

## Time for nature

by Sharon Ament, Natural History Museum, London, UK

At the Ecsite Annual Conference 2011 in Warsaw, Poland, in the session called *Making It Count*, I aimed to put the argument that because biodiversity is such an all-encompassing topic, it is possible for any cultural body to address the issue within the context of its own mission or brand, whether you are a Canning Museum in Norway or a Science Centre in Slovenia.

From my own observations, my position as Chair of the Ecsite Nature Thematic Group and in my daily role as Director of Public Engagement at the Natural History Museum in London, UK, it seems to me that the wider science centre and science museum community is strangely disconnected from nature and broader life sciences topics.

I frame this assertion with caution because Europe has a long and esteemed tradition of natural history museums with broad and extensive collections. These museums' work contributes to our current understanding of nature and is grounded in scientific research. I write tentatively because I know that aquaria are at the forefront of environmental policy and awareness-raising. And I also caveat my claim with the knowledge that throughout Europe there are many centres located in environments such as wetlands or mountain regions which provide excellent interpretation and facilities which enable visitors to better enjoy and participate in the landscape. While Ecsite's membership comprises organisations from all the above categories, I stand by my recent observations which have fostered in me a nagging feeling that across the Ecsite network the theme of nature is seen to be the remit of specialised institutions and not something that a science centre can necessarily embrace. So I ask all the leaders, CEO's, explainers, exhibit developers, educators, finance directors, HR personnel, communicators, web developers and consultants in the Ecsite community who are reading this article to sit back and think about their organisation and how it engages with nature and life sciences. I ask you to consider it from an exhibit perspective, a programming perspective and from a bigger science in society perspective. I hope that after you have reflected there will be an avalanche of evidence that proves me wrong. My email



Stephen Long © The Natural History Museum, London

address is printed at the end for that very reason. For me, there are three compelling reasons to take nature seriously in our science centres and museums:

- Societal Need
- Engagement
- Scientific Literacy

### Context

But before we go into that, let's look at the European context within which we operate: Go to many of the environment publications coming out of the European Commission and you will get an understanding of the diversity, complexity and urgency of the issues. In their report on environmental statistics, Eurostat describes Europe as "a huge, diverse region with one of the most fragmented landscapes of all continents. Western Europe has more than 80% of land under some form of direct management. Consequently, European species are highly dependent upon semi-natural habitats created and maintained by human activity" and this wildlife exists and coexists in "countless different kinds of ecosystems such as farmland, rivers, sea coasts, inter-tidal zones, hot springs, riparian forests, steppes and cities". 64% of the population (501 million) in 27 member states live in urban environments, 56% live in rural areas. Rural areas cover 91% of all territory. Reviewing this description and its accompanying statistics caused me to reflect on the relationship between urban and rural Europe and to consider the fact that cities themselves are ecosystems. I don't know the exact proportion but I would hazard a guess that the vast majority of Ecsite members are located in cities and towns. Perhaps it's time to consider ourselves as part of that city ecosystem and develop even more programmes to help our visitors engage with the nature around them. If you want good examples of how to do that then you could look to the work of the members of Ecsite's Nature Group for a plethora of great ideas.

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Gender balance in the science centre and museum world



The statistics also reflect the reality of our intensively managed environment as highlighted by Prof. Jacob Wamberg in May at the Nature Group Workshop in Warsaw. His keynote address, *The evolution of the pictorial representation of Nature through time*, considered the human notions of nature, including romantic wilderness and bucolic perceptions as depicted through the art of landscape. In so doing, Prof. Wamberg raised the question as to whether there is any facet of our current natural world that is not shaped by humanity in some way. To my mind this (nature as a construct) is itself a rich and valid topic for any science centre or museum in terms of raising awareness of humanity's positive and negative impacts on nature.

With this background, let's consider my assertion that nature deserves a larger place in our science centres.

- **Societal Need** - science centres and museums are busy making the case that we are a vibrant part of current social discourse. If this is the case then why are we failing to engage across our network with one of the biggest issues of the day?

Without doubt nature is on people's minds. We are concerned by the impacts on wildlife and environments, we are fearful of living in a diminishingly diverse world, and what's more, we can actually see the evidence before us. We notice the impacts of falling fish stocks on the counters in supermarkets, and we recognise change over time as we see bird or insect populations fluctuate. In my own case, I note with sadness that I might never see again the huge flocks of lapwing *Vanellus vanellus* that used to populate arable fields in my childhood. Society and individuals have been mobilising in aid of the environment for some time. As I write, the Tour de France is taking place. It is with great delight that I noticed that the British cycling team, TeamSky, are raising funds in collaboration with the World Wide Fund for Nature (WWF) to buy one billion trees in a campaign called *Rainforest Rescue*. It is great to see this convergence of sport and the environment. Relatively recently, and certainly somewhat



London's Natural History Museum has created its own wildlife haven on one of the busiest roads in Europe

surprisingly, international environmental policy and policy fora have become big news beginning with the Rio Earth Summit in 1992, followed by the UN Climate Change Conference in Copenhagen in 2009, then last year's COP10 Convention on Biological Diversity in Nagoya. Looking forward, we can expect nature to be in the spotlight with the ten-year reprise of the Earth Summit, once again in Rio. The good news for our membership is that the Nature Group will be working on the Ecsite response to the Earth Summit with other partner organisations such as ASTC to mobilise the power of our global network. Another mechanism that has galvanised thinking and debate are the UN YEARS. We have just come out of 2010 International Year of Biodiversity, we are going into the Decade for Biodiversity and 2011 is the International Year of Forests. Put simply within this atmosphere of heightened awareness, discussion and debate: how can science centres fail to engage with the issues? I would contest that there is not enough space or talent applied in our science centres to this important social concern.

- **Engagement** - nature provides a way into deeper connection with hard science topics.

Nature is held close the hearts of many. At the Nature Group Pre-Conference workshop day we plugged into the deepest emotions and memories of nature and peoples' contact with it. The results were very powerful. There are few science-related topics that can elicit such a deep response. I believe that this can be used as a way to engage with people on a deeper level with science topics and themes. The wildlife film industry has had a huge impact over its long history, building global curiosity and passion for nature. As well as creating highly popular TV and cinema, natural history filmmaking has raised awareness of the world's wildlife and ecosystems, and latterly, the genre can be seen to be moving away from the purely descriptive toward more issues-based filmmaking. *Home* by Yann Arthus-Bertrand is a recent and impactful example. Artists like Arthus-Bertrand recognise the emotional and aesthetic power of nature and use this power to drive home strong points. This approach can also be used by science centres and museums. It is a model. Similar mechanisms can be deployed which enable us to present science in potent and equally powerful ways, creating exciting and stimulating experiences for our visitors.

- **Scientific Literacy** - nature provides an actual arena for participation with science, taking interactivity to a new and fundamentally deeper level.

Museums in particular have recognised the value of mass participation with citizen science programmes.



In Paris, the Muséum national d'Histoire naturelle has its wide-reaching Vigie-Nature programme, in the UK there is the very successful OPAL project and NHM Aarhus has the innovative *Backyard Biodiversity* programme. From such programmes, value is derived for research but also and significantly for the individuals who participate.

The evidence of the popularity of mass support and engagement with nature can be seen in the memberships of conservation organisations, for instance the UK's Royal Society for the Protection of Birds has over a million members. People want more and new ways of engaging.

Through real participation, science skills can be developed: observation, data-recording, statistics, awareness of biological science, behavioural science and more – the range is enormous. What better way to learn than by being a real player, in real science, knowing that your contribution counts?

So, in conclusion I hope that I have elicited some thought and consideration as to how you and your organisation might engage better with nature. I hope that my argument has been compelling enough to make you want to become a member of Ecsite's Nature Group and I hope that there is a lot more activity happening of which I am unaware. I would welcome a dialogue and would love to see examples of how you are working on nature.

I look forward to your emails: [s.ament@nhm.ac.uk](mailto:s.ament@nhm.ac.uk)  
Sharon Ament July 2011

Director Public Engagement Natural History Museum, Ecsite Vice President, Chair of the Ecsite Nature Group

Note: To get insight into the emerging field of Citizen Science, with over 600 peer-reviewed papers published, go to [www.citizenscience.org](http://www.citizenscience.org)

The remit of the Nature Group and its membership can be found on the Ecsite website: go to [www.ecsite.eu](http://www.ecsite.eu) and look under Thematic Groups.

Statistical references for this article were drawn from *Environmental Statistics and Accounts in Europe 2010* - published by Eurostat.

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The International Year of Biodiversity (IYB) in 2010 was a moment of global celebration: numerous public biodiversity events took place organised by diverse organisations, associations, private individuals and companies (Articus 1) (1). In particular, natural history museums and botanical gardens took this opportunity to raise awareness about biodiversity and demonstrated their expertise in biodiversity research and public outreach.

## Communicating biodiversity together: Lessons learned during the International Year of Biodiversity by natural history museums, botanical gardens and international organisations

by **Dr. Kristina Articus-Lepage, Public Awareness officer of the European Distributed Institute of Taxonomy (EDIT)**

As public awareness officer of the European Network of Excellence EDIT(2) which comprises several of the leading natural history museums and botanical gardens in Europe, I had the privilege to accompany these institutions in the preparation phase and during the International Year of Biodiversity (IYB). Several institutions received extra funding to coordinate national communication campaigns and to prepare special events. This led to an especially rich, diverse and innovative programme. Large national partnerships have been formed and many institutions collaborated closely with the Ministries of Environment (Articus, 2). This interesting situation merited a general debriefing and led to the EDIT Public Awareness workshop, 'Debriefing the International Year of Biodiversity' in January 2011. Here, 30 experts from 23 different organisations shared best practices and lessons learned that were gathered during the IYB. The workshop was also a moment to regain motivation after the

work done in 2010 and to discuss communication strategies for the Decade of Biodiversity ahead of us.

### The workshop

The one-day workshop for directors, heads of exhibition departments, communications officers and IYB coordinators took place at the Muséum national d'Histoire naturelle in Paris in the frame of the EDIT General meeting (Articus3)(3).

The workshop was initiated by EDIT-Public Awareness and the animation was conducted by Futerra Sustainability Communications. Participants presented a debriefing of their IYB activities with a focus on events that worked particularly well, best practices of working within large partnerships, and lessons learned while working with the media. They also discussed the events that failed to attract audiences as well as an analysis of messages that were not conveyed as well as they could have been. The presentations were followed by intense discussions and an honest debriefing that will surely enhance future communication about biodiversity.

Besides EDIT partners, representatives of leading international organisations were present, such as the Convention on Biological Diversity (CBD), the International Union for Nature Conservation (IUCN), Countdown

2010, the European Environmental Agency (EEA), BioNET International, and Botanic Garden Conservation International (BGCI).

The following EDIT and allied institutions were also present: Consejo Superior de Investigaciones Científicas (Spain), Freie Universität Berlin Botanical Garden and Botanical Museum (Germany), Hungarian Museum of Natural History (Hungary), Muséum national d'Histoire naturelle Paris (France), National Natuurhistorisch Museum Naturalis (Netherlands), Natural History Museum of Aarhus (Denmark), Natural History Museum of Barcelona (Spain), Natural History Museum London (UK), Natural History Museum Madrid (Spain), Royal Belgian Institute of Natural Sciences (Belgium), Royal Botanic Gardens Edinburgh (UK), Royal Botanic Gardens Kew (UK), Royal Museum for Central Africa (Belgium) and the Society for Management of European Biodiversity Data (New Zealand).

### The concerted celebration, partnerships and networks

The successful concerted global celebration of the IYB was enabled by the Secretariat of the Convention of Biological Diversity, who provided a communication kit with constructive messages and the official IYB logo. The kit was widely disseminated and the repeated and consistent messaging created good visibility. The logo raised the profile of individual public awareness events, thereby showing that the affiliates were part of a global event. This approach put competition aside and made way for new collaborations. Many new



2010 International Year of Biodiversity

and successful partnerships on the national and international levels, involving diverse partners, were created during the IYB.

Several national IYB partnerships were formed and led by EDIT institutions, for example in Belgium, the Netherlands, and the United Kingdom. The purpose of these networks was to mobilise many actors and present concerted communication to the general public and media. The partners come from the environmental and cultural sectors, but also involve individuals, companies and municipalities. The partners received support in the form of information, newsletters and assistance with media contact. An internet platform with an event calendar, background information and contact details enhanced the visibility and the media coverage of individual events. These networks were effective and it is hoped that they will continue; it was easier for networks to follow up on the international and political biodiversity agenda than it would have been for single institutions from countries where no national committee had been formed.

The CBD reached out to many stakeholders via national focal points and stimulated the creation of national IYB committees as was illustrated above. The CBD created a successful communication kit, designed by Futerra Sustainability Communication, which won the Green International Campaign Award. The IYB website of the CBD displayed background information, events, and served as a general reference point throughout the year. The website will also be used for the Decade of Biodiversity. A new logo has been developed, resembling the successful 2010 IYB logo, and the communication via 2.0 media (Facebook, Twitter) will be expanded(4).

Countdown 2010 created a large international network of various stakeholders, often companies, but also diverse organisations and private

individuals(5). The purpose was to stimulate as many stakeholders as possible to be biodiversity friendly, to give them support in their actions and to make their engagement visible. The partnership grew very fast and reached out to all continents. This successful initiative has now been taken over by its mother organisation, IUCN, and will continue in a new format.

The EDIT Public Awareness activities focused to large extent on the IYB. My role as EDIT Public Awareness officer was to provide partners with information, promote our activities, and facilitate exchange between different institutions. The online events calendar, BYSE 'Biodiversity Year Schedule of Events'(6), promoted the public events of taxonomic facilities and was created in collaboration between EDIT-Public Awareness and Countdown 2010. The tool was highly appreciated and scheduled 480 public biodiversity events from over 200 organisations in 45 countries (Articus 1). The biodiversity events of EDIT institutions, including public as well as scientific events, have been promoted within a report that has been added to the UNESCO resource website for biodiversity (Articus2). All EDIT institutions displayed the IYB logo in their communications work and participated in a concerted way during IYB celebrations.

## Communicating over a year and a decade

The communication campaigns for the IYB lasted an entire year with some beginning in 2009. It helped to have a climax during the campaign, which was in this case the Conference of the Parties of the CBD which took place in Nagoya, Japan. This conference dealt with biodiversity and the outcome is relevant for politicians and stakeholders such as natural history museums,

botanical gardens and aquaria.

For the Decade of Biodiversity we also have to identify highlights to structure our communication. The Biodiversity Day on 22 May could be an annual highlight. To split the decade, individual years could deal with different subtopics of biodiversity, for example the International Year of Forests. However, it will be difficult to maintain the attention of media, citizens and policymakers over an entire decade: There must be significant events and the communications angle must vary.

Natural history museums often comprise different research branches (aside from biology, they also address geology and palaeontology) which need to be included in our biodiversity communications campaigns. Biodiversity could also be communicated through multidisciplinary subjects: for example, Barcelona's natural history museum aligns itself with annual cultural topics in the city, thereby demonstrating how biodiversity is linked to all parts of life.

## The message and media

The consistent and positive messages provided by the CBD were very helpful to all organisations. The urgency of the biodiversity crisis was explained using hard facts and the overall focus was on actions to stop this crisis. This proactive approach has been mirrored by the media, which mainly reported on success stories. However, sometimes the media missed the message. Events were presented as happy family activities, instead of mentioning the topic of the event: biodiversity. Even high-level journals had difficulties covering the topic biodiversity as such. Media may therefore need supporting information including facts supported by research, success stories, images and even editorial help. Institutions could



Participants of the EDIT-PA workshop 'Debriefing the International Year of Biodiversity' (photo by Ulrich Schmidt)

propose closer collaboration with media in this case. It is not sufficient that a certain “international year” topic is being covered – we need to go further and suggest good stories to ensure better media coverage.

The national partnership of IYB-UK had a coordinated media contact. The secretary redirected the media to specialists and the event calendar promoted local events to local media. This media coordination worked well and enhanced the coverage of the individual events (for reports see IYB-UK website (7)). Several organisations used Twitter and Facebook for their campaigns, which worked particularly well when celebrities were involved.

## Biodiversity message and citizens

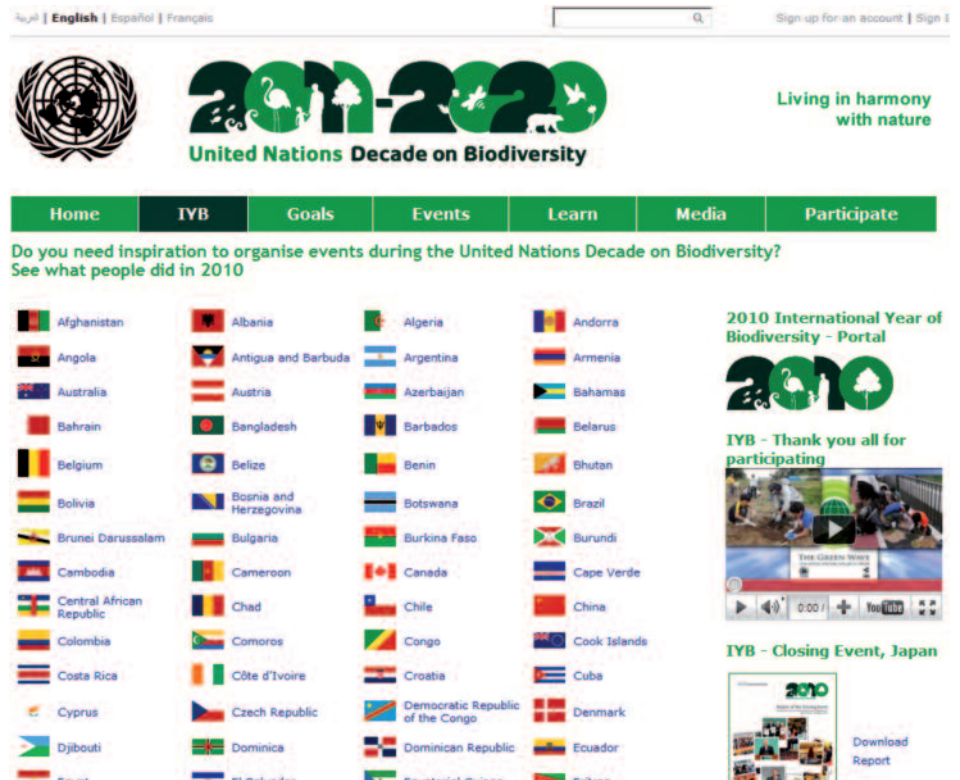
The term ‘biodiversity’ has been used for several years, however, from a marketing point of view it is not an ideal term. Citizens do not always understand the word, or it might even have negative connotations. One museum performed a test by naming a usually successful event ‘biodiversity festival’. The event attracted many fewer visitors than when it was called a ‘nature festival’. It should be decided on a case-by-case basis whether ‘biodiversity’ or a more attractive synonym should be used.

During the workshop we discussed whether it might be easier to understand biodiversity when it is explained in a large context. Right now several topics are communicated independently even though they are closely linked, for example climate change, biodiversity crisis, quality of life, poverty, ecosystem services, and sustainability. This could add to the confusion, but if we start to convey a narrative with connections and paint a full picture, people may situate biodiversity more easily in their daily lives.

## Addressing wider audiences

Several institutions had a positive experience sharing their stage with smaller organisations. National institutions have impressive localities and are widely acknowledged for their activities – attributes that smaller organisations may lack. During the IYB, many institutions collaborated with smaller NGOs and housed their events. These collaborations resulted in diverse and innovative agendas of which both sides benefited.

The internet may allow us to reach further than we had originally thought. The BYSE calendar, for



The United Nations Decade on Biodiversity website featuring worldwide International Year of Biodiversity success stories for inspiration

example, was first conceived for European taxonomic facilities. In the end, though, we scheduled events from all over the world and from diverse organisations. The potential for powerful promotion on an international scale was especially appreciated by smaller organisations and countries lacking strong IYB organisation. The CSIC of Spain created a downloadable online exhibition on biodiversity for Spanish schools. The format was very flexible and the exhibition could easily be adapted to the means and needs of different schools. It turned out that the exhibition also met the needs of organisations in Latin and South America where it was widely disseminated.

## Challenges for the future

The IYB put biodiversity on the political agenda. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem (ISPPB) has been formed, an entire Decade on Biodiversity has been proclaimed by the United Nations and Europe presented a new strategic plan for biodiversity. The year was a great opportunity to raise awareness in a positive way with the support of policymakers and special funding opportunities.

Biodiversity is still under threat and work must be sustained. The IYB succeeded in launching a proactive process, but even during the IYB we often failed to reach audiences outside the

already concerned community. We also neglected ways to measure the effect of IYB events on actual behaviour change. These will be the main challenges for us during the Decade on Biodiversity: To reach a wider audience and engrain the need for biodiversity-friendly lifestyles.

### All EDIT-PA components are available on [www.e-taxonomy.eu/node/895](http://www.e-taxonomy.eu/node/895)

- Articus1: Component C8.5.10 Report on trends in raising public awareness of biodiversity and modern taxonomy during the IYB
- Articus 2: C8.5.8 Report on EDIT concerted launch of the IYB within the EDIT institutions (long version)
- Articus 3: EDIT Public Awareness Workshop Report ‘Debriefing the IYB’

### Websites

- CBD IYB website: [www.cbd.int/2011-2020/iyb/](http://www.cbd.int/2011-2020/iyb/)
- EDIT website: [www.e-taxonomy.eu](http://www.e-taxonomy.eu)
- EDIT General Meeting website: [www.e-taxonomy.eu/node/922](http://www.e-taxonomy.eu/node/922)
- CBD Decade on Biodiversity website: [www.cbd.int/2011-2020/](http://www.cbd.int/2011-2020/)
- Countdown 2010 website: [www.countdown2010.net/](http://www.countdown2010.net/)
- BYSE calendar website: [www.countdown2010.net/byse](http://www.countdown2010.net/byse)
- IYB-UK partnership: [www.decadeonbiodiversity.net/2010-IYB-UK-partnership](http://www.decadeonbiodiversity.net/2010-IYB-UK-partnership)



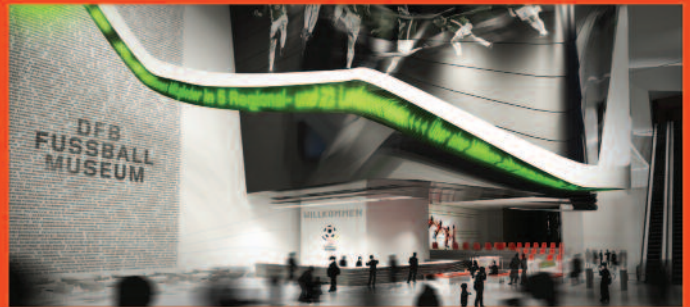
Experience Center, National Wetland Park, Qinhu, China



Expo Pavilion Urban Planet, Shanghai, China



Prince Salman Science Oasis, Riyadh, Saudi Arabia



DFB Soccer Museum, Dortmund, Germany



MS Wissenschaft, Floating Science Center, Germany



Discoveries, Temporary Science Exhibition, Mainau, Germany

Each exhibition poses a challenge to develop unique formats of storytelling and portrayal. This creates a structured experience which informs and touches the visitor at the same time.

## Every exhibition opens up a new world.

We will be happy to help you turning your subject into a special experience.

In December 2010, the Science Museum in London launched a new permanent display: The Atmosphere Gallery subtitled 'exploring climate science'. Despite its interactivity and futuristic design it is, at core, traditional. It presents a long history of climate science as a neutral and rigorous discipline. Given that the Museum has been pioneering more dialogic exhibits recently, for example 'Prove It!' in 2009, this straightforward approach raises questions. Was this a deliberate strategy to prove the rigour of climate science? Or, was it intending to strip back to their core mission - an explanation of hard science - to avoid the impression of campaigning?

## Displaying climate change: Back to basics?

by Marine Soichot and Bridget McKenzie



Image: Carlos Porto / FreeDigitalPhotos.net

The Atmosphere Gallery<sup>1</sup> is divided into five sections, each one mainly explored through interactive exhibits, all set in a spectacular and immersive scenography. The sections are: the climate system (sun's heat energy, past climates); Earth's energy balance (greenhouse effect); the carbon cycle (Keeling curve, study of ice core); 'what might happen?' (climate monitoring, predictions for 'Climate 2100'); our future choices (technological solutions, mitigation and adaptation to climate change). The focus is on contemporary science but this is placed on a historical continuum. For example, the second section profiles the pioneering climate scientists Fourier, Tyndall, Callendar and, significantly, Arrhenius, who showed in 1896 that humans were causing the greenhouse effect. This long history of climate science is also illustrated by a few objects, some very symbolic, such as an original Keeling sampling flask<sup>2</sup>. Backing all this, the Atmosphere website provides a large amount of material for follow-up learning<sup>3</sup>. The framing of the climate issue here is clearly scientific and technological. Moreover, the exhibition clearly aims to present the authoritative voice of science. Each section is introduced by a sentence to

contextualize the role of science: "science can show us how the climate works and what causes it to change"; "science can track what's already changing and help us imagine the future"; "science can show us how greenhouse gases work and why they really matter". The dominant voice is that of a hard scientist, rather than of social scientists or alternative thinkers. Although it

is science-focused, it does avoid 'scientism'. It tends to present science as a benign and neutral tool to make sense of and help us deal with climate change, rather than seeing it as the only solution: "Working out what's happening to our climate really matters for our choices today and into the future. Science doesn't have 'final answers', but it is a powerful way to make sense of this incredible and complex planet". The other dimensions of the climate issue - political, social, economic, ethical - are minor if not absent. Given that the Science Museum has broached these dimensions about other controversial issues, and does invite debate about climate change in their events and in some other smaller exhibits, these omissions are surprising. Indeed since 2002, the Science Museum has produced several exhibitions about climate change or related topics. These have been presented in the Antenna gallery, an area near the Wellcome building café dedicated to contemporary science and science news: "Climate change, the burning issue" (2002), "Can algae save the world?" (2007), "Does flying cost the Earth?" (2008), "Prove It!" (2009).

'Prove it!'<sup>4</sup> was designed on the occasion of the

Copenhagen conference that brought together all the countries in December 2009 to discuss what will happen after the Kyoto Protocol. It was a very minimal exhibition: visitors were invited to enter into a round space demarcated on the floor, to sit down on a 'mushroom chair' and watch a presentation. More in-depth content was available on touch screens, divided into six sections. Each one presented a perspective on the issue: the views of a climate modeler, a climate scientist, the UK, the United Nations, the global economy and developing countries. Therefore many of the stakeholders in the climate change problem were exposed. It raised various questions about the climate issue such as the relationships between North and South countries in terms of responsibility and equity. In 'Prove it!' climate change was not only a scientific problem but also a political, economic and social matter. The Science Museum therefore went further than the traditional approach which focuses on displaying scientific methods, tools and results in order to improve visitors' understanding of natural phenomena. 'Prove it!' caused a media outcry, not because it went beyond science but because the Museum appeared to be campaigning for strong action to tackle climate change. It attracted attention by apparently not admitting dissent from a belief in anthropogenic climate change, by saying that the exhibition will give "all the evidence you need to believe in climate change". The final feature, called 'voting station', was highly problematic because it seemed like a petition pledge. After visitors read the following proposition, they could choose "count me in" or "count me out" on a touch screen. I've seen the evidence. And I want the government to prove they're serious about climate change by negotiating a strong, effective, fair deal at Copenhagen.

<sup>1</sup> <http://www.sciencemuseum.org.uk/ClimateChanging/AtmosphereGallery.aspx>

<sup>2</sup> In 1958, Charles Keeling began collecting air samples to monitor the chemical atmosphere composition. This program continues today. It is the longest continuous record of CO<sub>2</sub> atmosphere concentration.

<sup>3</sup> <http://www.sciencemuseum.org.uk/ClimateChanging/ClimateScienceInfoZone.aspx>

<sup>4</sup> [http://www.sciencemuseum.org.uk/visitmuseum/galleries/prove\\_it.aspx](http://www.sciencemuseum.org.uk/visitmuseum/galleries/prove_it.aspx)



Learning on toadstools at the 'Prove It!' exhibit, The Science Museum, South Kensington, UK

We spoke to museum staff who argued that 'Prove It!' was not a campaigning effort. However, it clearly came across as a proposition led by the Science Museum (rather than an external agent) for visitors to send a message to Government asking for a strong deal on climate change. So visitors were invited to engage in political terms through the institution. Even if the Science Museum can be seen as neutral because visitors were free to choose their answer, the fact that the museum proposes any options at all means the institution is engaging politically - this is unusual if not outside of their mission. Indeed, the 'voting station' is clearly a tool the Science Museum designed to inform and shape political decision making. One can argue museums are not the place for conducting votes or polls. On the other hand, it is quite accepted that museums should be platforms for public debate about policy on scientific issues<sup>5</sup>. The aim is public participation and empowerment as museums and science centres can be considered "safe places for difficult conversation"<sup>6</sup>. But what is the purpose of dialogue within the museum if participants' voices are not heard outside museum walls and as such do not reach decision makers? Here is a fundamental question about the missions of

science museums and science centres. Most of the time, they are viewed as neutral disseminators of existing knowledge. Do they have a social and political role to take part in the democratic process? Can they set up tools for decision making and governance? Moreover, even if informing and shaping political decision making is part of museums' mission, are they able to do so and to manage the risk it represents?

In the 'Prove it!' case, something unexpected happened: 80% of the gallery visitors chose "count me in" but on the website version 80% chose "count me out". Apparently, climate denials overwhelmed the vote so it appeared that the majority opposed a strong climate deal, which then received press coverage causing a PR crisis for the Museum. For example, the Sunday Telegraph reported "a poll by the Science Museum designed to convince the nation of the peril of climate change has backfired after being hijacked by skeptics"<sup>7</sup>. Whatever the relevance of the "voting station", this episode highlights what may be obvious but is still important: online and museum exhibitions are very different public spaces and with very different audience reactions. The Science Museum has experimented with discussion

exhibits in its galleries for a long time without having such problems<sup>8</sup>. But in this instance, the media, the public and their practices are different. So the message can't be the same. The institution has to rethink the way it communicates with its public and adapt, especially in order to manage the inevitable openness of online media.

Given what happened with 'Prove it!' - and the experience gained since 2002 with the other Antenna exhibitions on climate change - the team developing the Atmosphere Gallery had to take a step back. Meanwhile, they felt a shift toward climate change in the public space. One month before the Copenhagen conference, climate scientists were shaken by what has been called *Climategate*<sup>9</sup>. This was reinforced in January 2010 with a media storm around an error in the fourth IPCC report about Himalayan glaciers melting. Although the wider truths were not well reported, this unleashed numerous attacks on the credibility of the climate science community and cast a shadow on IPCC's credibility. The build-up to the Copenhagen conference had raised strong hopes for international political negotiations but it closed without a clear post-Kyoto deal because climate change no longer seemed a major priority for most countries. The Atmosphere team decided to rethink the exhibition concept, which had been to "change the way people think, talk and act around climate change". Instead, they thought they should step aside from general debate about climate change and focus on delivering the science. This was reinforced by discovering more about audiences' levels of knowledge. The team had assumed the public knew the scientific basics so that the focus could be on the broad political, social and economic issues. A study by the Audience Research team showed visitors did not understand some planned contents demonstrating human causes of climate change. Moreover, evaluation of 'Prove it!' showed that visitors feel there is a lack of evidence in the exhibition's content. They "want access to in-depth scientific evidence that supports climate change theory and explains the science and processes behind any statements that are made"<sup>10</sup>.

<sup>5</sup> Bradburne, J. M. (1998). "Dinosaurs and white elephants: the science center in the twenty-first century." *Public Understanding of Science* 7(3): 237-235.  
 Einsiedel, A. A. and E. F. Einsiedel (2004). *Museums as Agora: Diversifying Approaches to Engaging Publics in Research*. Creating Connections. Museums and the Public Understanding of Current Research. D. Chittenden, G. Farmelo and B. V. Lewenstein. Walnut Creek, AltaMira Press: 73-86.  
 Cameron, F. (2005). "Contentiousness and shifting knowledge paradigms: The roles of history and science museums in contemporary societies." *Museum Management and Curatorship* 3: 213-233.  
<sup>6</sup> This was stated in the Toronto declaration as mentioned by Andrea Bandelli in a previous ECSITE newsletter issue. Brandelli, A. (2010). "Real participation: from fear to trust." *Ecsite Newsletter* 82: 2-3.  
<sup>7</sup> « Scpetics hijack environment poll » *The Sunday Telegraph*, 29th October 2009.  
<sup>8</sup> Mazda, X. (2004). *Dangerous Ground? Public Engagement with Scientific Controversy*. Creating Connections. Museums and the Public Understanding of Current Research. D. Chittenden, G. Farmelo and B. V. Lewenstein. Walnut Creek, AltaMira Press: 127-144.  
<sup>9</sup> Emails of researchers at the University of East Anglia were hacked and their messages made public. Some were speaking about a "trick" climate model scientists would use. The press coverage was important and caused a scandal.  
<sup>10</sup> Online Evaluation, "Prove it!" website, November 2009, Science Museum.



Although the study also showed that a majority of visitors didn't reject the idea that a museum should express views or calls to action about climate, it suggested that this exhibition needed to provide access to the science, rather than bring public opinion to the fore which could be unhelpfully polarizing. These results reinforced the idea that the museum should come back to its core mission - explaining how scientists work and what science is saying - in the new gallery.

Whatever the key reason, the Atmosphere team decided they should "present the scientific facts and enable people to deepen their understanding and engagement" according to the project leader we met in May 2010. The team argued that the display should not take a stance on political action but should present scientific evidence which supports the comprehension of anthropogenic climate change and the concerns that it is having serious consequences, as well as how science and technology could help tackle climate change. By providing access to the science, they wished to facilitate informed discussion about climate change. So they came back to a more traditional approach: the museum as a neutral place where science is presented in an objective and balanced way. Regarding 'Prove it!' and other Antenna exhibitions, we can't say that "only the thought of taking a political stance, or a more activist role in society is abhorred and rejected, fearing that it would compromise the aura of impartiality", as Andrea Bandelli identifies in many institutions<sup>11</sup>. However, if you were to visit only the Atmosphere gallery, you might say the Museum avoids the difficult conversations, for example, about whether it is possible to adapt to runaway climate change, or whether climate change should be tackled through industrial growth or the opposite.

The political, social, economic, ethical dimensions of climate change are not absent from the Science Museum's overall offerings. Indeed, the Atmosphere gallery is complemented by a three-year activity programme through which these dimensions are raised in more participatory ways. According to the staff, this programme was not an afterthought but an integral part of the overall offer to provide dialogue when and where it will be most effective. This exhibition requires a lot of concentrated reading and so may not be the best space in which to create real discussion and dialogue. Stating "Now you can talk" is often not enough to generate talk. In exhibitions, dialogic spaces such as scientific cafés often stay empty and features through which visitors can leave comments don't enable real discussion.

Dialogue events in a dedicated place and time, such as Nature Live at the Natural History Museum or at the Science Museum's Dana Centre - seem to be much more effective. So the Science Museum addresses the extra-scientific issues of climate change through this "climate change programme" that can adapt to current times and allow public response to the changing social, political and economic contexts. Besides, lots of content is available online to stimulate learning and discussion elsewhere. According to Chris Rapley, previously Director of the Museum, "a huge effort in providing clever, scientifically rigorous, and engaging material to deepen understanding of cyber-visitors and those who wish to follow-up after a physical visit". The website also provides a game, Risks<sup>12</sup>, in which you have to manage resources and deal with threats in order to grow a plant. So the Science Museum combines three dimensions in dealing with climate change: the gallery experience, the online media experience, and the dialogic experience that unfolds through participating in both museum events and online debates. For each medium, there is a suitable message: In terms of engagement, this strategy allows the targeting of different audiences in different ways and responds more quickly to particular moments of public interest so that, in the gallery, content is mainly electronic and easily updated to ensure accuracy. In terms of science communication, it allows visitors to find a balance between delivering validated information and displaying different voices and opinions. So it helps avoid two pitfalls: a top-down approach where visitors are seen as empty heads to be filled with knowledge – otherwise known as 'the deficit model' – and ultra-relativism tact where one voice is equal to any another in a discussion.

Some of the Museum staff feel strongly that climate change is a major issue for humanity. They want to communicate with the public and to do their part by

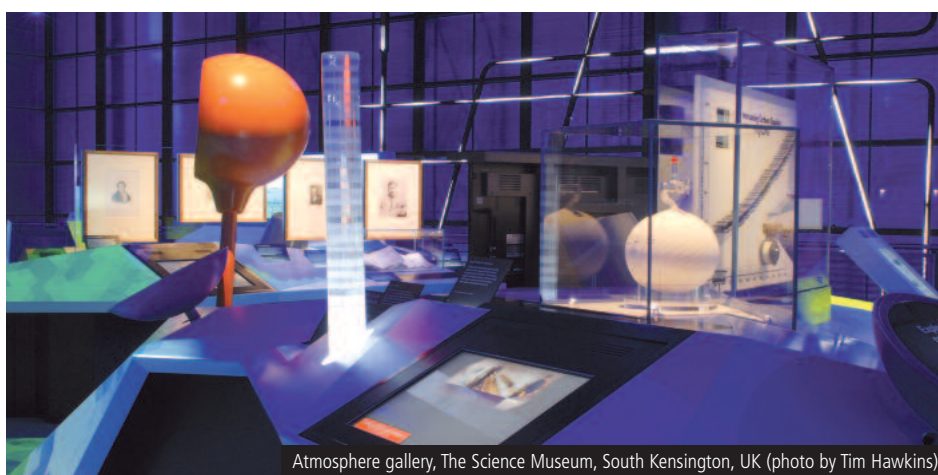
taking action. How can they do so without moving away from presenting the scientific basics (which is their core mission), and on the other hand, without campaigning in ways that only non-governmental charities have the freedom to do? In other words, there is tension between a strong willingness to encourage social change and an imperative of 'neutrality' and 'impartiality'. The Science Museum has found the following trade-off: It chose to engage as an institution by reducing its carbon footprint and signing the 10:10 campaign. In this way, the Museum steps back from an interventionist approach, and set an example without dictating to people that they should do the same.

In this article we have talked a lot about the institution and staff members. What about the visitors? We must remember that they are the main characters in a museum or a science centre! How do visitors feel about the Atmosphere gallery and the Climate Changing programme? It is a bit early to draw a conclusion as an evaluation is in progress. What we can say is that the gallery has so far exceeded the Science Museum's expectations in terms of visitor numbers: over 340,000 for seven months while the estimation for the first year was 400,000. It seems visitors are interested enough in climate change to find the Atmosphere gallery and spread good words about it with others.

Marine Soichot is a science and environment communication consultant based in Paris. Read her blog at: [www.marinesoichot.com](http://www.marinesoichot.com)

Bridget McKenzie, Director of Flow Associates, made editorial contributions to this article. Read her blog at: <http://ecoch.wordpress.com/>

*This article is drawn from Marine Soichot's PhD thesis, defended at the National Natural History Museum in January 2011. The research about the Science Museum was conducted during Soichot's time as an invited PhD student at King's College London.*



Atmosphere gallery, The Science Museum, South Kensington, UK (photo by Tim Hawkins)

<sup>11</sup> See previous reference.

<sup>12</sup> <http://www.sciencemuseum.org.uk/ClimateChanging/Rizk.aspx>

A new European programme mobilising civil society and stakeholders on sustainable seafood consumption

## Mr. Goodfish, a sustainable seafood programme in Europe

by Philippe Vallette  
Co-chair, World Ocean Network  
General Manager, Nausicaá

Acknowledgements to:  
Paco Franco Del Amo, Manager, Aquarium Finisterrae, Spain  
Stefano Angelini, Head of Education, Acquario di Genova, Italy

### Why should we care for the marine environment?

#### An ocean of life for an inhabitable planet

The sea, coastal areas and the land are interconnected. Thanks to the wind, waterways and currents, everything circulates between the atmosphere, the land and the ocean and from one oceanic area to another. The ocean exchanges gases with the atmosphere and influences the composition of the air we breathe.

- Phytoplankton provides about 50 % of the oxygen present in the air, which is more than all the tropical forests in the world!
- Marine environments, such as mangroves, sea grass beds or marshes, capture large quantities of carbon. They limit the acidification and warming of the oceans by absorbing the carbon dioxide created by human activities. The ocean thus plays a major role in the global climatic machine.

#### Seas and coastlines - indispensable services

Marine and coastal biodiversity is a source of numerous products such as food, energy, medication and substances for industry. It also provides essential services to man by supplying oxygen, purifying water, and recycling organic matter while preserving our health and safety.

#### What is at risk?

Studies estimate that the value of the services provided by all terrestrial ecosystems is 1 to 3 times the world's gross product. Coastal environments alone - estuaries, coastal wetlands, sea grass and algae beds, coral reefs and continental shelves - represent 43 % of the total, while they cover only 6.3 % of the globe's surface area.

Today, biodiversity is threatened by human activities such as the degradation of environments, pollution, invasive species, and overexploitation of natural resources, climate change and acidification of oceans:

- two-thirds of all natural environments are seriously degraded and current species extinction rates could

- reach 1,000 times the "natural" rates;
- 80% of fish stocks are overexploited or exploited to a maximum level;
- the majority of world's coastlines are affected by erosion;
- according to the Red List established by the International Union for Conservation of Nature, 30 % of shark and ray species are threatened;
- 80 % of pollution comes from land based sources: pollutants travelling through the air or rivers and eventually entering the sea where they affect marine life.

The loss of ecological services associated with the decrease in biodiversity has significant economic consequences: it could represent several billions of dollars per year.

### How can we care about the marine environment?

#### What role can science communicators play to mobilise civil society?

At a time when 85 million tons of sea products come from fisheries, when aquaculture produces already 30 % of our seafood and fisheries provide direct and indirect livelihoods for 400 million people and when the FAO considers that 80% of the world's stocks of fish are being fished to the limit or even beyond, everyone involved - fishermen and processing industrialists as well as scientists and people in favour of protecting nature - all agree that it is essential and urgent to encourage sustainable practices for fishing and aquaculture at all levels, from the exploitation of the resource to its consumption. All agree on the need to implement and ensure the observance of the management measures adopted, for example by combating illegal and unreported fishing more effectively. Most agree that it is necessary to provide consumers with information they can easily understand.

We believe it is crucial now to mobilise the civil society, as its members have two-fold power:

- as consumers they act by their purchasing choices;
- as citizens, the positions they adopt have an effect on the players involved and on decision-makers.

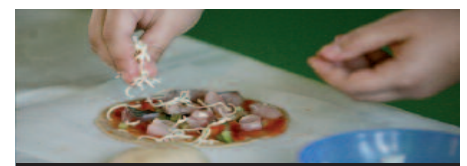
Aquariums, zoos, science and natural history museums are located at the crossroads of various groups of the public and the players involved - institutions, scientists, professionals and industry, the media, and the general



©Acquario di Genova, Laboratorio Scegli il Pesce Giusto at the ADG. Participants practice and experiment with seafood preparation techniques and recipes

public. In Europe, they are visited each year by over 150 million people.

If one million people, less than 1% of the annual visitors to European aquariums, zoos and science museums alone, changed their choice of fish for just one meal by choosing to eat 150 g of a species of fish being exploited in a sustainable fashion, (corresponding to about 300 g live mass of fish), 300 tons of the most threatened fish would be preserved. We have the ability to reach 150 million people each year, and not for one meal only!



©Aquarium Finisterrae, Cooking workshop for children in the Aquarium Finisterrae: The Atlantic mackerel pizza, one of the recipes to prepare a delicious Mr.Goodfish recommended species dish

A European public survey conducted in the framework of the Oceanics project funded by the European Commission in 2003 found that:

- visitors to aquariums and science centres want to know more about the human impact on the marine environment and what they can do to improve it, i.e. they are ready to understand the need for sustainable fisheries and responsible seafood consumption;
- they are ready to change their seafood consumption habits and give preference to less rare species or pay a little more for sustainable species, i.e. they are ready to take action on an everyday basis by adapting their consumer choices;
- aquariums, zoos and scientific museums come in third place (after television and newspapers) as sources of information about the sea but are, however, considered the most trustworthy.

Many aquariums have already set up displays, educational activities and special events about the sustainable seafood consumption. For the past ten years they have cooperated on the occasion of World Ocean Day and in the promotion of a responsible citizenship of the ocean by producing and distributing the Passport of the Citizen of the Ocean,

organizing youth, science communicator and stakeholder forums, e.g. the Blue Planet Forum at the Committee of the Regions in Brussels in 2007.

## Seafood consumption: a means to mobilise the general public

The Mr. Goodfish programme is a large scale European initiative that aspires to change the behaviour of seafood consumers in Europe by empowering them sustainably. We believe that the purchasing power of the civil society in support of sustainable fisheries can improve marine resource management decisions which will lead to conservation outcomes and, as a result, reduce human pressure on fisheries.

By using multiple methods of information and education within the range of participating institutions, the programme upgrades the European citizens' knowledge of sustainable seafood consumption and explains why there is a need for it. It gives them the means to make informed and sound choices when buying seafood and helps them to become advocates for environmentally friendly seafood. The programme embraces the mobilisation of the entire fishing sector: from local and regional actors such as fishermen, to wholesalers and retailers including restaurant owners and chefs, catering schools and canteens, fishmongers, fish processors and other seafood businesses by establishing partnership schemes with them. They are given the opportunity to be educated on the need for sustainable fisheries, provided with tools so that they could incorporate sustainable seafood options into their repertoires of professional activities. The assumption is that the change in purchasing behaviour combined with the promotion of good fishing practices will allow to involve all players in a concerted sustainable management of marine resources.

## Mr. Goodfish, a unique communication concept for more efficiency

For effective engagement of the consumer, the communication concept is simple, direct, easy to understand and memorize, and it is rooted in everyday life: "if you want to continue eating fish, it is important to choose the right fish starting today", i.e. choose the species that were caught in the best sustainable manner, respecting quotas, sizes, fishing seasons and places, and choose processed fish products made of sustainably captured species. The bottom line is that consumers must

perceive seafood as being precious and, in this context, that they have made the right choice.

The Mr. Goodfish programme observes a number of rules for the most successful communication effect:

- the bearer of the message is close to the consumer, known and recognised, and credible, e.g. a fishmonger or a chef;
- the message is neither moralising nor authoritarian, but positive, providing a service in the consumer's everyday life;
- the entire sector is involved - from the fisherman to the consumer, each in their own way, in their own role, and in their interest.

The Mr. Goodfish's positive recommendations to guide the consumer are established seasonally on a regional basis with the participation of scientists, marketing and fishery stakeholders. Only the sustainable seafood species that are unanimously approved by all stakeholders are listed and promoted by the Mr. Goodfish programme.

## What are we doing?

### Mr. Goodfish, a programme to engage all publics

The Mr. Goodfish programme has been initiated by the World Ocean Network and launched by three aquariums: Acquario di Genova in Italy, Aquarium Finisterrae in Spain, and Nausicaá, Centre National de la Mer in France. Together they reach a public of 2.2 million people per year. The 2010-2012 pilot phase includes:

- in-situ towards their visitors to improve and deepen the general public's knowledge of sustainable consumption of seafood and management of marine resources,
- ex-situ: to give the public an opportunity to perform an immediate concrete sustainable action by mobilising local partners such as restaurant owners, fish retailers and fish processors,
- and through communication multipliers (Internet, newsletters, schools, publications, mass media): to reinforce the impact of the Mr. Goodfish programme, to give it a universal dimension, to assist consumers in their everyday consumption choices and mobilise new publics to increase the impact of the campaign.

### Mr. Goodfish: a branded joint programme of activities in France, Italy and Spain

The three partner aquariums - the Acquario di Genova, Aquarium Finisterrae and Nausicaá - carry out multiple activities to assist consumers in making wise sustainable choices while buying seafood: interactive exhibits, displays, educational workshops and shows, public awareness special events, sustainable seafood festivals, websites, and sustainable seafood cooking demonstrations and recipe promotion. Some flagship activities and events include a "tasting test" which enables the visitors of Nausicaá to discover and savour one of the locally recommended fish species. In the Acquario di Genova and the Aquarium Finisterrae visitors can learn how to

cook a recommended species. The recipe for a delicious Atlantic mackerel pizza is very popular among pupils who come to the Aquarium Finisterrae. The demonstration recipes are elaborated with the help of local chefs and published on the [www.mrgoodfish.com](http://www.mrgoodfish.com) in English, French, Italian, Galician and Spanish.

The partner aquariums encourage local restaurant owners and catering schools and canteens to feature sustainable seafood on their menus.

The Mr. Goodfish programme is represented by Gaël Orioux, a renowned Michelin guide star listed French chef. He has endorsed the programme wholeheartedly and has been promoting it whenever possible at different levels. For instance, he prepared an official lunch for the Commissioner Mrs. Maria Damanaki and European decisions makers on the occasion of the last Seafood Week in Brussels, and he led the last Slowfish event in Italy with the "Theatre of Taste" for consumers. Gaël Orioux's eagerness to promote Mr. Goodfish principles in each of his numerous interviews to the press has won him the honorary title of Mr. Goodfish Ambassador.

### Mr. Goodfish: some first results

So far, in one year in Europe, over 3 000 000 visitors have been exposed to the Mr. Goodfish programme by visiting Nausicaá, the Acquario di Genova and the Aquarium Finisterrae. More than 10 000 people have discovered the Mr. Goodfish programme through regional and national events in France, Italy and Spain, such as e.g. La Semaine du Goût festival and Nature Festival. 300 000 leaflets have been distributed by the three aquariums and their programme partners. Eighty restaurants, 280 fishmongers and 13 fish food professionals have joined the programme in France, Italy and Spain. In France, Métro Cash&Carry, the international wholesale leader for professionals, supports the programme.

On Mr. Goodfish website, [www.mrgoodfish.com](http://www.mrgoodfish.com), 49 000 pages have been consulted and the seafood lists have been downloaded 17 000 times.

A media campaign has been developed in three countries, with more than 180 press articles, 35 TV programmes, 38 radio broadcasts and more than 120 articles on the Internet.

### Contact

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©Aquarium Finisterrae, La Coruna fish market:  
A fish stand selling Mr.Goodfish recommended fishfood

## SCIENCE ADVENTURE ODYSSEUM COLOGNE, GERMANY

The Odysseum is more than a science centre, it is a science adventure. The 5,500 square metres are divided into five themed worlds with more than 200 exhibits. The theme world "Life" deals with nature-related issues like photosynthesis, sexuality and evolution. The Odysseum is a real "hands on" location. Our guests are welcome to touch, experience, and get involved with all our exhibits.



Odysseum Cologne - fun and learning in one. A family tries out the interactive photosynthesis exhibit

Contact: Dr. Armin Frey  
armin.frey@sk-stiftung-csc.de  
www.odysseum.de, www.sk-stiftung-csc.de

## WATERWORKS AT BLOOMFIELD SCIENCE MUSEUM JERUSALEM, JERUSALEM, ISRAEL

Our decision to develop exhibitions on water was prompted by its relevance to all the communities in our region. Through interactive displays, up-to-date water research and hands-on laboratory experiments, the exhibitions feature water treatment processes and saving methods. Most popular is the desalination of seawater by using a tinted salt solution in a homemade reverse



Working with water at Bloomfield Science Museum Jerusalem

osmosis device, explaining the desalination process and allowing visitors to understand the required investment of energy and its environmental and economic impact.

Contact : Eti Oron, Educational Projects Manager,  
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## PLANTASTIC! A THEME PROJECT ABOUT THE SECRET LIFE OF PLANTS, TECHNOLIS®, THE FLEMISH SCIENCE CENTRE, MECHELEN, BELGIUM

Technopolis® visitors can currently discover the wonderful world of plants through 40 interactive exhibits, shows and demonstrations about how plants interact with each other, insects, animals



Interacting with the world of plants at Plantastic!

and people. The exhibition explains how plants are essential for the world's survival. Exhibits are grouped in 5 themes: moving, feeding, reproduction, surviving and providing. Schools can download educational material to continue experimenting in the classroom.

Contact: Patricia Verheyden, Experience Director,  
Technopolis®  
patricia@technopolis.be, www.plantastic.eu

## BIODIVERCITY, A PERMANENT EXHIBIT AT THE NATURAL HISTORY MUSEUM, BRUSSELS, BELGIUM

Who would have thought that a slowworm could be hiding in a corner of your garden? Have you ever tried to follow a blue-winged grasshopper along the railway verge? Or have you experienced a day in the life of a hedgehog yet? Even though the city may sometimes appear gloomy and grey, it is full of surprises! Specimens, photos, films and interactive material help explain what the biodiversity in the city entails. Moreover, you can



Browsing the biodiversity of the city at the Natural History Museum in Brussels, Belgium

play an active role with the aid of computer simulations and take several measures in order to protect the biodiversity in the city. Come and discover the city's biodiversity in **BiodiverCITY**, a brand new permanent gallery at the Museum.  
www.naturalsciences.be/museum/biodivercity

Contact: Michèle Antoine  
michele.antoine@naturalsciences.be

## SENSES!, NATURAL HISTORY MUSEUM, BRUSSELS, BELGIUM, 6 OCTOBER 2011 - 2 SEPTEMBER 2012

This interactive exhibition focuses on human and animal senses. You see, hear, feel, taste and smell... this is a real delight. Our senses determine how we perceive the world and how we should respond to external stimuli. Find out the frequencies you can hear and if you can recognize different odors. View your taste buds under the microscope and see what places of your body are more sensitive than others. Test how well you use UV light to find nectar like a bee, and try to be like a bat catching moths with the help of echolocation. Are you as good at sniffing out drugs as the police dog, Thor? After these experiments you will look at some animals in a different light. Senses! - a sensory experience for families with children from six and up, with a special route for toddlers (3-6 years).

Contact: Katelijne De Kesel 0032 2 627 45 24  
katelijne.dekesel@naturalsciences.be



Experimenting with the senses at the Natural History Museum in Brussels, Belgium

## **■ THAT WAS WARSAW 2011**

Copernicus Science Centre played gracious host to more than 850 attendees of the Ecsite Annual Conference held in Warsaw, Poland in late May 2011.

Participants were motivated and inspired by the more than 75 sessions on offer and a particularly memorable keynote speech from Michael Jones, Chief Technology Advocate at Google, who talked about the positive and harmful effects of knowledge in the internet age. Ecsite sends warm appreciation to the staff of Copernicus for executing a professional and spirited conference.



"Networking" taken to a whole new level during the Ecsite Annual Conference Nocturne, 27 May 2011, Copernicus Science Centre



Antonio Gomes da Costa takes the floor during the Pre-Conference workshop for explainers, 24 May 2011, Copernicus Science Centre



The Business Bistro from above, 26 May 2011, Copernicus Science Centre



Michael Jones, Chief Technology Advocate at Google, delivers a memorable Keynote speech, 27 May 2011, Copernicus Science Centre

Pick out friends and colleagues in the 400-plus photos available on Ecsite's Flickr account: [www.flickr.com/photos/ecsitem/sets/72157626669401903/?page=5](http://www.flickr.com/photos/ecsitem/sets/72157626669401903/?page=5).

## **■ JOIN US FOR THE ECSITE DIRECTORS FORUM, COLOGNE, GERMANY AND KERKRADE, THE NETHERLANDS, 24-26 NOVEMBER 2011**

More than ever, we are being asked to acquire new professional expertise to keep pace with our constantly evolving societies. As a nice complement to last year's Forum which addressed Change, we follow in 2011 with Crossing Borders: a look at ways to cross thresholds of innovation, sustainability, creativity and development strategies. We will look for inspiration from outside our field with four engaging keynote speakers who promise exciting, broad perspectives. Participants will spend both nights at accommodation in Cologne and a bus service will provide transport to and from Continium Discovery Center in Kerkrade on 25 November where a segment of the day's activities will take place. The Ecsite Directors Forum is only open to Ecsite's Full Member institutions.

Contact: Marzia Mazzonetto, Ecsite Projects Coordinator  
[mmazzonetto@ecsitem.eu](mailto:mmazzonetto@ecsitem.eu).

## **■ ECSITE ANNUAL CONFERENCE 2012: SPACE AND TIME, UNLIMITED, CITÉ DE L'ESPACE, TOULOUSE, FRANCE, 31 MAY - 2 JUNE, 2012**

The call for proposals for Europe's ultimate science communication event is now open on the conference website: [www.ecsitem.eu/annual\\_conference](http://www.ecsitem.eu/annual_conference). You can look forward to cutting-edge developments in the field, over 70 inspiring sessions, debates, workshops, a range of warm social engagements and unparalleled networking opportunities for which Ecsite Conferences have become famous. Two days of Pre-Conference Intensive Workshops will take place at Cité de l'espace on 29 and 30 May and the main Conference will be held at a state-of-the-art venue in central Toulouse. The city's famed Natural History Museum is also a partner of this year's conference.

Contact: Aliko Giannakopoulou, Ecsite Conference Coordinator,  
[agiannakopoulou@ecsitem.eu](mailto:agiannakopoulou@ecsitem.eu).

## **■ PLACES**

Science Cities Workshops, a component of PLACES run by project partner ERRIN, will take place in Iverness and Glasgow, Scotland on 4 and 6 October 2011 respectively. The Scotland workshops will identify tangible and specific actions and trainings to move the PLACES project forward in the region. The two workshops will involve a mixture of presentations, group and open panel discussions, and will attract local authorities as well as representatives from education, science and research, business and industry and science engagement.

Contact: Claire Robertson  
[Claire.Robertson@scotent.co.uk](mailto:Claire.Robertson@scotent.co.uk).

Visit [www.openplaces.eu](http://www.openplaces.eu) for more information about PLACES and to preview the many European cities and regions who are mobilizing to develop Local Action Plans to shape science communication policy in their communities!

## XPLORE HEALTH

An exciting new educational module called Biotechnology Revolution is now becoming available on the Xplore Health website. Videos and online games are already available in English and translations to other languages (Spanish, Polish, Catalan and French) will soon be available.

Check them out at the Biotechnology Revolution page [www.xplorehealth.eu/en/students/biotechnology-revolution](http://www.xplorehealth.eu/en/students/biotechnology-revolution). New modules on genomics, mental health, AIDS, cardiovascular diseases and obesity will be available in the future.

Keep abreast with the project by signing up for the Xplore Health newsletter on the right-hand side of the website: [www.xplorehealth.eu/en](http://www.xplorehealth.eu/en).

Contact: Marzia Mazzonetto,  
Ecsite Projects Coordinator,  
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## OPEN SCIENCE RESOURCES

Science centre and museum communicators learned how to use the Open Science

Resources portal to create high-quality educational content in the Digital Resources Workshop on 25 May, 2011, during the Pre-Conference programme of the Ecsite Annual Conference.

The project was awarded the silver medal for Global Learning Impact at the Learning Impact 2011 international conference in Long Beach, California, May 2011.

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Ecsite Senior Projects Coordinator,  
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## A NEW PRESIDENT, NEW BOARD MEMBERS AND NEW STRATEGIC PLAN FOR YOUR NETWORK

The votes are in: Robert Firmhofer, Director of Copernicus Science Centre, has been elected the new President of Ecsite. Full Ecsite Members made their decision at the Annual General Meeting (AGM) which took place on day two of the Ecsite Annual Conference 2011 in Warsaw, Poland. Past President, Hans Gubbels, received a standing ovation from members for the achievements of his two-year term - not the least of which was pushing to develop Ecsite's first official Strategic Plan unveiled during the AGM. "I consider this Strategic Plan to be a clear guide for the Board and for the President," said Firmhofer during his campaign speech. Firmhofer will focus on the key priorities outlined in the five-year Plan such as improving and expanding services for Ecsite members, encouraging small science centres and focusing on the vibrant science centre community emerging in Eastern Europe.

### TAKE A PEEK INSIDE ECSITE'S STRATEGIC PLAN 2011-2015

Few organizations connect with as many people from as many countries or offer such a dynamic range of "science in society" perspectives and opportunities. With its diverse membership, creative energy and motivated spirit, Ecsite's future is exciting. Ecsite's five-year path is mapped by these priorities:

1. Strengthen the brand of Ecsite to signify its powerful voice in science communication

2. Monitor and develop operational standards in our field with a view to sharpening performance
3. Enable greater collaborative communication among members
4. Use resources to their fullest potential
5. Be a leading partner in fostering science centre activity on a global scale.

Want to know how we meet these goals? Visit our website to view the entire Strategic Plan which includes an inspiring overview of everything Ecsite has accomplished over the past two decades: [www.ecsite.eu/about/governance/strategic-plan](http://www.ecsite.eu/about/governance/strategic-plan)

### ECSITE STATS

- In 2000, the Ecsite Annual Conference attracted 300 people; by 2009 we had increased attendance to one thousand.
- The Ecsite Annual Conference is the second-largest and most culturally diverse science communication event in the world.
- In 2005, Ecsite participated in five European projects; by 2010 this number had doubled.
- Ecsite membership is growing with 50 countries represented as of 2011.

### WHO IS ON THE ECSITE BOARD?

#### EXECUTIVE COMMITTEE

##### President

Robert Firmhofer, Director, Copernicus Science Centre, Warsaw, Poland (Newly elected)

##### Vice-President

Sharon Ament, Director of Public Engagement, The Natural History Museum, London, UK

##### Treasurer

Michiel Buchel, General Director, Science center NEMO, Amsterdam, the Netherlands

##### Past President

Hans Gubbels, Director, Continium Science Center, Kerkrade, the Netherlands

#### BOARD MEMBERS

Svein Anders Dahl, Chief Executive Officer, Vilvite, Bergen, Norway

Michele Lanzinger, Director, MUSE. Museo delle Scienze, Trento, Italy

Armin Frey, Scientific Director, Cologne Science Centre Odysseum, Cologne, Germany

Ernesto Páramo Sureda, Director, Parque de las Ciencias, Granada, Spain

Fiorenzo Galli, Director General, National Museum of Science and Technology Leonardo da Vinci, Milan, Italy

Claudie Haigneré, President, Universcience, Paris, France

Asger Hoeg, Director, Experimentarium, Hellerup, Denmark

Erik Jacquemyn, Chief Executive Officer, Technopolis®, the Flemish Science Center, Mechelen, Belgium

Eva Jonsson, Deputy Director, Head Education, Teknikens Hus, Lulea, Sweden

Miha Kos, Director, House of Experiments, Ljubljana, Slovenia

Per-Edvin Persson, Director, Heureka, the Finnish Science Centre, Vantaa, Finland

Tiiu Sild, Director, AHHA Science Centre, Tartu, Estonia

Ecsite appreciates exiting Board Member Vincenzo Lipardi, Director, IDIS-Citta della Scienza, Naples, Italy, for his work in building and strengthening the network. Keep track of who is on the Ecsite Board and Executive Committee on our website: [www.ecsite.eu/about/governance/board\\_ecsite](http://www.ecsite.eu/about/governance/board_ecsite)

**6<sup>th</sup> Science Centre World Congress, Cape Town, South Africa, 4-8 September 2011**



**6th SCIENCE CENTRE  
WORLD CONGRESS**  
4 - 8 SEPTEMBER 2011  
CAPE TOWN, SOUTH AFRICA  
*Science Across Cultures*

Enjoy stimulating congress sessions, challenging workshops and lively debates. And enjoy all that Cape Town and South Africa have to offer - whale watching, wine tasting, a unique floral kingdom, big game safaris, beautiful beaches, unparalleled scenic beauty, and a friendly and diverse culture.

With the theme "Science Across Cultures", the congress will encourage reconciliation between different cultures and a greater appreciation of the role that science centres can play in highlighting each culture's unique contributions to science, technology and science education.

Ecsite is a partner of this international congress.

[www.6scwc.org](http://www.6scwc.org)

**Academia Europaea 23<sup>rd</sup> Annual Conference: Chemistry, sciences, culture and society in the making of Europe, Paris, France, 20-22 September 2011**

The conference, held at UNESCO headquarters, will address the practical and theoretical aspects of chemistry related to nature, stressing its broader impact on our way of thinking and on the history of civilisation.

The programme covers aspects of the "hard sciences"; discussing how and what these sciences have brought to chemistry and, in turn, what chemistry has brought to them. Other sessions cover the contributions of chemistry to a number of important topics such as agriculture, biomass conversion, pollution control (water, air, soil), transportation, energy saving, communication, and more.

Live experiments in the lecture rooms will illustrate chemistry's contributions.

[www.acadeuro.org/index.php?id=304](http://www.acadeuro.org/index.php?id=304)

**1<sup>st</sup> PLACES Conference, Paris, France, 22-23 September 2011**



**PLACES**

The two-day event will take place at Auditorium Paris Centre Marceau, Avenue Marceau, 75008 Paris,

France. It is a must-attend event for everyone in the PLACES project and all those who want to be an integral part of science communication policymaking in Europe. In addition to networking and exchanging best practices, the symposium will delve in to three elements of science communication policymaking:

- Why regions and cities want science culture to be part of their economic development strategies and why they create policy for it
- How they implement these policies locally
- How they finance science culture actions and programmes and how they evaluate the impact of the funding

Three sessions will be built around three speakers each (approx 20 min each) with a moderated discussion animated by famed BBC science journalist Quentin Cooper.

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**12<sup>th</sup> international public communication of science and technology conference (PCST), Florence, Italy: Proposals due 30 September 2011**

Content is welcome from areas such as science journalism, science communication and science in society research, science museums, public engagement with science and technology, and communication activities by research institutions.

[www.pcst2012.org](http://www.pcst2012.org)

**ASTC 2011: Knowledge that works - from Theory to Practice, Baltimore, Maryland, 15-18 October 2011**

The Association of Science - Technology Centers hosts the world's largest science communication event, ASTC 2011: Knowledge that works, from theory to practice. New Yorker staff writer Michael Specter is a featured speaker at this year's event.

The preliminary programme is now online:  
<http://conference.astc.org>

**Networks of Science: A COST Exhibition, Brussels, Belgium, 18-20 October 2011**

European Cooperation in Science and Technology (COST) will hold an exhibition in the European Parliament, Brussels, showcasing the 'networks of science' that COST Actions have been creating across Europe.

[www.cost.esf.org/events/qomex2011](http://www.cost.esf.org/events/qomex2011)

**Media & Learning 2011, Brussels, Belgium, 24-25 November 2011**

Is the place to be if you are interested in the latest developments, services and uses of media in education and training. Aimed at both policy makers and practitioners, the purpose of this event is to identify policies and initiatives that promote digital and media competence at all levels of education and training as well as to promote best-practice in the take-up and application of media in education and training.

[www.media-and-learning.eu/](http://www.media-and-learning.eu/)

**1<sup>st</sup> European Gender Summit - Scientific Quality through Equality, Brussels, Belgium, 8-9 November 2011**

The first European Gender Summit provides a forum for stakeholders from research, industry and policy to jointly explore how gendered methodologies can stimulate innovation and advance scientific excellence. The summit will map the current state of knowledge, provide a forum for interdisciplinary debate and draw up concrete action plans for research and innovation policy.

[www.gender-summit.eu](http://www.gender-summit.eu)

**Madame Curie, an opera about Marie Curie composed by Elżbieta Sikora, Paris, France, 15 November 2011**

On the occasion of the International Year for Chemistry, the Polish Delegation to UNESCO, in cooperation with the UNESCO Secretariat, is organising the world premiere of this opera interpreted by the Baltic Opera of Gdansk. The story is based on the life and extraordinary personality of the great Franco-Polish intellectual, Marie Curie-Skłodowska, who was the first person to receive two Nobel prizes. Albert Nobel, Albert Einstein, Pierre Curie, Paul Langevin, Loie Fuller, and many other characters, will appear on stage. Elżbieta Sikora is a Franco-Polish composer who has lived in Paris since 1981. Her work has been commissioned by the French Government, the Polish Ministry of Culture, French Radio, the Monte Carlo ballet and others.



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**Visualizing Science and Environment, Brighton, UK, 17-18 November 2011**

Explore the visual dimensions of science and environmental communication by addressing questions of knowledge, understanding, practice and power, through the visual. This symposium is organised by the Science and Environment Communication Section (ECS) in association with the Media Research Group, Faculty of Arts, University of Brighton.

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Anabela Carvalho carvalho@ics.uminho.pt or  
Louise Phillips lousep@ruc.dk.

**3<sup>rd</sup> Annual SciTech Europe conference: Advancing Research, Innovation and Collaboration, Brussels, Belgium, 24 November 2011**

This conference will explore how to develop an integrated approach to research and create the right conditions for innovation, invention and industry to flourish. Delegates will gain a strong understanding of European science policy, and have the opportunity to engage with stakeholders, funding agencies and leading academics. Topics will include: Collaborative European research, developing innovative health solutions and achieving excellence in life sciences, addressing unprecedented global challenges such as climate change, healthcare, energy and food security. Forge new networks, promote frontier research and debate the key initiatives that can benefit science and society.

[www.publicserviceevents.co.uk/overview/187/scitech-europe](http://www.publicserviceevents.co.uk/overview/187/scitech-europe)

**17<sup>th</sup> ICOMOS General Assembly and Scientific Symposium 'Heritage, driver of development', Paris, France, 27 November - 2 December 2011**

This most important triennial gathering of the International Council on Monuments and Sites will be followed by a Scientific Symposium which will explore: Regional development, development and return to the art of building, development as tourism and the economics of development. The effects of globalization, which are manifest in the growing trends towards standardization and westernization, bring various forms of instability to human societies on every continent. Until now, heritage has been confined to the role of passive conservation of the past, and often been seen as a hindrance to development. In future, heritage should be called upon to reinforce the vital role of endangered cultural identity and diversity as keys to development. Selected from among 470 abstracts, 60 papers will be presented at the Symposium.

[www.icomos-paris2011.com](http://www.icomos-paris2011.com)

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Ecsite wishes to thank its Corporate Donors, who support Ecsite network activities. In return, the Donor gains prominence in the Ecsite Newsletter, on the website, and at the Annual Conference.

If you wish to receive information about the Corporate Donorship programme, please contact the Ecsite Executive Office in Brussels: [info@ecsite.eu](mailto:info@ecsite.eu) • <http://www.ecsite.eu>

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