



INSTITUTION OF ENVIRONMENTAL SCIENCES

# ANNUAL REPORT<sup>2017</sup>

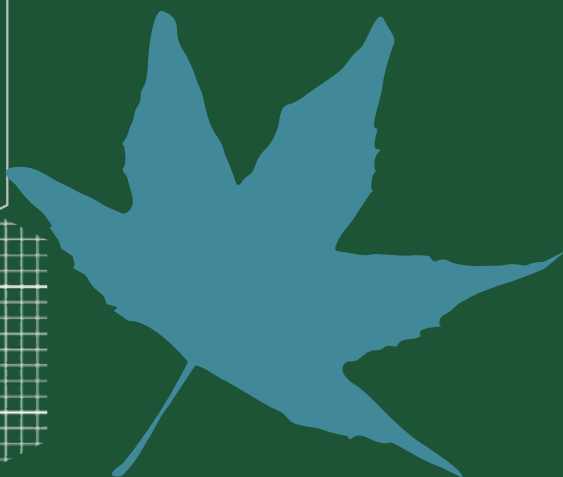
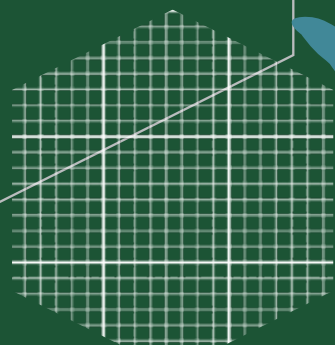
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TO MEET THE CHALLENGES  
OF THE FUTURE”



As I approach the end of my term as Chair of the IES, it is appropriate to reflect on my experience over the last three years. I have seen the Institution grow from strength-to-strength with a new strategic plan placing the IES firmly on track towards continued success.

Noel Nelson  
Chair of Council, March 2018

## A note from our Chair

I accepted the position of Chair with little experience of the established ways of performing such a task, but this was not of great concern. I knew I could depend on ample support from other Council Members, whose collective knowledge covers a broad range of environmental disciplines and experience. The office staff, the 'engine room' of the Institution, also supported and advised me during my period as Chair. I would like to acknowledge both groups and express my gratitude for their hard efforts and assistance throughout my time as Chair.

The other reason I wasn't overly concerned about my lack of previous experience is that I desired to 'shake things up' a little. During my term in office, the Institution entered a period of reflection on our *raison d'être*, provision of valued membership services, external stakeholder relationships, and the need to contribute to real and effective environmental change. The exercise was worthwhile, resulting in a reaffirmation of our overall remit, a refining of our objective and the publication of a new strategic plan. I believe this has made us a stronger organisation for the future.

As an environmental scientist whose area of expertise resides firmly within the atmospheric sciences, I have fought the inevitable pull towards specialisation and a drift into siloed thinking. Achieving balance between specialisation and wider systems-led thinking can be challenging, but the IES has offered me a valuable lifeline.

With its range of articles, the environmental SCIENTIST remains a superb read. This journal is complemented by additional expert communications including blogs and webinars.

Over the last three years, we have responded to numerous environmental policy inquiries, seeking to influence and lead the debate on a range of issues. Inputs from the IES and our sister organisations have been published on matters pertaining to sustainability, air quality, ecology and environmental management, to name but a few. These have taken the form of requests for evidence from the Environmental Audit Committee, the House of Commons Science and Technology Select Committee and the Mayor of London's Office, amongst others. It is important that the IES continues to represent the views and expertise of its members, and the environmental science community as a whole, informing Government and its agencies on environmental matters. Whenever appropriate, I would encourage you all to submit your evidence, expertise and opinions to the IES.

The IES has a difficult balance to maintain between focusing effort on achieving our mid to long-term environmental policy objectives, whilst also remaining flexible enough to respond to important inquiries, as and when they are announced. In recent months, discussions at the Environmental Policy Forum (EPF) has been dominated by the potential environmental impacts of Brexit. We are indebted to our Policy & Communities Officer,

Robert Ashcroft, who has performed a sterling job in keeping us aware of relevant political changes. While EU legislation has not always been perfect, its influence has resulted in major environmental improvements in the UK. Some environmentalists are concerned that the impetus for continued improvements may be lost in the event of Brexit. By transposing all appropriate EU law into UK law, the Repeal (or Withdrawal) Bill has been designed to ensure legal continuity after exit, but this will not itself secure a promising future for our environment. Fears still exist that standards will be weakened to secure a preferential trade deal. Who will provide an adequate level of scrutiny or enforcement in the absence of the EU Governance structure, and what will the impact be on resourcing environmental programmes, particularly if Government fail to uphold reasonable standards?

The IES will position itself at the forefront of these concerns and discussions, providing communications to inquiries while also developing forums that enable you, as environmental scientists, to contribute to contemporary challenges such as Brexit or plastics in our environment.

The groundwork undertaken over the last three years has, I believe, strengthened the IES's position and made it fit to meet the challenges of the future. I wish the next Chair well, and I will join the rest of you in supporting them as they face their future challenges, whenever and however I can.

**“Achieving balance between specialisation and wider systems-led thinking can be challenging, but the IES has offered me a valuable lifeline.”**

06

Whatever stage you are at in your career, the IES has membership services that will help you gain recognition and progress to the next level. Members come from all areas of the environment sector, wherever jobs are underpinned by science.

07

Growth in IES membership in 2017: **6.4%**

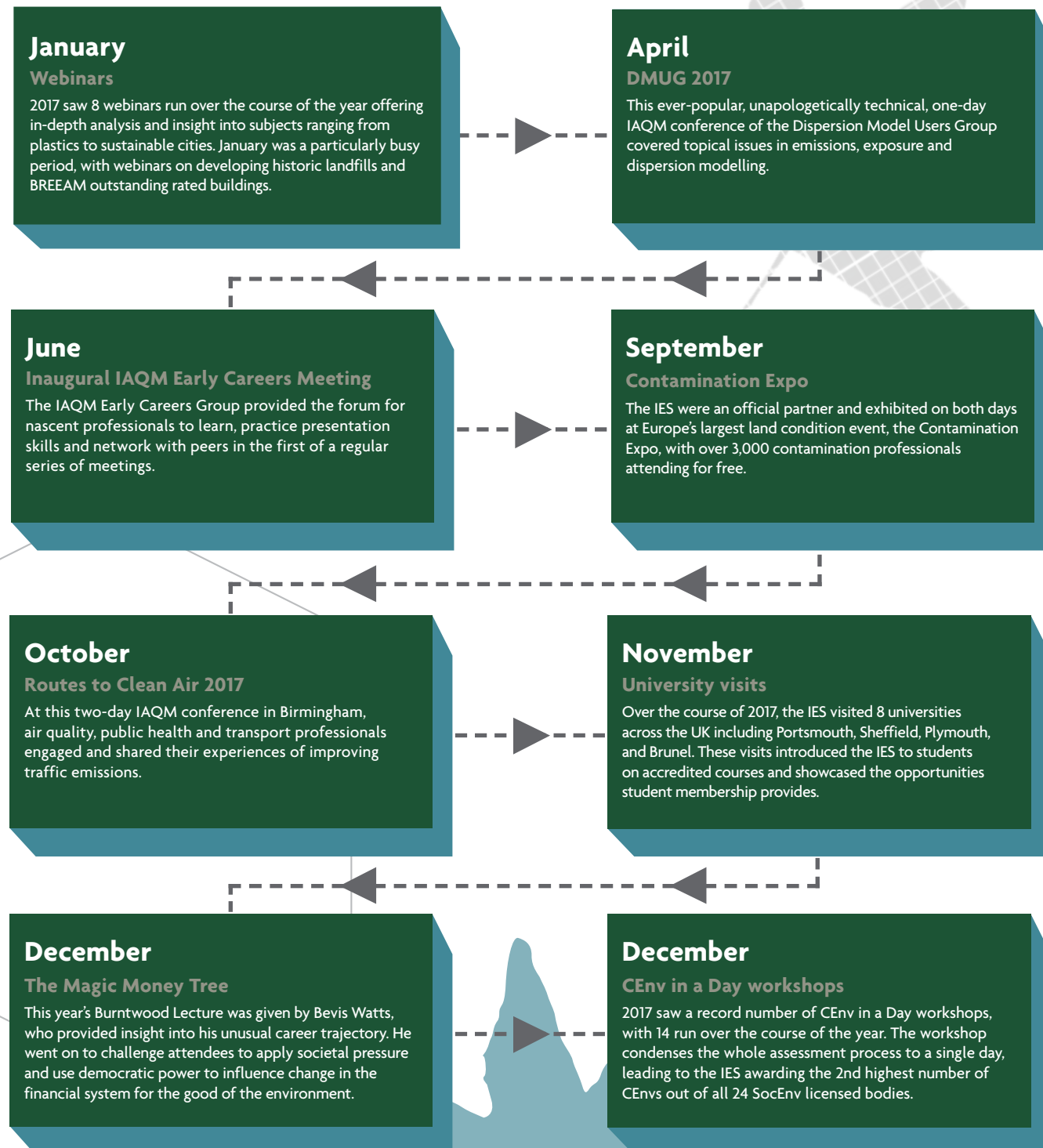
Growth in IAQM membership in 2017: **8.9%**

**9.7%** growth in number of Chartered Environmentalists

**22** new HE/FE degree programmes accredited since 2016 meaning that the IES and CHES now have  
**over 100** accredited courses worldwide

## Aiding professional development

### Event highlights from 2017



## environmental SCIENTIST

### Feeding the nine billion



This issue explored some of the interconnected and wicked challenges of feeding the estimated 9.7 billion global population predicted by 2050. Innovation in thought, technology, policy and practice will play a crucial role in tackling food security in the coming decades, and the case studies presented in the environmental SCIENTIST provoked further discussion and insight into the approaches to the global challenge.

### Time for a new Clean Air Act?



Though experts have been aware of the issue for many years, it is only recently that the majority of the media and public have become aware of the severity of the air quality crisis in many of Britain's towns and cities. But why has the regulatory response been so lacklustre? This issue explored topics around air quality management and measurement, and suggested ways in which both government and individuals can strive to tackle this problem.

### Science without borders: Making the SDGs successful



In 2015, world leaders adopted the seventeen goals of the 2030 Agenda for Sustainable Development at a special United National Summit. 193 Member States signed up to the goals and 169 targets which accompanied them. This edition, produced with the support of the UK Stakeholders for Sustainable Development (UKSSD), explored science's role, in partnership with policy, business and civil society, in delivering on this ambitious agenda.

### Living Labs



Many higher education institutions are initiating living labs programmes as they search for the most impactful ways to conduct research and education. The objective of a Living Lab programme is to establish a platform where people from different stakeholder groups can easily and effectively collaborate. This issue explored the development of the concept, presenting case studies from the perspective of a range of Living Labs stakeholders and considering its potential to drive further change.

### Issues planned for 2018

**February: Just boring? Challenging perceptions in land condition**

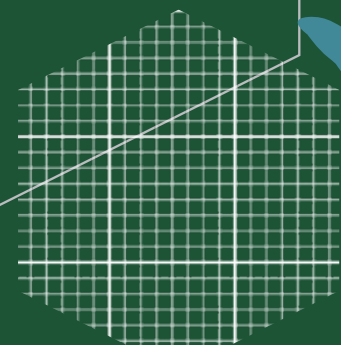
**June: Well that wasn't meant to happen! Unintended consequences in environmental science**

**September: Toying with nature: Recreation and the environment**





**“AS I READ THE LONG  
LIST OF JOURNALS,  
ANALYSIS PIECES,  
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As you will discover, browsing through the pages of this report, the past 12 months have seen the IES take a leap forward in the benefits afforded to members, and the impact we have had in the sector. As I read the long list of journals, analysis pieces, events, policy activities and membership services, it’s hard to do them justice in so few words, but I will try.

Phil Holmes  
Honorary Secretary, March 2018

## Honorary Secretary’s Report

In what seems to be a tumultuous political period, the IES has increased its presence in the policy arena, making sure our members’ voices and the environment are represented, no matter the twists and turns British politics takes. From letters to the Secretary of State for the Environment about post-Brexit management and submissions to the Stern REF review, to answering calls for information from the science and technology Select Committee, it’s been a busy year for our Policy and Communications Officer, Robert Ashcroft; thanks for your hard work navigating those bureaucratic waters and for kickstarting our network of new communities.

The IES does not just focus its attention on policy makers, our members too have been challenged by the Institution. Ground breaking journals such as ‘Time for a New Clean Air Act?’ and ‘Feeding the Nine Billion’ have given their readers food for thought, and perhaps some thought-provoking bed-time reading. Our Publication Officers, Michelle Reeve

and Paddy Fowler, have been relentlessly perusing authors and delving into difficult topics for our benefit.

Members have been doing their part too, using the IES to further their career and becoming Chartered Environmentalists in ever-increasing numbers. If you are not chartered yet, then I urge you to search for the Institution’s ‘CEnv in a Day’ workshop, or take up the IES’s offer of a mentor to help guide you through the process. You’ll get great advice and guidance from our Vice President, Carolyn Roberts, who I thank for running so many workshops. Alternatively, if you want some career-enhancing CPD, but can’t make it out the office, you can check out one of our webinars in our ‘CPD over sandwiches’ series. Last year’s topics ranged from farm support to soil technology, a great way to spend a lunch break.

If those events weren’t enough, the IES also helped deliver some big conferences, including the annual Burntwood Lecture, Routes to Clean Air and DMUG. My thanks go to Rhianna Jarvis for delivering the very demanding IES events calendar.

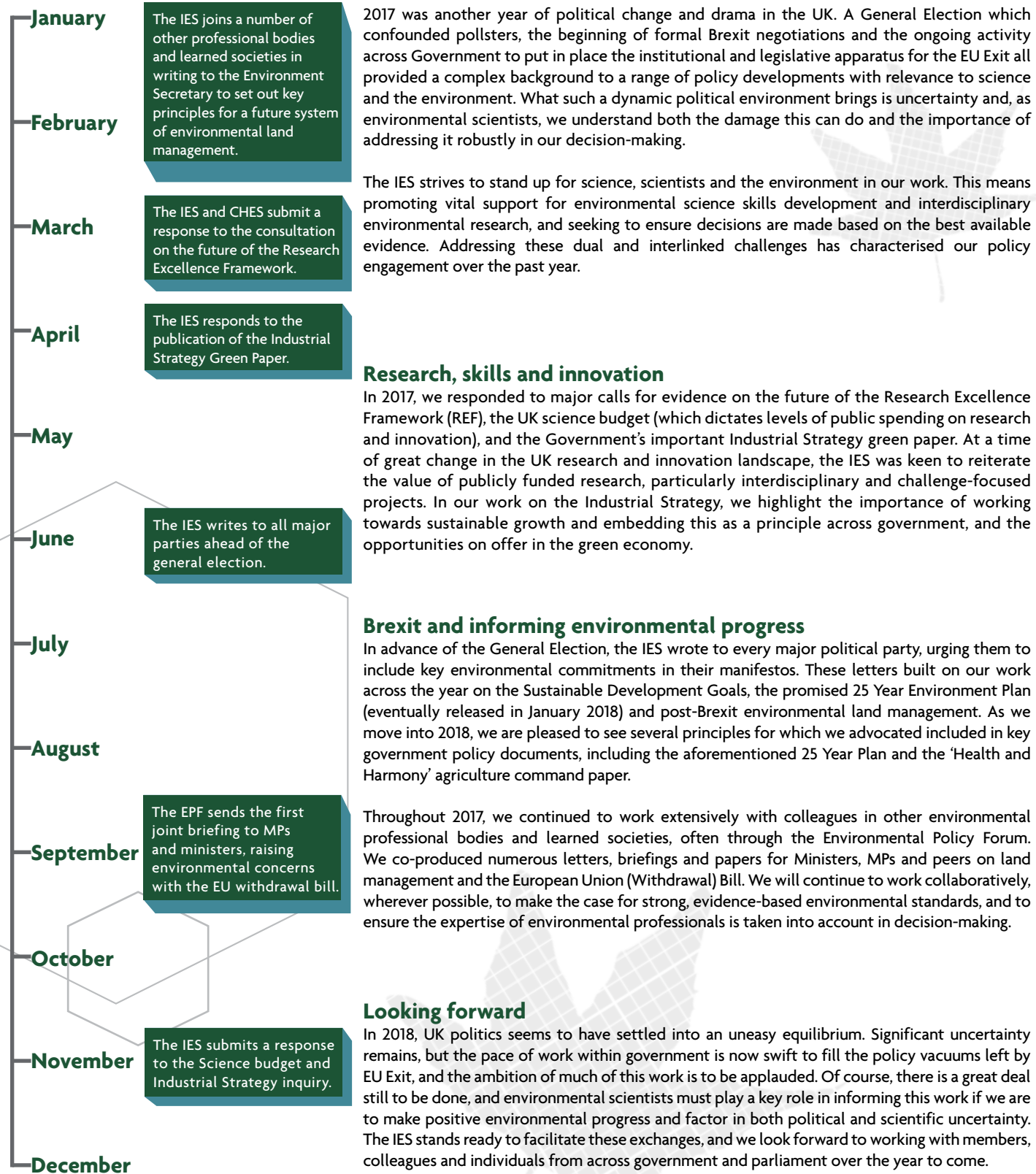
The past 12 months have seen us add to the thousands of environmental scientists who are members of the Institution. This increase in numbers, whilst brilliant, challenges even the most dedicated membership team. Thankfully, Chloe Fletcher, with help from Lisa Abbott, has been busy streamlining systems, helping members, corralling us Council members and supporting the CEO, to ensure we deliver a first-class membership experience, thank you both for your hard work.

That whistle-stop tour of the year brings me to the activities of IES Council, who have debated, reviewed, voted and drunk (their weight in coffee) through the last 12 busy months. Thanks to each of you for supporting the IES and the CEO.

The next year is shaping up to be just as busy and fulfilling for the IES and its members. Don’t forget to head to the website ([www.the-ies.org](http://www.the-ies.org)) to keep up-to-date with the latest news.

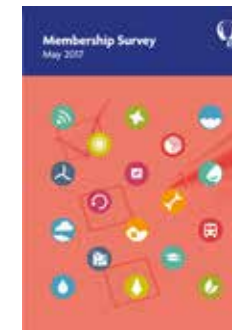
**“In what seems to be a tumultuous political period, the IES has increased its presence in the policy arena, making sure our members’ voices and the environment are represented, no matter the twists and turns British politics takes”**

## The politics of uncertainty



## Reports & Guidance

### Membership Survey



The IES surveys its members each year to gain an understanding of how they received the services provided that year, which services are particularly valued and what they might like to see in coming years. The 2017 survey reflected the IES office's commitment to excellent customer service, with 93% of respondents rating the office's ability to answer queries as either excellent or good. This year's Net Promoter Score surpassed last year's with a score of 33.

**73%** of members rated our reports as very or moderately interesting in the 2017 membership survey.

### Land-use planning and development control: planning for air quality



Originally published in 2015, this document seeks to provide guidance for individuals operating in the planning system on how to incorporate air quality considerations into the planning process. The Guidance was updated in 2017 to reflect changes in guidance documentation across the sector and to bring it in line with current use.

**91%** of members rated our reports and guidance as very important or important in the 2017 membership survey.

## Analysis pieces in 2017

- Science and sustainability at the heart of Industrial Strategy
- Qualitative responses to the 2017 membership survey
- Tackling waterway pollution
- Standing up for science, scientists and the natural world
- Redefining the boundaries of our membership
- From baselines to best practice - our plans to lead the way on diversity
- Being experts in an age of disdain for expertise
- An economy fit for the future

**98%** of readers rated our analysis as very or moderately interesting

## Past & Present

2017 2018

### Community launch

Our Land Condition community launched in autumn. Two working groups were formed to work alongside IES staff to develop a new conference, the Land Condition Symposium and corresponding journal edition, 'Challenging perceptions in land condition'.

### Promising start

The IAQM's first Early Careers Group meeting was held, opening the doors to newly-qualified professionals in the field of air quality.

### Digital strategy

The development of a new online sign-up portal enabled students on accredited degree programmes to activate their free student membership of the IES with just a few clicks.

### Model replicated

In 2018, we will be launching new communities that seek to replicate the success of the Land Condition model. Look out for more details soon.

### On tour

Our highly popular CEnv in a Day workshop goes on the road with workshops in Manchester and Leeds.

### Simplification online

We will be making membership renewals even easier with the a direct debit option as well as giving members even greater control over their data with the introduction of new GDPR measures.

### Staff changes

Michelle Reeve left the IES to continue her PhD in spider locomotion and biomechanics, in her place, Paddy Fowler joined in October as Publications Officer. Rhianna Jarvis started as our new Events & Training Officer in March.

### Cover to cover

The environmental SCIENTIST broke barriers in 'Science without borders', showed how research communities form in 'Living labs', set the table for the world in 'Feeding the 9 billion' and looked to the skies in 'Time for a new Clean Air Act'.

### Webinars

As part of our digital strategy, a number of webinars were hosted covering a range of environmental science subjects from highly distinguished speakers.

### Membership criteria

A new definition of Environmental Science was adopted to extend the IES membership scope to a broader range of natural, social and sustainability sciences, leading to the conception of new membership criteria.

### Growing further

As the IES continues to grow, we have recruited a second office administrator, Alex MacNaughton, with further expansion planned later in the year.

### Upcoming publications

2018 has already seen the environmental SCIENTIST dig beneath the surface in 'Challenging perceptions in land condition'. Still to come, we will roll the dice in 'Unintended consequences' and spend time in the great outdoors in 'Recreation and the environment'.

### Entrepreneurship

Owing to the success of last year's webinar programme, 2018 has seen the launch of Entrepreneurship and the Environment: a webinar series focusing on the culture and attitudes around entrepreneurship in the environmental science sector.

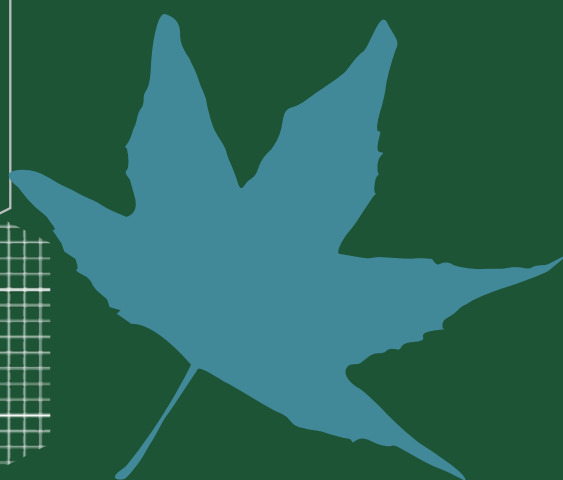
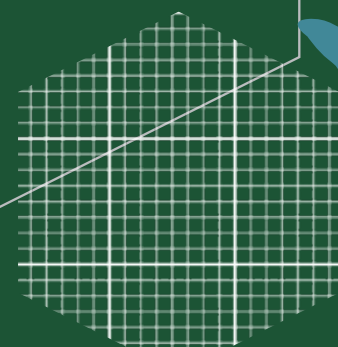
### Diversity and inclusion

To tackle issues of underrepresentation across the sector, the IES will publish its diversity action plan, embed inclusive policies and practices into degree accreditation, and initiate plans to conduct a study into how identity can affect career prospects in the sector.





**“WE HAVE ASSEMBLED A  
FANTASTIC STAFF TEAM, THE  
BEST GROUP I HAVE WORKED  
WITH. WITH THEIR HELP, AND  
THE ACTIVE INVOLVEMENT  
OF OUR TRUSTEES  
AND MEMBERS, THE IES  
WILL ENJOY ANOTHER  
SUCCESSFUL YEAR.”**



The common thread running through our members' professional lives is their engagement with science. Members are either scientists (teaching, research and applied), or professionals making decisions based on science. In the fragmented environmental sector, there are numerous bodies serving environmental managers, but the IES is unique in being the voice of science.

Adam Donnan,  
CEO, March 2018

## Redefining environmental science

The object of the organisation, “to educate the public in the environmental sciences,” served as the aim of the organisation for 45 years, from 1972 to 2017. However, we no longer felt that this accurately represented the work of the Institution.

The strategic process we underwent in 2017 led to the development of new object for the Institution: ‘Standing up for science, scientists and the natural world.’ The new object reflects the multitude of stakeholders that we serve, with science remaining at the heart of everything we do.

In the early part of 2017, an IES working group examined a range of interpretations of environmental science, with the aim of publishing a new definition. They came up with the following: “Environmental science is an integrative academic field, unifying the physical, chemical, biological, engineering and social sciences in the study of the

environment and in finding sustainable solutions to environmental challenges.”

This broadened the IES's previous characterisation by moving away from the narrow view that environmental science solely integrates the natural sciences to one that encompasses a multitude of other disciplines including social and engineering sciences. Our new membership criteria were published in December.

Looking at the coming year, I am excited about the potential of communities to deliver specialist services for groups of experts within our membership. Earlier this month, I attended the afternoon session of our newest major conference, the Land Condition Symposium, an output from our Land Condition community launched last year. It was fantastic to see the enthusiasm for the event and the desire to build on this success with more

resources for specialists in this area. I would like to thank the passionate and determined individuals involved in the community working groups for helping to deliver this.

There are some short-term challenges ahead. We have reached the capacity of our office and need to find a new headquarters. Over the summer, we will be reviewing our whole governance structure and constitution to modernise it further. Brexit dominates our policy work, but we are determined to become more proactive, making the case for new environmental regulations, not just defending what is already on the statute book.

We have assembled a fantastic staff team, the best group I have worked with. With their help, and the active involvement of our trustees and members, the IES will enjoy another successful year.

**“Moving away from the narrow view that environmental science solely integrates the natural sciences, to one that encompasses a multitude of other disciplines including social and engineering sciences.”**



## Statement of financial activities

### July 2016 - June 2017

	2017 £	2016 £
<i>Incoming resources</i>		
Voluntary income	315,284	289,243
Investment income	33	57
<b>Total incoming resources</b>	<b>315,317</b>	<b>289,243</b>
<i>Resources expended</i>		
<b>Total resources expended</b>	<b>296,538</b>	<b>265,399</b>
<b>Net movement in funds</b>	<b>18,779</b>	<b>23,901</b>
Fund balances at 1 July	110,592	86,691
<b>Fund balances at 30 July</b>	<b>129,371</b>	<b>110,592</b>

The statement of financial activities also complies with the requirements for an income and expenditure account under the Companies Act 2006.

## Sister organisations

### IAQM

2017 was yet again another great year for IAQM events, with both DMUG and RTCA growing in size and reputation.

Over the year, we also launched the first of our early careers meetings, giving newly-qualified air quality specialists the opportunity to hone their skills and network in a friendly and supportive environment. This inaugural event, held in June, was highly successful, offering a valuable learning platform for early-career professionals mirrored by a large increase in the number of Associate Members of the IAQM. With the groundwork laid, we hope to conduct a rolling series over 2018.

#### GROWTH OF IAQM ASSOCIATE MEMBERSHIP IN 2017: 25%

As usual, we held several free discussion meetings including 'Assessing AQ impacts on habitats' and 'UK Implementation of the Medium Combustion Plant Directive'.

In January, we published an update to our 'Land-use planning and development control: planning for air quality' guidance, bringing it up to speed with changes to the EA's H1 methodology and LAQM TQ (09), both issued in 2016.

#### GROWTH OF IAQM TOTAL MEMBERSHIP IN 2017: 9%

The 'Time for a new Air Quality Act' edition of the environmental SCIENTIST, published in April, was introduced by our Chair, Claire Holman, who delved into the challenges facing non-road mobile machinery emissions, the fallout of "Dieselgate" and NOx emissions, and the social issues that lead to emissions in comparison to technological.

We had a very successful call for committee members, with 5% of our membership applying to be on the committee. These new joiners attended their first meeting in November, bringing with them valuable expertise and enthusiasm which will help the IAQM continue to grow the scope of its membership services in the year to come.

### CHES

In December, the Living Labs edition of the environmental SCIENTIST was published, featuring content from a number of CHES committee members, authors from accredited universities and articles from universities worldwide.

#### GROWTH IN THE NUMBER OF ACCREDITED COURSES IN 2017: 20%

In 2017, CHES matched the previous year's number of newly accredited courses with 17 more added to the list.

In April, CHES held a successful meeting, jointly hosted with the IES, to review the outcomes of the Wakeham Review. This has led to a programme of work exploring employability in universities.

CHES was also active in the policy arena, responding to consultations on REF2021 and contributing to the IES's response on the Industrial Strategy Green Paper.

#### 100 PROGRAMMES ACCREDITED ACROSS 36 UNIVERSITIES AND COLLEGES

Recently, we introduced portfolios for our committee members. At the first meeting of 2018, each portfolio member sketched out their plans for the upcoming year. Collectively, this makes for an ambitious work programme for 2018.

## Trustees & Staff Members

**President:** Sir John Lawton

#### Senior Vice President:

Mr John Baines MBE MEnvSc CEnv

#### Vice Presidents:

Dr Heather Barrett-Mold OBE FEnvSc CEnv CSci

Mrs Jenny Blumhof FEnvSc CEnv CSci

Dr Mark Everard FEnvSc CEnv CSci

Professor Jim Longhurst FEnvSc CEnv CSci

Professor William Pope FEnvSc CEnv CSci

Professor Carolyn Roberts FEnvSc CEnv

#### The Honorary Officers of Council, who are also Council Members, from the 2017 AGM were:

**Chair:** Dr Noel Nelson MEnvSc MIAQM

**Vice Chair:** Mr Gary Kass FEnvSc CSci

**Honorary Secretary:** Mr Phil Holmes MEnvSc

**Honorary Treasurer:** Dr Jim Whelan MEnvSc CEnv CSci

**Company Secretary:** Ms Eleni Antoniadis Snell MEnvSc CEnv

#### The other members of Council from the 2017 AGM were:

Mr Jonathan Atkinson MEnvSc CEnv

Mrs Linsey Cottrell MEnvSc

Mrs Julie Hill MEnvSc

Dr Claire Holman FEnvSc FIAQM CEnv

Mr David Holmes MEnvSc

Dr Iain Hossack MEnvSc CEnv

Dr Jackie Rogers MEnvSc

Dr Lesley Sloss FEnvSc

Mr Nick Walton FEnvSc CEnv

Professor Phil Wheeler FEnvSc CSci

#### Staff members and contractors on 31st December 2017 consisted of:

**Chief Executive Officer:** Adam Donnan

**Events and Training Officer:** Rhianna Jarvis

**Membership & Projects Officer:** Chloe Fletcher

**Office Administrator:** Lisa Abbott

**Policy & Communities Officer:** Robert Ashcroft

**Publications Officer:** Paddy Fowler

**Journal Graphic Designer:** Kate Saker

**Journal Sub-editor:** Paula Gilfillan

[www.the-ies.org](http://www.the-ies.org)

IES is a member of the following organisations:

