

International Association of Hydrogeologists
the World-wide Groundwater Organisation

ANNUAL REPORT 2017



**Furthering the understanding, wise use
and protection of groundwater resources
throughout the world**

IAH Annual Report

IAH is a global groundwater family whose mission, since 1956, has been to further the understanding, wise use and protection of groundwater resources throughout the world. Our membership globally has once again continued to be above 4100. We also benefit from more than 40 national chapters, with a new one established in Mongolia in 2017 and enquiries received from several other countries about setting up further chapters.

A survey of members carried out during the year indicates a high rate of satisfaction with IAH, with more than 90% of those who responded saying they would recommend IAH to colleagues. This is reassuring, and we believe that the full programme of activities carried out during 2017 by our national chapters and commissions and networks will help in maintaining this support from members.

Foremost amongst the activities this year was the congress in Dubrovnik, Croatia. This was organised by one of our smaller chapters yet proved to be a great success and was an excellent example of providing the networking and knowledge-sharing opportunities that IAH stands for.

As ever, it has been important to keep a close eye on finances, with the wider economic conditions continuing to present challenges. It was not possible to complete some planned activities and as a result we achieved an operational surplus. However, variations in exchange rates between the currencies we work in meant that we reported a small overall loss. This emphasises the need for continued careful management of our finances as we move into 2018.

We hope you find this annual report informative and clear – if you have any questions or suggestions, please contact us at info@iah.org.

Questions or comments?

Email info@iah.org

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XI Mexican National Congress



Flowpath 2017, Italy



President's message

Once more IAH and its members ensured in 2017 good progress on IAH programmes and endeavours. I am especially grateful to those who are involved in National Chapters, Commissions and Networks, Working Groups, IAH Council, the Executive Committee, the Secretariat, and other IAH activities. This year the IAH Congress, our main annual event, was organised in Croatia and was once more a success, taking place in a beautiful location, the historic city of Dubrovnik.

Internationally, IAH is increasingly involved and represented in meetings where water is the main subject. In the past, topics like water governance, water quality and the significance of water for the Sustainable Development Goals (SDGs) have been discussed at international level many times without the participation of hydrogeologists. Groundwater is often forgotten in official documents important for water governance in today's world. As a response to this, IAH has put special effort into producing technical documents to help others take groundwater into account in current water and related emerging issues. In 2017 IAH published the latest paper, on the importance of groundwater for the 2030 UN-SDGs, defining essential monitoring indicators to ensure protection of groundwater. IAH is also helping our colleagues in developing countries through educational documents and a mentorship scheme, which creates bonds between the youngest generation and our more established hydrogeologists.

During the year, I was able to represent IAH at scientific meetings in Switzerland, Portugal, Mexico and Spain, delivering four keynote papers and four opening addresses. Much of the expense for this has been totally or partially covered by different institutions. Similarly, members of IAH Council, IAH Executive, Commissions, Networks and National Chapters have been active in their IAH roles, assisted by the institutions where they work. Thank you for your effort and for the effort of your employers, supporting the cause of IAH.

The IAH Executive met twice during the year, in Dorchester-on-Thames in March and then in the headquarters of UNESCO in Paris at the end of June. In September, at our Congress in Dubrovnik we had our annual Council Meeting, where the 2016 accounts were ratified, following approval by email previously in the year. The actions and activities of the Forward Look, our strategic plan for 2010 to 2020, were reviewed and reports from our regional Vice-Presidents, Commissions and Networks were received. Increasing income diversification, as in the previous years, continued to be a priority issue. Education and our publications are further strong issues that also remained at the centre of debate for Council.

Hydrogeology Journal continues to be one of our main achievements. With this success, it claims more of our editors' time and requires greater effort from all our staff, particularly those involved in editing and publication. It also increases our costs incrementally. On the other hand, there has been little activity for our books, with few proposals from authors, and there is some concern about continued regular publication. We have appealed to all our members to present their proposals for ideas about new books.

Our activities and achievements have an impact on our budget. Despite its success, our 2016 Congress in Montpellier recorded a deficit, though the wider financial situation of IAH remains stable and has a small but adequate safety margin. Implementing a programme of income diversification is one of our main priorities for the future.

António Chambel
IAH President



Left to right: José Manuel Marques, António Chambel and Jim Lamoreaux

Highlights

IAH members and supporters come from different backgrounds across the world and are involved in a range of activities. Once again 2017 provided a variety of networking and knowledge-sharing opportunities, through meetings, special interest groups, national chapters and other channels.

Congress in Croatia

The Croatian National Chapter of the International Association of Hydrogeologists hosted the 44th Annual Congress "Groundwater Heritage and Sustainability" between 25th and 29th September, with more than 500 delegates from 57 countries. Eight scientific and technical topics were covered in 6 parallel sessions. In all, some 283 oral presentations and 155 posters were selected from the 556 abstracts received from more than 1200 authors representing 86 countries.

A keynote presentation and thematic lecture, in many cases by experts from Croatia and its neighbours, set the scene as a lead-in to each session. In feedback, some said that for them the keynote presentations were the most valuable parts of the congress. There were also suggestions about how to ensure we make future congresses 'even better'. These included requests for more scientific information on the congress materials, more on applied hydrogeology, more time for discussion following presentations and more time to view posters.

Several IAH Commissions and Networks held meetings, to discuss progress with reports and other initiatives, and which in some cases served as their annual general meeting. All, including those who are not currently IAH members, were welcome to attend these meetings. This policy of open participation can help ensure the vitality of the groups and will also hopefully encourage more people to join the IAH so that they can benefit more fully from all the association's activities.

All in all this was a remarkable achievement for one of our smaller national chapters.





Picturing IAH

We once again ran our photo competition during 2017. This proved popular with our members who are keen to show the range of activities they are involved in, as well as the environment and conditions in which they work. We received a spectacular range of entries and after much deliberation awarded prizes to three winners. This winning photo, pictured above, was entered for our “sharing knowledge” category, and alongside the other two winning entries will be featured on IAH’s website and other material in forthcoming years.

Back to school in Belgium

IAH’s Belgian Chapter organizes evening classes, in Dutch as well as French, for continuing professional development for both members and non-members. IAH representatives and other experts present the classes, and in 2017 these included “Practical introduction to groundwater modelling”, with both lectures and hands-on exercises. The courses are popular and are quickly fully booked. The audience includes a mix of hydrogeologists, soil scientists, geologists, and ecohydrologists, from both the private and the public sector. The funds obtained by these successful events are invested in initiatives such as a “Young Hydrogeologists Day”, which help students and recent graduates to start their professional life.



Asia collaboration

During congress, a meeting of Asia Chapters was held to discuss regional collaboration on groundwater and hydrogeology, and to present progress reports and plans of working groups. Members from China, Korea, Japan, Thailand, Indonesia, Malaysia attended. Regional Vice President, Makoto Taniguchi, encouraged those present to be more involved in IAH’s commissions and networks.



New generation

Two members of the Early Career Hydrogeologists’ Network, Viviana Re and Raquel Sousa, were invited to give one of the keynote presentations at congress – a first for the IAH. Fittingly, they chose as their subject ‘Responsible (ground)water scientists - a heritage for future generations’, which considered the challenges and opportunities for a new generation of responsible water scientists in managing environmental impacts.

Commissions and networks

IAH's Commissions and Networks enable much of our groundwork for our scientific activities and outputs. They collaborate with other organisations on matters such as education, training and outreach. Both IAH members and non-members are welcome to participate in these groups. This policy of open participation helps ensure the vitality of the groups and can also encourage more people to join IAH, allowing individuals to benefit more fully from membership of the Association.

Commission on Managing Aquifer Recharge (MAR)

In 2017 IAH's MAR Commission collaborated with the International Groundwater Resources Assessment Centre (IGRAC), Netherlands and the Technische Universität Dresden, Germany, to launch a website with 1,200 case studies on managed aquifer recharge. The launch took place at 9th International Symposium on Managed Aquifer Recharge (ISMAR9) in June in Mexico City, at a workshop supported by UNESCO. The Commission also contributed to programmes run by the 'MARVI project team'. The MARVI project develops methods and tools to assist communities in managing their own aquifer recharge programmes.

Regional Groundwater Flow Commission (RGFC)

IAH's RGFC convened a session at the European Geosciences Union General Assembly in April in Vienna, Austria, on the range of techniques used in Europe, Asia, America and Africa to understand groundwater vulnerability.

Early Career Hydrogeologists' Network (ECHN)

As always, ECHN was active during our annual congress, hosting social events and more. Congress also saw a session whereby senior hydrogeologists from government, industry and academia sectors gave tips to early career hydrogeologists on "Successful projects: from application to management".

View listing for all IAH's Commissions and Networks

<https://iah.org/groups/commissions-networks>

Urban Groundwater Network

Members of the Urban Groundwater Network were active during IAH's congress, not only in holding their own group meeting, but also presenting papers highlighting how management of urban groundwater resources can help achieve the 2030 sustainable development goals. These highlighted how an integrated approach to managing urban groundwater resources can maintain supply in the face of challenges such as increasing demand, saline intrusion and potential sources of pollution. At the end of the year the network was busy preparing a new website to inform others about its activities and to encourage further participation.

Burdon Groundwater Network for International Development (BGID)

During IAH's congress in Dubrovnik IAH-BGID organised a two day session on 'The role of groundwater in reducing poverty'. The session focused on groundwater supplies in developing countries and the crucial role of groundwater in poverty reduction.



Publications and online content

Strategic Overview Series

We have published a further paper in our Strategic Overview Series which this time looks at groundwater and the UN Sustainable Development Goals (SDGs), focussing on SDG-6 on Water. One of the aims is to inform UN-Water and global fora such as the United Nations Development Programme and World Bank High Level Panel on Water, about the important role groundwater plays in meeting SDG-6 Targets. It also explains the conceptual and practical challenges involved in monitoring groundwater in relation to SDG Targets. It can be more difficult to monitor and assess the quantity and quality of groundwater than surface water.

As with our other strategic overview papers, the paper is freely available for distribution as an electronic version, at <https://iah.org/wp-content/uploads/2017/04/IAH-Groundwater-SDG-6-Mar-2017.pdf>, or can be downloaded and copied. IAH members and supporters are encouraged to use the paper to promote better understanding of groundwater and its importance for the SDG Targets.

https://iah.org/knowledge/strategic_overview_series



Book Series

We now have International Standard Serial Numbers (ISSN) for our 'Blue Books', or International Contributions to Hydrogeology, and our 'Green Books', or Selected Papers. This is excellent news for IAH. Academics will be able to track their citation status and electronic searches for the books will become easier. We also now offer an honorarium of several hundred euro, which will help authors and editors with their costs. This will be of particular benefit to those who do not have institutional support for such things as diagram production.

We recognise that the world of publishing is changing. The Editor-in-Chief is aiming to recruit three specialist 'sub editors', one of whom might be expected to eventually succeed the current Editor-in-Chief. The aim is to have an active 'Editorial Board' to help stimulate new ideas and invitations for publishing. At the same time we have decided to focus on production of our Blue Books and to close the Green Books Series. As part of this strategic change we will be considering how to disseminate information and topics typically covered by the Green Books using other formats. For example, it is intended that information from the 2016 congress in Montpellier, France and videos from the 2017 congress in Dubrovnik, Croatia will be published on the internet.

<https://iah.org/iah-book-series>

Hydrogeology Journal

IAH's Hydrogeology Journal continues to be a premier journal for groundwater professionals and the first choice of many authors for publishing papers. In 2017 the 8 issues published contained 175 articles, including 25 freely available articles and a special issue on 'Hydrogeology and Human Health'.

Accessing Hydrogeology Journal online has become increasingly popular, with approximately 50% of IAH members choosing this option in preference to the printed journal. There were more than 270,000 downloads of articles published online. Many members, though, still prefer to browse through their paper copy of the journal and there are no plans at present to move to online versions only. Some members have limited internet access so it is important to retain a print version, although in some parts of the world the postal service may be equally uncertain.

The number of journal submissions has increased greatly – more than doubling over the past 10 year period – a sign that authors are choosing Hydrogeology Journal more than ever. This has also increased the workload for the editorial team. In view of this IAH Council agreed at their meeting in September that a 5th editor should be taken on. There are cost implications for IAH, although Springer, our publisher, have agreed to continue their financial support for the existing editors and contribute half of the \$8000 honorarium for the 5th editor, helping maintain a successful partnership.

<https://iah.org/hydrogeology-journal>

Membership matters

IAH membership held up during 2017, the total number of 4116 for the year almost rivalling the record of 4169 achieved in 2016. Regional variations in retention and recruitment remain a challenge and there is scope for strengthening our membership in all regions.

We have a good presence in all regions of the world, though membership in Western Europe predominates. Membership numbers in Australasia-Pacific remains buoyant, highlighting the importance of IAH to the groundwater community in this region. We have seen some gains in other regions. Asia remains under-represented, given its population and the size of the hydrogeological community, although membership is increasing and we continue to encourage new members. We are seeing rising numbers of Chinese authors publishing in 'Hydrogeology Journal', reflecting an increasing sophistication of groundwater science in the country and a desire to raise its international profile.

Targeting and retaining younger professionals remains important. Student membership has increased from 252 in 2014 to 410 in 2017. This is a success story, but we need to encourage these recruits to maintain IAH membership as they begin their careers, which is not happening with equal measure.

It is hoped that the decline in membership in North America may have halted, though we compete for membership with very large associations based in the USA. Where possible we collaborate with these organisations, for example in running conferences.

Sponsored members

Our sponsored membership scheme remains one of IAH's prime charitable activities, welcoming individuals working in or interested in groundwater as demonstrated by their CV and who are keen to support our objectives. Sponsored members are often from low income countries or at an early stage of their careers, and have difficulty in finding the funds to pay for membership themselves. We review the status of sponsored members periodically to see if they are able to support their own membership. We also encourage individual members, National Chapters and corporate supporters to support the scheme and remain grateful to all those who have done so.

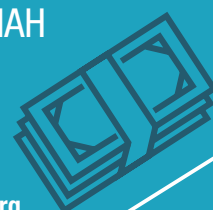


USA Student sponsorship scheme

In 2016 the US National Chapter sponsored a group of one-year, graduate-student memberships from its general funds and through the generous individual contributions of members. Nominated by their faculty advisors or professors, those chosen represented a diverse, ambitious, and accomplished selection of graduate students with strong international hydrogeology interests.

FINANCE FACT

In 2017 we had 245 sponsored members, their IAH subscriptions paid for variously by other members, central IAH funds and by National Chapters.



Find out more <http://iah.org>

Member benefits and feedback

In 2017 we undertook a further membership survey, seeking opinions, feedback and ideas for new benefits and services that we might provide to members and supporters. Respondents represented a good span of ages, with almost one quarter being female – a higher percentage than in our previous survey in 2015 – and the great majority being IAH members (almost 92% of replies). Geographical spread was wide-reaching, with replies from 45 countries, and all continents.

The top 5:

- **90.5% of respondents said they would recommend IAH to colleagues, up 8% from 2015**
- **88% of respondents stated that “IAH gives good value for money”, up 8% from 2015**
- **86% of respondents stated that “IAH fees are reasonable/the right price”, up 3% from 2015**
- **80% of respondents stated that IAH’s website is “good”, with a further 31% rating it is “excellent” (2015 figures: 55% and 13% respectively)**
- **62% rated Hydrogeology Journal “Good”; 31% rated it as “Excellent” (question not included in 2015)**

Commissions and networks are highly valued by our members – up 10% since 2015 to 35%. Appreciation of other benefits has also increased since 2015, notably our ongoing mentoring scheme and increased use of social media, with posts on Twitter, Facebook and LinkedIn informing different audiences across the world. There is continuing demand for national chapters to organise local training courses and other services to help local networking and we will give further encouragement to this.

We are very pleased about the largely positive feedback, but also aware that more work needs to be done and have committed to undertake the following:

- Improve websites for some of our commissions and networks and national chapters;
- Include information on our website on the availability of hydrogeology degree courses;
- Establish a new ‘Education’ area on the website, improving on the existing “Knowledge” area, with more information for groundwater-related professionals and general information about hydrogeology and groundwater for the general public, younger students, and the media;
- Investigate the feasibility of a service to publicise job vacancies.

Ask a member

Our News and Information magazine goes out to our 4100 IAH members and many thousands of others across the global groundwater community. At the end of 2017 we started a new feature, “Ask a member”, enabling individuals to pass on the benefit of their experiences to others. From our first contributor we learnt “Never expect ‘nature’ to invent anything new – if a good model exists already elsewhere that will do the job, nature will use it.” And that, when carrying out fieldwork, it is “Always wise to use a pencil when writing – partly because the writing doesn’t then tend to wash off – and to take an eraser!” Above all the advice was to, ‘Enjoy yourself, throughout your career’. Of his 40 years’ membership, he said “I’ve gained a lot – knowledge, understanding, confidence, friends, and valuable links to and sources of technical knowledge.” We look forward to reporting further wisdom and feedback from others in years to come.

Awards

IAH celebrates the service and achievements of its members and others who have worked for improved understanding of groundwater globally through a series of Awards.

Amidst the 2017 suite of recipients, IAH’s Applied Hydrogeology Award was presented to Dr Han Zaisheng, whose geothermal energy estimates for China provide the foundation for its current development of renewable power and energy usage. IAH’s Distinguished Associate Award was presented to Dr Kerstin Danert, a Water Specialist at Skat, Swiss Resource Centre and Consultancies for Development, for her personal contribution to the enhancement of wastewater management and groundwater protection worldwide, notably in a rural development setting.

National chapters

IAH's National Chapters are a valuable means of bringing scientific, professional and social benefits to our members and community, and also enable the Association to promote sound and sustainable groundwater use at a country and regional level. Some collect membership fees in local currency for the convenience of our members. National chapter committees are run on a voluntary basis by members and we are very grateful for their efforts.

In 2017 there were 45 national chapters, with a new chapter in Mongolia established during the year by members based in public and private organisations, and universities. Activities proposed by the chapter include regular seminars and lectures, with plans for an international hydrogeological conference and field trip every two years. We wish them success and look forward to supporting the new chapter in its activities.

We encourage the establishment of more chapters and during the year colleagues in Democratic Republic of Congo, Ecuador, Finland, Lebanon, Malawi, Nepal, Panama and Uganda received advice on how they can do this.

Meetings held by various IAH Chapters across the world demonstrate how IAH's activities support hydrogeologists and other professionals, in public and private sectors, universities and NGOs, to promote groundwater protection.



Snapshot of chapter activities for 2017:

The Thai Hydrogeologists Association, one of our corporate supporters and de facto national group for Thailand, held a meeting on “How Thai hydrogeologists and drillers can support national policy on water security in the future”, that resulted in groundwater being accepted as a positive choice for water security in Thailand in coming years.



A workshop held by the Iraqi National Chapter in March on “Development of Water Resources in Iraq for Sustainable Development” attracted nearly 150 participants, from universities, the Ministry of Water Resources, the Ministry of Environment and specialists in related fields. Recommendations were agreed on collaboration between ministries for sustainable management of water resources and improving media and public awareness.

IAH and the Australian National Centre for Groundwater Research and Training held a conference that showcased the latest research and innovation in groundwater in the region. The 2017 Australasian Groundwater Conference attracted over 340 people from across the globe.

In May the IAH Japanese chapter invited guest speaker, Dr. Yoshihide Wada, Deputy Director of the Water Programme, International Institute for Applied Systems Analysis (IIASA), Austria, to discuss his current research on the sustainability of future world food production under changing socioeconomic and climatic conditions and increasing water scarcity. Prof. Makoto Taniguchi, IAH VP for Asia and the president of JAGH, gave the opening speech. Overall, the seminar provided opportunity to share ideas and global perspectives, as well inform others of IAH's activities.



In October, Dr Callist Tindimugaya, Commissioner for Water Resources Planning and Regulation in the Ministry of Water and Environment, Uganda, and IAH Vice President for Sub-Saharan Region, gave the British Chapter's annual Ineson Lecture. He described how managing groundwater was of fundamental importance to achieving the UN's Sustainable Development Goals in Africa. He highlighted the need for groundwater specialists to support NGO's in developing drinking water supplies and emphasised the importance of good contracts and also data for this. It was clear that IAH members can play a critical role in managing the issues raised, through training programmes and technical oversight.

GeoOttawa 2017 also took place in October, with 900 delegates, supported by the IAH Canadian National Chapter and including 100 groundwater sessions. Highlights included the international “Darcy Lecture”, the Canadian Farvolden Award lecture and presentation, and presentation of the Tóth Award for best student paper in Canadian hydrogeology.

International development

IAH's effectiveness as a global organisation is enhanced by combining its efforts with others. The Association has built up a variety of partnerships, and is always looking for new opportunities for collaboration. In 2017 Council confirmed its continuing desire to develop further active links with a range of other organisations that share IAH's aims in promoting sustainable groundwater management.

International development

IAH has a mix of ad hoc and planned engagement with other groups and 'sister organisations'. They provide a variety of networking and knowledge-sharing opportunities, and help to improve the profile of groundwater and the professional community. In turn, as the IAH makes its voice heard clearly, we hope that may also see an increase in the number of members worldwide.

Our 'Forward Look' reinforces these aims and includes as priorities, influencing global policy and enhancing alliances with external agencies. Key issues that concern the IAH and the international groundwater community, include protection of drinking water resources, agriculture and irrigation, the wider environment and ecosystems.

Existing connections include UNESCO, GRIPP (Groundwater Solutions Initiative for Policy and Practice), IWMI (International Water Management Institute), IGRAC (International Groundwater Resources Assessment Centre) and INBO (International Network of Basin Organisations).

UNESCO sees IAH as a valuable partner, e.g. in helping to promote consideration of groundwater under the 2030 agenda. At congress, our Karst Commission highlighted these links, with its involvement in UNESCO projects such as DIKTAS (Dinaric Karst Aquifer System) and WOKAM (World Karst Aquifer Mapping Project). IAH has also been active with other parts of the United Nations family, contributing to a UN-Water meeting in Geneva in February on implementation of the Agenda 2030 for sustainable development, in particular the goals for monitoring and reporting of water and sanitation. However, a concern for IAH is that the SDG indicators have been developed for surface water and are not well suited to the different conditions for groundwater. Given this, we were able to present our IAH-SOS paper [The UN-SDGs for 2030 – Essential Indicators for Groundwater](#) in Geneva.



IAH signs co-operation agreement with IAPG

In April IAH President António Chambel signed an agreement for co-operation with IAPG, the International Association for Promoting Geoethics. IAPG is a multidisciplinary, scientific association for widening discussion and creating awareness about problems of ethics applied to the geosciences. It has a worldwide membership network of geoscientists in more than 100 countries. The agreement expresses a mutual desire to co-operate on a range of issues in the field of geoethics and groundwater.

6 CLEAN WATER AND SANITATION



**SUSTAINABLE
DEVELOPMENT
GOALS**

Partnership in practice

During 2017 IAH also participated in the work plan for GRIPP (Groundwater Solutions Initiative for Policy and Practice), an initiative to support Agenda 2030 as it relates to groundwater. GRIPP Core partners alongside IAH are: International Water Management Institute, International Groundwater Resources Assessment Centre, International Union for Conservation of Nature, the Australian National Centre for Groundwater Research and Training, Skat Foundation, African Groundwater Network and the University of Nebraska's Daugherty Water for Food Institute. IAH's Managed Aquifer Recharge Commission has been particularly supportive in contributing to the GRIPP agenda, advising on proven technologies for replenishing groundwater resources.



GRIPP

GROUNDWATER SOLUTIONS
INITIATIVE FOR
POLICY AND PRACTICE



Management matters

The recently elected IAH Executive met in the UK in March 2017, the location allowing the participation of the full Secretariat team, both new and retiring Executive Managers, as well as IAH members involved in key activities. The meeting was also an opportunity for the Executive members to get to know their new roles, tasks and responsibilities. A further Executive Committee meeting took place in June at UNESCO's offices in Paris, enabling discussions between IAH and UNESCO's International Hydrological Programme team members.

IAH Council met in Dubrovnik in September to consider business on financial matters and operational activities. It was also an opportunity for Council members to highlight the activities taking place in their own Regions, such as collaboration between Asia and Australasia and Pacific Regions, support for students and early career hydrogeologists in North America and help being provided to the IAH Korean Chapter in their preparations for the 2018 Annual Congress.

The IAH Annual General Meeting also took place during congress, which included votes on accepting the financial reports and increasing the membership fee.

Forward Look

IAH's Forward Look is its strategic plan for the period 2010 to 2020. Largely good progress has been made, although the aim of increasing membership from 3785 in 2010 to 5,000 by 2020 has proved to be optimistic, with membership standing at 4116 in 2017. It was still considered that during the 3 remaining years of the plan there was scope to achieve more. Priorities for the remaining 3 years will be education and development of science, enhancing alliances with other agencies and continuing growth in membership and corporate support.

Education

In 2017 more support for education was proposed, including: establishing an international panel of experts for contributing to training courses; hosting webinars and providing links to webinars established by National Chapters and external groups; and listing information on hydrogeology degree courses (though not to be taken as IAH endorsement of the courses). IAH's education working group was tasked with taking forward these actions.

Executive Manager

In April, John Chilton retired after 9 years as Executive Manager of IAH. General Secretary General Bruce Misstear thanked him on behalf of the IAH membership, for his long and dedicated service and wished him a long and happy retirement. Although prior to John's appointment IAH had a small part-time team, John was the first professional manager to be recruited by the Association, to manage the growing responsibilities of a registered charity and limited company. This policy has been continued and Ian Davey joined as our new Executive Manager from 1st April. Ian has over 30 years' experience in groundwater policy and regulation, in the UK and across Europe.

Cyber security

IAH is fully aware of the dangers that hide in cyberspace, keeping abreast of media and other reports. In 2017 the Association was made aware of a few attempts to defraud its members by email, thanks to publicly available information being gained by the fraudsters. In response, the Secretariat reported these attempts to the UK authorities and recommended that the affected IAH members do likewise in their countries. IAH also circulated guidance to its members, advising them to be vigilant and report scams to the appropriate authorities, to help ensure that the information can be used in the worldwide fight against cybercrime.

See a list of IAH's Council members here
<https://iah.org/about/council>

Financial performance reviewed

Although our income is mainly in euro, our formal accounting is in pounds sterling to meet our regulatory obligations as a UK based charity and company.

Income increased to £290,784 compared with £271,249 in 2016. This is attributed to an increase in royalties and other payments from Springer to help cover Hydrogeology Journal staff costs, and increased membership fees agreed at the 2016 AGM, although the number of members fell slightly from 4169 to 4116 and. In contrast, donations were significantly lower at £10,713 (2016: £17,809), mainly as a result of donated services being lower.

There were increased staff costs, mainly because of short period of overlap between the outgoing and the new Executive Manager and the increasing workload for Hydrogeology Journal. Staff were awarded a small, below-inflation pay increase.

Other costs of note included from central IAH funds £4,650 for 136 sponsored members. (In total there were 245 sponsored members at the end of 2017, the remainder being paid for by National Chapters). The Education and Development Fund was used to support production of a further paper in the Association's Strategic Overview series, "The UN-SDGs for 2030 – Essential Indicators for Groundwater".

It was not possible to undertake a number of activities budgeted for 2017, for example the planned meeting of the Hydrogeology Journal Editors and the BGID book distribution for members in Sub-Saharan Africa. These were rescheduled for 2018.

Overall there was an operational surplus of £8,410. However, this was overturned by a loss of £11,165 from periodically unfavourable exchange rates, which occurred at critical times when funds were paid into the Association's bank accounts. As a result, there was a small deficit of £2,755, leaving the reserves at £98,906 (2016: £101,661). Over the years exchange rates at times have had a significant impact on our resources (see table below).

Our finances remain sound, though careful budgeting is needed to manage future expenditure to ensure the continuing financial security of the Association. We continue to explore ideas for increasing and diversifying income streams to enable us to continue in our charitable activities. We also continue to be grateful to all of our corporate members and sponsors for their ongoing support. Given the continuing instability of UK, European and global markets a conservative financial policy has been maintained.

Currency gains and losses across the years

Year	£1 =		Currency gains or losses	Net incoming resources
	Euro	Dollar		
2007	1.36	1.99	£6950	£8100
2008	1.03	1.45	£47,950	£63,650
2009	1.13	1.62	- £6545	£27,400
2010	1.16	1.55	- £11,450	- £23,100
2011	1.20	1.55	- £4800	- £4100
2012	1.23	1.63	- £4950	- £11,400
2013	1.20	1.63	£2100	- £68,500
2014	1.29	1.56	- £8250	- £14,250
2015	1.36	1.48	- £10,500	- £39,100
2016	1.17	1.23	£15,569	£3,705
2017	1.125	1.35	- £11,165	- £2,755

Statement of financial activities for the year ending 31 December 2017

Incoming resources		£	£	EUR(€)	USD(\$)
Membership fees			221,078	248,713	298,455
Contract and subvention income			35,563	40,008	48,010
Investment income			106	119	143
Donations			10,713	12,052	14,463
Royalties			23,015	25,892	31,070
Other income			554	623	748
Total resources received			291,029	327,408	392,889
Resources expended					
Member services	Salaries	21,797			
	Printing and publications	110,555			
	Hydrogeology Journal Editorial Office	19,623			
	Other	19,391	171,366	192,787	231,344
Donations and grants payable			4,650	5,231	6,278
Support costs	Salaries	29,463			
	Travel and subsistence	33,019			
	Printing, stationery and database administration	10,064			
	Website development	696			
	Other	4,504	77,746	87,464	104,957
Management and administration of the charity	Salaries	18,533			
	Strategic review and training	3,230			
	Accountancy fee	1,538			
	Other		23,301	26,214	31,456
Finance costs (bank charges) and depreciation			5,556	6,251	7,501
Total resources expended			282,619	317,946	381,536
Net income/expenditure			8,410	9,461	11,354
Net foreign exchange gains/(losses)			(11,165)	(12,561)	(15,073)
Net incoming resources			(2,755)	(3,099)	(3,719)
Balance brought forward at 1 January 2017			101,661	114,369	137,242
Balance carried forward at 31 December 2017			98,906	111,269	133,523

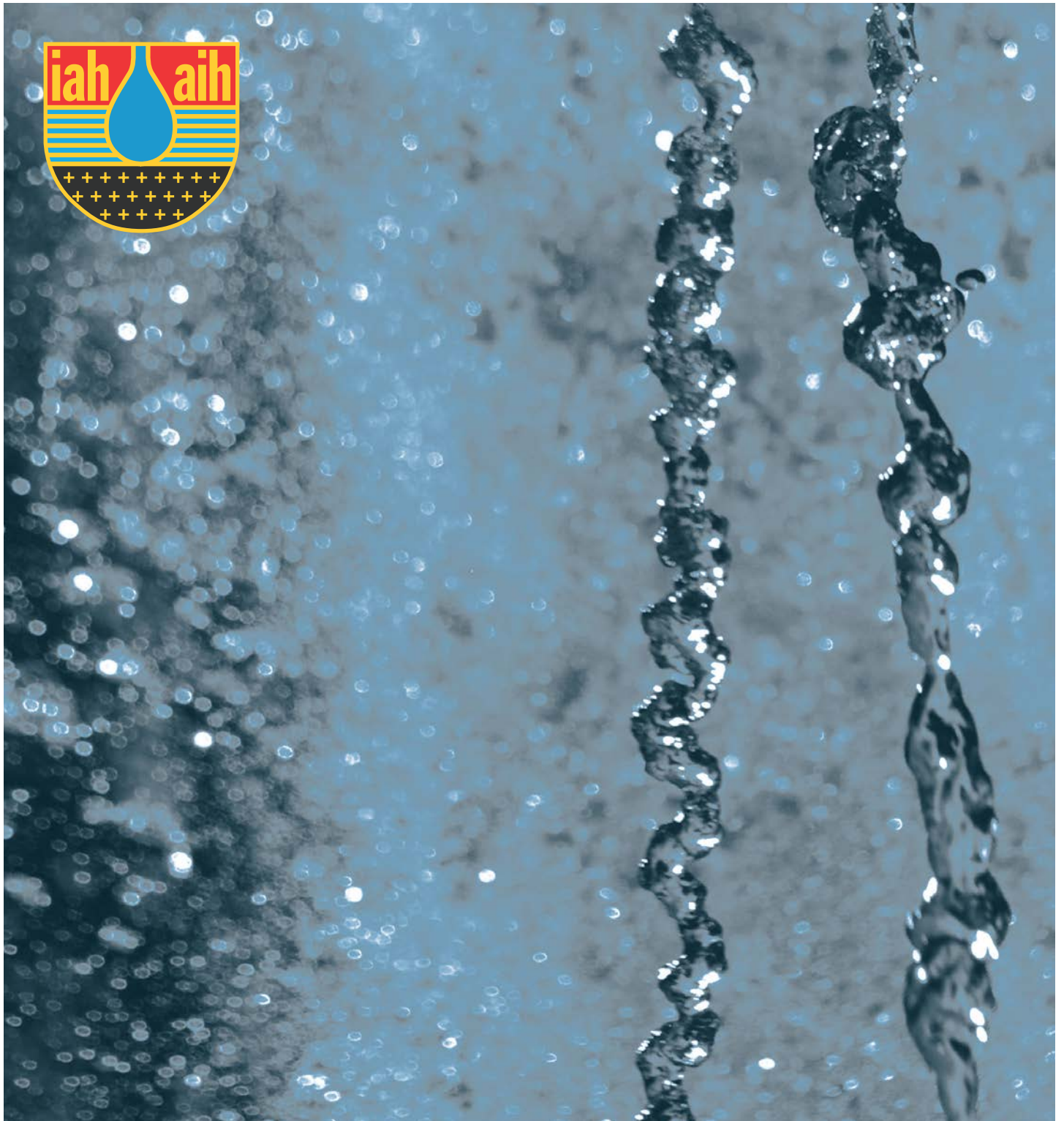
Balance sheet as at 31 December 2016

	2017	2016	2017	2016	2017	2016
	£	£	EUR(€)	EUR(€)	USD(\$)	USD(\$)
Fixed assets	678	1,596	763	3,100	915	2,946
Current assets						
Cash and debtors due	112,034	107,353	126,038	117,394	151,246	123,546
Creditors						
Amounts due within one year	(13,806)	(7,288)	(15,532)	(5,556)	(18,638)	(5,847)
Net assets	98,906	101,661	111,269	114,939	133,523	120,645
Represented by:						
Unrestricted Funds	61,506	64,506	69,194	71,381	83,033	75,122
Burdon Fund	37,400	37,155	42,075	43,403	50,490	45,678
Funds	98,906	101,661	111,269	114,785	133,523	120,799

Statement by the Association's reporting accountant: These summarised accounts are extracted from the full financial statement of the Association which were subject to an unqualified report by Locke Williams Associates LLP, Blackthorn House, St Pauls Square, Birmingham, B3 1RL. The independent examiners have confirmed that the summarised accounts are consistent with the full annual financial statements and the Trustees' Annual Report of International Association of Hydrogeologists for the year ended 31 December 2017. The annual report and accounts were adopted by the IAH Council on 11th September 2017 and were submitted to the Charity Commission and the Registrar of Companies.

These summarised accounts may not contain sufficient information to gain a complete understanding of the financial affairs of the Association. For further information, the full accounts, the reporting accountants' report on those accounts and the trustees' annual report should be consulted; copies of these can be obtained from the IAH International Office or downloaded from www.iah.org.

Throughout this report the conversion from sterling (£) to euro (€) is at the rate of €1.1718 = £1 and to US dollar (\$) is at the rate of \$1.2332 = £1.



International Association of Hydrogeologists

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