



The Initiative for Carbon Accounting

Annual Report 2012-13

Edited by Ric Lander
Final (Online) approved by
ICARB Management Group

enquiries@icarb.org

www.icarb.org

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Year in Review

ICARB has had an excellent year and has proved that organically growing to occupy our own niche has proved to be a valuable strategy.

Our key achievements are not only building on last year's extensive programme. Focusing on energy, land use, forestry and tourism have enabled us to make real developments and also provide a solid foundation for our activities in Year 3 of ICARB's original proposal to the Scottish Government.

Real steps forward have been made in developing the ICARB method for attribute analysis of accounting methods, starting with the Energy sector. Aims to develop cross-sectoral accounting approaches was furthered with work done with the forestry and land use sectors and the issue of accounting for the complex tourism sector was taken forward.

In 2013-14 we will build on all these lessons to concentrate on city level accounting, with a wide range of Scottish stakeholders and European organisations.



We want to thank everyone involved for your support of ICARB, to Ric Lander for his smooth running of our business, to the hard work of the Management Group, and to the Scottish Government for funding our activities for another year.

Professor Sue Roaf, Heriot-Watt University

ICARB Key Achievements in 2012-2013

Establishment of accounting process for energy generation.

Development of ICARB Process for attribute analysis of accounting methods.

Recognised progress on tourism accounting with Crichton Carbon Centre and partners.

Ground-breaking synergies on land-use accounting with Forestry Commission.

Partnerships in place to develop new city and community accounting tools into 2013-14.

150+ experts participating in our events with international conference becoming established 'go-to event' for carbon accounting developments.

Rapidly growing following on our new social media channels and over 3000 mailings delivered to our network.

New website reaching visitors from 62 countries.

Foundations set for directory of accounting expertise.

Commitments from supporters to give oversight via new Advisory Board.

Events

What people said about ICARB events in 2012-13:

“Got the latest information on carbon accounting legislation”

– Business consultant at 5th International Conference on Carbon Accounting

“Discussion brought new and different ideas forwards”

– Student at workshop series

“Half a dozen leads to follow up!”

– Voluntary group attendee at 5th International Conference on Carbon Accounting

“Clarified many points and allowed me to hear about relevant challenges”

– Student at workshop series

“Excellent networking opportunity”

– Academic researcher at 5th International Conference on Carbon Accounting

“Helped gain insight into a field I have limited knowledge of”

– Consultant at 5th International Conference on Carbon Accounting

5th International Conference: Towards Rules and Tools for Accounting for Scotland

13 March 2013, Edinburgh Conference Centre



Sarah Boyack MSP opens the 5th International Conference on Carbon Accounting. Photo by Ric Lander (cc).

“Sarah Boyack MSP, opened the conference with a review of how far the Scottish Government has come since ICARB first started in 2007, through the first national carbon budget and the clear commitments to achieve stringent emissions reductions targets over time.

“The following session was divided into a focus on Business, Land Use, Energy and Tourism, building on the years’ workshops and the technical challenges we are addressing.

“Fraser Wilson of PricewaterhouseCoopers and Gary Davis, Ecometrica both addressed the challenges around the implementation of Mandatory Carbon Reporting on Scottish Business and the economy as a whole.

“The other key themes of the morning were on energy accounting and Dr. Garvin Heath, NREL, Denver gave a fascinating overview of the ways in which the US government has funded a large research exercise into ‘Harmonising Greenhouse Gas Emissions Estimates for Electricity Generation Systems’ in order to ensure that policy choices are made from a level accounting playing field.

“Building on his paper in last year’s conference Dr. Adam Hawkes of Imperial College London presented a project he has been involved with to establish the true CO₂ impacts from electricity demand and on-site generation choices and the interactions of those choices for the planning and commissioning of large power stations or energy supply options. The carbon implications of moving to, for instance, heat pumps will be very different if they are expected to be largely powered by nuclear power stations or building integrated PV systems.

“Dr. Angela Druckman from the Centre for Environmental Strategy at Surrey University then added a further layer of complexity by showing that often the consequences of technology choices may be unpredicted and unintended and so if we are to arrive at the true carbon impacts of technology decisions we should move to consequential life cycle analyses. She gave the classic example of the fact that in the life cycle of an ordinary porcelain toilet system the greatest resulting emissions come from the heat being continually removed from the building in the flushed out toilet water! Professor Gareth Harrison of Edinburgh University then chaired a lively question time stimulated by the excellent papers of the morning.

“In the afternoon four workshops built on the theme of the conference, the workshops of the year and the morning talks. Dr. Rachel Dunk, Crichton Carbon Centre ran a workshop on Tourism: Towards a Scottish Accounting Method for Tourism. Paul Adderley of Sustainable Opportunity Solutions and Keith Baker of Glasgow Caledonian University worked with a group on issues around ‘Making Carbon Reporting Work for Your Business’, Sam Chapman, Heriot-Watt University and Camilla Thompson of Edinburgh University hosted a lively debate on ‘Power Generation: Rules and Tools for Energy Accounting’ and Vicky West, Forestry Commission discussed progress to date on developing a ‘Harmonised Land-use Accounting Method for Scotland’ with her workshop. Notes and presentations from all these workshops and those over the year are available on the ICARB.org website.

“Daniel Hinze, of the Scottish Government gave a summary talk on the current challenges for accounting for emissions for the Scottish Government and Professor Sue Roaf wrapped up by warmly thanking the Scottish Government for supporting ICARB, CIBSE for sponsoring the Conference, all the speakers and attendees and the ICARB Management Group and Anne Ormston and finally Ric Lander for so ably organising ICARB and the conference over the year.

“Our 6th International Conference, currently planned for 2014, will focus on accounting for cities and communities.”

Professor Sue Roaf, Heriot-Watt University



Dr. Gavin Heath, National Renewable Energy Laboratory, Denver, addresses our 5th International Conference. Photo by Ric Lander (cc).

Workshop: Carbon Accounting and Land-use: is it possible to have an integrated land-use planning tool for Scotland?

5 February 2013, Edinburgh Centre for Carbon Innovation

“The workshop heard a wide variety of presentations:

- Accounting for woodland creation in the Woodland Carbon Code. Vicky West, Forestry Commission
- CSort, Carbine and accounting for changes to management of existing woodlands. Paul Henshall, Forest Research
- The Cool Farm Tool. John Hillier, University of Aberdeen
- WISE Peatland Choices: A scoping tool for the prioritisation of restoration needs of peatlands in Scotland. Rebekka Artz, James Hutton Institute
- Reconciling greenhouse gas emissions from measurements and modelling in the land use sector. Bob Rees, SRUC
- Carbon Accounting for Land Managers – Including Woodland Creation into CLA’s model farm-level GHG balance tool. Vicky West, Forestry Commission

“Solutions to management challenges included paying land-owners for avoided emissions in a carbon credit system. The suitability of current tools was discussed including any potential to synthesise existing systems. A review of how these methods serve different audiences including land owners, managers, users, government etc. is planned as part of ICARB's work in 2013-14.”



Dr. Vicky West, Forestry Commission

Full minutes and presentation are available on the ICARB website: www.icarb.org.

Workshop: Accounting for Low Carbon Communities

6 February 2013, Edinburgh Centre for Carbon Innovation

“Our community accounting workshop addressed key questions including how to design policies and programmes to enable community projects to measure their carbon savings sensitive to their capacity; data requirements for communities; and the role of community projects in the community empowerment. Contributions came from the Church of Scotland, Keep Scotland Beautiful, University of the Highlands and Islands, and the James Hutton Institute.

“There was concern that community planning often failed to account for socio-economic issues, and a good example of this being done better was the company Good Energy who provide a 20% discount on bills to communities near wind farms in Wales.

“A case study of a community carbon footprint of Lochaber showed that the vast majority of emissions come from just a couple of industrial and commercial sources showing the need for community work to be seen in the context of wider action.

“These ideas will be written into a journal paper for ICARB's guest edition of the International

Journal of Greenhouse Gas Measurement and Management and ICARB will be expanding on this agenda for its 2013-14 programme on cities and communities.”



Dr. Keith Baker, Glasgow Caledonian University

Full minutes and presentation are available on the ICARB website: www.icarb.org.

Workshop: Framing Scottish Standards for the carbon accounting of energy generation

21 Nov 2012, University of Edinburgh

“This workshop discussed best current practice in carbon accounting for life cycle carbon emissions from large-scale power infrastructure and the operational impacts of the relationship between different generation technologies on a distribution network. Contributions came from Heriot-Watt University, Blackwood Environmental Consulting, University of Edinburgh, and NREL, Denver.

“Key issues were introduced which covered: the harmonisation process developed by NREL and how it’s methodology can be applied to developing frameworks; continued challenges in creating a standard framework; and grid and wind interaction through looking at marginal carbon offsets of wind power.

“A key challenge identified was how carbon accounting can contribute to energy generation systems which generate according to carbon intensity rather than, as is currently the case, financial cost.”



Sam Chapman, Heriot-Watt University

Full minutes and presentation are available on the ICARB website: <http://bit.ly/102wbyg>

Scottish Parliament reception

14 March 2013

“Sarah Boyack was our founding MSP partner in Holyrood and this year hosted our annual ICARB report back to the Scottish government on the 14th March 2013. Patrick Harvie MSP also joined us and Stuart Macpherson who is the Secretary of CIBSE Scotland and a long term supporter and sponsor of the ICARB Conference. Around thirty others joined us from the Scottish Government, ICARB members and the general public to hear a report on ICARB’s progress over the and to have a short talk by Dr. Garvin Heath of the National Renewable Energy Laboratory, Denver, on the work being done by the US government on developing a ‘harmonised’ carbon accounting method for energy generation in the USA. This important work matches well with the ICARB attribute analysis approach and points in the direction we hope to take our method evaluation process. A drinks reception and networking followed and our thanks as always goes to our host.”



Patrick Harvie MSP at ICARB's 2013 Parliamentary Reception. Photo by Ric Lander (cc).

Professor Sue Roaf, Heriot-Watt University



ICARB at Scottish Power's Whitelees Wind-farm. Photo by Ric Lander (cc).

Whitelees Wind-farm field trip

14 March 2013

“The day after the 5th International Conference on Carbon Accounting some 20 of the attendees joined us on a chilly and windy trip to the largest wind farm in Europe, at Whitelees in East Renfrewshire.

“Our host was Gordon McGregor of Scottish Power and he very kindly arranged for us to be informed about the history and the workings of the site by those who manage it and the Scottish Power energy grid, in talks at the visitor centre. Walter Watson also explained

how the technologies work in relation to the fauna and flora of the site, pointing 5000 year old Bog Oak branches on our tour of the site.

“We were able to discuss some of the finer points of how the grid operates and is accounted for and they were also interested to learn a little from Garvin on the handling of such issues in the USA. Martin Mathers, the onshore policy manager for Scottish Power also discussed carbon accounting of Scottish Power assets and was interested to hear from ICARB members on whether their deployed carbon calculator was suitable.

“They were extremely hospitable and even provided very welcome hot soup and sandwiches along with their fascinating descriptions of wind generation in the region that is now more than self-sufficient in renewable generated energy.”

Professor Sue Roaf, Heriot-Watt University

Research

ICARB has undertaken a number of research projects to bring together work already being carried out and better understand how to support accounting efforts already underway.

Accounting Experiences surveys

ICARB conducted a series of surveys in conjunction its workshops series in 2012-13, covering both sector-specific and cross-sectoral issues for carbon accounting.

The surveys conducted have enabled us to develop a picture of the carbon accounting 'landscape' in Scotland and beyond, including issues such as knowledge needs and barriers to access. Survey results have also enabled us to investigate the specific issues cited in more detail, particularly with respect to the role of standards in meeting the 5 Principles of Carbon Accounting, whilst also delivering results that are meaningful to decision-makers.

Outputs of the surveys will be published in our forthcoming journal issue (see below) and as part of a review and database of sectoral tools to be published with ClimateXChange in May 2013.

Community accounting case study

Our workshop on community accounting in February 2013 (see above) was a crucial starting point to aligning accounting for communities in Scotland. We are currently in the process of processing our survey responses and workshop outputs for communities in preparation to greatly expand this vital area of work in 2013-14.

An early output of our work is that a case study of accounting for the community of Lochaber developed by Susan Carstairs of the University of the Highlands and Islands will be published in our journal edition (see below).



Lochaber, Highland: an early case study of whole-community carbon accounting.

Attribute analyses for buildings

Following a number of successful workshops throughout the past two years, ICARB is producing a definitive analysis of the evidence gathered on accounting for buildings.

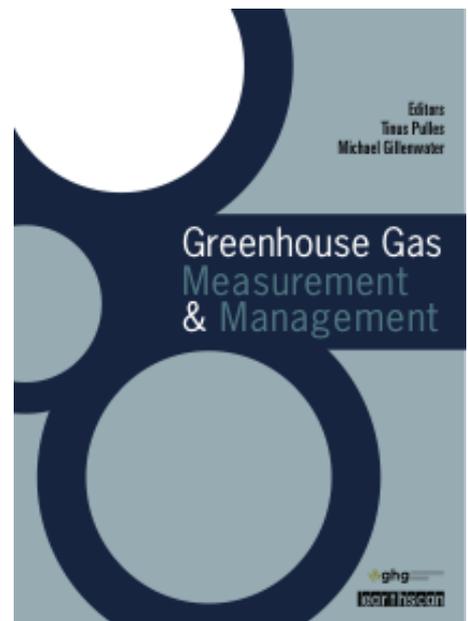
The fruits of this work will be seen in 2013-14 when data is published in two articles in our journal edition (see below) and in a database compiled for ClimateXChange. Issues relevant to the sector are also expected to feature heavily in other planned activities for next year, including our work on communities and local authority energy projects.

Journal of Greenhouse Gas Measurement and Management issue

In 2012-13 ICARB began fruitful engagement with carbon accounting organisations in the United States. One such partnership has resulted in our production of a guest edition of the respected *Journal of Greenhouse Gas Measurement and Management* (pictured), due for publication early 2014.

The edition will present ICARB's research on sectoral carbon accounting, drawing on the evidence gathered through our workshops, conferences, surveys and other activities, as well as short papers from delegates to our 2013 International Conference. The headline paper will present evidence on how much standardisation has been achieved to date, how much more could be achieved, and whether or not greater standardisation is always appropriate and desirable.

Dr. Keith Baker, Glasgow Caledonian University



Communications

Carbon Accounting briefings and social media

In 2013-14 ICARB begun providing regular carbon accounting briefings to members of our wider network through a variety of media. Using the expertise in our Management Group we offered up to date developments on accounting techniques and processes to practitioners, academics and policy makers in Scotland over social networks and mailings.

- Over 3000 emails sent with a 3rd sector-beating open rate of 29%.
- Mailings delivered to our 306 subscribers with regular new sign-ups at events and via our website.
- New Twitter feed providing carbon accounting updates to 50 followers since 2012.
- Growing following on LinkedIn and Facebook, new for 2013.
- Consistent positive feedback regarding our e-communications and hundreds of enquiries passed on to accounting experts via our new one-stop-shop carbon accounting address, enquiries@icarb.org.



Topics of interest of ICARB mailing subscribers in 2013 (larger words represent more people).

ICARB's supporter lists includes participants with a variety of accounting expertise (larger keywords represent areas of work better represented by our membership).

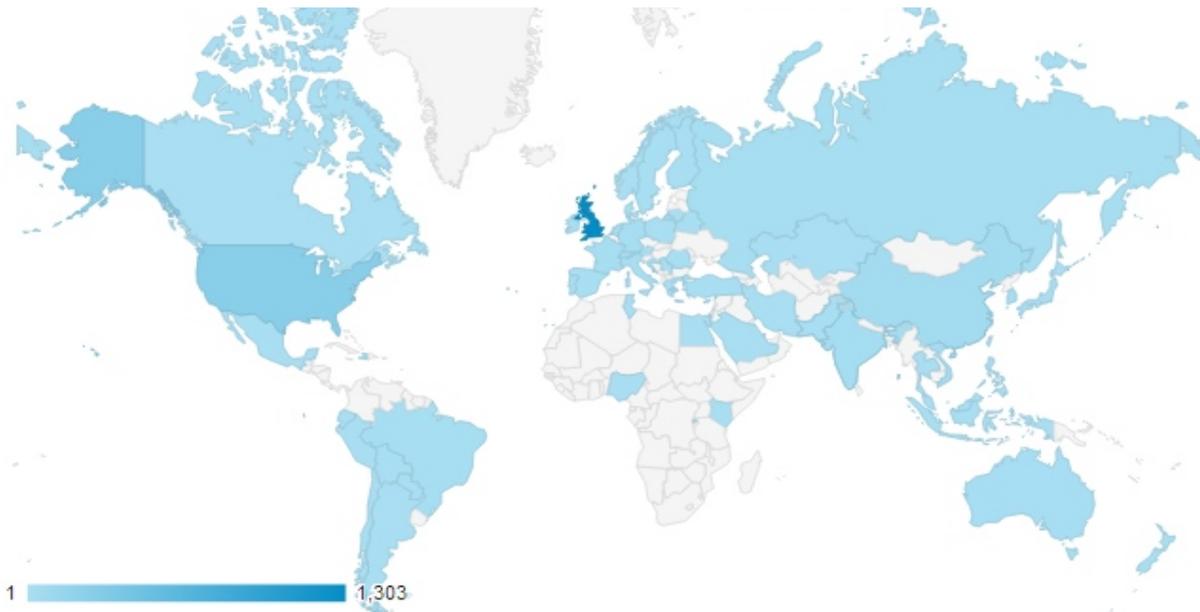
Experts Directory development

In 2012-13 ICARB has been making considerable progress in compiling and organising information on accounting academics, professionals and policy makers connected to the organisation. We now have a fully rationalised database of over 500 experts and have made preparations to begin making public a directory of relevant expertise.

To this end we commissioned a web developer to define suitable options for progressing such a project. These range from a simple system that sits within our current website to a tailor made system that we would need to fund-raise for in order to develop.

A functional, user-friendly directory has been highlighted by our supporters as a key service currently not available that would be of great assistance to policy makers and business. We are committed to realising such a service and considering how to progress this work for the next year.

ICARB.org Website



Following an extensive redesign our website is attracting a growing number of attention from visitors in Scotland and across the world. In 2012-13 we had over 2,176 unique visitors downloading a range of content from our site. A majority of our visits come from Scotland, but we been visited by people from 62 countries around the world, with most significant numbers from the UK, USA and China (see graphic, above).



Our biggest draw is our catalogue of presentations and tools which host three years of workshop content and expertise for users to read and share. We also had a large number of visitors using our site to find and share information about our conferences and events, with a peak numbers viewing our site in the lead up to our International Conference (see graphic, above).



Ric Lander, ICARB Administrator

Organisational Development

Aims and Mission

In 2012-13 ICARB has made great strides to safeguard and institutionalise its progress by formalising the organisation. In December we agreed a new mission statement:

We are:

The Initiative for Carbon Accounting (ICARB) is a group of academics, policy makers and professionals working to create a set of transparent, consistent and accurate rules for carbon accounting.

Our Mission:

The Initiative for Carbon Accounting (ICARB) exists to advance the field of carbon accounting to facilitate the reductions in carbon emissions necessary for a sustainable society.

Our Aims:

1. Provide a robust and transparent process that will develop, verify, validate, assist and promote recognised carbon accounting 'rules' and guidance across sectors.
2. Provide services that facilitate consensus building and knowledge exchange between academics, policy and decision makers, professionals and community groups.
3. Disseminate and promote guidance on best practice and provide a direct route to advice and support for policy and decision makers in Scotland and around the world.

Our Approach:

- We seek to become recognised as the trusted organisation for carbon accounting in Scotland.
- We work across sectors and scales.
- We work in collaboration with other carbon accounting organisations.

Oversight and management

In 2012-13 ICARB has also worked to formalise oversight and management of our work. We have appointed an Advisory Board, to give oversight to the organisation's activities and track progress against its aims and objectives; a Management Group, meeting monthly to set plans, targets, and to deliver research projects and events; and an Administrator, to run the organisation day-to-day and facilitate communications.

Advisory Board members:

- Chair: Sue Roaf, Heriot-Watt University
- Rachel Dunk, Crichton Carbon Centre
- Gary Davis, Ecometrica
- Karen Turner, Heriot-Watt University
- Angela Druckman, University of Surrey
- Adam Hawkes, Imperial College London
- Vicky West, Forestry Commission
- Keith Baker, Glasgow Caledonian University
- Sam Chapman, Heriot-Watt University
- Camilla Thomson, University of Edinburgh

The Advisory Board will be supported by a *Management Group* made up of Sue Roaf, Keith Baker, Rachel Dunk, Sam Chapman and the Administrator.

Edinburgh Centre for Carbon Innovation affiliation

ICARB is now an affiliated network to the Edinburgh Centre for Carbon Innovation (ECCI) who offer us free rooms for our workshops, publicity, and administrative support. We have partnered with ECCI on all our workshops and events, helping greatly with our reach and contributing to the ECCI's mission to support dissemination of climate change research to practitioners.

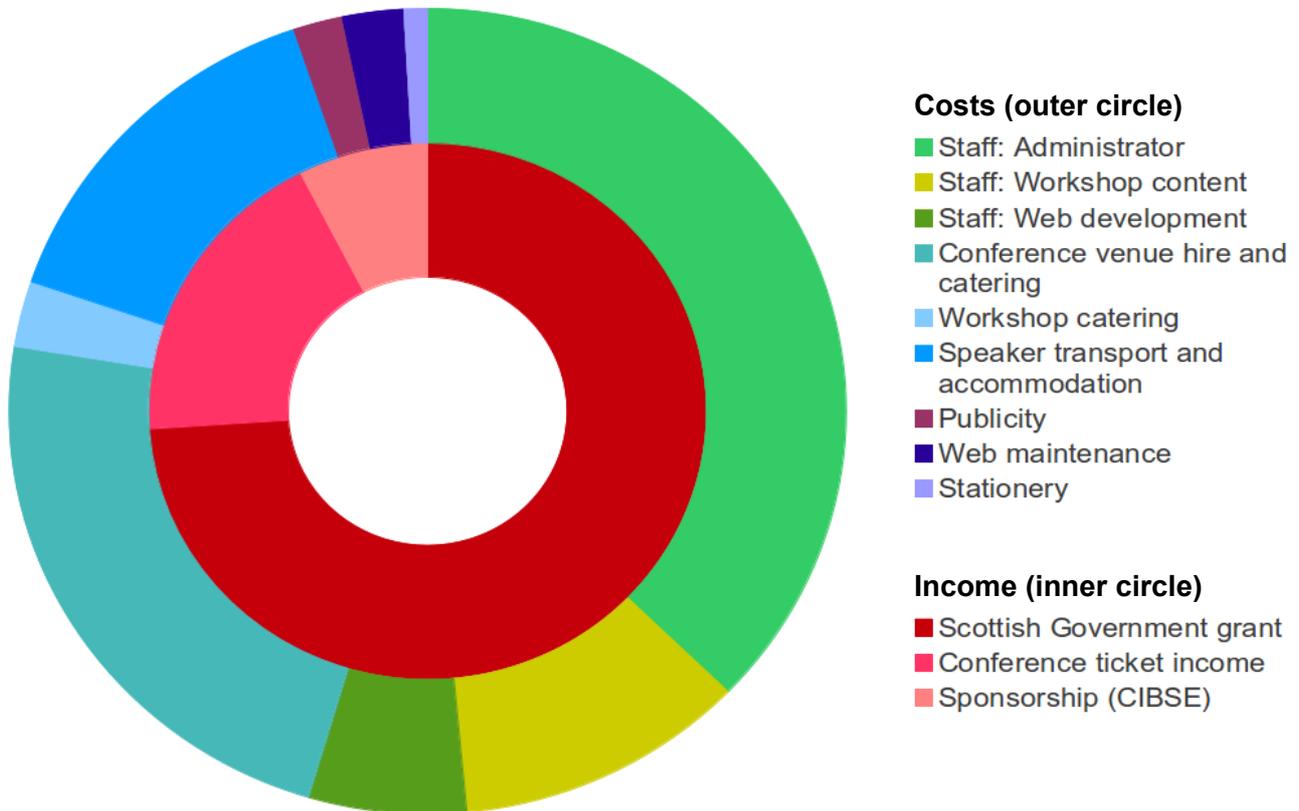
Becoming an incorporated organisation

We have been assessing the benefits and risks of formally constituted ICARB as a Scottish Charitable Incorporated Organisation. As a first step towards legal incorporation, ICARB produced an analysis and draft constitution which has been considered by the Management Team. Given the financial risks involved, it was decided in 2013-14 to ask its new Advisory Board Group to consider this proposal in more detail and make a final decision, including consideration of alternatives to formal incorporation.

Professor Sue Roaf, Heriot-Watt University

Finances

In the past financial year ICARB has made first steps into diversifying its income. Although still largely dependent for our activities on our Scottish Government grant (74%), we did raise £3,400 of our own funds. Most of this was used to support inviting expert speakers to our International Conference and to fund additional programme development. Staffing and event costs still make the vast majority of our costs, with most of our research and development work given in-kind by our network.



Costs

Item	Value
Staff: Administrator	£4,900.00
Staff: Workshop content	£1,480.00
Staff: Web development	£800.00
Conference venue and catering	£3,023.40
Workshop catering	£346.80
Speaker transport and accom.	£1,920.81
Publicity	£250.30
Web maintenance	£311.51
Stationery	£118.92
Total Costs	£13,151.74

Income

Item	Value
Scottish Government 2012-13	£9,800.00
Conference ticket income	£2,452.00
Sponsorship (CIBSE)	£1,000.00
Total Income	£13,252.00

Total balance held in reserve: £100.26

Ric Lander, ICARB Administrator