## Institution of Environmental Sciences



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## A note from our chair



I am delighted to introduce our 2012 Annual Report which will give you a flavour of the multitude of projects that the IES has been involved in over the year.

Looking back over 2012 inevitably the Olympics and Paralympics come to mind. The development of the Olympic Park and the running of the

games has been a pretty good story for all those involved in the environmental sciences and in sustainable development.

During the planning and building there was a real attempt to use and develop new solutions to reduce climate change impacts and to restore some of the habitats of the Lee Valley from the previous industrial waste ground. There were five themes at the heart of the bid for the 2012 Games: climate change, waste, biodiversity, inclusion and healthy living. The work began with the land contamination treatment on site, through the architecture, attention to procurement, energy use, food sourcing and waste disposal. This has been a good story, not without its flaws and disappointments, but a story that needs retelling by environmental scientists as an illustration of what can be done. The next environmental SCIENTIST will do just that.

2012 was also the year of Rio+20 and the outcomes were disappointing to many. Given the state of the global economy inevitably a central theme was growth. This was developed in the December edition of the environmental SCIENTIST. One of the articles in this excellent edition was written by Paul Ekin, who was also one of our speakers in this year's challenging Burntwood Lecture.

In the Chair's report of 2012 Mark Everard referred to the impact of the publication of the UK Government's white paper The Natural Choice. This continues to make a difference; it announced the creation of the Natural Capital Committee. This Committee reports to the Economic Affairs Committee (chaired by the Chancellor of the Exchequer) and aims to ensure that Government has a better informed understanding of the value of Natural Capital to help it to prioritise actions to support and improve the UK's natural assets. Through its reporting line this Committee has the opportunity to truly influence the economic policy of the UK for the good of the natural environment.

Defra is moving into the next phase of the review of environmental regulation. This review is to establish the action needed to make regulation easy to comply with and effective. It is led by Defra, working with relevant Government departments and regulators to ensure a coherent approach from a user perspective. The IES is participating in this process to ensure that regulation is clear for professionals, underpinned by sound science and working for the public good.

The IES continues to flourish thanks to a committed, knowledgeable and skilled team at the helm. My thanks and thanks from the Council go to the Senior Executive Officer Adam Donnan and Project officer Emma Fenton. This year they have worked hard on services to members and have produced 5 really high quality journals. My thanks must also go to Council members who are knowledgeable and engaged resulting in excellent discussion followed by an energy and commitment to move the Institution forwards.

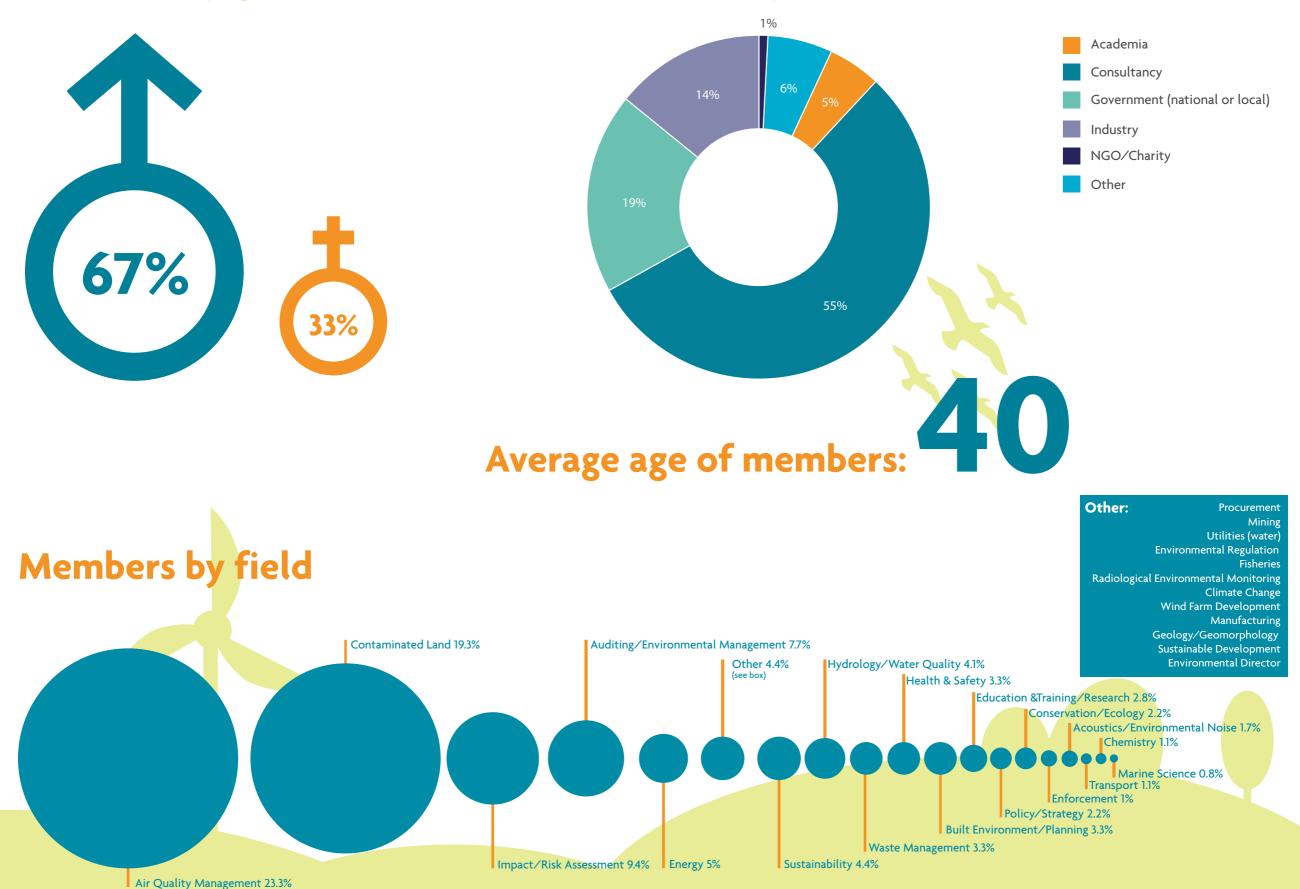
#### Dr Heather Barrett-Mold Chair of Council

## Our membership



#### Members by gender

#### **Members by sector**



## Honorary Secretary's comments



It seems that 2012 will be one of those years which people remember for decades to come, with the successes of the Olympics and the Queen's Jubilee, all happening a stone's throw from the IES offices. For me, 2012 is a year to remember not just for those reasons, but the leaps and bounds made

by the Institution in extending our reach and impact on the environmental sciences landscape.

At the forefront of these developments were the five incredible environmental SCIENTIST journals published in our new format, with reimagined content and accessible design. These journals were well-received, in-depth and created interest not only in our own membership but in wider circles too, including Government, business and our European partners.

As part of our ongoing commitment to supporting our members through sector leading research, we published forward thinking reports on (to name but a few) open data, dust control and environmental funding streams. This ambitious publishing aspiration is set to continue during 2013, arming our members with the latest thinking in the environmental science profession and increasing the impact their professional body has in the sector. Similarly, our events this year have surpassed our own expectations, with our most successful Burntwood Lecture to date and our 'DMUG' conference which looked at the latest developments in air quality modelling and measurement. We were also pleased to sponsor a lecture at the Cheltenham Science festival, where past Chair Mark Everard argued for an ecosystems revolution.

All of these outward facing achievements would not have been possible without the launch of our new website, which has allowed us to communicate with our members more effectively. The website has become a deep repository of information and news from the IES, highlighting the dynamic nature of the organisation.

Perhaps a more fundamental agent of our success in 2012 has been the growth and investment in our project team, based in Victoria, London. Those of you who have undertaken our fantastic 'CEnv in a Day' would have met the team, led by our dedicated Senior Executive officer, Adam Donnan. A new addition this year was Emma Fenton our Project Officer, responsible for the successful delivery of the ambitious programme of publications and events. We also invested in a new administration role, with responsibility for member care and a copy editor to ensure the flow of the content of the journal matched the new design. Finally, in our ongoing commitment of investing in the next generation of environmental scientists, our interns have continued to be a vital asset. We are proud to pay them the London Living Wage, and have extended contracts where we have needed their skills and endless enthusiasm. My thanks go to all the staff for matching ambition with resourcefulness and skill.

I would also like to thank our board of trustees for the encouragement and support they offer the project team. Thanks go to Jimi Irwin for overseeing the journal, Laurie Richards for his work as Honorary Treasurer and Jenny Blumhof for her work on the processes side of our (and sister) organisations. A big thanks also goes to Will Pope and Carolyn Roberts for their continued representation at SocEnv, especially their advocacy of the IES. To all trustees, many thanks.

I very much look forward to 2013, there might not be an Olympics, or Jubilee, but the IES will continue to beat our personal best and set new standards in all that we do.

Phil Holmes Honorary Secretary

## environmental SCIENTIST

In 2012 the IES published five editions of its flagship journal, an incredible 251 pages of environmental science discussion and debate. The diversity of the topics published reflects the broad range of professional interests of our members.



#### Extinction

This edition sought to move beyond the widely covered extinction of charismatic mega fauna and instead address extinction impacts on ecosystem processes. The journal discussed the importance of biodiversity and introduced the concept of valuation through ecosystem services rather than simply the intrinsic yet unquantifiable value of nature. Accompanied by some beautiful wildlife photos this journal was treasured by membership working in conservation and its emotive and accessible style attracted a much wider audience.



#### Technology & innovation

Technology and the environment have historically not been easy bedfellows. Innovations, mechanisation, and industrialisation have been responsible for large swathes of environmental degradation over the past century, but could they also prove its saviour? This edition of environmental SCIENTIST – published in conjunction with the ESKTN – interrogates the opportunities and possibilities that technology innovation provides in the ongoing effort to reverse environmental damage and to create a sustainable future for all.



This issue provided an overview of important contemporary topics within the contaminated land arena. Recent changes to government guidance were explained in detail and various facets of land contamination risk assessment, including the analysis of uncertainty, were reviewed. This edition was a must-read publication for the land contamination community and sparked a number of debates that were carried through in the analysis pages of our website.





#### Communicating Environmental Science

The general public needs science and innovation to survive, or at least maintain the standards of living it is accustomed to, whilst scientists need public support and trust in order to continue their work. This issue provided a broad introduction to science communication and engagement. It interrogated the various attempts to strengthen this bond between specialists and non-specialists using science communication. It was the first time that the IES incorporated infographics into its journal, a popular experiment which has since been repeated.



#### Green Growth: A Blueprint for the Future?

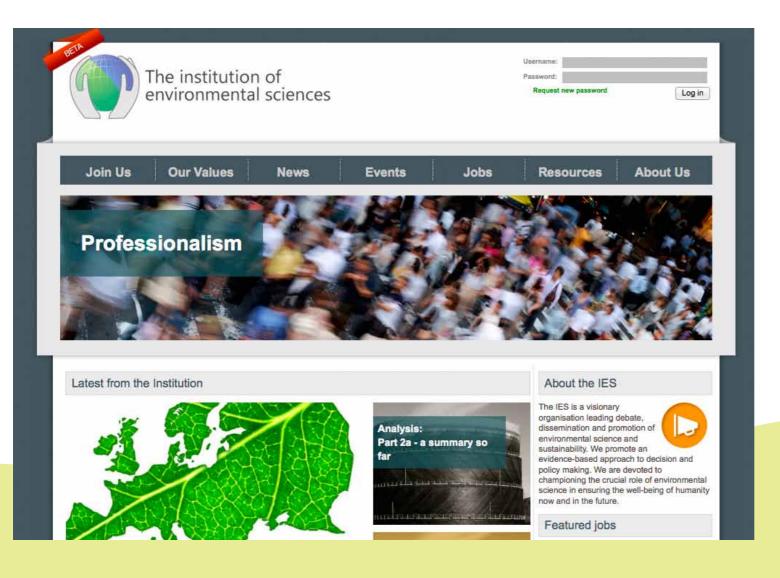
The IES believes that the positive promotion of 'green' growth might lead to a solution to a number of interlinking crises. It is within this context that we published this issue of the environmental SCIENTIST which sought to: act as an introduction to 'green' growth and environmental economics; highlight some of the good environmental practices and environmental innovations already taking place; and paint a vision of how a bold 'green' growth agenda could solve the current financial crisis.



# 85%

## An innovative new platform





#### www.ies-uk.org.uk

In April 2012 the IES re-launched its website, Built on an innovative platform, the new website clearly presents the numerous publications and initiatives undertaken by the IES and reflects the design ethos that is now embedded in the organisation. Fully integrated with social media platforms and RSS feeds from partner organisations the website content is regularly updated. The popularity of the new platform is reflected in the doubling of monthly usage of the site between April and October.

#### Highlights of the website

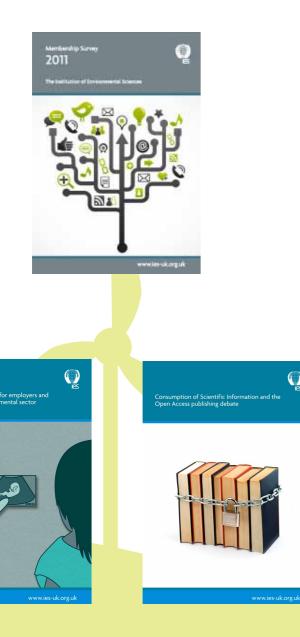
**Analysis** – As part of the IES' commitment to creating original, though-provoking content, research and commentary relevant to the environmental science sector, we launched this exciting section of the website at the end of 2012. Early highlights included our exploration of efficacy of Part 2A and a look at the political aspects of environmentalism in the UK.

**Careers** – This section contains video vignettes highlighting the diversity of jobs available within environmental science professions and information about the plethora of services available to members seeking work in the field. The job section of the website contains many positions relevant to the IES membership.

**Membership profiles** – A vast array of profiles of members from all the different grades gives our student members career paths to aspire to and allows members to record their career achievements and raise awareness of their work.

## Engaging with challenges for the sector

Throughout the year the IES published a record number of reports and guidance on a diverse range of topics.



#### Gender and the Environmental Science Sector: Salary Guide 2011 (March)

This report provided a detailed analysis of the average salary and range for gender, age, position and for our sector. The report allowed environmental science professionals to make the case for earning a competitive salary and enabled our graduate members to make informed choices about their career.

#### Membership Survey 2011 (March)

Our annual membership survey demonstrated that services remain highly valued by the membership and are continuing to improve in quality.

#### Parental Leave: Guidance for employers and employees in the environmental sector (June)

In this final report of our Gender Series we presented the current situation regarding parental leave and the statutory requirements for employers. The report – acting as a best practice guide – provided recommendations for employers supporting their employees during the important time of being an expectant or new parent.

#### Consumption of Scientific Information and the Open Access Publishing Debate (July)

This report documented how frequently and by what medium environmental scientists access scientific information. It evaluated IES members' opinions of open access publishing in order to establish whether this issue has made an impact on the membership as a whole.

#### **Environmental Funding Streams (October)**

This document brought together a list of available funding streams for research, careers or projects in the environmental sciences. It acts as a resource for members seeking funds. The major sources of funding listed are for UK businesses, charities, academic institutions or individuals seeking financial support for environmental projects of all varieties.

#### Air Quality Monitoring in the Vicinity of Demolition and Construction Sites (November)

This document provides updated guidance on air quality monitoring in the vicinity of demolition and construction sites.

#### Salary Survey 2012 (December)

This report looked at the 'health' of the environmental sciences. The aim is to allow IES members and professionals working in the environmental sciences to see how their position compares to that of their peers.

## Aiding your professional development

Throughout 2012 the IES held a number of important meetings, conferences and workshops, some highlights are shown below.

**APR** 

MAY

#### **Cheltenham Science Festival**

8

The IES was proud to sponsor an event entitled The Ecosystems Revolution: Wetlands and Water at the June Cheltenham Science Festival. Mark Everard set forth the

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Ecosystems Revolution: we must rebalance the interests of humans and wildlife so that we can not only all survive but also prosper together. Part of our public engagement remit.



#### **CEnv in a Day**

The IES held eight workshops throughout the year. The workshop remains our most popular method for members to achieve Chartership.

#### Environment, Sustainability and Education: Function – Form – Future

This two-day conference, organised in association with the Higher Education Academy (HEA), explored if, why, how and when education provides what we need to know regarding our environment and our understanding of the broader issues of working and living sustainably.

#### **Silent Spring**

In October the IES, in conjunction with the Royal Society of Chemistry, held a scientific meeting to discuss the legacy of Rachel Carson in the 50th year since publication of her hugely influential book, Silent Spring. The publication of Silent Spring triggered a debate that led to a ban on the insecticide DDT and started the modern environmental movement.

#### DMUG: Much ado about modelling

The Dispersion Modellers User Group is an annual event at which air quality modellers and measurement people get together to discuss their latest results. It is appropriate that, as it is 10 years since the founding of the IAQM, this meeting should review the past and future of air quality management. This year's December event – run for the first time by the IAQM – was attended by nearly 100 people.

#### **The Burntwood Lecture**

The 2012 Lecture was held in November and featured two keynote speakers, environmental economist Paul Ekins and marine scientist Michael Depledge, tackling environmental issues from two very different perspectives.



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## **Recognising excellent research**



This year's winner of the IES' John Rose Award, Rose Bailey from the University of the West of England, focussed her research on a low carbon future for Bristol. 140 key stakeholders from the city region were invited to participate in the creation of scenarios for Bristol's low carbon future, using a rigorous and innovative hybridisation of Delphi and backcasting techniques.

The award, now in its fifth year, rewards one piece of outstanding postgraduate environmental research with a £1000 grant to promote and publicise its results and make it accessible to the general public. The award provides recognition of the latest scientific research contributions being conducted towards an improved environment, whilst acting as a memorial to one of the IES's founder members, John Rose.

Rose Bailey has used the £1,000 grant to develop a graphical representation of Bristol's low carbon futures, in collaboration with a local street artist. The work has attracted further research funding, and she has recently launched an interactive website (www.futurebristol.co.uk) to showcase the work.



## **Realising our values**



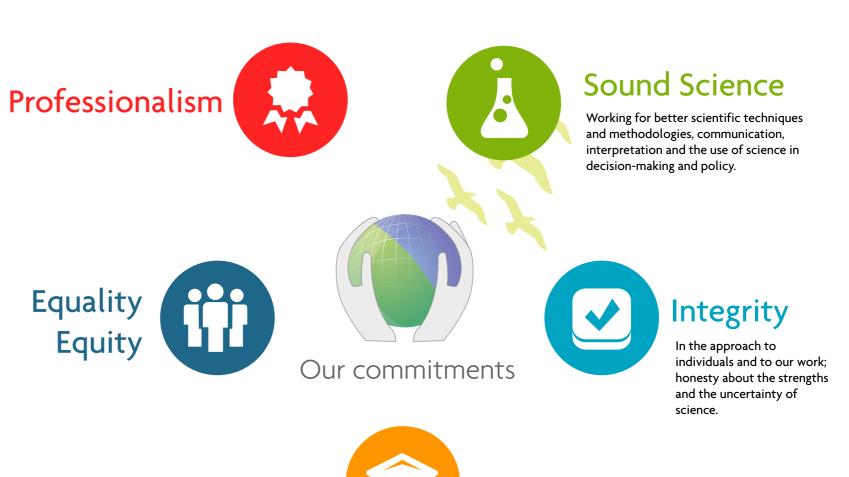
If you have ever had the chance to meet an IES trustee or member of staff you are likely to have been enthused by the way in which they talk about the purpose of the organisation. There is a strong belief throughout the organisation that the professions have a vital role in the transition to a sustainable society and it is absolutely essential

that this transition is underpinned by sound science.

Whilst our staff and trustees may have been strong advocates for this viewpoint, we have traditionally been less strong at communicating this through our publications. The redesign of our website and journal provided an ideal opportunity for us to better articulate the values that underpinned what the IES stands for.

A review of our practices, goals and a qualitative survey of members and trustees led to the production of a new webpage outlining our values (www.ies-uk.org.uk/values). The result is a mixture of defining principals, a mission statement and an expression of the societal role that professional bodies should play. Together these statements will underpin policies, objectives, procedures and strategies, providing an anchor and a reference point.

Our goal is for professionals to join the IES, not just because we provide quality membership services that align with their professional goals, but as a value judgement; they understand and believe in what we are trying to achieve.



#### Quality assurance Responsibility

Maintaining sector standards, ensuring members, the public, Government and businesses are aware of the fundamental importance of the environment and can trust the work of environmental scientists. The first part of the values document I want to highlight is "the IES exists to serve its members and the public." Nearly all professional bodies claim to be "member driven" but what does the term mean and how can we measure it? We understand the term to mean that membership services shall be determined and shaped by members to allow us to provide knowledge and support that is relevant, timely and comprehensive. It's about supporting members at all stages of their careers and it is about making our services affordable and assessable for all.

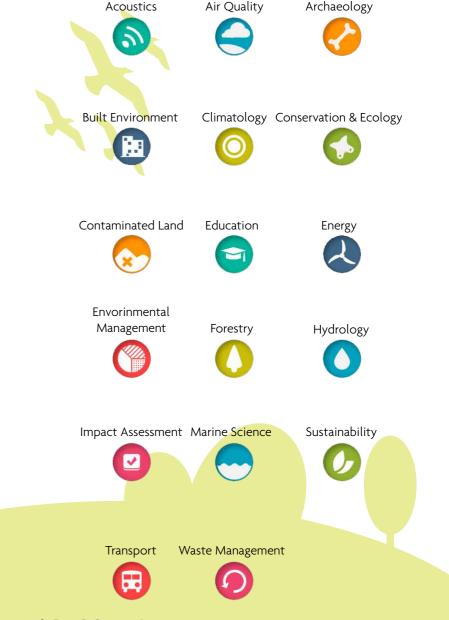
So how do we determine what members require? Firstly, I know of no organisation that makes such extensive use of online surveying. You might find these regular email requests an irritant but they are an essential feedback mechanism for the office. Secondly, we gather qualitative data by talking to you at events and when you call the office. For this model to be effective we need an active and engaged membership, so if you have comments about our services or anything you would like us to be doing differently, please contact us.

The second part I would like to focus on is the concept of "serving the specialist and promoting interconnections." I often describe environmental science as a thin ribbon that runs through a huge range of industries and sectors. The IES represents professionals from fields as diverse as air quality, land contamination and education - wherever you find environmental work underpinned by sound science. As an organisation we strive to help all our members navigate their way through the plethora of scientific research, legislation and guidance which impact upon their work. To help us focus on each sector within environmental science we developed sector headings (box 1). We intend to use this to create sector specific resources, publications and guidance. To do so we need your

help. If you aren't happy about our focus, you should tell us what training you need, what connections you would like to make, what issues we should be tackling and what guidance and support you need.

Focussing on the specific shouldn't mean we lose sight of the whole. Environmental science is based on the idea of 'interconnectedness' and systems-thinking. We cannot hope to improve the environment if we do not combine talent and expertise from across all fields of science. The IES is able to explore issues that affect us all: parental leave, open access, green growth to name but a few. By acting as an umbrella organisation for a variety of specialisms we can break down silos, act as a champion for science in all environmental industries and sectors and represent your interests on the national and international stage.

Adam Donnan Senior Executive Officer



Box 1: Sector icons

## A new Vice President



In November 2012 the IES Council marked the sustained and substantial contribution of Jenny Blumhof to the IES by electing her as Vice President of the Institution.

Jenny has served on Council since 2001 and as Honorary Secretary from 2003-9. She was an extremely proactive

Honorary Secretary, voluntarily giving up her time to visit the IES offices often more than one day a week. During her term in office she oversaw the move to Ebury Street and recruited, inducted and offer ongoing support to IES staff.

The procedures and routines of an office are not necessarily the most glamorous aspect of an organisation. But Jenny's formidable understanding of procedures and a common sense about how-things-should-be-done has meant the IES' small office team can deliver membership services efficiently and effectively. The fact that membership applications are turned round in a few weeks, most emails in line with best membership service and interviews arranged on short notice are all legacies of Jenny's term in office.

Jenny has dedicated a huge amount of time to assessing Membership, CSci and CEnv applications. If you applied for any of these over the past decade, it's more than likely her signature will be on top of the assessors form. This meant that she has played a vital quality control role and ensured that all applications have been judged on an equal footing. She has also played a fundamental role on the CHES committee, brokering the original relationship between that organisation and the IES. Jenny even used some of the money from her National Teaching Fellowship, awarded in 2007, to part-fund the CHES employee. She co-authored the influential 2008 publication Mapping the Environmental Science Landscape. Nationally, she was a member of the Benchmarking Panel for Earth Science, Environmental Science and Environmental Studies and used this experience to develop the IES/CHES accreditation scheme.

Additionally Jenny was instrumental in the IES achieving a license to award Chartered Environmentalist in 2004 and Chartered Scientist in 2010. She represented the IES on the Science Council Board from 2008 to 2012 and on the Science Council Registration Authority from 2010 to 2012. She has sat on the SocEnv Registration Authority from 2008 to the present, where she has played an important role in developing the new CEnv competencies.

The award was given on the understanding that it was not marking her retirement from the organisation and similar levels of engagement would be welcomed in future years! Sister organisations

new CHES accredited

programmes in 2012:





#### CHES – furthering environmental science in education

2012 saw a large surge in universities achieving accreditation through the joint IES/CHES accreditation scheme. We were pleased to add new programmes from Bangor, Birmingham, Bournemouth, East Anglia, Stirling and UWE. In addition we accredited our first overseas programmes at the University of Qatar. The CHES accreditation scheme now covers 55 programmes at 21 universities. The scheme ensures that the next generation of environmental scientists are being taught the knowledge and skills that they need to pursue a career in the sector.

Over the year we were pleased to attend talks and career fairs at our accredited universities. These visits allow our staff to advocate for environmental science careers, share their knowledge of the sector with students and introduce students to the work of the IES.

In July we held our annual conference, which this year was held at the University of Southampton and was entitled Environment, Sustainability and Education: Function – Form – Future, with the support of the Higher Education Academy. At the AGM, Professor Phil Wheater, was elected to Chair the committee. We would like to extend our thanks to the previous incumbent, Dr Pete Shaw for this leadership and vision over the past 3 years. We would also like to thank Diana Purchase for writing our newsletters, Colin Houston for his work as our project officer and all the CHES committee for their valuable voluntary input.

At the end of the year CHES formalised its charitable status by merging with IES. The two organisations have enjoyed a lengthy and mutual beneficial partnership stretching back twelve years and the new structure will be allowed us to continue being the voice of environmental science in education. (www.ches.org.uk)

#### IAQM – representing the air quality community

2012 was the 10 year anniversary of the founding of the Institute of Air Quality Management (IAQM). Ten years ago we estimated the total size of the profession to be 300 individuals. The IAQM ended 2012 approaching that number of members. As the sector has grown considerably over the past decade we can't quite claim to represent everyone in the profession, but there is no doubt that we have become established as its leading professional voice.

growth in IAQM

membership in 2012:

We were pleased to present another packed CPD programme throughout the year. The topics covered included: Do Action Plans Work?; Can vegetation improve urban air quality?; odour assessment guidance; and the Highways Agency Draft Significance Guidance. We were able to provide these events free of charge to members thanks to the kind support of ARUP.

The Dispersion Modellers User Group (DMUG) is an annual event at which air quality modellers and measurement professionals get together to discuss their latest results. This year's event was organised by the IAQM and attended by nearly 100 people. It was appropriate that, as it is 10 years since the founding of the IAQM, this meeting reviewed the past, present and future of air quality management.

We published two pieces of guidance around dust in 2012: 'Guidance on the Assessment of the Impacts of Construction on Air Quality and the Determination of their Significance' in January and 'Air Quality Monitoring in the Vicinity of Demolition and Construction Sites' in November. Our thanks go to Steve Moorcroft, Claire Holman and Emma Fenton for their work on these.

At our AGM in November we were very pleased to give the third annual Ian McCrae Travel Award to Dr Mofoluso Fagbeja. The grant will help him attend the 2013 Annual Conference of the American Society of Photogrammetry and Remote Sensing (ASPRS) in Baltimore where he will be presenting a paper.

At the AGM Professor Bernard Fisher stepped down as Chair, handing over to Roger Barrowcliffe. We would like to extend our thanks to Bernard. Much of the success of the IAQM today can be attributed to his skilful tutelage over the past seven years. (www.iaqm.co.uk)

## Statement of financial activities

#### For the year ended 30 June 2012

	Unrestricted funds	Restricted funds	Total 2012	Total 2011
	£	£	£	£
Incoming resources from generated funds				
Voluntary income	4,782	-	4,782	4,425
Investment income	127	-	127	102
-	4,909	-	4,909	4,527
Incoming resources from charitable activities	144,357	2,216	146,573	128,974

149,266	2,216	151,482	133,501
5 353	7 7 2 1	13 074	5,426
-	,	-	94,396
-	-	-	14,948
4,070		4,070	14,940
134,212	7,721	141,933	114,770
4,115		4,115	3,840
120 227	7 7 2 1	147.040	110 (10
138,327	7,721	140,048	118,610
10.030	(5 505)	F 434	14 001
10,939	(3,303)	5,434	14,891
99.197	7.159	106.356	91,465
,	-,		.,
110.136	1.654	111.790	106,356
	149,266 5,353 123,963 4,896 134,212 4,115 138,327 10,939 99,197 110,136	5,353 7,721   123,963 -   4,896 -   134,212 7,721   4,115 -   138,327 7,721   10,939 (5,505)   99,197 7,159	5,353 $7,721$ $13,074$ $123,963$ - $123,963$ $4,896$ - $4,896$ $134,212$ $7,721$ $141,933$ $4,115$ - $4,115$ $138,327$ $7,721$ $146,048$ $10,939$ $(5,505)$ $5,434$ $99,197$ $7,159$ $106,356$





**Council and staff** 

#### **Council Officers**

**President:** His Grace the Duke of Westminster KG CB OBE TD CD DL FIEnvSc

Senior Vice President: John Baines MBE

**Vice Presidents:** Jenny Blumhof, Dr Mark Everard, Prof. Jim Longhurst, Prof. William Pope, Prof. Carolyn Roberts

The Honorary Officers of Council, who are also Council Members, from the 2012 AGM were:

Chair: Heather Barrett-Mold FIEnvSc CEnv CSci Vice Chair: Noel Nelson MIEnvSc MIAQM Honorary Secretary: Phil Holmes MIEnvSc Honorary Treasurer: Laurie Richards MIEnvSc CEnv Company Secretary: Jim Longhurst FIEnvSc CEnv CSci

The Members of Council from the 2012 AGM were: Dr Heather Barrett-Mold FIEnvSc CEnv CSci Mrs Jennifer Blumhof FIEnvSc CEnv CSci Ms Gayle Burgess MIEnvSC CEnv Dr John Burns MIEnvSC CEnv CSci Dr Mark Everard FIEnvSc CEnv CSci Professor Bernard Fisher FIEnvSc MIAQM CEnv CSci Mr Phil Holmes MIEnvSc Professor James Irwin FIEnvSc MIAQM Professor James Longhurst FIEnvSc CEnv CSci Dr David Muir MIEnvSc FIAQM CEnv CSci Professor Noel Nelson MIEnvSC MIAQM Professor William Pope FIEnvSc CEnv Mr Michael Quint MIEnvSc CEnv CSci Dr Laurie Richards MIEnvSc CEnv Professor Carolyn Roberts FIEnvSc CEnv CSci Dr Pete Shaw FIEnvSc CSci Dr Jim Whelan MIEnvSc CEnv CSci

Staff Members on 31st December 2012 consisted of:

Senior Executive Officer: Adam Donnan Project Officer: Emma Fenton Administrator: Steve Jones Graphic Design Intern: Jenna Edgar

IES is a member of the following organisations:



#### www.ies-uk.org.uk

