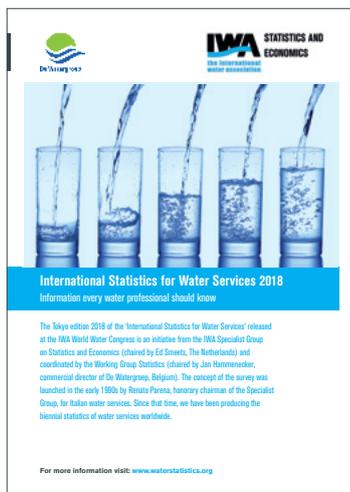
SG Leaders Forum at IWA Water and Development Congress & Exhibition, Buenos Aires, Argentina.

ISME/IWA Bio Cluster Award 2018

The ISME/IWA Bio Cluster Award recognizes the importance of interdisciplinary research at the interface of microbial ecology and water/wastewater treatment. This prestigious prize rewards interdisciplinary research of exceptional merit in this field. The winners of the third edition of this Award are: Grand Prize: Prof. dr. Wen-Tso Liu from University of Illinois at Urbana-Champaign, USA, and Prof. dr. Katherine McMahon from University of Wisconsin - Madison, USA; Rising-Star Prize: Dr. Ameet J. Pinto from Northeastern University, USA.

The International Statistics for Water Services digital platform

The report "International Statistics for Water Services" is now in its thirteenth edition and is part of a series of documents presented at the IWA World Water Congresses. Published by the IWA Specialist Group on Statistics and Economics, the report aims to enable high-level comparison concerning abstraction, tariff structure and regulation of water services globally. The 2018 edition contains data from 39 countries and 198 cities. The report is free to download or visit on the interactive digital platform: www.waterstatistics.org



Examples of Specialist Group Landmarks

- **NEW SPECIALIST GROUP: Non-Sewered Sanitation** (March 2018)
- **NEW TASK GROUP: Membrane Bioreactor Modelling and Control** (October 2017)
- **NEW TASK GROUP: Nature-Based Solutions for Water and Sanitation** (April 2018)
- **BOOKS PUBLISHED: Charalambous Dealing with the Complex Interrelation of Intermittent Supply and Water Losses** (August 2017)
- **BOOKS PUBLISHED: Treatment Wetlands, Biological Wastewater Treatment series, Volume 7** (November, 2017)
- **REPORT PUBLISHED: State of the Art Compendium Report on IWA BioCluster Activities** (August 2018)

Books from Task Groups in production:

- *Janssens*
Performance Based Contracts for Improving Utility Efficiency (August 2018)
- *Porro and Nopens*
The Use of Water Quality and Process Models for Minimizing Wastewater Utility Greenhouse Gas Footprints (2018)
- *Belia, Neumann, Benedetti, Johnson, Murthy, Weijers and Vanrolleghem*
Uncertainty in Wastewater Treatment Design and Operation: Addressing Current Practices and Future Directions (2018)
- *Laurent, Nopens, Samstag and Wicks*
CFD Modelling for Wastewater Treatment Processes (December, 2018)
- *Batstone*
Generalised Physicochemical Model No. 1 (PCM1) for Water and Wastewater Treatment (October 2018)

IWA Young Water Professionals

In charge of the future water sector, Young Water Professionals (YWP) participate at the forefront of the design, development and implementation of current change processes. IWA engages Young Water Professionals (aged younger than 35) by empowering them within the Association, and the water sector in general. Through this global network, young water professionals, our future leaders in the sector, are able to build their career, develop professionally and gain profile.

The (2016-2018) Emerging Water Leaders Steering committee represents IWA Young Water Professionals, providing advice to the association about the appropriate ways to serve the needs of our Future Water Leaders, support their empowerment and engage them in IWA's current activities at national and international levels. In 2017, it supported a strategy revision for the Young Water Professionals (YWP) community, which resulted in new guidance for YWP Chapters to gain IWA support or form as an IWA branded chapter. Upon this revision, 15 chapters fully complied with the renewed standards and 36 YWP chapters in total are in regular communication and interaction with IWA.

IWA YWP Chapters members were particularly proud of the following activities:

IWA Austria YWP chapter

Hosted a national workshop on 'Supply in extreme locations – How does modern life work in a lodge?'

IWA Canada YWP chapter

Crucial involvement at the IWA Specialised International Conference on Ecotechnologies for Wastewater Treatment, ecoSTP, 25-27 June 2018, co-chairing sessions and workshops, and conducting the conference technical tours.

IWA Denmark YWP chapter

Kicked off two working groups, enabling YWPs to discuss the implications of two intersecting forces: 'artificial intelligence' and the 'workforce of tomorrow'.

IWA Ghana YWP chapter

Held a quarterly roundtable discussion on the adoption of nature-based solutions, such as afforestation or conservation of wetlands, to protect Ghana's water resources. YWP panelists called for a strategic multi-sectoral partnership to be developed between different institutions and sectors to ensure the full benefits of nature-based solutions are harnessed.

IWA Mexico YWP chapter

Hosted a webinar to enhance paper-writing skills of YWPs.



OFID sponsored YWPs at #WaterDevelopmentCongress



South Africa YWP Chapter

IWA Philippines YWP chapter

Organised a quarterly roundtable on Disaster Risk Reduction (DRR) to improve YWPs skills in capacity-building, research, planning, policy and advocacy.

IWA South Africa YWP chapter

Organised a bootcamp and mentorship training support, as part of the 'Imvelisi Environpreneur Programme', an ideation entrepreneurship support programme that focuses on supporting South Africa to transition to a greener, more prosperous economy by nurturing early-stage entrepreneurs focusing on water and biodiversity opportunities. This programme is run in partnership with GreenMatter.

IWA YWP Conferences – affordable professional development and learning events organised by and for YWPs

**1st YWP Poland Conference,
12-13 September 2017, Cracow, Poland**
108 participants

"The conference was an indisputable success, a perfect place to find potential new collaborators, and share experiences and ideas. The opportunity for open talks between senior and young water professionals and the industry representatives was also a strong point of this event. The scope of the prepared materials was enormous, ranging from very detailed studies of specific cases to the broad exploration of multidisciplinary problems".

**1st YWP Spain Conference,
16-18 November 2017, Bilbao, Spain**
153 participants

Equal representation from industry and academia enabled fruitful discussions about a key theme across the conference: turning wastewater into a valuable resource. The conference also served to discuss approaches that can foster a more egalitarian water sector to secure equal opportunities for young women.

**8th International Young Water Professionals Conference,
10-13 December 2017, Cape Town, South Africa**
320 delegates from 38 countries



8th South Africa YWPs International Conference

The South African YWP chapter is a major vehicle which supported young water professionals to develop themselves to be at the forefront of decision making. The conference welcomed 320 delegates from across over 40 countries, a 28% increase in delegates from last edition, reflecting a truly diverse and multidisciplinary conference. It also marked the first consultation of the Strategic Plan 2019-2024 for young water professionals.

**1st AWA/IWA Australia Young Water Professionals
Conference, 22-24 February 2018, Melbourne, Australia**
214 participants

Being the biggest Australian conference for Young Water Professionals so far, this event turned into a unique platform for youth empowerment, where future water leaders took stock of their potential in shaping the future of the sector.

"This conference emanated genuine collaboration and a desire from those attending to make a change in the water sector. They were a vibrant and inspiring few days of showcasing young people in water and I believe we all left inspired and humbled to see what other young people – emerging water leaders – are achieving."

**4th YWP Denmark Conference,
8-9 March 2018, Kalundborg, Denmark**
50 participants

Organised by the network of Young Water Professionals Denmark (YWPDK), the conference provided a unique platform for members to connect, learn, share and contribute strategically to give a young voice to the debate, discourse and political agenda within and beyond the water sector.

**19th UK YWP National Conference,
16-18 April 2018, Cranfield, United Kingdom**
175 Participants

With the prospect of nationalisation of the water sector in the political agenda of the UK, this year's conference focused on discussing the potential effects on the water sector, as well as putting forward innovative ideas to improve resiliency in the sector.

**10th Eastern European YWP Conference,
07-12 May 2018, Zagreb, Croatia**
205 Participants



Eastern European YWPs

IWA Global Network of Water Regulators

Enabling change

Achieving the dedicated water goal (SDG6) and channelling the necessary transition towards sustainable development requires joint coordination, reform and commitment of all stakeholders involved. Sound working regulatory systems are one of the building blocks of this transition, with regulators being a driver for innovative investments and sustainable growth.

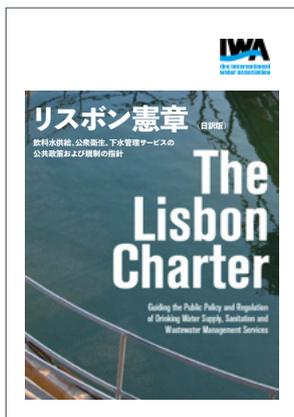
The International Water Regulators Forum

IWA is home to the International Water Regulators Forum (IWRF) that gathers regulatory authorities and officials with regulatory and supervisory functions related to the provision of water, sanitation and wastewater management services. The IWRF facilitates dialogue across functions –e.g. economic, health, environmental regulation– and sectors to enable synergies, peer to peer learning and collaboration to inform water-wise policies and regulation.

The Forum has successfully gathered in Lisbon 2014 (Lisbon Charter), London 2015, Brisbane 2016, Buenos Aires 2017 and Tokyo 2018, reaching to over 120 regulatory institutions from more than 90 jurisdictions in all continents and becoming a one of a kind global network of regulators that IWA is happy to host.

2018, the year of the 8th translation of the Lisbon Charter by members

In September 2014, the first IWRF with regulators and practitioners from 55 countries inspired the **Lisbon Charter**¹⁵, an international framework of good practice for public policy and regulation in drinking water supply, sanitation and wastewater management services that contains clear reference to the rights and responsibilities of the various stakeholders and users. Through five key principles, the Charter provides a framework for transforming water regulation that can be universally applied. To avoid language becoming a barrier, IWA works with our members to prepare translations that reflect the meaning of the Charter across cultures, regions and continents.



This year with the support of our young professionals, the Japanese version will be launched in Tokyo adding to the Portuguese, Spanish, Czech, French, Chinese and Romanian versions.

Connecting to the international research community

The analytical perspective of the research community can give insights to practitioners in realising the root cause of the regulatory challenges, identify major institutional barriers, and set the milestone for actions. To bring in this perspective into the global dialogue our regulators closely work with Specialist Groups across disciplines, the following can be highlighted for 2017-2018:

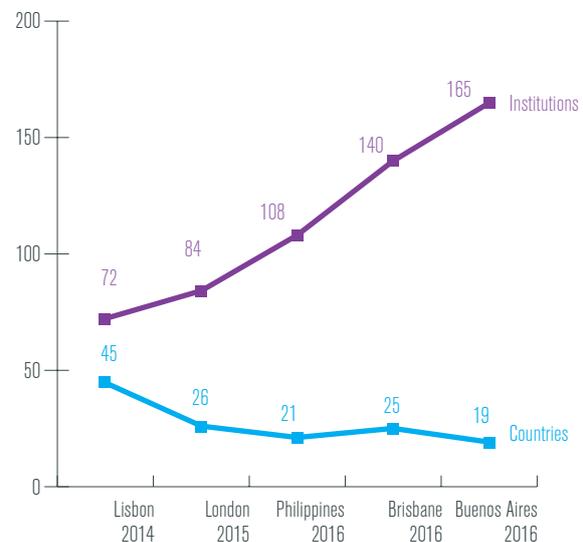
Task Force: Building nature based, resilient water systems: Catalyzing the Role of Water Regulators

Gathering authorities with regulatory functions related to water from Brazil, Italy, Argentina, Czech Republic, Zambia, Peru, England and Wales –UK, Scotland – UK, and Bulgaria work with members of the Specialist Group on Institutional Governance and Regulation, in supporting the role of regulators and regulation to enable consideration and investment in nature based solution to improve water security and safety.

Project: Public participation in the regulation of urban water services

Gathering authorities with regulatory functions related to water from Argentina, Australia, Bulgaria, Portugal, and the United Kingdom, with Specialist Groups on Economics and Statistics, Institutional Governance and Regulation, and Public and Consumer Communications; supported by GSAIS of Kyoto University.

Our regulators in numbers



¹⁵ http://www.iwa-network.org/wp-content/uploads/2015/04/Lisbon_Regulators_Charter_SCREEN_EN_errata.pdf

IWA – LEARN

a dedicated space for professional development in the water sector

The IWA Learning & Capacity Development area catalyses the acquisition of relevant competencies required to succeed in the water sector and that are of specific interest to IWA members.

In 2017-2018, IWA has strengthened its portfolio of professional development opportunities, scaling up the services that proved more successful during the preceding pilot phase: the IWA learning hub, the IWA webinar series, and IWA supported courses. Currently, IWA learn is under review to optimise the offerings to the new IWA strategy 2019-2024.

The Learning Hub

The **Hub**¹⁴ is an online learning marketplace to connect high quality training providers with water professionals. Current content includes learning resources and Water Masters, in addition to short courses, self-paced courses and webinars.

It contains opportunities, both online and onsite, freely available or paid, provided by universities, colleges, institutes, multilateral banks, online learning platforms, associations and development agencies. The Hub has also expanded to offer more language diversity.

IWA Webinars: professional exchange made available worldwide

The regular IWA webinar generally lasts between 60 and 90 minutes. It is conducted in a live online session for water and sanitation professionals to interact with leading experts and to engage in thought-provoking conversations that shed light on central debates within the water sector.

IWA webinars promote healthy exchange among peers, no matter their location. They provide a mechanism to disseminate up-to-date knowledge and engage a larger water community with leading edge content from the Specialist Group leaders, IWA fellows, project partners and the wider IWA network.

In 2017, the IWA focus was on inspiring the transition to water-wise cities by presenting stories of urban resilience. In 2018, our focus has been on the practical approaches of integrating nature-based solutions into planning and implementation across scales.

IWA Supported Courses

Supported international courses add to the IWA membership value proposition by providing a marketing platform to corporate members who are training organisations and by giving individual members access to discounted rates for high quality courses.

In 2017, IWA supported the promotion of 10 international courses, including some organised by Specialist Groups/Task Force groups, and some linked with international conferences. In 2018, this service has been provided to corporate and university members for a small fee. 4 courses are currently supported.

Learning Sessions at Major Events

In 2017, the Water and Development Congress & Exhibition featured 3 pre-congress courses, 2 Master Lectures, 2 networking sessions for new attendees, and the Emerging Water Leaders Forum.

In 2018, IWA has made professional development an integral component of our events. Sessions are compatible with the Continuous Professional Development requirements made by major professional accreditation bodies.

318

IWA Learn courses and webinars collected from 22 countries

45

Self-paced courses

13

Water masters

30

Learning resources

+51k

Unique website page views

7,2%

of total IWA website traffic

60

IWA webinars

20

IWA webinars on demand

2,980

Webinar participants

124

Countries reached

¹⁴ <http://www.iwa-network.org/iwa-learn/>

IWA Programmes

Bringing members and partners together to address global challenges

The IWA Programmes work with members and partners to collaborate on the global challenges facing the water sector, from transitioning to water-wise cities, to addressing emerging trends including the digital water economy, adaptive capacity and the circular economy. IWA Programmes provide a gateway for stimulating and disseminating knowledge and expertise from within the Association and the sector at large.

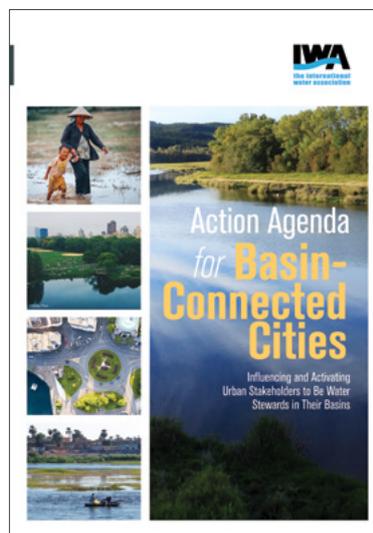
The Principles for Water-Wise Cities gains momentum and builds partnerships

How can we achieve water-wise cities? IWA is the catalyst, a reference, a broker to inspire and motivate action on the ground through actors of change. The **Principles for Water-Wise Cities**¹⁶ have been this catalyst to action with worldwide endorsements, including urban areas where several water and wastewater utilities and the city, the regulator, the basin agency, are all endorsing (this includes **Paris, Lyon, Gothenburg, Copenhagen** and **Melbourne**). This helps to deliver projects that require collaboration across department and institutions. The Tokyo Metropolitan Government will also be endorsing during the 2018 World Water Congress, where the 2nd edition of the Principles will be launched. The Principles have spearheaded the Water-Wise initiative, where IWA has been working with partners driving thought leadership in the sector including Arup, CRC for Water Sensitive Cities, and the Greater Paris Sanitation Authority.



An Action Agenda for Basin-Connected Cities

Building on the success of the Principles for Water-Wise Cities, IWA is launching the **Action Agenda for Basin-Connected Cities**¹⁷ which aims to inform, influence and activate urban stakeholders to protect and invest in water resources with basin and catchment organisations. The Agenda outlines pathways to action to help urban stakeholders be better connected with their watersheds, including securing water resources, protecting ecological health to ensure water quality and preparing for and responding to extreme events.



Nature for Water

IWA and The Nature Conservancy (TNC) are working to strategically unite public and private stakeholders to advance sustainable watershed management through nature-based solutions (NBS). The initiative aims to contribute new insights to the body of knowledge against which NBS can be assessed, a critical element for mainstreaming these practices. In 2018, the partnership has hosted a webinar series, workshops at events, and produced reports around facilitating active water utility involvement in watershed management. It shared perspectives on how regulators can shape behavior to favor the incorporation of NBS into water systems. To this effect, IWA members of the global network of regulators, water utilities and experts from Specialist Groups are convening in a new Task Force to support regulators and regulation to enable consideration and investment in NBS to improve water security and safety.

¹⁶ http://www.iwa-network.org/wp-content/uploads/2016/08/IWA_Principles_Water_Wise_Cities.pdf

¹⁷ <http://www.iwa-network.org/projects/basin-action-agenda/>

¹⁸ <http://fdm.iwlearn.org/>

¹⁹ <http://www.floordroughtmonitor.com/home>

²⁰ www.climatesmartwater.org

²¹ <http://wacclim.org/ecam/>

²² www.aquarating.org/en

²³ <http://www.iwa-network.org/projects/performance-based-contracts-for-non-revenue-water-market-development/>

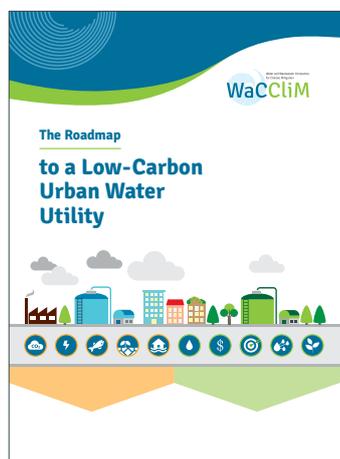
²⁴ <https://www.space-o.eu/>

Climate Resilient Water Safety Planning

In mid-2018, IWA kicked-off a new 2-year project funded by the OPEC Fund for International Development (OFID) to support the implementation of climate resilient Water Safety Plans (WSPs) in five countries: Burkina Faso, Ethiopia, Ghana, Kenya and Senegal. The project builds on the **Flood and Drought Management Tools (FDMT) project**¹⁸ involving IWA and DHI, which has developed a set of freely available web-based tools accessible through the **Flood and Drought Portal**¹⁹ for climate resilient water planning across scales. The OFID project will use knowledge and expertise developed within the FDMT project, the IWA network and with partners on the catchment-to-consumer WSP approach within the context of climate variability and change.

WaCCliM: A Pioneering Approach to Low-carbon Urban Water Utilities

In 2017, at the UNFCCC COP-23 event in Bonn, together with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) IWA launched the platform **Climate Smart Water**²⁰. This is an online resource which helps a new generation of urban leaders champion the transition to carbon neutral urban water and wastewater services. Solid evidence accumulated through the WaCCliM pilot utilities in Jordan, Mexico, Peru, and Thailand on how water utilities can increase efficiencies and reduce costs while reducing greenhouse gas emissions. Funneled into the 'Roadmap to a Low-Carbon Urban Water Utility – An international guide to the WaCCliM approach', these results will be launched at the World Water Congress in Tokyo. The Roadmap, along with the Energy Performance and Carbon Emissions Assessment and Monitoring (**ECAM**)²¹ tool, guides utility managers through the steps and critical thinking required to progress towards low-carbon urban water.



AquaRating: Supporting Utility Improvement Worldwide

In 2018, IWA renewed its agreement with the Inter-American Development Bank to support and promote **AquaRating**²² – a performance improvement programme for water and wastewater utilities. IWA has successfully supported the application of AquaRating in Sierra Leone and Fiji, and continues in 2017 and 2018 to support utilities in Angola, Mongolia and Mali. AquaRating provides a comprehensive overview of utility performance against eight areas, measuring key performance indicators and best practice implementation.

Bringing Performance Based Contract Approaches to Non-Revenue Water Management

In 2016, IWA and the World Bank Group signed a Memorandum of Understanding to work together on the promotion of **Performance Based Contracts (PBCs) for Non-Revenue Water (NRW) Management**²³. In 2017 and 2018 IWA has organised training and market place events in Kenya and South Africa to support this initiative. PBCs provide a means to design contracts for NRW projects that reward good and sustained performance, providing a win-win solution for utilities and contractors. The aim is to identify and support firms with experience in NRW management and introduce them to water utilities who are about to embark on investment programmes to reduce NRW. IWA has connected a number of its individual and corporate members to this initiative.

SPACE-O: Part of the emerging digital water economy

Digitalisation is on the rise and addresses more and more issues and actors in the water sector. IWA is part of the SPACE-O project which is developing state of the art water quality forecasting software using satellite technology in combination with in-situ monitoring and hydrodynamic modelling. This software is accessible through an **online portal**²⁴ that provides a range of tools for water utility operators and reservoirs which can be customised to their specific needs. SPACE-O is transforming water management to the digital age, making advanced science applicable for a wide range of water operators.



Formulation of South Asia Water Scarcity Programme

In response to increasing physical and socio-economic water scarcity in South Asia, FAO Regional Office for Asia and the Pacific has teamed up with the IWA to formulate a new programme – South Asia Water Scarcity Programme (SAWSP). An agreement was signed between IWA and FAO in 2017. The pilot countries are Bangladesh, India, Nepal, Pakistan and Sri Lanka. Water scarcity snapshots for these countries are being developed to compare the conditions, identify issues and opportunities in these countries and provide basis for building scenarios towards a common action agenda to cope with water scarcity.

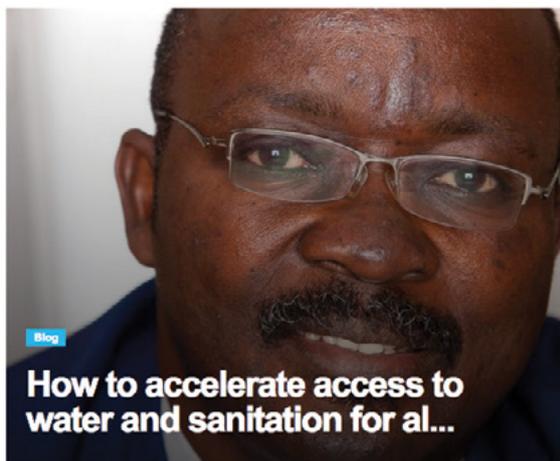
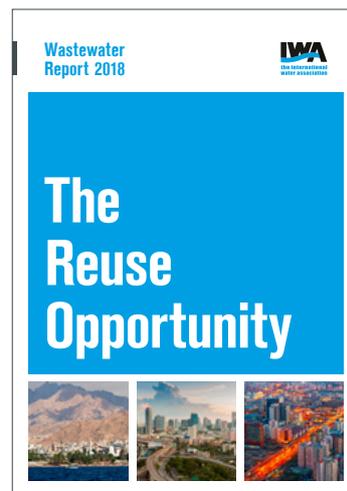
IWA Engagement and Communications

Thought-leadership is central to the work of water professionals. The IWA is a platform that amplifies the voice of its members to diffuse innovation. Communication is central and key for the IWA membership. From September 2017 to September 2018, the IWA members expressed their views and insights in 60 blogs on the IWA website. The IWA Members interact in their unique IWA-Connect platform that hosts the IWA 50 specialist groups discussions - and where science and practice communities are nurtured globally.

The IWA presence in social media attracts and inspires water professionals. In the period considered in this report the IWA uploaded 178 videos, and viewers watched over 1632 hours of content on the Vimeo platform alone. On YouTube the IWA performed less well with only 185 hours of content watched. Facebook however performed very well with 910 hours of video content watched and is a platform where video content is highly engaging.

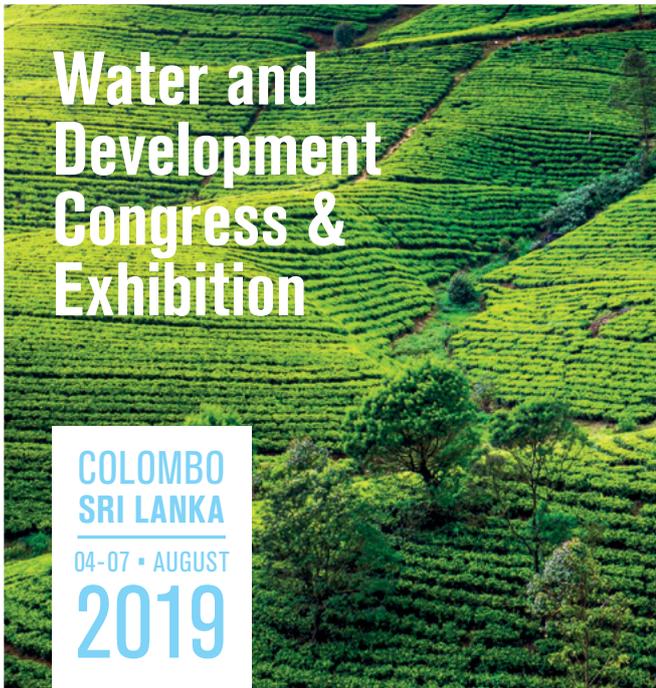
The Source Magazine is the IWA print and online platform. It provides practical intelligence for water professionals to the IWA 70000 email subscribers. The IWA also sends regular updates to its network and membership via the IWA newsletter, and dedicated congress communications. We maintain an engaged readership that varies geographically with the yearly congress location. Most of the IWA readers are from the USA.

The Reuse Opportunity²⁵: Cities seizing the reuse opportunity in circular economy, was the main report published by the International Water Association and OFID (the OPEC Fund for International Development), arguing that decisive, urgent and large-scale action is needed to dramatically increase wastewater treatment, reuse and recycling. It has since been an important engagement tool in engaging with media in the MENA region.



²⁵ <http://www.iwa-network.org/publications/the-reuse-opportunity/>

Inspiring Change

A vibrant photograph of a tea plantation on a hillside, with rows of green tea bushes stretching across the landscape under a clear sky.

Water and Development Congress & Exhibition

COLOMBO
SRI LANKA

04-07 • AUGUST

2019

A photograph of a water park area with a red and white striped tower, a wooden ramp, and people swimming and jumping into the water.

World Water Congress & Exhibition

COPENHAGEN
DENMARK

18-23 • OCTOBER

2020

A large, diverse group of young professionals, many wearing lanyards, posing for a group photo in a large indoor space.

Future Water Leaders

www.iwa-youngwaterprofessionals.org
#FutureWaterLeaders #IWAcongress

TORONTO
CANADA

23-27 June

2019

Financial overview

2017-2018 has been a period where the secretariat has focused on taking measures to guarantee the long-term financial sustainability of the Association. In addition, the secretariat has implemented several internal structural changes to ensure that it provides enhanced membership services, by better identifying membership segments and tailoring value propositions for a more personalised membership experience. The changes will also help improve retention strategies and create a stronger customer service culture.

In 2017, the Association carried over financial stressors, associated with a major effort in 2016, to develop IWA Connect and other digital infrastructure. Although 2017 was not a World Water Congress & Exhibition year, the Water and Development Congress & Exhibition in Buenos Aires was a success both in terms of participation and finances. In fact, it was the most successful development congress to date.

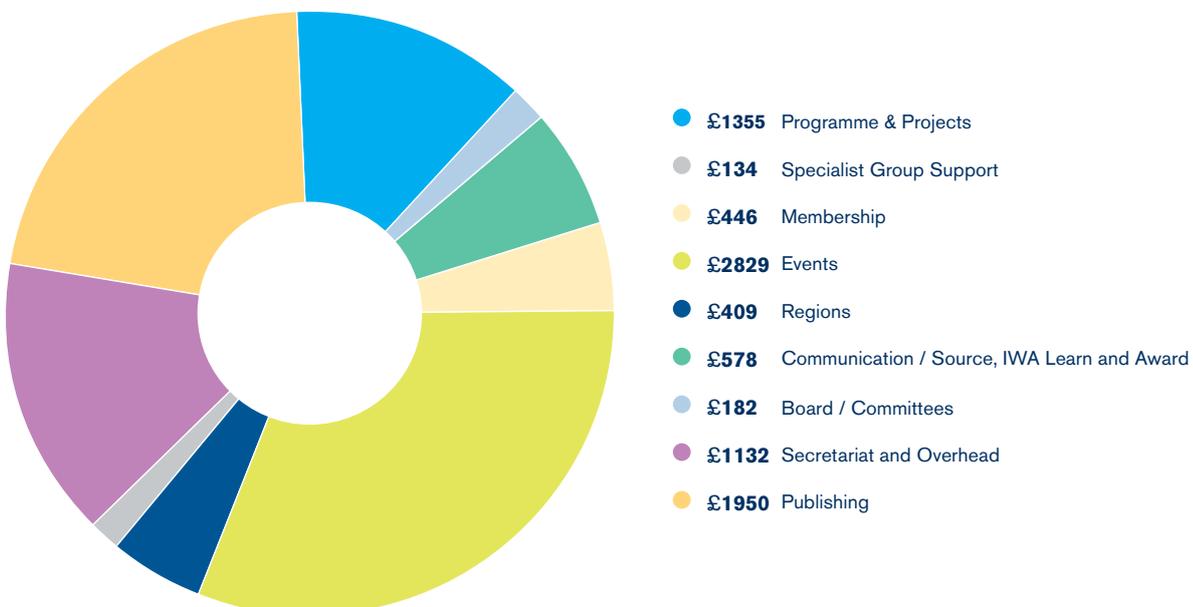
The financial performance of IWA Publishing is strong and its outlook is positive as it continues to grow its products and services. Membership revenue has stabilised (after the 2015 downturn) and the secretariat has seen early indications of an upward trend. Project revenue has also steadied after experiencing year-on-year growth since 2012.

While the income for 2017 remained relatively stable, the expenditure was over budget due to one-off expenditures. This has resulted in a year-end operational deficit of £238K. However, the annual results show that financial reserves have slightly increased in 2017, and this is due mainly to the evaluation of the association's accounting practices and a re-evaluation of the association's assets and liabilities.

Moving forward, the secretariat has implemented reductions to expenditure to ensure that 2018 would produce a surplus budget. To support this process, a mechanism has been established to regularly and systematically monitor future expenditure/income against budget. This should help expose and potentially alleviate (to a limited extent) cash flow issues, and allow IWA to be more proactive in reallocating unused resources in a timely and effective manner. Hence, moving forward the secretariat will exercise greater discipline and rigor in budgeting.

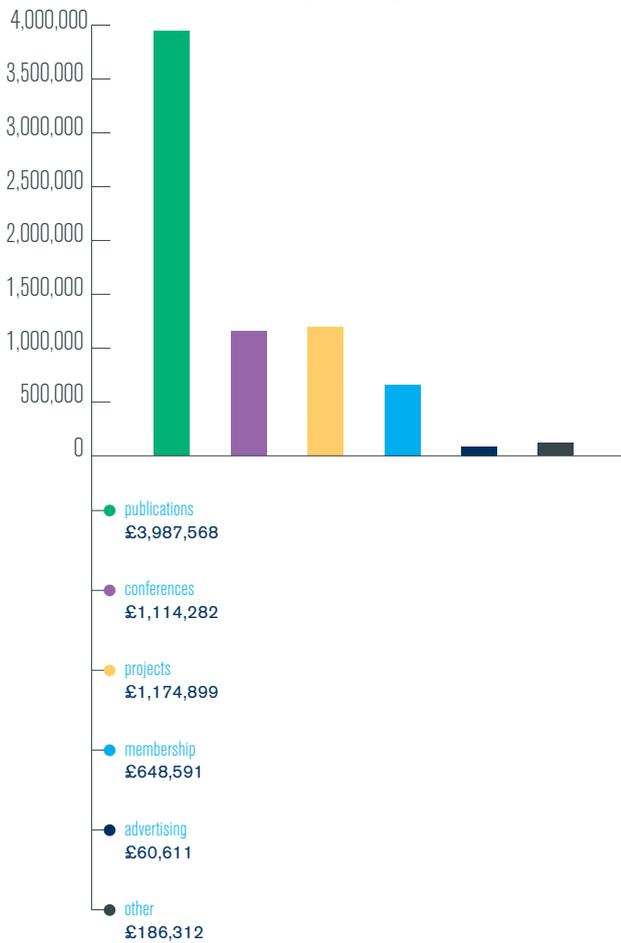
The Financial outlook for 2018 is positive, and we expect a positive contribution from the World Water Congress & Exhibition in Tokyo, which will be used to replenish reserves and invest strategically.

2018 Spending Plan (based on year-end forecast)

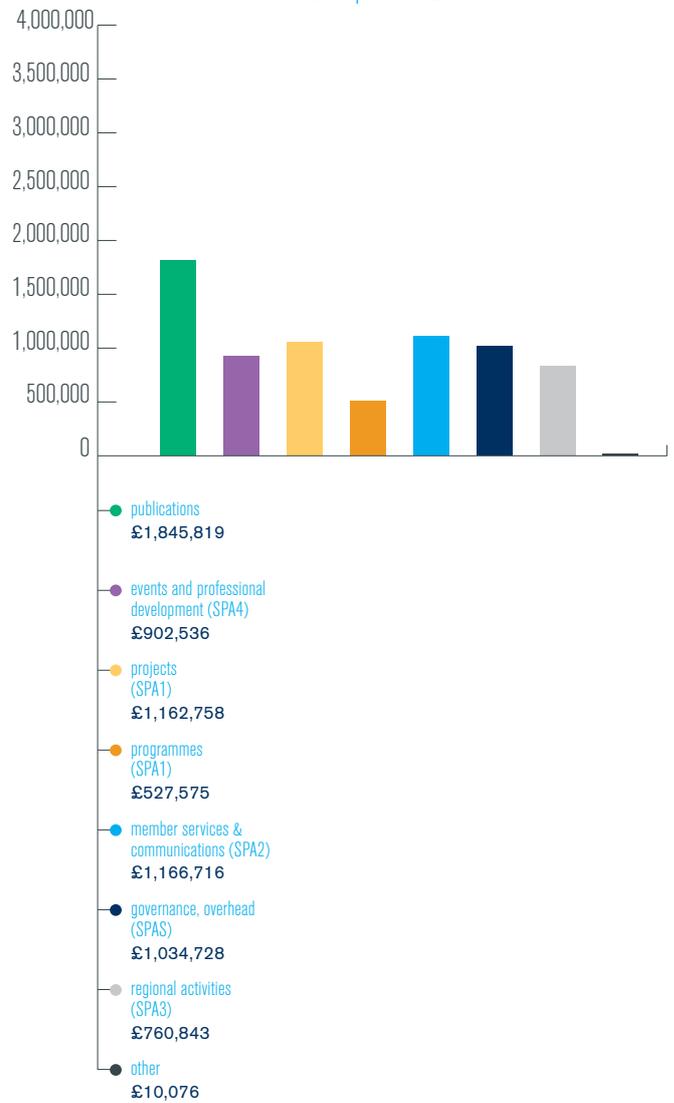




Total income 2017



Total expenditure 2017



Get Connected & Discover Our World of Events

2018

PALERMO • ITALY

11th International Conference
on Urban Drainage Modelling
23-26 SEPTEMBER

VALENCIA • SPAIN

16th IWA Specialist Conference
on Wetland Systems for Water
Pollution Control
30 SEPTEMBER-04 OCTOBER

HAIFA • ISRAEL

15th Specialised Conference on
Small Water and Wastewater
Systems
14-16 OCTOBER

MEDELLIN • COLOMBIA

XIII Latin American Workshop and
Symposium on Anaerobic Digestion
21-24 OCTOBER

PHUKET • THAILAND

IWA Regional Conference on
Opportunities for Water Reuse
in Southeast Asia
31 OCTOBER-02 NOVEMBER

QUERÉTARO • MÉXICO

1st Latin American and Caribbean
Young Water Professionals
Conference
05-08 NOVEMBER

BRISBANE • AUSTRALIA

Nutrient Removal and Recovery
Conference 2018 - Closing the Loop
18-21 NOVEMBER

CHIANG MAI • THAILAND

3rd IWA Regional
Diffuse Pollution Conference
19-21 NOVEMBER

VADODARA • INDIA

The 6th IWA Regional Membrane
Technology Conference
10-12 DECEMBER

2019

MANILA • PHILIPPINES

IWA Efficient 2019: Water Efficiency
- Driving Sustainable Development
13-16 JANUARY

KAMPALA • UGANDA

1st Intermittent Water Supply
Conference, 2019
08-09 APRIL

EDINBURGH • UK

LET - the 16th IWA Leading Edge
Conference on Water and
Wastewater Technologies
10-14 JUNE

BERLIN • GERMANY

12th IWA International Conference
on Water Reclamation and Reuse
16-20 JUNE

RHODES • GREECE

10th IWA International
Symposium on Waste Management
Problems in Agro-Industries
19-21 JUNE

TORONTO • CANADA

International Young Water
Professionals
23-27 JUNE

DELFT • NETHERLANDS

16th IWA World Conference on
Anaerobic Digestion
23-27 JUNE

TOULOUSE • FRANCE

9th IWA Specialised Membrane
Technology Conference &
Exhibition for Water and
Wastewater Treatment and Reuse
23-27 JUNE

VALLADOLID • SPAIN

IWA Conference on Algal
Technologies and Stabilization Ponds
for Wastewater Treatment and
Resource Recovery
01-02 JULY

www.iwa-network.org

World Water Congress & Exhibition

www.worldwatercongress.org · #WorldWaterCongress

Water and Development Congress & Exhibition

www.waterdevelopmentcongress.org · #DevelopmentCongress

**2018 TOKYO
JAPAN**
16-21-SEPTEMBER

**2019 COLOMBO
SRI
LANKA**
04-07 · AUGUST

**2020 COPENHAGEN
DENMARK**
18-24 · OCTOBER

2021 Date and
location to
be confirmed.

**2022 TORONTO
CANADA**
14-18 · AUGUST

inspiring change

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